whereby touching an individual symbol will target the device for communication as taught by Gorday '331, so that the overall system provides initiating cellular phone calling software in each cellular phone that is activated by touching a symbol on the touch display that automatically initiates a cellular phone using the stored cellular phone number to the participant represented by the symbol, which gives a method of targeting a message to one of several devices, without specifying an address inherently associated with that device (Gorday '331, Paras. 0003+ and 0004+).

4. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muramatsu '377 (U.S. 6,868,337) in view of Gorday '331 (U.S. Publication 0192331A1) as discussed above, and further in view of Bala '475 (U.S. 5,542,475).

Regarding claim 7, the combination of Muramatsu '337 and Gorday '331 disclose the method of establishing a communication network as in claim 6 comprising the additional step of: e) providing communication initiating software that allows each of the participants to initiate a communication to other participants by touching each of the symbols on the touch screen representing participants who will participate in the communication (Gorday '331, 0014+).

The combination of Muramatsu '337 and Gorday '331 does not specifically disclose *conference call* initiating software that allows each of the participants to initiate a *conference call* to other participants by touching each of the symbols on the touch screen representing participants who will participate in the *conference call*, however Bala '475 teaches *conference call* initiating software that allows each of the participants to initiate a *conference call* to other

participants by touching each of the symbols on the touch screen representing participants who will participate in the *conference call* (i.e. Conference button on "soft phone" display, Bala '475 Fig. 2 elements 50 and 76, clearly showing conference call capabilities).

In view of the above, having the system of the combination of Muramatsu '337 and Gorday '331 and then given the well-established teaching of Bala '475, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of the combination of Muramatsu '337 and Gorday '331 by incorporating the Conference button on "soft phone" display as taught by Bala '475, so that the overall system provides *conference call* initiating software that allows each of the participants to initiate a *conference call* to other participants by touching each of the symbols on the touch screen representing participants who will participate in the *conference call*, providing enhanced call service features at remote locations (Bala '475 Col. 1, lines 56+).

Regarding claim 8, the combination of Muramatsu '337, and Gorday '331 discloses a method of establishing a communication network as in claim 6 including the step of:
f) providing communication initiating software for a large number of participants represented by the symbols on the touch screen in which each of the proposed communication participants are established by touching the participant's symbol on the screen (i.e. software connected to the touch screen and the symbols on the touch screen whereby touching an individual symbol will target the device for communication, Gorday '331 Para. 0014+).

The combination of Muramatsu '337 and Gorday '331 does not specifically disclose providing *conference call* initiating software for a large number of participants represented by

the symbols on the touch screen in which each of the proposed *conference call* participants are established by touching the participant's symbol on the screen, however Bala '475 teaches providing conference call initiating software for a large number of participants represented by the symbols on the touch screen in which each of the proposed conference call participants are established by touching the participant's symbol on the screen (i.e. Conference button on "soft phone" display, Bala '475 Fig. 2 elements 50 and 76).

In view of the above, having the system of the combination of Muramatsu '337 and Gorday '331 and then given the well-established teaching of Bala '475, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of the combination of Muramatsu '337 and Gorday '331 by incorporating the Conference button on "soft phone" display as taught by Bala '475, so that the overall system providing *conference call* initiating software for a large number of participants represented by the symbols on the touch screen in which each of the proposed *conference call* participants are established by touching the participant's symbol on the screen, providing enhanced call service features at remote locations (Bala '475 Col. 1, lines 56+).

Also, it is noted that the combination of Muramatsu '337 and Gorday '331 does not specifically disclose which causes the cellular phone initiating the conference call to transmit messages to each of the users represented by the touched symbols that tells each of the called participants through their cellular phones to call a particular 800 number to establish the conference call.

However, it is noted from the teaching of Bala '475 that the part of the graphical user interface (i.e., see Fig. 2) included a message area (66) for notifying the remote user (i.e., noted

the mobile worker as shown in Fig. 1 of Bala '475) with specific message, such as 800 number of the caller and further show the use of "800" in the area (58) and a conference button 76. In view of this, it is obvious that the system of Bala '475 is capable of receiving a message with "800" information attached to the message and capable of participating/establishing the conference call with the use of a conference button 76 and "800" information from the areas 66 and 58 as shown in Fig. 2.

In view of this, having the system of the combination of Muramatsu '337 and Gorday '331, and then given the well-established teaching of Bala '475, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of the combination of Muramatsu '337 and Gorday '331 by incorporating the transmitting of information from the server node (12/26) to each of the client nodes (i.e., Mobile Worker) of the prospective conference call participants regarding information for establishing access to a 1-800 number for the conference call as taught by Bala '475, so that the overall system provides which causes the cellular phone initiating the conference call to transmit messages to each of the users through their cellular phones to call a particular 800 number to establish the conference call, enabling greater bridge utilization and reduced costs.

4. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Muramatsu '377 (U.S. 6,868,337) in view of Gorday '331 (U.S. Publication 2004/0192331A1), Godfrey '634 (U.S. Publication 2005/0130634A1), and Ausems '321 (U.S. Publication 2001/0044321 A1).

Regarding claim 10, Muramatsu '337 discloses a cellular phone for use in a communication network for a plurality of participants (Muramatsu '337 Fig. 3 and 17) comprising: a cellular phone transmitter and receiver (Muramatsu '337 Fig. 3, elements 112 and 20 Note: inherently known that for wireless communications there must be a transmitter and receiver);

a small hand held portable housing containing said cellular phone transmitter and receiver (Muramatsu '337,Col. 3, lines 45+), (Muramatsu '337 Fig. 3) (Note: a portable phone has a portable housing);

a display screen mounted in said housing (Muramatsu '337, Fig. 3, element 118);

a CPU connected to said cellular phone transmitter and receiver (Muramatsu '337, Fig. 3, element 100);

a GPS navigation system connected to said CPU and to said cellular phone transmitter and receiver on said screen (Muramatsu '337, Fig. 3, element 108);

a database connected to said CPU that includes the symbol of a list of telephone numbers that relate to specific symbols (Muramatsu '337 Col. 5, line 51+),(Muramatsu '337, Col. 6, line 36+);

a symbol generator connected to said CPU and said database for generating symbols on said screen, each of said symbols representing a participant in a communication network that has a cellular phone (Muramatsu '337, Col. 5, line 51+),(Muramatsu '337, Col. 6, line 36+);

call initiating software connected through said CPU and said telephone database and said symbol generator whereby when a user selects the symbol displayed on a display screen the cellular phone call is automatically initiated to the cellular phone represented by the symbol (Muramatsu '337, Col. 10, line 3+);

a geographical database connected to said CPU to provide a geographical display on said touch screen representing a defined geographical area that also displays symbols representing each of the participants that has an identical cellular phone by latitude and longitude (Muramatsu '337, Col. 4, line 20+),(Muramatsu '337, Fig. 12, element 404).

Also, Muramatsu '337 does not specifically disclose a modem connected to said cellular phone transmitter and receiver, Ausems '321 teaches a modem connected to said cellular phone transmitter and receiver (Ausems '321, i.e. clearly shown on Fig. 2, elements 220 and 210).

In view of this, having the system of Muramatsu '337 and then given the well-established teaching of Ausems '321, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Muramatsu '337 by incorporating the modem connected to said cellular phone transmitter and receiver as taught by Ausems '321 so that the operability of the overall system can be improve by enabling cellular phone to send and receive fax messages or have Internet access (Ausems '321, Para 0047+).

Also, Muramatsu '337 does not specifically disclose CPU software for selectively polling other participants with a cellular phone, however Godfrey '634 teaches CPU software for selectively polling other participants with a cellular phone (Godfrey '634, i.e. the proximity identification module may be adapted to transmit the position coordinates supplied by the GPS receiver to the access point or proximity server in response to a poll transmitted by the access point from Para. 0076+, and Fig. 2 elements 206 and 208 Note: elements show the Proximity Identification Module interfacing with the Processor).

In view of this, having the system of Muramatsu '337 and then given the well-established teaching of Godfrey '634, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Muramatsu '337 by incorporating the proximity identification module may be adapted to transmit the position coordinates supplied by the GPS receiver to the access point or proximity server in response to a poll transmitted by the access point as taught by Godfrey '634 so that the overall system contains CPU software for selectively polling other participants with a cellular phone, which gives the ability for a user of a wireless station to receive notification of other users of proximate wireless stations if the user desires (Godfrey '634, Para. 0034+).

Muramatsu '337 does not specifically disclose a touch display screen, however Gorday '331 teaches a touch screen display (Godfrey '331, Fig. 2). In view of this, having the system of Muramatsu '337 and then given the well-established teaching of Gorday '331, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Muramatsu '337 by incorporating the touch screen display as taught by Gorday '331 so that it would enhanced the operability with the use a touch display screen, which functions as a presentation or output device, and also as an input device when depressed by a stylus (Gorday '337, Para. 0013+).

Also, Muramatsu '337 does not specifically disclose a touch display screen and allowing a user *touches* the symbol to initiate the communication, however Gorday '331 teaches a user *touches* the symbol with a touch display screen is well known in the art (i.e., Gorday '331 teaches that the communication device selects for communication at least one device from the

network of devices by using the stylus and the touch screen to target devices represented by icons from; see Para. 0014+).

In view of this, having the system of Muramatsu '337 and then given the well-established teaching of Gorday '331, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Muramatsu '337 by incorporating communication device selects for communication at least one device from the network of devices by using the stylus and the touch screen to target devices represented by icons as taught by Gorday '331, so that that it would enhanced the operability with the use a touch display screen, which functions as a presentation or output device, and also as an input device when depressed by a stylus (Gorday '337, Para. 0013+), and moreover, it would allow the user to easily initiate a target communication with one of several devices by touching the respective symbol on the display without specifying an address inherently associated with that device (i.e., see Paragraph 0004).

5. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muramatsu '377 (U.S. 6,868,337) in view of Gorday '331 (U.S. Publication 2004/0192331A1), Godfrey '634 (U.S. Publication 2005/0130634A1), and Ausems '321 (U.S. Publication 2001/0044321 A1) as discussed above and in further in view of Bala '475 (U.S. 5,542,475).

Regarding claim 11, the combination of Muramatsu '337, Gorday '331, Ausems '321 and Godfrey '634 discloses a cellular phone as in claim 10, including: Communication initiating software connected to said CPU that allows the cellular phone user to initiate a communication

to a plurality of participants represented by symbols by touching each of the symbols (Gorday '331, Para. 0014+) and initiating a communication method (Gorday '331, Fig. 3 elements 334 and 336 Note: initiating a communication method pertains to transmit message to selected recipients which is the next step after using the touch screen to select message recipient(s)).

Moreover, it is noted that the combination of Muramatsu '337, Gorday '331, Ausems '321 and Godfrey '634 does not specifically disclose *Conference call* initiating software connected to said CPU that allows the cellular phone user to initiate a *conference call* to a plurality of participants represented by symbols by touching each of the symbols and initiating a *conference call software switch*, Bala '475 teaches *Conference call* initiating software connected to said CPU that allows the cellular phone user to initiate a *conference call* (Bala '475, i.e. Conference button on "soft phone" display, Fig. 2 elements 50 and 76, clearly showing conference call capabilities) to a plurality of participants represented by symbols by touching each of the symbols and initiating a *conference call software switch* (Bala '475, i.e. Conference button on "soft phone" display, Fig. 2 elements 50 and 76)

In view of this, having the system of the combination of Muramatsu '337, Gorday '331, Ausems '321 and Godfrey '634 and then given the well-established teaching of Bala '475, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of the combination of Muramatsu '337, Gorday '331, Ausems '321 and Godfrey '634 by incorporating Conference button on "soft phone" display as taught by Bala '475, so that the overall system contains Conference call initiating software connected to said CPU that allows the cellular phone user to initiate a conference call to a plurality of participants represented by symbols by touching each of the symbols and initiating a conference call software

switch, providing enhanced call service features at remote locations (Bala '475 Col. 1, lines 56+).

Regarding claim 12, the combination of Muramatsu '337, Gorday '331, Ausems '321 and Godfrey '634 discloses a cellular phone as in claim 10, including: communication initiating software for large number of communication participants that allows the user of the cellular phone to initiate a communication to the cellular phone users represented by the symbols on the screen by touching each of the symbols representing a participant in the communication (Gorday '331, Para. 0014+) which initiates an automatic cellular phone call to the remote cellular phone users represented by the symbols (Muramatsu '337 Col. 10, line 3+).

The combination of Muramatsu '337, Gorday '331, Ausems '321 and Godfrey '634 does not specifically disclose *conference call* initiating software for large number of *conference call* participants that allows the user of the cellular phone to initiate a *conference call* to the cellular phone users represented by the symbols on the screen by touching each of the symbols representing a participant in the *conference call* which initiates an automatic cellular phone call to the remote cellular phone users represented by the symbols displaying a text message to call a particular 800 number to establish the conference call, however Bala '475 teaches *conference call* (Bala '475, i.e. Conference button on "soft phone" display, Fig. 2 elements 50 and 76, clearly showing conference call capabilities) initiating software for large number of *conference call* participants that allows the user of the cellular phone to initiate a *conference call* to the cellular phone users represented by the symbols on the screen by touching each of the symbols representing a participant in the *conference call* which initiates an automatic cellular phone call

to the remote cellular phone users represented by the symbols displaying a text message to call a particular 800 number to establish the conference call (i.e., Fig. 2 of Bala '475 shows that the part of the graphical user interface included an message area (66) for notifying the remote user, e.g., noted the mobile worker as shown in Fig. 1 of Bala '475, with specific text message, such as 800 number of the caller and further show the use of "800" in the area (58) and a conference button 76. In view of this, it is obvious that the system of Bala '475 is capable of receiving a text message with "800" information attached to the text message and capable of participating/establishing the conference call with the use of a conference button 76 and "800" information from the areas 66 and 58 as shown in Fig. 2).

In view of the, having the system of the combination of Muramatsu '337, Gorday '331, Ausems '321 and Godfrey '634 and then given the well-established teaching of Bala '475, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of the combination of Muramatsu '337, Gorday '331, Ausems '321 and Godfrey '634 by incorporating Conference button on "soft phone" display and that the part of the graphical user interface {i.e., see Fig. 2} included a message area (66) for notifying the remote user [noted: the mobile worker as shown in Fig. 1 of Bala '475] with specific text message, such as 800 number of the caller and further show the use of "800" in the area (58) and a conference button 76. In view of this, it is obvious that the system of Bala '475 is capable of receiving a text message with "800" information attached to the text message and capable of participating/establishing the conference call with the use of a conference button 76 and "800" information from the areas 66 and 58 as shown in Fig. 2 as taught by Bala '475, so that the overall system contains *conference call* initiating software for large number of *conference call*

participants that allows the user of the cellular phone to initiate a *conference call* to the cellular phone users represented by the symbols on the screen by touching each of the symbols representing a participant in the *conference call* which initiates an automatic cellular phone call to the remote cellular phone users represented by the symbols displaying a text message to call a particular 800 number to establish the conference call, providing enhanced call service features at remote locations (Bala '475 Col. 1, lines 56+).

6. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Muramatsu '337 (U.S. 6,868,337) in view of Gorday '331 (U.S. Publication 2004/0192331), Ausems '321 (U.S. Publication 2001/0044321 A1) and Godfrey '634 (U.S. Publication 2005/0130634A1) as discussed above, and further in view of Tendler '286 (U.S. 5,555,286).

Regarding claim 13, the combination of Muramatsu '337, Gorday '331, Ausems '321 and Godfrey '634 discloses a remote cellular phone that is called by touching a symbol representing the cellular phone to be called (Godfrey '634, Para. 0014+).

Although the combination of Muramatsu '337, Gorday '331, Ausems '321 and Godfrey '634 does not specifically disclose a cellular phone as in claim 10, including: an emergency call initiating software connected to said CPU that includes a remote cellular phone activating signal for causing a remote cellular phone that is called by touching a symbol representing the cellular phone to be called to generate and play an audio message telling the remote cellular phone user that there is an emergency and to call the cellular phone initiator, Tendler '286 teaches a cellular phone as in claim 10, including: an emergency call initiating software connected to said CPU

that includes a remote cellular phone activating signal for causing a remote cellular phone that is called by touching a symbol representing the cellular phone to be called to generate and play an audio message telling the remote cellular phone user that there is an emergency and to call the cellular phone initiator (Tendler '286 i.e. a paging system such that the cellular phone may be made to "call home" via pager activation which turns the system on and then actuates it to broadcast the verbal message, Col. 5, line 24+).

In view of this, having the system of the combination of Muramatsu '337, Gorday '331, Ausems '321 and Godfrey '634 and then given the well-established teaching of Tendler '286, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of the combination of Muramatsu '337, Gorday '331, Ausems '321 and Godfrey '634 by incorporating paging system such that the cellular phone may be made to "call home" via pager activation which turns the system on and then actuates it to broadcast the verbal message as taught by Tendler '286 so that the overall system contains a cellular phone as in claim 10, including: an emergency call initiating software connected to said CPU that includes a remote cellular phone activating signal for causing a remote cellular phone that is called by touching a symbol representing the cellular phone to be called to generate and play an audio message telling the remote cellular phone user that there is an emergency and to call the cellular phone initiator, which gives a low cost universal monitoring system for emergencies (Tendler '286, Col. 2, line 20+).

7. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Muramatsu '337 (U.S. 6,868,337) in view of Gorday '331 (U.S. Publication 2004/0192331), Ausems '321(U.S. Publication 2001/0044321 A1), Godfrey '634 (U.S. Publication 2005/0130634A1), and Bala '475 (U.S. 5,542,475) as discussed above, and further in view of Fumarolo '844 (U.S. 6,204,844).

Regarding claim 14, the combination of Muramatsu '337, Gorday '331, Ausems '321, Godfrey '634, and Bala '475 discloses providing the ability to conference the participants previously assigned to a net by using a software drawn switch(es) for a conference call, whereby the user touches the net software switches to initiate the call to all of the participants on the net (Bala '475, i.e. Conference button on "soft phone" display, Fig. 2 elements 50 and 76, clearly showing conference call capabilities).

The system of the combination of Muramatsu '337, Gorday '331, Ausems '321, Godfrey '634, and Bala '475 does not specifically disclose a limitations such as "providing the ability to pre-establish phone conferencing nets by touching a PDA display screen at a symbolic representation of the person(s) location", however, Fumarolo ' 844 teaches a cellular phone as in claim 14, including: Providing the ability to pre-establish phone conferencing nets by touching the PDA display screen at a symbolic representation of the person(s) location (Fumarolo '844, i.e. a user input device of a touch-screen portion of the GUI [Col. 4, line 59+] and selecting of a communication unit of communication units to be dynamically regrouped [Col. 7, line 9+] as well as targeting talkgroups [Fig. 3]).

In view of the above, having the system of the combination of Muramatsu '337, Gorday '331, Ausems '321, Godfrey '634 and Bala '475 and then given the well-established teaching of

Fumarolo '844, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of the combination of Muramatsu '337, Gorday '331, Ausems '321, Godfrey '634 and Bala '475 by incorporating the user input device of a touch-screen portion of the GUI (Fumarolo '844, Col. 4, line 59+) and selecting of a communication unit of communication units to be dynamically regrouped (Fumarolo '844, Col. 7, line 9+) as well as targeting talkgroups as taught by Fumarolo '844 so that it would allow a user of a display-based terminal having an integrated mapping program to dynamically group and ungroup communication units (i.e., see Fumarolo '844, Col. 2, line 37+).

8. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Muramatsu '337 (U.S. 6,868,337) in view of Gorday '331 (U.S. Publication 2004/0192331), Ausems '321(U.S. Publication 2001/0044321 A1), Godfrey '634 (U.S. Publication 2005/0130634A1), Bala '475 (U.S. 5,542,475) and Fumarolo '844 (U.S. 6,204,844) as discussed above, and further in view of King '560 (U.S. 6,775,560).

Regarding claim 15, the combination of Muramatsu '337, Gorday '331, Ausems '321, Bala '475, and Fumarolo '844 does not specifically disclose a layered set of software drawn switches as in claim 14, including:

A set of layered software drawn switches so that each switch that when activated on the PDA overlays the previously drawn switches, thus providing the operator a large choice of switches in the same physical space on the PDA screen, however King '560 teaches a layered set of software drawn switches as in claim 14, including: A set of layered software drawn switches so that each

switch that when activated on the PDA overlays the previously drawn switches, thus providing the operator a large choice of switches in the same physical space on the PDA screen (King '560, i.e. a single display having a first predetermined portion to display text or icons associated with various functions of the device while a second portion could be used for the display of pictures; see Col. 11, line 12+; and a user can view a picture file as well as other information or functions of the wireless communication device without having to close the picture file or have a portion of the picture file obscured when cursoring through text or other information associated with the picture file; see Col. 6, line 13+; also the graphic would change as the user cursors through the options; see Col. 15, line 30+).

Therefore, having the system of the combination of Muramatsu '337, Gorday '331, Ausems '321, Bala '475, and Fumarolo '844 and then given the well-established teaching of King '560, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of the combination of Muramatsu '337, Gorday '331, Ausems '321,Bala '475, and Fumarolo '844 by incorporating the single display having a first predetermined portion to display text or icons associated with various functions of the device while a second portion could be used for the display of pictures, and a user can view a picture file as well as other information or functions of the wireless communication device without having to close the picture file or have a portion of the picture file obscured when cursoring through text or other information associated with the picture file, also the graphic would change as the user cursors through the options as taught by King '560 so that it would provide the operator a large choice of switches in the same physical space on the PDA screen, which enables

a portion of the display to be deactivated or placed in low power mode to reduce battery consumption (King '560 Col. 11, line 15+).

Allowable Subject Matter

3. Claim 1, 5 and 9 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aung S. Moe whose telephone number is 571-272-7314. The examiner can normally be reached on Flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward F. Urban can be reached on 571-272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Aung S. Moe
Primary Examiner
Art Unit 2685

ASM/Omar
August 1, 2005

ELECTRONIC INFORMATION DISCLOSURE STATEMENT

Electronic Version v18

Stylesheet Version v18.0

Title of Invention	CELLULAR PHONE/PDA COMMUNICATION SYSTEM

Application Number : 10/711490

Confirmation Number: 5489

First Named Applicant: Malcolm Beyer

Attorney Docket Number: 10963.3801

Art Unit: 2681

Examiner:

Search string: (20030139150).pn

US Published Applications

Note: Applicant is not required to submit a paper copy of cited US Published Applications

init	Cite.No.	Pub. No.	Date	Applicant	Kind	Class	Subclass
D	1	20030139150	2003-07-24	Robert Michael Rodrigues, et al.	—	—	—

Signature

Examiner Name	Date
A. Mot	7/28/05

Notice of References Cited	Application/Control No. 10/711,490	Applicant(s)/Patent Under Reexamination BEYER, MALCOLM K.	
	Examiner Aung S. Moe	Art Unit 2685	Page 1 of 1

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*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-6,868,337 B2	03-2005	Muramatsu, Toshihiko	701/211
	B	US-5,555,286 A	09-1996	Tendler, Robert K.	455/404.2
	C	US-6,542,475 B1	04-2003	Bala et al.	370/271
	D	US-6,204,844 B1	03-2001	Fumarolo et al.	715/736
	E	US-6,775,560 B2	08-2004	King et al.	455/566
	F	US-2004/0192331 A1	09-2004	Gorday et al.	455/456.1
	G	US-2004/0266456 A1	12-2004	Bostrom et al.	455/456.3
	H	US-2001/0044321	11-2001	Ausems et al.	455/556
	I	US-2005/0130634	06-2005	Godfrey, Timothy	455/414.1
	J	US-			
	K	US-			
	L	US-			
	M	US-			

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*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
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	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Index of Claims

Application/Control No.	Applicant(s)/Patent under Reexamination
10/711,490	BEYER, MALCOLM K.
Examiner	**Art Unit**
Aung S. Moe	2685

√	Rejected	–	(Through numeral) Cancelled	N	Non-Elected	A	Appeal
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Claim		Date
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Claim		Date
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Search Notes

Application/Control No.	Applicant(s)/Patent under Reexamination	
10/711,490	BEYER, MALCOLM K.	
Examiner	**Art Unit**	
Aung S. Moe	2685	

SEARCHED

Class	Subclass	Date	Examiner
455	456.3,418 456.1,419 556.2,420	7/11/2005	ASM
	88,41.2		
	41.3, 416		
	414.4,		
	412.2-.1		
	415,457		
	404.2		
	442.1		
	427,431		
	500,517		
	518,519		
	516,564		
↓	458,457	↓	✓
455	463	7/26/2005	ASM

INTERFERENCE SEARCHED

Class	Subclass	Date	Examiner

SEARCH NOTES (INCLUDING SEARCH STRATEGY)

	DATE	EXMR
Consult with: Nguyen Vo (xp); Nay Maung (SPE)	7/12/2005	ASM
East searched (see attached)	7/11/2005	ASM

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Bib Data Sheet

CONFIRMATION NO. 5489

SERIAL NUMBER	FILING DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
10/711,490	09/21/2004 RULE	455	2685	10963.3801

APPLICANTS

Malcolm K. Beyer JR., Jupiter Inlet Colony, FL;

** CONTINUING DATA **********

** FOREIGN APPLICATIONS **********

IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** SMALL ENTITY **
** 10/22/2004

Foreign Priority claimed	STATE OR COUNTRY	SHEETS DRAWING	TOTAL CLAIMS	INDEPENDENT CLAIMS
☐ yes ☑ no 35 USC 119 (a-d) conditions met ☐ yes ☑ no ☐ Met after Allowance Verified and Acknowledged Examiner's Signature Initials	FL	3	15	4

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TITLE
CELLULAR PHONE/PDA COMMUNICATION SYSTEM

FILING FEE RECEIVED	FEES: Authority has been given in Paper
428	No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:

☐ All Fees
☐ 1.16 Fees (Filing)
☐ 1.17 Fees (Processing Ext. of time)
☐ 1.18 Fees (Issue)
☐ Other _____
☐ Credit

11-14-05

IPW

FORM PTO-1083

Case Docket No. : 10963.3801

In re Application of BEYER, Malcolm K., Jr.
Serial No. 10/711,490
Filed September 21, 2004
For **CELLULAR PHONE/PDA COMMUNICATION SYSTEM**

Mail Stop Non-Fee Amendment
COMMISSIONER FOR PATENTS
Alexandria, VA 22313-1450

AMENDMENT TRANSMITTAL LETTER

Sir:

[X] Transmitted herewith is an amendment in the above-identified application.

[X] Small entity status of this application under 37 CFR 1.9 and 1.27 has been established by a statement previously submitted.

[X] No additional fee is required.

The fee has been calculated as shown below:

	(Col. 1) CLAIMS REMAINING AFTER AMENDMENT		(Col. 2) HIGHEST NO. PAID FOR	(Col. 3) PRESENT EXTRA	SMALL ENTITY RATE	SMALL ENTITY ADDIT. FEE	OR	OTHER THAN A SMALL ENTITY RATE	OTHER THAN A SMALL ENTITY ADDIT. FEE
TOTAL	* 15	MINUS	** 20	= 0	x$25	$ 0.00		x$50	$ 0.00
INDEP	* 4	MINUS	*** 4	= 0	x$100	$ 0.00		x$200	$ 0.00
[ ] FIRST PRESENTATION OF MULTIPLE DEP. CLAIM					x$150	$ 0.00		X$300	$ 0.00
					TOTAL ADDIT. FEE	$0.00	OR		$0.00

[ ] Please charge our Deposit Account No. 13-1130 in the amount of $. A duplicate copy of this sheet is attached.

[ ] A Request for a One-Month Extension of Time together with a check in the amount of $____ for the fee is attached.

[X] The Commissioner is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account No. 13-1130. A duplicate copy of this sheet is attached.

[X] Any filing fees under 37 CFR 1.16 for the presentation of extra claims.

[ ] Any patent application processing fees under 37 CFR 1.17.

[X] If there are any additional charges, including extensions of time, please bill our Deposit Account No. 13-1130.

MALIN, HALEY & DiMAGGIO, P.A.
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Respectfully submitted,

Barry L. Haley, Reg. No. 25,339

CLIENT NO. 22235
I:\10963\frm\3801.amendment transmittal

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

November 8, 2005

In re application of	:	BEYER, Malcolm K., Jr.
Serial No.	:	10/711,490
Filed	:	September 21, 2004
For	:	**CELLULAR PHONE/PDA COMMUNICATION SYSTEM**
Examiner	:	MOE, Aung Soe
Art Unit	:	2685
Our File No.	:	10963.3801

AMENDMENT

Mail Stop Non-Fee Amendment
Hon. Commissioner for Patents
Alexandria, VA 22313-1450

Dear Sir:

In response to the Examiner's Office Action of August 10, 2005, this Amendment is submitted. Reconsideration is respectfully requested.

Amendment to the claims are on pages 2 through 9.

Remarks can be found on pages 10 through 19.

Please amend the claims as follows:

1. (Currently Amended) A method of providing a cellular phone communication network for designated participating users, each having a similarly equipped cellular phone that includes a CPU, GPS navigational system and a touch screen display comprising the steps of:

a) providing for the selective polling of position and status information from one user among all of the other users equipped with cellular phone/PDA/GPS system and its associated software;

b1) providing for the entering of other entities of interest into the cellular phone CPU and assigning the other entities of interest a category;

b2) providing the latitude and longitude of the entities of interest along with their categories being automatically sent on the communications network;

c) providing rapid <u>voice</u> call initiation to one or more locations whose phone number is available in a geographical referenced database using the touch screen;

d) providing rapid <u>voice</u> call initiation to the users of the cellular phone/PDA/GPS network system using the touch screen;

e) providing ~~rapidly sent~~ <u>rapid transmission of free, operator selected</u> text messages, photographs, and video to another cellular phone using the touch screen;

f) providing rapid conference calling multiple phones that are contained within the geographical referenced data base; and

g) providing remote control from one cellular phone/PDA/GPS system to any of the other cellular phone/PDA/GPS system phones, including the ability to control remote

cellular phones to make verbal announcements, display images, place return calls, place calls to another phone number, vibrate, change sound intensity and process and display pre-stored data, images and stored video.

2. (Currently Amended) A communication system to provide a cellular phone network for a group of participants, each of the participants having an individual portable cellular phone that includes voice communication, free and operator selected text messages, photographs and video, a CPU and a GPS navigational system that can accurately determine the location of ~~the~~ each cellular phone., ~~Each~~ each of the cellular phones in the communications net of participants ~~contains~~ containing:

~~a~~ said CPU and memory;

a touch screen display;

symbol generator in said CPU that can generate symbols that represent each of the ~~participants~~ participants' cell phones in the communication network on the display screen;

a database that stores the individual telephone numbers related to each of the symbols each of which represents a participant in the communication network;

cellular phone call initiating software in said CPU connected to the telephone number database and the touch screen and the symbols on the touch screen whereby touching an individual symbol will automatically initiate a cellular phone telephone call to the ~~use~~ user represented by the symbol that includes said voice communication, free and operator selected text messages, photographs and video; and

said display including databases that display geographical information that

includes showing the geographical location of each of the symbols representing participants in the communication network, fixed locations, and entered items of interest.

3. (Currently Amended) A communication network that includes said participants, ~~each having a cellular phone~~ as in Claim 2 further comprising:

said software for automatically initiating a cellular phone call to a user represented by a symbol includes initiating a conference call to ~~one~~ two or more of the participants from a base phone by touching the specific symbols of those participants that will be participating in a conference call by touching the symbol of each of those users and providing a software switch to initiate the conference call by touching the screen whereby each of the initiated conference participants will be called by the base phone to establish a conference call.

4. (Currently Amended) A communication network ~~using the cellular phone~~ as in Claim 3 whereby the communication network can include a large number of participants in a conference call comprising:

conference call initiating software in said CPU ~~that includes the transmission~~ that is made by sending a digital message to the remote cellular phones from said phone, by touching the symbol of each of the participants, of an 800 number ~~that will be provided to each of the proposed conference call participants allowing them to call the 800 number to establish the conference call with the base phone~~ and a participant code that cause each of the participants to call the 800 number and to enter a participant code to establish the conference call with the said phone.

5. (Currently Amended) A communication network as in Claim 2 ~~including the~~

~~cellular phone in Claim 1 that~~ comprising:

said CPU including a software program to initiate a call to one of the participants represented by a symbol on said touch screen in conjunction with a software switch displayed on said touch screen and software to initiate the cellular phone call automatically that turns the remote cellular phone on or off and generates in the receiving remote cellular phone a pre-stored message that alerts the remote cellular phone user to call the initiator.

6. (Currently Amended) A method of establishing a cellular phone communication network for designated participants, each having a similarly equipped cellular phone that includes voice communication, free and operator selected text messages, photograph and video, a CPU, a GPS navigation system and a touch screen display comprising the steps of:

a) generating one or more symbols on the touch display screen, each representing a different participant that has a cellular phone that includes said voice communication, free and operator selected text messages, photograph and video, ~~a~~ said CPU, ~~a~~ said GPS system and a touch screen display;

b) providing and storing in each of the participant cellular phones one or more cellular phone telephone numbers, each cellular phone number of which relates to a different symbol of each of the participants in the communication network;

c) providing initiating cellular phone calling software in each cellular phone that is activated by touching a symbol on the touch display that

automatically initiates a cellular phone call using the stored cellular phone number to the participant represented by the symbol; and

d) generating a geographical location chart on said display screen to show the geographical location of each of the symbols representing the participants in the communication network by latitude and longitude.

7. (Original) The method of establishing a communication network as in claim 6 comprising the additional step of:

e) providing conference call initiating software that allows each of the participants to initiate a conference call to other participants by touching each of the symbols on the touch screen representing participants who will participate in the conference call.

8. (Original) A method of establishing a communication network as in claim 6 including the step of:

f) providing conference call initiating software for a large number of participants represented by the symbols on the touch screen in which each of the proposed conference call participants are established by touching the participant's symbol on the screen which causes the cellular phone initiating the conference call to transmit messages to each of the users represented by the touched symbols that tells each of the called participants through their cellular phones to call a particular 800 number to establish the conference call.

9. (Original) The method of providing a communication network as in claim 1 including the step of:

providing in each of the cellular phones a remotely activatable software program

for turning the cellular phone on and off and that initiates a signal from the remote cellular phone displaying a pre-stored message and to call the initiating cellular phone; and

providing software that activates the remote cellular phone causing the remote cellular phone to generate said pre-stored message to the remote cellular phone user.

10. (Currently Amended) A cellular phone for use in a communication network for a plurality of participants comprising:

a cellular phone transmitter and receiver for transmitting and receiving voice communication, free and operator selected text messages, photographs, and video;

a small hand held portable housing containing said cellular phone transmitter and receiver;

a touch display screen mounted in said housing;

a modem connected to said cellular phone transmitter and receiver;

a CPU connected to said cellular phone transmitter and receiver;

a GPS navigation system connected to said CPU and to said cellular phone transmitter and receiver on said touch screen;

a database connected to said CPU that includes ~~the symbol of~~ a list of telephone numbers that relate to specific symbols;

a symbol generator connected to said CPU and said database for generating symbols on said touch display screen;; ~~each of said symbols representing a participant in a communication network that has a cellular phone;~~

CPU software for selectively polling other participants with a cellular phone;

call initiating software connected through said CPU and said telephone database and said symbol generator whereby when a user touches the symbol displayed on ~~a~~ said touch display screen the cellular phone call is automatically initiated to the cellular phone represented by the symbol; and

a geographical database connected to said CPU to provide a geographical display on said touch screen representing a defined geographical area that also displays symbols representing each of the participants ~~that has an identical cellular phone~~ by latitude and longitude.

11. (Original) A cellular phone as in Claim 10, including:

conference call initiating software connected to said CPU that allows the cellular phone user to initiate a conference call to a plurality of participants represented by symbols by touching each of the symbols and initiating a conference call software switch.

12. (Original) A cellular phone as in Claim 10, including:

conference call initiating software for large number of conference call participants that allows the user of the cellular phone to initiate a conference call to the cellular phone users represented by the symbols on the screen by touching each of the symbols representing a participant in the conference call which initiates an automatic cellular phone call to the remote cellular phone users represented by the symbols displaying a text message to call a particular 800 number to establish the conference call.

13. (Original) A cellular phone as in Claim 10, including:

an emergency call initiating software connected to said CPU that includes a

remote cellular phone activating signal for causing a remote cellular phone that is called by touching a symbol representing the cellular phone to be called to generate and play an audio message telling the remote cellular phone user that there is an emergency and to call the cellular phone initiator.

14. (Currently Amended) A cellular phone as in Claim 12, including:

providing the ability to pre-establish phone conferencing nets by touching the ~~PDA~~ said touch display screen at a symbolic representation of the person(s) location or by selecting the parties from a list appearing on the ~~PDA~~ touch display screen and assigning them to a software drawn switch made to appear on a ~~PDA~~ touch display screen; and

providing the ability to conference the participants previously assigned to a net by using a software drawn switch(es) for a conference call, whereby the user touches the net software switch to initiate the call to all of the participants on the net.

15. (Currently Amended) A layered set of software drawn switches as in Claim 14, including:

a ~~set~~ matrix of layered software drawn switches so that each switch that when activated on the touch display screen ~~PDA~~ overlays the previously drawn matrix of switches, the matrix level of which is noted in one of the switch locations, thus providing the operator a large choice of switches in the same physical space on the ~~PDA~~ touch display screen and informing the operator of the level of switches that are displayed.

REMARKS

The Examiner's objection to claim 5 under 37 C.F.R. 1.75(c) as being in improper form because multiple dependent claim 5 should refer to other claims in the alternative only is respectfully traversed. Applicant has amended claims 2, 3 4 and 5 to provide the proper form for dependency.

The Examiner's rejection of claims 1-9 and 10-15 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter for which applicant regards as the invention is respectfully traversed. In claim 1, applicant has amended the claim to recite "said video." In claim 2, applicant has amended claim 2, line 6, to "said CPU."

In claim 2, applicant has amended the word "use" to read "user" in line 15. In line 6, applicant has amended "CPU" and "GPS" recited in lines 2-3 to read "said CPU" and "said GPS." In claim 6, applicant has amended "a cellular phone" recited in line 13 and in line 5 to read "said cellular phone."

Regarding claims 3, 4, 5 and 7-9, the remaining claims (dependent claims 3-5 & 7-9) depend from a rejected base claim (independent claims 1, 2 and 6) and heretofore inherited the deficiencies thereof which have been corrected.

Claim 10 has been amended in line 15 to recite "said communication network." Claim 10 has been amended in line 19 to recite "said display screen." Claim 10 has been amended in line 15 to recite "said cellular phone." Claim 14 has been amended in line 3 to recite "a PDA display screen." Also, the phrase "a PDA display screen" recited in claim 5 has been changed to "the PDA display screen."

The Examiner's rejection of claim 2 under 35 U.S.C. 103(a) as being unpatentable over

Muramatsu '377 in view of Gorday, et al., et al. '331 (U.S. Publication 2004/0192331A1) and Bostrom '456 (U.S. Publication 02664546A1) is respectfully traversed. Muramatsu '377 discloses a navigation system that uses a portable communication device in conjunction with a navigation server for providing a prescribed navigation service online. Under Graham v. John Deere Company, 383 U.S. Page 1, 48 U.S.P.Q. 459 (1966), the Supreme Court established standard guidelines for assessing patentability. For a rejection under 35 U.S.C. 103, the Court defined several basic factual inquiries such as: (1) the scope and content of the prior art are to be determined; (2) differences between the prior art and the claims at issue are to be ascertained; and (3) the level of ordinary skill in the pertinent art resolved.

The scope and content of Muramatsu '377 suggest that the overall system is primarily for navigation purposes. The system uses a portable communication device that includes GPS in conjunction with a navigation server that provides map information including destination and present position based on corresponding icon symbols. The system also provides azimuth as an angle departing from north direction for map information. Gorday, et al., et al. '331 discloses a method for sending messages from a particular device to one or more other devices that communicants use using the relative geographic location of the targeted devices as addressing criteria. The use of a stylus in Gorday, et al., et al. is not to make a call such as a voice telephone call but rather to select one of the communicant PDA devices to target for message communication. The user employs the stylus or other input mechanism to select via the touch screen the targeted device in order to initiate communications. Neither Muramatsu nor Gorday, et al. provides for voice communication, free and operator selected text messages, photographs or video communications between the user and the selected icon. Bostrom, et al. discloses a node in a telecommunication network that supports location and direction services suited for wireless subscribers. The system is a navigational system to provide location services using a server.

Primarily the user marks specific locations (not calling locations) based on symbols that are pre-entered into a database. No mention is made concerning transmitting and receiving voice communication, free and operator selected text messages, photographs, and video between other system users.

It is apparent that the scope and content of the prior art cited by the Examiner are quite different than the invention recited in applicant's amended claims. Applicant's amended claims recite a communication system that provides for rapid connection to other participants in the communication network represented by symbols on a geographical screen that allows for rapid voice communication, rapid free text communication and the rapid transmission of photographs and video clips using the stylus and touch screen. There is no teaching or suggestion in any of the references cited by the Examiner to arrive at applicant's claimed invention. It is applicant's position that the problem being solved by applicant's invention for rapid voice, text and video communications in a communication network has not been addressed in the references cited by the Examiner. Even if the references were combined as suggested by the Examiner, it is believed that applicant's claimed invention would not result inasmuch as there is no disclosure in any of the references to suggest applicant's claimed voice, text, photographs and video communications with the recipients as recited in applicant's claims. Because of the large differences between the prior art cited by the Examiner and the claims amended by applicant, the references teach away or suggest away from applicant's invention such that one of ordinary skill in the art when reviewing all of the references together would clearly not arrive at applicant's claimed invention. This is especially true since applicant's claimed invention is addressing and solving a different communication problem than the communication problems addressed in each of the references cited when taken together. There must be something in the prior art as a whole to suggest the desirability and, thus, the obviousness of making the combination. C.P.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340, 48

U.S.P.Q.2d 1225 (Fed. Cir. 1998). Claim 2 as amended in believed patentable over the art cited by the Examiner.

The Examiner's rejection of claims 3 and 4 under 35 U.S.C. 103(a) as being unpatentable over Muramatsu '377 in view of Gorday, et al. '331 and Bostrom '456 as discussed above and further in view of Bala '475 (U.S. 5,542,475) is respectfully traversed.

Applicant herein reasserts the arguments made above with respect the Muramatsu '377 reference, the Gorday, et al. '331 reference and the Bostrom '456 reference. Using the same Supreme Court test under the Graham case cited above, it is asserted that Bala when combined with the other three references do not suggest to one of ordinary skill in the art applicant's claimed invention as recited in claims 3 and 4. Since claims 3 and 4 depend from claim 2, the scope and content of Bala combined with the other references do not teach or suggest applicant's claimed invention in claim 2. The addition of the conference calling features claimed by applicant in claims 3 and 4 in combination with the system claimed in claim 2 recites a combination of elements not taught or suggested when viewed together with the references cited by the Examiner. Bala teaches using a computer and data link to remote the functions of a PBX telephone system. Bala does not teach using a cell phone to set up nets that are local to that cell phone and only that cell phone. There is no motivation to combine the references as suggested by the Examiner.

The Examiner's rejection of claim 6 under 35 U.S.C. 103(a) as being unpatentable over Muramatsu '377 in view of Gorday, et al. '331 is respectfully traversed. Again, applicant reiterates the arguments presented above with respect to the combination of the Muramatsu '377 reference with the Gorday, et al. '331 reference urged by the Examiner with reference to claim 2. Muramatsu '377 reference discloses a navigational system that uses a navigational server to provide navigational information to users requesting such information in a given area. Muramatsu '377 does not suggest providing a network of users that establish rapid voice communication, free text

message communication, photographs communication and video information using a geographical display with icons that are tied into the cell phone number database for rapid communication purposes. Gorday, et al. '331 reference is also primarily a navigation system that allows sending a pre-prepared message to one of the other participants in an *ad hoc* network within a certain distance or with other criteria. Gorday does not suggest nor teach having a network that allows for rapid voice communication, free and operator selected text message communication, photographs and video being transferred rapidly using a geographical display and icons that have pre-existing cell phone numbers for rapid communication. The Graham test of scope and content of the prior art again applies to the Examiner's rejection of claim 6. Claim 6 requires a method and system that can rapidly be used to establish voice communication, free text message communication, photograph and video information to one or more selected participants in a rapid manner. The differences between claim 6 and the systems and methods disclosed in Muramatsu '377 and Gorday, et al. '331 are significant. The system and method in Muramatsu '377 and Gorday, et al. '331 relate to navigational devices that seek to solve different problems than the device claimed in claim 6.

The Examiner's rejection of claims 7 and 8 under 35 U.S.C. 103(a) as being unpatentable over Muramatsu '377 in view of Gorday, et al. '331 as discussed and further in view of Bala '475 is respectfully traversed.

Applicant reiterates applicant's assertions and comments above concerning the Muramatsu '377 reference and the Gorday, et al. '331 reference. Again, the Bala '475 reference discusses certain conference capabilities that are, however, not suggested nor disclosed in the combination of Muramatsu '377 and Gorday, et al. '331. Therefore, the addition of the Bala '475 reference by the Examiner reviewing the test of obviousness required under the Graham case, the Examiner's combination of references do not suggest or teach applicant's invention in claims 7 and 8 which are

dependent from claim 6. There are fundamental differences in the problems being solved and in the structure and function of applicant's claimed invention in claims 7 and 8 that would not suggest to one of ordinary skill in the art the claimed invention.

The Examiner's rejection of claim 10 under 35 U.S.C. 103(a) as being unpatentable over Muramatsu '377 in view of Gorday, et al. '331, Godfrey '634 and Ausems '321 is respectfully traversed. Applicant reiterates applicant's comments with respect to the Muramatsu '377 reference and the Gorday, et al. '331 reference recited above with respect to claim 1 and claim 6. Under the test of obviousness put forth in the Graham case when looking at the scope and content of the prior art and the differences in the claimed subject matter such as in claim 10 and the combination of references cited by the Examiner, the differences in the claimed subject matter are quite extensive. Again, the problems to be solved are completely different in Muramatsu and Gorday, et al. than the problems solved by applicant's claimed invention especially in claim 10. Godfrey uses 802.11 wireless for position determination and does not discuss polling with a system capable of transmitting and receiving voice communication, free and operator selected text messages, photographs, and video. The Godfrey '634 and Ausems '321 references do not cure the defects found in the other references cited by the Examiner when viewing the overall combination of references. A person of ordinary skill in the art when viewing all of these references, five cited by the Examiner, would not and could not arrive at applicant's claimed invention because the problems are different, the structure and function of elements provided in the combination of references are different with a different invention resulting.

The Examiner's rejection of claims 11 and 12 under 35 U.S.C. 103(a) as being unpatentable over Muramatsu '377 in view of Gorday, et al. '331, Godfrey '634 and Ausems '321 further in view of Bala '475 is respectfully traversed. Claims 11 and 12 depend from claim 10 and applicant herein reiterates the comments made above with respect to the references cited in combination by

the Examiner with respect to claims 11 and 12. The teaching in Bala '475 relating to conference calling with the variety of participants is completely different in subject matter than that claimed by applicant in claims 11 and 12 which depend from claim 10. Under the Graham test, the scope and content of the prior art are quite different as to the problems being solved and the structure being used than that specifically claimed by applicant in claims 11 and 12 which include voice, text and video messaging to a number of participants in a rapid manner. It is applicant's position that one of ordinary skill in the art when viewing all of these references grouped together by the Examiner could not possibly arrive at applicant's claimed invention because of the lack of teaching or suggestions in these references to arrive at the claimed invention.

The Examiner's rejection of claim 13 under 35 U.S.C. 103(a) as being unpatentable over Muramatsu '377 in view of Gorday, et al. '331, Ausems '321, Godfrey '634 and further in view of Tendler '286 is respectfully traversed. Claim 13 specifically requires a communication network that includes voice communication, text messages and a geographical screen for rapidly summoning one or more other participants in the communication network. Applicant reiterates applicant's comments and arguments above with respect to the references cited above. Tendler does not disclose nor cure the problem of actual voice communications in combination with the icons presented by applicant for voice communication, free and operator selected text messaging, photographs and video transmission to participants. The purpose of the Tendler invention is to provide an emergency button that transmits a partially pre-canned voice message with the addition of other voice information indicating the location of an emergency. Thus, the problem and the solution provided by Tendler is completely different than applicant's claimed invention in claim 13 especially when considered in combination with the other references which would not be obvious to

one of ordinary skill in the art.

The Examiner's rejection of claim 14 under 35 U.S.C. 103(a) as unpatentable over Muramatsu '377 in view of Gorday, et al. '331, Ausems '321, Godfrey '634, Bala '475 and further in view of Fumarolo '844 is respectfully traversed. Applicant reasserts the comments and arguments presented above with respect to all of these references except Furmarolo '844. The Examiner states that the references can be combined by incorporating the user input device of a touch screen portion of the GUI disclosed in column 4, lines 59 plus of Fumarolo '844 in selecting a communication unit to be dynamically regrouped as well as targeting talk groups as taught by Fumarolo '844 so that it would allow a user of a display based terminal having an integrated mapping problem to dynamically group and ungroup communications. The error in this combination is that the basic references Muramatsu '377 and Gorday, et al. '331 lack any teaching or suggestion to provide the invention claimed by applicant in claim 14. Looking at the scope and content of the prior art taken as a whole, applicant's claimed invention 14 is quite different in the problems being overcome and the functional result provided by applicant. With respect to the scope and content of the Furmarolo '844 reference, a system where each police car has a GPS and a cell phone is used in combination with a central office that sees all of the users. Each of the cars do not see the other cars. The system is also set up with talk group nets with different nets being set up by central office. This is a completely different structure and function than applicant's claimed invention. Furmarolo is based on using both a computer assisted dispatch (CAD) system that controls radios and an automatic vehicle location system. The CAD system resides on a central computer. The applicant's claimed invention is the control of a cell phone hand set and enabling

the hand set to more efficiently use its existing conference capabilities. Applicant's communication network provides for a rapid communication using voice communication, text messages, photographs and video that can be transferred extremely quickly among one or more participants of a communication network using a geographical display with icons as required in applicant's claimed invention in claim 14. The references taken as a whole do not teach or suggest applicant's claimed invention to one of ordinary skill in the art.

The Examiner's rejection of claim 15 under 35 U.S.C. 103(a) as being unpatentable over Muramatsu '377 in view of Gorday, et al. '331, Ausems '321, Godfrey '634, Bala '475, Fumarolo '844 and further in view of King '560 (U.S. 6,775,560) is respectfully traversed. King '560 discusses use of soft switches, the activation of which causes lists of selections to appear from which the operator makes a particular selection. The applicant's claimed invention causes a matrix of layered software drawn switches so that each switch that when activated on the touch display screen overlays the previously drawn matrix of switches, the matrix level of which is noted in one of the switch locations, thus providing the operator a large choice of switches in the same physical space on the touch display screen and informing the operator of the level of switches that are displayed. The set of layered software drawn switches disclosed in King '560 do not suggest nor teach the other deficiencies stated above with respect to all the comments applicant has provided to the numerous references cited by the Examiner above. Under the Graham test, the scope and content of the prior art, when taken together, should suggest to one of ordinary skill in the art the claimed invention. As described above, the fundamental references do not teach or suggest applicant's basic invention which is quite different than the one disclosed in Muramatsu '377 and

Gorday, et al. '331. No matter how many references the Examiner adds together, the combination of references do not teach or suggest applicant's claimed invention as stated in claim 15. Therefore, it is believed that claim 15 is allowable over all of these references cited.

It is noted that claims 1, 5 and 9 would be allowed if rewritten or amended to overcome the rejections under 35 U.S.C. 112, second paragraph. Applicant has made the necessary amendments to the claims and asserts that claims 1, 5 and 9 are now allowable.

Any additional charges, including Extensions of Time, please bill our Deposit Account No. 13-1130.

Respectfully submitted,

Barry L. Haley, Reg. No. 25,339
Malin, Haley & DiMaggio, P.A.
1936 South Andrews Avenue
Fort Lauderdale, Florida 33316
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Facsimile: (954) 522-6507

I:\10963\amend\3801.amendment

Serial Number: 10/711,490

Our File No.: 10963.3801

CERTIFICATE OF EXPRESS MAIL

I HEREBY CERTIFY that the following correspondence: Amendment Transmittal Letter (in Duplicate); Amendment; and a Return Postcard for confirmation of receipt, is being deposited with the United States Postal Service as Express Mail No. EV 720779213 US, addressed to: Mail Stop Non-Fee Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia, 22313-1450 on this 8th day of November, 2005.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

Any additional charges, including extension of time, please bill our Account No. 13-1130.

Arlette J. Breakstone / Paralegal

Date: November 8, 2005

Customer No. 22235
MALIN, HALEY & DiMAGGIO, P.A.
1936 South Andrews Avenue
Fort Lauderdale, Florida 33316
(954) 763-3303

I:\10963\frm\3801.219pat

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	7	display$3 same (symbol$1 or icon$1) same (participant$1 or user$1) same (LCD or screen$1) and (PDA or Cell$1 adj1 phone$1) and free$1 near10 (SMS$1 or message$1 or text$1) and "455"/$.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/17 14:35
L2	4	display$3 same (symbol$1 or icon$1) same (participant$1 or user$1) same (LCD or screen$1) and (PDA or Cell$1 adj1 phone$1) and free$1 same (SMS$1 or message$1 or text$1)and (video$1)same (image$1 or picture$1) and "455"/$.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/17 14:45
L3	5	(symbol$1 or icon$1) near10 (participant$1 or user$1) same (LCD or screen$1) and (PDA or Cell$1 adj1 phone$1) and free$1 same (SMS$1 or message$1 or text$1)and (video$1)same (image$1 or picture$1) and "455"/$.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/17 14:52
L4	0	(symbol$1 or icon$1) near10 (other$1 or another$1) near10(participant$1 or user$1) same (LCD or screen$1) and (PDA or Cell$1 adj1 phone$1) and free$1 same (SMS$1 or message$1 or text$1)and (video$1)same (image$1 or picture$1)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/17 14:54
L5	0	(symbol$1 or icon$1) near10 (other$1 or another$1) near10(participant$1 or user$1) and (PDA or Cell$1 adj1 phone$1) and free$1 same (SMS$1 or message$1 or text$1)and (video$1)same (image$1 or picture$1)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/17 14:55
L6	9	(symbol$1 or icon$1) same (other$1 or another$1) near10 (participant$1 or user$1) and (PDA or Cell$1 adj1 phone$1) and free$1 same (SMS$1 or message$1 or text$1)and (video$1)same (image$1 or picture$1)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/17 15:00

L7	18492	(malcolm$1 or beyer$1 or jupiter$1 or colony$1).in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/17 15:00
L8	48	7 and (cellular$1 adj1 (phone$1 or communication$1))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/17 15:03
L9	48	(malcolm$1 or beyer$1).in. and (cellular$1 adj1 (phone$1 or communication$1))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/17 15:05
L10	0	(cellular$1 and phone$1 and communication$1 and touch$1 and screen$1 and symbol$1 and generator$1 and participant$1 and free$1 and text$1 and message$1 and video$1).clm.	US-PGPUB	OR	OFF	2006/01/17 15:06
S1	464	455/456.3.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/16 17:06
S2	957	455/418.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/16 17:06
S3	1967	455/456.1.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/16 17:06
S4	756	455/419.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/16 17:06

S5	260	455/556.2.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/16 17:06
S6	403	455/420.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/16 17:06
S7	343	455/88.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/16 17:06
S8	919	455/41.2.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/16 17:06
S9	101	455/41.3.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/16 17:06
S10	194	455/416.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/16 17:07
S11	1603	455/414.1.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/16 17:07
S12	85	455/414.4.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/16 17:07

S13	286	455/412.2.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/16 17:07
S14	974	455/412.1.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/16 17:07
S15	286	455/412.2.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/16 17:07
S16	408	455/415.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/16 17:08
S17	471	455/457.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/16 17:08
S18	351	455/404.2.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/16 17:08
S19	0	455/442.1.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/16 17:08
S20	768	455/427.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/16 17:09

S21	250	455/431.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/16 17:09
S22	348	455/500.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/16 17:09
S23	2253	455/517.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/16 17:09
S24	406	455/518.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/16 17:09
S25	264	455/519.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/16 17:09
S26	500	455/516.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/16 17:09
S27	454	455/564.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/16 17:09
S28	574	455/458.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/16 17:09

S29	195	455/463.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/16 17:10
S30	103	display$3 same (symbol$1 or icon$1) same (participant$1 or user$1) same (LCD or screen$1) and (PDA or Cell$1 adj1 phone$1) and free$1 near10 (SMS$1 or message$1 or text$1)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/17 11:14
S31	2	S30 and (S1 or S2 or S3 or S4 or S5 or S6 or S7 or S8 or S9 or S10 or S11 or S12 or S13 or S14 or S15 or S16 or S17 or S18 or S19 or S20 or S21 or S22 or S23 or S24 or S25 or S26 or S27 or S28 or S29)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/01/16 17:16

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UNITED STATES DEPARTMENT OF COMMERCE
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NOTICE OF ALLOWANCE AND FEE(S) DUE

22235 7590 01/27/2006

MALIN HALEY AND DIMAGGIO, PA
1936 S ANDREWS AVENUE
FORT LAUDERDALE, FL 33316

EXAMINER	
MOE, AUNG SOE	
ART UNIT	PAPER NUMBER
2685	

DATE MAILED: 01/27/2006

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/711,490	09/21/2004	Malcolm K. Beyer JR.	10963.3801	5489

TITLE OF INVENTION: CELLULAR PHONE/PDA COMMUNICATION SYSTEM

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	$700	$300	$1000	04/27/2006

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PTOL-85 (Rev. 07/05) Approved for use through 04/30/2007.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571) 273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

22235 7590 01/27/2006

MALIN HALEY AND DIMAGGIO, PA
1936 S ANDREWS AVENUE
FORT LAUDERDALE, FL 33316

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission
I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/711,490	09/21/2004	Malcolm K. Beyer JR.	10963.3801	5489

TITLE OF INVENTION: CELLULAR PHONE/PDA COMMUNICATION SYSTEM

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	$700	$300	$1000	04/27/2006

EXAMINER	ART UNIT	CLASS-SUBCLASS
MOE, AUNG SOE	2685	455-456300

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).
☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.
1 _____
2 _____
3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are enclosed:
☐ Issue Fee
☐ Publication Fee (No small entity discount permitted)
☐ Advance Order - # of Copies _____

4b. Payment of Fee(s):
☐ A check in the amount of the fee(s) is enclosed.
☐ Payment by credit card. Form PTO-2038 is attached.
☐ The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)
☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

The Director of the USPTO is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.
NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/711,490	09/21/2004	Malcolm K. Beyer JR.	10963.3801	5489

22235 7590 01/27/2006

MALIN HALEY AND DIMAGGIO, PA
1936 S ANDREWS AVENUE
FORT LAUDERDALE, FL 33316

EXAMINER	
MOE, AUNG SOE	
ART UNIT	**PAPER NUMBER**
2685	

DATE MAILED: 01/27/2006

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571) 272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

PTOL-85 (Rev. 07/05) Approved for use through 04/30/2007.

Notice of Allowability	Application No.	Applicant(s)	
	10/711,490	BEYER, MALCOLM K.	
	Examiner	Art Unit	
	Aung S. Moe	2685	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *the amendment filed on 11/12/2005*.

2. ☒ The allowed claim(s) is/are *1-15 (renumbered as 1-15)*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☐ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Aung S. Moe
Primary Examiner
Art Unit: 2685

Index of Claims

Application/Control No.	Applicant(s)/Patent under Reexamination
10/711,490	BEYER, MALCOLM K.
Examiner	**Art Unit**
Aung S. Moe	2685

√	Rejected	–	(Through numeral) Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

Claim		Date
Final	Original	1/17/06
1	1	=
3	2	=
4	3	=
5	4	=
6	5	=
7	6	=
8	7	=
9	8	=
2	9	=
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11	11	=
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Claim		Date
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Claim		Date
Final	Original	
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Issue Classification	Application/Control No.	Applicant(s)/Patent under Reexamination	
	10/711,490	BEYER, MALCOLM K.	
	Examiner	Art Unit	
	Aung S. Moe	2685	

ISSUE CLASSIFICATION

ORIGINAL				CROSS REFERENCE(S)							
CLASS	SUBCLASS	CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)								
455	456.3	455	457	420							
INTERNATIONAL CLASSIFICATION											
H 0 4 Q	7/20										
	/										
	/										
	/										
	/										

(Assistant Examiner) (Date)

Denise Hopkins 1/24/06
(Legal Instruments Examiner) (Date)

AUNG MOE
PRIMARY EXAMINER 1/27/06
(Primary Examiner) (Date)

Total Claims Allowed: 15

O.G. Print Claim(s)	O.G. Print Fig.
1	1

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
1	1		31		61		91		121		151		181
3	2		32		62		92		122		152		182
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9	8		38		68		98		128		158		188
2	9		39		69		99		129		159		189
10	10		40		70		100		130		160		190
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	18		48		78		108		138		168		198
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	20		50		80		110		140		170		200
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	23		53		83		113		143		173		203
	24		54		84		114		144		174		204
	25		55		85		115		145		175		205
	26		56		86		116		146		176		206
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	28		58		88		118		148		178		208
	29		59		89		119		149		179		209
	30		60		90		120		150		180		210

Search Notes

Application/Control No.	Applicant(s)/Patent under Reexamination
10/711,490	BEYER, MALCOLM K.
Examiner	**Art Unit**
Aung S. Moe	2685

SEARCHED			
Class	Subclass	Date	Examiner
455	456.3,418 456.1,419 556.2,420	1/16/2006	ASM
	88,41.2		
	41.3,416		
	414.4		
	412.2 -.1		
	415,457		
	404.2		
	442.1		
	427,431		
	500,517		
	518,519		
	516,564		
	458,463	1/17/2006	ASM

INTERFERENCE SEARCHED			
Class	Subclass	Date	Examiner
455	456.3	1/17/2006	ASM
	457		
	420		

SEARCH NOTES (INCLUDING SEARCH STRATEGY)		
	DATE	EXMR
UPDATED EAST (SEE ATTACHED)	1/16/2006	ASM
INVENTOR SEARCHED BY EAST (SEE ATTACHED)	1/17/2006	ASM
INTERFERENCE SEARCHED BY EAST (SEE ATTACHED)	1/17/2006	ASM

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571) 273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

22235 7590 01/27/2006

MALIN HALEY AND DIMAGGIO, PA
1936 S ANDREWS AVENUE
FORT LAUDERDALE, FL 33316

02/09/2006 MBERHE1 00000012 10711490

01 FC:2501 700.00 OP
02 FC:1504 300.00 OP
03 FC:8001 30.00 OP

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission
I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

Arlette J. Breakstone (Depositor's name)
(Signature)
February 6, 2006 (Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/711,490	09/21/2004	Malcolm K. Beyer JR.	10963.3801	5489

TITLE OF INVENTION: CELLULAR PHONE/PDA COMMUNICATION SYSTEM

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	$700	$300	$1000	04/27/2006

EXAMINER	ART UNIT	CLASS-SUBCLASS
MOE, AUNG SOE	2685	455-456300

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).
☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list
(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 Malin, Haley
2 & DiMaggio, P.A.
3

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are enclosed:
☒ Issue Fee
☒ Publication Fee (No small entity discount permitted)
☒ Advance Order - # of Copies Ten (10)

4b. Payment of Fee(s):
☒ A check in the amount of the fee(s) is enclosed.
☐ Payment by credit card. Form PTO-2038 is attached.
☒ The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number 13-1130 (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)
☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

The Director of the USPTO is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.
NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature Barry L. Haley Date February 6, 2006

Typed or printed name Barry L. Haley Registration No. 25,339

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

10/711490 CofC

Serial No.: 10/711,490

Our File No.: 10963.3801

CERTIFICATE OF MAILING

I HEREBY CERTIFY that the following correspondence: Certificate of Correction; a Check in the Amount of $100.00 for the required fee; and a Return Postcard for confirmation of receipt is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Attention: Certificate of Corrections Branch, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450, on this 9th day of June, 2006.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both, under Section 1001 of Title 18 of the United States Code.

Any additional charges, including extension of time, please bill our Account No. 13-1130.

06/14/2006 AKELECH1 00000021 7031728
01 FC:1811 100.00 OP

Arlette J. Breakstone

/Arlette J. Breakstone, Paralegal

Date: June 9, 2006

Certificate
JUN 15 2006
of Correction

MALIN, HALEY & DiMAGGIO, P.A.
Customer No. 22235
1936 South Andrews Avenue
Fort Lauderdale, Florida 33316
Telephone: (954) 763-3303
Facsimile: (954) 522-6507

I:\10963\frm\3801.220pat

PTO/SB/44 (04-05)
Approved for use through 04/30/2007. OMB 0651-0033
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

(Also Form PTO-1050)

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,031,728

APPLICATION NO.: 10/711,490

ISSUE DATE : April 18, 2006

INVENTOR(S) : BEYER, Malcolm K., Jr.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Pursuant to 35 U.S.C. 255, the following mistakes occurred in good faith and through no fault of the Patent and Trademark Office:

Column 1, Line 37:
"Digital SMS (Short Message Service) and TCP/IP mes-..."

Column 5, Line 35:
"...enter each individual phone's participant code. The originator..."

Column 13, Line 43:
"...remote cellular phone's software on or off and generates in the..."

MAILING ADDRESS OF SENDER (Please do not use customer number below):

SPE RESPONSE FOR CERTIFICATE OF CORRECTION

Paper No.: _____

DATE : June 22, 2006

TO SPE OF : ART UNIT 2618

SUBJECT : Request for Certificate of Correction for Appl. No.: 10/711,490 Patent No.: 7,031,728

Please respond to this request for a certificate of correction within 7 days.

Please review the requested changes/corrections as shown in the **COCIN** document(s) in the IFW application image. No new matter should be introduced, nor should the scope or meaning of the claims be changed.

Please complete the response (see below) and forward the completed response to scanning using document code **COCX**.

Magdalene Talley

_____

Certificates of Correction Branch

703-308-9390 ext. 116

Thank You For Your Assistance

The request for issuing the above-identified correction(s) is hereby:

Note your decision on the appropriate box.

- ☐ **Approved** — **All** changes apply.
- ☐ **Approved in Part** — Specify below which changes **do not** apply.
- ☐ **Denied** — State the reasons for denial below.

Comments: _____

_____

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_____ _____

SPE **Art Unit**

SPE RESPONSE FOR CERTIFICATE OF CORRECTION

Paper No.: _____

DATE : June 22, 2006

TO SPE OF : ART UNIT 2618

SUBJECT : Request for Certificate of Correction for Appl. No.: 10/711,490 Patent No.: 7,031,728

Please respond to this request for a certificate of correction within 7 days.

Please review the requested changes/corrections as shown in the **COCIN** document(s) in the IFW application image. No new matter should be introduced, nor should the scope or meaning of the claims be changed.

Please complete the response (see below) and forward the completed response to scanning using document code **COCX**.

Magdalene Talley

Certificates of Correction Branch

703-308-9390 ext. 116

Thank You For Your Assistance

The request for issuing the above-identified correction(s) is hereby:

Note your decision on the appropriate box.

☒ **Approved**	**All** changes apply.
☐ **Approved in Part**	Specify below which changes **do not** apply.
☐ **Denied**	State the reasons for denial below.

Comments: _____

EDWARD F. URBAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600
SPE

2618
Art Unit

UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

PATENT NO. : 7,031,728 B2
APPLICATION NO. : 10/711490
DATED : April 18, 2006
INVENTOR(S) : Malcolm K. Beyer, Jr.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

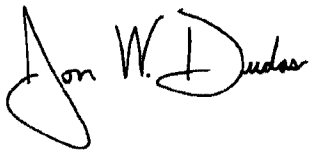
Column 1, Line 37, should read
"Digital SMS (Short Message Service) and TCP/IP mes-..."

Column 5, Line 35, should read
"...enter each individual phone's participant code. The originator..."

Column 13, Line 43, should read
"...remote cellular phone's software on or off and generates in the..."

Signed and Sealed this

Eighth Day of April, 2008



JON W. DUDAS
Director of the United States Patent and Trademark Office

Exhibit 1012

POWER OF ATTORNEY

As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith along with any and all foreign applications filed and foreign patents issued therefrom.

Barry L. Haley, Registration No. 25,339
Dale Paul DiMaggio, Registration No. 31,823
Joseph R. Englander, Registration No. 38,871
Jerry D. Haynes, Registration No. 42,646
James David Johnson, Registration No. 47,685
Clark A.D. Wilson, Registration No. 55,732

Send all correspondence to:

Barry L. Haley, Esq.
MALIN, HALEY & DIMAGGIO, P.A.
Customer No. 22235
1936 South Andrews Avenue
Fort Lauderdale, Florida 33316

Direct telephone calls to:

Barry L. Haley
(954) 763-3303

Full Name of Sole or First Inventor
MALCOLM K. BEYER, JR.

Citizenship
UNITED STATES OF AMERICA

Inventor's Signature

April 14, 2006
Date

Residence
Jupiter Inlet Colony, Florida

Post Office Address
92 Lighthouse Drive
Jupiter Inlet Colony, Florida 33469-3504

Full Name of Second Joint Inventor
CHRISTOPHER R. RICE

Citizenship
UNITED STATES OF AMERICA

Second Inventor's Signature

Date

Residence
Monroe, Washington 98272

Post Office Address
14308 Reiner Road
Monroe, Washington 98272

I:\10893\frm\3803.226pat

POWER OF ATTORNEY

As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith along with any and all foreign applications filed and foreign patents issued therefrom.

Barry L. Haley, Registration No. 25,339
Dale Paul DiMaggio, Registration No. 31,823
Joseph R. Englander, Registration No. 38,871
Jerry D. Haynes, Registration No. 42,646
James David Johnson, Registration No. 47,685
Clark A.D. Wilson, Registration No. 55,732

Send all correspondence to: Barry L. Haley, Esq.
MALIN, HALEY & DIMAGGIO, P.A.
Customer No. 22235
1936 South Andrews Avenue
Fort Lauderdale, Florida 33316

Direct telephone calls to: Barry L. Haley
(954) 763-3303

Full Name of Sole or First Inventor
MALCOLM K. BEYER, JR.

Citizenship
UNITED STATES OF AMERICA

Inventor's Signature

Date

Residence
Jupiter Inlet Colony, Florida

Post Office Address
92 Lighthouse Drive
Jupiter Inlet Colony, Florida 33469-3504

Full Name of Second Joint Inventor
CHRISTOPHER R. RICE

Citizenship
UNITED STATES OF AMERICA

Christopher R. Rice

Second Inventor's Signature

4/14/2006

Date

Residence
14308 Reiner Road
Monroe, Washington 98272

Post Office Address
PO BOX 925
Sultan, WA 98294

APPLICATION DATA SHEET

Electronic Version v14

Stylesheet Version v14.1

Applicant Information:

Inventor 1:

Applicant Authority Type:	Inventor
Citizenship:	US
Given Name:	Malcolm
Middle Name:	K.
Family Name:	Beyer
Name suffix:	Jr.
City of Residence:	Jupiter Inlet Colony
State of Residence:	FL
Country of Residence:	US
Address-1 of Mailing Address:	92 Lighthouse Drive
Address-2 of Mailing Address:	
City of Mailing Address:	Jupiter Inlet Colony
State of Mailing Address:	FL
Postal Code of Mailing Address:	33469-3504
Country of Mailing Address:	US
Phone:	
Fax:	
E-mail:	

Correspondence Information:

Customer Number: 22235

Application Information:

Title of Invention :	METHOD OF PROVIDING A CELLULAR PHONE/PDA COMMUNICATION SYSTEM
Application Type :	regular, utility
Attorney Docket Number :	10963.3803

Botanic Information:

Publication Information:

Suggested Figure for Publication -
Suggested Classification -
Suggested Technology Center -
Total Number of Drawing Sheets -

Representative Information:

Domestic Priority Information:

This is a Continuation-in-part of US application number 10711490, filed 2004-09-21 , now Pending.

Foreign Priority Information:

Assignee Information:

FEE TRANSMITTAL

Electronic Version v10

Stylesheet Version v10

Title of Invention	METHOD OF PROVIDING A CELLULAR PHONE/PDA COMMUNICATION SYSTEM

Application Number :

Date :

First Named Applicant: Malcolm K. Beyer Jr.

Attorney Docket Number: 10963.3803

TOTAL FEE AUTHORIZED $ 1225

Patent fees are subject to annual revisions on or about October 1st of each year.

Filing as small entity

BASIC FILING FEE

Fee Description	Fee Code	Amount $	Fee Paid $
Utility Filing Fee	4011	75	75
			Subtotal For Basic Filing Fees: $ 75

EXTRA CLAIM FEES

Fee Description	Extra Claim	Fee Code	Amount $	Fee Paid $
Total Claims : 20	0	2202	25	0
Independent Claims : 11	8	2201	100	800
				Subtotal For Extra Claims Fees: $ 800

ADDITIONAL FEES

Fee Description	Extra Pages Increment	Fee Code	Amount $	Fee Paid $
Extra pages fee	0	2081	125	0
Examination fee		2311	100	100
Search fee		2111	250	250
				Subtotal For Additional Fees: $350

AUTHORIZED BILLING INFORMATION

The commissioner is hereby authorized to charge indicated fees and credit any overpayments to:

Deposit account number:	131130
Access Code	****
Deposit name:	MalinHaleyDiMaggio;Crosby
Deposit authorized name:	Arlette J. Breakstone
Signature:	/arlette j breakstone/

Date (YYYYMMDD):	2006-04-17
Charge Any Additional Fee Required Under 37 C.F.R. Sections 1.16 and 1.17.	

FEE TRANSMITTAL

Electronic Version v10

Stylesheet Version v10

Title of Invention	METHOD OF PROVIDING A CELLULAR PHONE/PDA COMMUNICATION SYSTEM

Application Number :

Date :

First Named Applicant: Malcolm K. Beyer Jr.

Attorney Docket Number: 10963.3803

TOTAL FEE AUTHORIZED $ 1225

Patent fees are subject to annual revisions on or about October 1st of each year.

Filing as small entity

BASIC FILING FEE

Fee Description	Fee Code	Amount $	Fee Paid $
Utility Filing Fee	4011	75	75
			Subtotal For Basic Filing Fees: $ 75

EXTRA CLAIM FEES

Fee Description	Extra Claim	Fee Code	Amount $	Fee Paid $
Total Claims : 20	0	2202	25	0
Independent Claims : 11	8	2201	100	800
				Subtotal For Extra Claims Fees: $ 800

ADDITIONAL FEES

Fee Description	Extra Pages Increment	Fee Code	Amount $	Fee Paid $
Extra pages fee	0	2081	125	0
Examination fee		2311	100	100
Search fee		2111	250	250
				Subtotal For Additional Fees: $350

AUTHORIZED BILLING INFORMATION

The commissioner is hereby authorized to charge indicated fees and credit any overpayments to:

Deposit account number:	131130
Access Code	****
Deposit name:	MalinHaleyDiMaggio;Crosby
Deposit authorized name:	Arlette J. Breakstone
Signature:	/arlette j breakstone/

Date (YYYYMMDD):	2006-04-17
Charge Any Additional Fee Required Under 37 C.F.R. Sections 1.16 and 1.17.	

DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION
(English Language Declaration)

Our File No. 10963.3803

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled: **METHOD OF PROVIDNG A CELLULAR PHONE/PDA COMMUNICATION SYSTEM**, the specification of which (check one):

[X] is attached hereto
[] was filed on as Serial No. and was amended on (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the Office all information known to me to be material to patentability, as defined in Title 37, Code of Federal Regulations §1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)			Priority Claimed	
Number	Country	Day/Month/Year	Yes	No

I hereby claim the benefit under Title 35, United States Code, Section 120, of any United States application(s) or PCT international application(s) designating the United States of America listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, Section 112, I acknowledge the duty to disclose to the Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations 1.56, which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

Serial No.	Filing Date	Status
10/711,490	**September 21, 2004**	**Pending**

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

ELECTRONIC INFORMATION DISCLOSURE STATEMENT

Electronic Version v18

Stylesheet Version v18.0

Title of Invention	METHOD OF PROVIDING A CELLULAR PHONE/PDA COMMUNICATION SYSTEM

Application Number :

Confirmation Number:

First Named Applicant: Malcolm Beyer

Attorney Docket Number: 10963.3803

Art Unit:

Examiner:

Search string: (6868337 or 20040266456 or 20030139150 or 20040192331).pn

US Patent Documents

Note: Applicant is not required to submit a paper copy of cited US Patent Documents

init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass
	1	6868337	2005-03-15	Muramatsu			

US Published Applications

Note: Applicant is not required to submit a paper copy of cited US Published Applications

init	Cite.No.	Pub. No.	Date	Applicant	Kind	Class	Subclass
	1	20040266456	2004-12-30	Bostrom, et al.			
	2	20030139150	2003-07-24	Rodriguez, et al.			
	3	20040192331	2004-09-30	Gorday, et al.			

Signature

Examiner Name	Date

TRANSMITTAL

Electronic Version v1.1

Stylesheet Version v1.1.0

Title of Invention	METHOD OF PROVIDING A CELLULAR PHONE/PDA COMMUNICATION SYSTEM

Application Number :	
Date :	
First Named Applicant:	Malcolm K. Beyer Jr.
Confirmation Number:	
Attorney Docket Number:	10963.3803

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Submitted By:	Elec. Sign.	Sign. Capacity
Barry Lee Haley Esq. Registered Number: 25,339	/barry lee haley/	Attorney

Documents being submitted:	Files
us-ids	109633803-usidst.xml
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	us-ids.xsl
us-request	109633803-usrequ.xml
	us-request.dtd
	us-request.xsl
us-fee-sheet	109633803-usfees.xml
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	us-fee-sheet.dtd
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us-power-of-attorney-grant	3803cipdeclPage2.tif
us-power-of-attorney-grant	3803cipdeclPage3.tif
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claims-pdf	109633803-clms.pdf
description-pdf	109633803-desc.pdf
drawings-pdf	109633803-draw.pdf
Comments	

ACKNOWLEDGEMENT RECEIPT

Electronic Version 1.1

Stylesheet Version v1.1.1

Title of Invention	METHOD OF PROVIDING A CELLULAR PHONE/PDA COMMUNICATION SYSTEM

Submision Type : Utility Patent Filing

Application Number: 11/308648

EFS ID: 106311

Server Response:

Confirmation Code	Message
ISVR1	Submission was successfully submitted - Even if Informational or Warning Messages appear below, please do not resubmit this application
ICON1	3647
USPTOEFSNotice	For assistance with e-filing a patent application, contact the Patent Electronic Business Center: Toll-Free Number:1(866) 217-9197 Website: http://www.uspto.gov/ebc/

First Named Applicant: Malcolm Beyer

Attorney Docket Number: 10963.3803

Timestamp: 2006-04-17 16:20:44 EDT

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File Listing:

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METHOD OF PROVIDING A CELLULAR PHONE/PDA COMMUNICATION SYSTEM

DESCRIPTION

Field of the Invention

(Para 1) This invention relates generally to an integrated communications system using a plurality of cellular/PDA/GPS phones for the management of a group of people through the use of a communications net and, specifically, to provide each user with a cellular/PDA/GPS/phone that has software application programs and databases that permit all the users to continuously know each other's locations and status, to rapidly call and communicate voice, high speed internet data, photographs and video clips among the users by touching display screen symbols and to enable the users to easily access data concerning other users and other database information.

Description of Related Art

(Para 2) The purpose of a communications system is to transmit information bearing signals from a source, located at one point, to a user destination, located at another point some distance away. A communications system is generally comprised of three basic elements: transmitter, information channel and receiver. One form of communication in recent years is cellular phone telephony. A network of cellular communication systems set up around an area such as the United States allows multiple users to talk to each other, either on individual calls or on group calls. Some cellular phone services enable a cellular phone to engage in conference calls with a small number of users. Furthermore, cellular conference calls can be established through 800 number services. Cellular telephony also now includes systems that include Global Positioning System (GPS) navigation that utilizes satellite navigation. These devices thus unite cellular phone technology with navigation information, computer information transmission and receipt of data.

(Para 3) Digital Smart Message Service (SMS) and TCP/IP messages can be transmitted using cellular technology such as various versions of GSM and CDMA or via a WiFi local area

network. One implementation of these GPS location reporting cellular systems is for the data to go to a remote central site where the information is displayed for a person to monitor the locations of the cellular units that have the combined cellular GPS phone. Another implementation permits the cellular phone users to also view the location of other GPS equipped units. A drawback of the current implementation is that these systems are either all on or all off. There is no way to selectively activate participants or to stop the participants from participating in the network or for participants to set their reporting intervals that is based on time or distance traveled. The use of the current combined cellular phone/PDA technology has drawbacks when calling. When an operator makes a cellular phone call using the PDA to display a map (that also may depict geo-referenced businesses, homes and other facilities' locations and phone numbers), the cellular phone/PDA operator is required to display the numeric phone number by touching the display screen at the correct location of that entity on the map, memorize the numeric phone number, and select a different display to physically enter the phone number to make the call and then, if desired, go back to the map display. Needless to say, this is a cumbersome process. Sending a text message or an email to a location, business, home or facility that appears on a PDA map display or to another cellular phone can also be a cumbersome process as the PDA operator has to find the phone number or email address of the location on the map display, memorize the phone number or email address, then go to a different display to enter a text message, enter the text message, send the text message and then shift back to the map display program. Furthermore, for a phone to send data concerning a new entity of interest, not currently on the geo-referenced map display (car, person, tank, accident, or other entity), the operator must type in the information and the latitude and longitude of the new entity of interest.

(Para 4) U.S. Patent Application No. 2003/0139150 published July 24, 2003 shows a portable navigation and communication system. In one embodiment, the system combines within a single enclosure a GPS satellite positioning unit, mobile telephony using cellular phone technology and personal computing capable of wired or wireless internet or intranet access using a standard operating system. The purpose of this invention is to provide portable navigation for an individual. However, to operate the device, one still needs to utilize a keypad with the telephone functions. U.S. Patent Application No. 2003/0139150 described a wireless communication system operating the PDA in a conventional manner.

There is no provision for displaying the location of other similarly equipped systems. There is no provision to cause other similarly equipped cellular phone/PDA users to transmit their locations. There is no provision for entering other entities of interest by touching the display screen at their locations on a map. There is no provision for making a telephone call by touching the display screen at a net participant's symbol or entered facility (police station, fire station, etc.) symbol to initiate automatically the telephone call to that user or by touching multiple symbols to make conference calls. There is no provision for sending text messages, photographs or videos by touching the net participant(s)' symbol(s) on the display screen to automatically send text messages, photographs or videos to that participant or participants. There is no provision to go to a facility's web site or to automatically fill in a facility's E-mail address. There is no description or disclosure of a procedure to cause digital messages to be sent to a remote cellular phone that would cause the cellular phone to make verbal announcements, increase sound intensity, vibrate or to call back or to call another phone number. There is no description of the uses of layered soft switches which confine the switches to a particular vicinity of the PDA's display screen.

SUMMARY OF THE INVENTION

(Para 5) A plurality of cellular phone/WiFi/PDA/GPS devices each having application software and databases to provide a communication network having: a) the ability to selectively poll each of the other PDA/GPS phone devices with each participant to start reporting its position and status information directly to all or selected users equipped with the same cellular phone/PDA communication/GPS devices in the communications net so that each of the devices that the data is transmitted to is provided a display of the location, status and other information of the other users; b) the ability of each of the cellular phone/PDA devices to report to another device at an operator selected time rate or at a rate based on distance traveled; c) the ability to exchange other entities' of interest information and to assign these entities a category (car, person, tank, accident, or other event) by touching the display screen at the entity's location on the displayed map, and selecting the appropriate category switch; d) the ability to make rapid voice and data call initiation to any other participant in the cellular phone/WiFi net whose phone number is

available in a geo-referenced database including the cellular phone/PDA/GPS devices in a communications net by touching the display screen at the appropriate map location on the PDA map display and selecting a call switch; e) the ability to make rapid voice, and conference call initiation to locations, businesses, homes and facilities whose phone numbers are available in a geo-referenced database including the cellular phone/PDA/GPS devices in a communications net by touching the display screen at the appropriate other user locations on the PDA map display and selecting a conference call switch; f) the ability to access a facility's URL or to automatically fill in their E-mail address; g) the ability to remotely control from one cellular phone/PDA/GPS any of the other cellular phone/PDA/GPS systems phones including the ability to control remote cellular phones to make verbal prerecorded announcements, place return calls, place calls to another phone number, vibrate, execute text to speech software, change sound intensity, remotely control software and functions resident on the remote phone and process and display information by touching the display screen at their location on the PDA display and selecting the appropriate switch; and g) the ability to layer a sufficient number of switches or buttons on the PDA display to perform the above functions without overlaying the map.

(Para 6) It is an object of this invention to provide an improved cellular telephone communication network among a plurality of cellular phones for greatly decreasing the operator actions necessary to establish calling and conferencing between each of the cellular phones.

(Para 7) And yet another object of this invention is to enable each participant to automatically exchange IP addresses using SMS or another digital message format.

(Para 8) And yet another object of this invention is to enable each participant in the communications net to poll the other net participants to report or cease reporting their locations, identity and status on the communication net.

(Para 9) And yet another object of this invention is to enable each participant in the communications net to be able to easily transmit an entity of interest to the other participants of the net by touching the display screen at the entity's location on the map and causing a symbol to be generated on the screen and entered and then entering the entity's category information.

(Para 10) And yet another object of this invention is to provide for initiating a cellular phone telephone call to another phone by touching the other phone's symbol on the screen of the cellular phone, which automatically activates the telephone call.

(Para 11) And yet another object of this invention is to provide a cellular phone network that provides for instant voice conference calling and the exchange of free text, preformatted messages, photographs and video among a plurality of cellular phones by touching the display screen of specific geo-referenced map symbols for initiating the calls.

(Para 12) And yet another object of this invention is to provide a cellular phone network that provides for instant conference voice, text, photographs and video exchange by pre-establishing conferencing sub-nets and the subsequent activation of one of those sub-nets to establish a conference call.

(Para 13) But yet still another object of the invention is to provide for a communication system that uses cellular telephone network that allows for photographs and video clips to be transferred ("pushed") between and among the cellular phone users across multiple cellular carriers, between smart phone and PCs.

(Para 14) In accordance with these and other objects which will become apparent hereinafter, the instant invention will now be described with particular reference to the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

(Para 15) Figure 1 shows a front plan view of a cellular phone/PDA having a touch screen display in accordance with the present invention.

(Para 16) Figure 2 shows a front plan view of the cellular phone/PDA of Figure 1 with a different touch screen display.

(Para 17) Figure 3 shows a flow chart of the operation of the present invention.

(Para 18) Figure 4 shows a schematic diagram depicting GPS satellites, a plurality of cellular phone/PDA units, the cellular phone company, the internet and the command server that allows automatic shifting between high speed cellular internet communications and voice communications.

(Para 19) Figure 5 shows a process flow diagram of the transfer protocol in accordance with the present invention.

(Para 20) Figure 6 shows a flow diagram for automatic shifting between voice and high speed cellular internet communications.

PREFERRED EMBODIMENT OF THE INVENTION

(Para 21) Referring now to the drawings and, in particular, Figure 1, the present invention is shown generally at 10 that includes a small handheld cellular phone that includes a personal digital assistant (PDA) and a global positioning system receiver (GPS) communications device in housing 12 that includes an on/off power switch 19, a microphone 38, and an LCD display 16 that is also a touch screen system. The small area 16a is the navigation bar that depicts the telephone, GPS and other status data and the active software. AGIS software refers to the application software used in this invention. AGIS is a trademark of AGIS Corporation. Each cell phone includes a CPU and databases that store information useful in the communication network. The CPU also includes a symbol generator for creating touch screen display symbols discussed herein. With the touch screen 16, the screen symbols are entered through GPS inputs or by the operator using a stylus 14 (or operator finger) by manipulatively directing the stylus 14 to literally touch display 16. The soft switches 16d displayed on the display 16 are likewise activated by using a stylus 14 and physically and manipulatively directing the stylus to literally touch display 16. The display x, y coordinates of the touched point are known by a CPU in the PDA section of the communication system in housing 12 that can coordinate various information contained in the PDA portion relative to the x, y coordinate position on the display 16. Inside housing 12 is contained the conventional cellular phone elements including a modem, a CPU for use with a PDA and associated circuitry connected to speaker 24 and microphone 38. A GPS navigational receiver that receives signals from satellites that can determine the latitude and longitude of the cellular phone housing 12 can be internal or external to the housing 12. PDA / cellular phone units such as these are currently on sale and sold as a complete unit (or with an external connected GPS) that can be used for cellular telephone calls and sending cellular SMS and TCP/IP or other messages using the PDA's display 16 and computer (CPU). The GPS system including a receiver in housing 12 is capable of determining the latitude and longitude and through SMS, TCP/IP, WiFi or other digital messaging software, to also transmit this latitude and longitude information of housing 12 to other cellular phones in the

communication network via cellular communications, WiFi or radio. The device 10 includes a pair of cellular phone hardware activating buttons 20 to turn the cellular phone on and 22 to turn the cellular phone off. Navigation pad actuator 18 is similar to a joy or force stick in that the actuator 18 manually provides movement commands that can be used by the PDA's software to move a cursor on display 16. Switches 26 and 28 are designed to quickly select an operator specified software program. Speaker 24 and microphone 38 are used for audio messages. Switch 19 at the top left of device 10 is the power on and power off switch for the entire device.

(Para 22) The heart of the invention lies in the AGIS software applications provided in the device. Mounted within housing 12 as part of the PDA is the display 16 and the CPU. The internal CPU includes databases that provide for a geographical map and georeferenced entities that is shown as display portion 16b that includes as part of the display various areas of interest in the particular local map section.

(Para 23) When looking at display 16, the software switches (soft switches) which appear at the very bottom of the display 16d are used to control by touch many of the software driven functions of the cellular phone and PDA. The software drawn and controlled switches are activated through the operator's use of the navigation pad 18, or a small track ball, force stick or similar hardware display cursor pointing device. Alternatively, the operator may choose to activate the software switch matrix by touching the screen with a stylus 14 (or finger) at the switches' 16d locations. When some of the software switches are activated, different software switches appear. The bar display 16d shows the software switches "ZM IN (zoom in)," "ZM OT (zoom out)," "CENT (center)" and "GRAB (pan/grab)" at the bottom of the screen. These software switches are for the operator to perform these functions. The "SWITH (switch)" software switch at the lower right causes a matrix of layered software switches (soft switches) to appear above the bottom row of switches. Through use of the software switches, the operator can also manipulate the geographical map 16b or chart display. When looking at Figure 1, permanent geographical locations and buildings are shown. For example, the police station is shown and when the symbol is touched by the stylus or finger, the latitude and longitude of the symbol's location, as shown in display section 16c, is displayed at the bottom left of the screen. The bottom right side of display 16c is a multifunction inset area that can contain a variety of information including: a) a list of the communication link participants; b) a list of received messages; c) a map, aerial photograph

or satellite image with an indication of the zoom and off set location of the main map display, which is indicated by a square that depicts the area actually displayed in the main geographical screen 16b; d) applicable status information; and e) a list of the communication net participants. Each participant user would have a device 10 shown in Figure 1.

(Para 24) Also shown on the display screen 16, specifically the geographical display 16b, is a pair of different looking symbols 30 and 34, a small triangle and a small square, which are not labeled. These symbols 30 and 34 can represent communication net participants having cellular phones in the displayed geographical area that are part of the overall cellular phone communications net having the same device 10 used in this invention. The latitude and longitude of symbol 30 is associated within a database along with a specific phone number and, if available, its IP address and email address. The screen display 16b, which is a touch screen, provides x and y coordinates of the screen 16b to the CPU's software from a map in a geographical database. The software has an algorithm that relates the x and y coordinates to latitude and longitude and can access a communications net participant's symbol or a fixed or movable entity's symbol as being the one closest to that point.

(Para 25) For describing the network, the operator's phone is cellular phone "one." In order to initiate a telephone call to the cellular phone user (communication net participant) represented by symbol (triangle) 30 at a specific latitude and longitude display on chart 16b, the operator touches the triangle 30 symbol with the stylus 14. The operator then touches a "call" software switch from a matrix of displayed soft switches that would overlay the display area 16c. Immediately, the cellular phone will initiate a cellular telephone call to the cellular phone user at the geographical location shown that represents symbol 30. A second cellular phone user (communication net participant) is represented by symbol 34 which is a small square (but could be any shape or icon) to represent an individual cellular phone device in the display area. The ring 32 around symbol 30 indicates that the symbol 30 has been touched and that a telephone call can be initiated by touching the soft switch that says "call." When this is done, the telephone call is initiated. Other types of symbolic elements on the display 16 can indicate that a cellular phone call is in effect. Additionally, the operator can touch both symbol 34 and symbol 30 and can activate a conference call between the two cellular phones and users represented by symbols 30 and 34. Again, a symbolic ring around symbol 34 indicates that a call has been initiated.

(Para 26) Equally important, the operator of cellular phone "one" can call the police station or any other specific geographical facility displayed on the map, including: (buildings, locations of people, vehicles, facilities, restaurants, etc., (whose cellular phone numbers and, if available, E-mail addresses, IP addresses and their URLs were previously stored in the database) by touching a specific facility location on the map display using the stylus 14 and then touching the cellular phone call switch. As an example, the operator can touch and point to call a restaurant using a soft switch by touching the restaurant location with his stylus and then touching the call soft switch. The cellular phone will then call the restaurant. Thus, using the present invention, each participant can touch and point to call to one or more other net participants symbolically displayed on the map each of whom have a device as shown in Figure 1 and can also point to call facilities that had been previously stored in the phone's database. Furthermore, this symbol hooking and soft switch technique can be used to go to a fixed facility's website or to automatically enter the fixed facility's E–mail address in an e-mail.

(Para 27) Each cellular phone/PDA/GPS user device is identified on the map display of the other participant user phone devices by a display symbol that is generated on each user phone display to indicate each user's identity. Each symbol is placed at the correct geographical location on the user display and is correlated with the map on the display. The operator of each cellular phone/PDA/GPS device may also enter one or more other fixed entities (buildings, facilities, restaurants, police stations, etc. and geo-referenced events such as fires, accidents, etc.) into its database. This information can be likewise transmitted to all the other participants on the communications net. The map, fixed entities, events and cellular phone/PDA/GPS device communication net participants' latitude and longitude information is related to the "x" and "y" location on the touch screen display map by a mathematical correlation algorithm.

(Para 28) When the cellular phone/PDA/GPS device user uses a stylus or finger to touch one or more of the symbols or a location displayed on the cellular phone map display, the system's software causes the status and latitude and longitude information concerning that symbol or location to be displayed. In order to hook a symbol or "track" such as another net participant which represents an entity on the geo-referenced map display, or a fixed geographical entity such as a restaurant, police station or a new entity observed by a cell phone user which is discussed below, the operator points at or near the location of a geo-

referenced symbol appearing on the cellular phone/PDA display that represents a specific track or specific participant or other entity. The hook application software determines that the stylus is pointed close to or at the location of the symbol and puts a circle, square or other indication around the symbol indicating that amplification information concerning the track is to be displayed and indicating that additional data or change in data can be made to the indicated symbol. The hook application code then sends a message to the display application code to display the net participant, facility or entity's amplifying data. The display application code retrieves the primary data and amplification data concerning the track or entity from the database and displays the information at the correct screen location. The operator can then read the amplification data that relates to that specific symbol at the specific location. The cell phone operator can also select soft switches on the touch screen display to change the primary data and amplification data or to take actions which could include making cellular phone calls, conference calls, 800 number calls, sending a free text message, operator selected preformatted messages, photographs or videos to the hooked symbol or to drop the symbol.

(Para 29) Each known net participant has a cellular phone number, IP address and, if available, E-mail address that is stored in each participant's device database.

(Para 30) To use the present invention, the operator ("cellular phone one" or "phone one") starts the PDA/cellular phone device system by selecting the software which causes: a) the cellular phone to be activated (if it has not already been activated), b) the GPS interface receiver to be established, c) a map of the geographic area where the operator is located and operator's own unit symbol to appear at the correct latitude and longitude on the map on the display, d) the locations of fixed facilities such as restaurants, hotels, fire departments, police stations, and military barracks, that are part of the database to appear as symbols on the map, e) the device selected item read out area (which provides amplification information for the communications net participant or object that has been touched on the display screen) to appear on the display, f) an insert area that contains various data including: the list of net participants, a list of messages to be read, an indication of what portion of the map is being displayed in major area and other information to appear on the display, and g) a row of primary software created "soft switches" that are always present on the display to appear.

(Para 31) For point to call network units and fixed facilities, the application code detects the x, y display screen location of the symbol that is designated by the user's stylus and translates the x, y coordinates to latitude and longitude and then: (1) searches the database to find the symbol at that location, (2) places a "hook" indicator (a circle, square or other shape) around the symbol, (3) displays any amplifying data and (4) obtains the symbol's associated phone number (or for VoIP calls and IP address) from the database. Upon receiving a "call" designation from the soft switch, the operator's device application code causes the appropriate phone number or IP number to be called. Upon receiving an indication that the phone number is being called, the application code places a box around the symbol (color, dashed or the like). When the call is connected, the box changes to indicate that the connection is made. When the other party hangs up, the box disappears.

(Para 32) As each of the network units reports its identity, location and status to the other participants' devices, the received data is geo-referenced and filed in their databases that are accessible by identity and by location. This data is then displayed. When a request for data is received, a location search is made and an indication of the closest track to the x, y position of the stylus is sent back to the display screen and software application code which causes another shape to appear around the unit and the data associated with the unit to be accessed. When the application code receives a soft switch command to place a phone call, the software uses the phone number (or IP address) associated with the unit to place the call or to send data.

(Para 33) If a device receives a digital message that a call is being received, the receiving unit's application code places a box or similar object around the transmitter symbol indicating who the call is from. When the call is answered, the application software changes the visual characteristics of the box. In a similar manner, when a phone receives a digital text message, photograph or video, a box appears around the transmitter's symbol indicating the transmitter of the message. The point to call network devices are participants and each one has a similar device with the same software for use as a total participant network. Other situations for calling facilities that are not part of the network are described below.

(Para 34) Fixed facilities' symbols selectively appear on the user's geo-referenced map display. The facility data can be accessed by identity and by location and type of facility.

Device operators are provided the ability to call a facility (such as a restaurant, hotel, fire department, police station, military barracks, or other fixed entity) that appears on the map display. Each entity's phone numbers have been previously associated with that entity and stored in a facility database in the cell phone CPU that contains the identity, location and phone number of fixed entity locations that can be called. Data associated with the selected facility is obtained by the user using the stylus to touch at or near the facility map symbol's location. When a request for data is received by touching the stylus on a particular location, a location search is made and an indication of the closest facility to the x, y position is sent back to the display screen. The application code then causes a circle or other shape to appear around the facility symbol on the screen and its amplification data to appear. When the application code receives a soft switch (or hard switch) command to place a phone call, the software uses the phone number of the facility that was accessed to place the call to the facility. Thus, by using the stylus, the operator can touch a desired location on the screen such as "restaurant" and then use a soft or hard switch to initiate a telephone call directly to the restaurant without having to go to another type of display or without dialing the number.

(Para 35) The system shown in Figure 1 can also initiate a telephone conference call for a small number of phones using stylus 14 contact to touch all the displayed symbols on display 16 that the initiator desires to conference and then selecting the "conference call" soft switch. The operator can also pre-establish a conference sub-net of selected participants that the operator desires to be able to rapidly call. The operator performs this task by touching the symbols or by selecting participants from a list or a matrix of the participant addresses and assigning the participants to a net software switch. When the operator desires to place a conference call to these participants, the operator simply touches the net soft switch associated with this group. Software is provided in the unit that mimics setting up a normal small conference call from "phone one" to each of the cellular phones or fixed facility phones the user had indicated by touching their symbols or selecting their sub-net soft switch on the screen. Once the first call is complete, the party will be automatically put on hold and other callers will be called or answered in sequence and put on hold until all the parties are on line at which time the conference call will be established. As each participant is called, the phone will, optionally, announce that a conference call requested by cellular phone "one" is in progress. This will all be done by the application software.

(Para 36) If a conference call is desired that includes more than a small number of phone users, the use of an 800 number conferencing service is required. The initiator or operator of cellular phone "one" would select the "conference 800" call software switch and then use the stylus or finger to touch the cellular phone users' symbols or select the net of the units to whom the calls are to be placed. For example, 50 users are desired on a conference call. The cellular phone "one" would send out a SMS, internet or WiFi message to all of the identified cellular phones that cell "one" requests each cellular phone participant to call an 800 number (the given number for a conference call) to conference with cellular phone "one". Each individual cellular phone user at that point in time would then be verbally notified that a conference call was requested. Automatically, or when the user selected the "accept" software switch, the phone would then call the 800 number and enter its conference participant code.

(Para 37) Thus, the operator device is capable of initiating a cellular phone call by touch only, and initiating conference calls by touching the geo-referenced map symbols. Furthermore, using a similar symbol touching technique cellular phone "one's" application code can send operator selected messages to cause a remote cellular phone to display and optionally announce emergency and other messages and to optionally elicit a response from the remote cellular phone.

(Para 38) The present cell phone/PDA/GPS device to create the communication network wherein all of the participants have the same communication device described herein also includes the ability of a specific operator device to provide polling in which other cellular phones using SMS, internet or WiFi report periodically based on criteria such as time, speed, distance traveled, or a combination of a time, speed and distance traveled. The operator can manually poll any or all of the cell phone devices that are used by all of the participants in the communication network having the same device as described herein for the invention. The receiving cellular phone application code responds to the polling device with the receiving cellular phone's location and status which could include battery level, GPS status, signal strength and entered track data. Optionally, the phone operators can set their phones to report automatically, based on time or distance traveled intervals or another criteria.

(Para 39) The application software includes an application for designating geo-referenced symbols by "hooking" them. The application software determines that the stylus is

pointed close to or at the location of the symbol and puts a circle or other indication around the symbol indicating that amplification information concerning the hooked track is to be displayed and indicating that additional primary data and amplifying data is displayed. This indicates to the operator that a change in the data can be made to the indicated symbol. The operator can read the primary and amplification data. The operator can then select soft switches to change the primary data and amplification data or to take other actions that may include making cellular phone calls, conference calls, 800 number calls, sending a free text message or preformatted message, sending photographs or video to the hook symbol, going to the symbol's web site, automatically filling in the symbol's E-mail address in an E-mail or dropping the symbol. In operation, the application code detects the screen location of the touched point and determines if the distance from the touched point to the nearest symbol is indicative that the operator wants to "hook" the track. If the distance meets the preset constraints, the software places a "hook" indicator such as circle or square or other shape around the symbol and searches the database to find the information associated with the symbol. As each of the participants' network units or devices reports its identity, location and status, the data is filed into a database in the operator's device that is accessible by symbol location and identity.

(Para 40) With respect to hooking a fixed facility such as a restaurant, hotel, fire department, police station, military barrack, or other fixed entity, a database is created as part of the map creation process (or entered by the operator) that is used for the display screen. Optionally, the fixed facility database is contained in an on-line server. The database contains the identity, location, phone number and, if available, the E-mail, IP and URL address of the fixed locations. When a request for data from the operator is received by touching the display screen with the stylus, a location search is made and an indication of the closest facility of the indicated type to the x, y position is sent back to the display screen application code. The application code can then use the data to place a call, to send an E-mail, or to access data from the facility's website.

(Para 41) Another important feature using the present device allows an operator to enter on the cell phone device's geo-referenced map, a new entity or event that can include an observed object, person fire, accident or other event occurring now at a specific geographical location. The observed entity could be an event such as a fire or an explosion that requires notification to other participants. To enter the new entity (new track), the

operator points and touches the appropriate location on his cellular phone/PDA's display's geo-reference map with the stylus. The operator then selects a soft switch that indicates the type of observed entity or event indicating, as an example, that the new event is a tank or a fire which causes the symbol to appear on the map representing the tank or fire. The computer application software computes the latitude and longitude of the entity and transmits the newly added symbol and its location to the other participants on the cellular phone, WiFi or by other communication device. Each participant in the communication network who has the cellular phone device, in accordance with the invention, receives the transmission message that identifies the type of new entity or track with a symbol and the current latitude and longitude of the new entity (symbol) and displays the symbol at the correct location. Furthermore, if it is desired to amplify the symbol with text or a photograph or video, the operator can enter the text, take a photograph or video of the object and attach it to the appropriate symbol. When transmitted, that data appears when the receiving cellular phone(s) and the operator(s) hook(s) the symbol. To accomplish this, the receiving phone(s) application code store(s) the track (new entity) symbol, its latitude and longitude and any amplification text, photographs or video in its database. The display application software accesses the new track from the database and converts the latitude and longitude to the display's proper x, y location and displays the track and symbol and amplification data.

(Para 42) Another important feature using the present device is that it can allow completely anonymous phone calling or digital communication where neither party knows the other party's phone number or name but where at least one party knows the other party's location. Calls are placed by hooking the symbol whose identifier (not necessarily the name or phone number) is known and selecting either the call, conference call, send free text, preformatted messages, photographs or video soft switch. The call or digital message is then sent to the server. Since the server receives each network identifier (its symbol's number) along with its dynamic IP address when they sign on, the server has the data necessary to send voice and digital data to that network participant. When the server receives a request to send voice or digital data to a symbol number and then an indication of the type of data to be sent VoIP for voice calls or conference calls, a digital message for free text, preformatted messages, photographs, or video, the server routes the VoIP or digital data to the net participant to whom it is addressed. Since both the transmitter and the

receiver of the communications send data to and receive the data from the server and not from the sender, neither party knows the phone number or name of the other party. This same implementation can be utilized with standard (non-VoIP) voice calls. This is accomplished through the use of telephony interface cards at the server which permit the server to route the call to the addressee.

(Para 43) Referring now to Figure 2, the same cellular phone/PDA 10 is shown with the soft switch matrix displayed at 16cc and 16dd. The cellular phone/PDA is capable of an alternative method of contacting the participants. As shown in Figure 2 and display 16cc, a plurality of squares is displayed having letters and numbers, each square of which indicates a different participant such as "A1SQD." Also, on the right hand side, top line is a switch option called "call." The bottom line 16dd shows ZM IN, ZM OUT, CENT, GRAB and SWIT. Using this alternative telephone method, the initiator can touch individual squares, each having a reference to a participant to initiate one call or a conference call with all of the parties. These can also be joined in a single NET 1 as shown. Subsequent phone calls with the particular designated parties or participants established with NET 1 can subsequently be initiated just by touching NET 1 with the stylus or with a finger. The displayed information can be layered with a plurality of 'NETS" on a next layer for contacting groups of participants in each NET. This is used in lieu of the screen symbols for conference calls.

(Para 44) Referring now to Figure 3, a flow chart is shown of the activities provided by the present invention and the methodology.

(Para 45) In addition, the operator of cellular phone "one" can address text messages, photographs and video for transmission to one or more net participants by either touching their symbols and selecting the appropriate soft switch or selecting the appropriate call net.

(Para 46) Another important feature of the present invention is that the operator of cellular phone "one" can, by touching a switch on the display, send a digital message to all the PDA/cellular phones in the communications net or to designated cellular phone(s), represented by their symbols on the geographic displays, an emergency or other preformatted message which may or may not require a response and may or may not cause a verbal announcement, cause the phone to vibrate or buzz, or cause another alert. When received, the software in the remote cellular phone causes the remote cellular phone to initiate an audio or another alert to the cellular phone user that there is an emergency (or another message) and may or may not indicate that he should call the initiator immediately.

This is accomplished by the message sent from cellular phone "one" to the software in the remote cellular phone(s).

(Para 47) In summary, the present invention provides for expeditious data exchange and cellular phone and WiFi calls to one or more users by merely touching the display screen location of a remote cellular phone user's symbol to initiate the call. The same pointing at geo-referenced symbols method is used to send free text, pre-formatted messages, photographs and video. Another method of establishing communications is to assign the participating user units to a net and then select the net to establish the call. Other features include conference calling by using a stylus or finger to sequentially hook symbols or select nets, to rapidly send emergency and other preformatted messages, and to cause remote phones to annunciate various pre-established messages, execute text to speech software, increase its volume level, vibrate, and show pre-entered photographs or videos. Furthermore, the cell phone/PDA operator can access fixed facilities' web sites or send them E-mail messages by using the same concept of hooking their geo-referenced map symbols and then using soft switches to automatically go to their web site or to automatically fill in their E-mail address in an e-mail.

(Para 48) Referring now to Figure 4, another embodiment of the invention permits automatic shifting between voice communications and high speed cellular internet communications across the communication network of cellular phone/PDA devices. In Figure 4, information flow associated with the communications cellular phone system of the present invention is shown. The satellites 40 provide global positioning system (GPS) signals to each of the cellular phones 42, 44, 46 and 48 distributed throughout the communication area. Each of the cellular phones 42, 44, 46 and 48 automatically transmit each location data over the internet communications 52 that is provided by the cellular phone company 50. The data is sent to the command communication website server 54 which subsequently retransmits the data to all other common communication units or if specifically addressed data is received to the addressed specific communication unit such as cellular phones 42, 44, 46 and 48. If one of the cellular phone units, such as cellular phone 42 operator makes a voice call or is called, the system cellular phone automatically drops out of high speed data communications and goes to a slower Short Message Standard (SMS) communications mode which can be used simultaneously with voice communications. When this occurs, the other communication units 44, 46 and 48 detect the fact and transmit data to the

communication unit that is in SMS using the SMS technology. When the voice communication is ended at cellular phone 42, then the cell phone again begins transmitting over the internet. The other cellular phones 44, 46 and 48 detect this fact and stop transmitting to it in SMS mode. Thus, automatic shifting from GPRS/EDGE/CDMA/1XEVDO/ to SMS occurs when the voice communication phone is in use and automatic shifting back to GPRS/EDGE/CDMA/1XEVDO occurs upon completion of the voice communication call. Another method for shifting between high speed and internet is as follows: If one of the cellular phone units, such as cellular phone 42 operator makes a voice call or is called, the system cellular phone automatically drops out of high speed data communications and goes to a SMS communications mode which can be used simultaneously with voice communications. However, instead of sending the SMS messages to the other participants, the phone transmits its data in SMS to the Server which then retransmits the data in GPRS/Edge/1XEVDO or WiFi to all the other participants. Location, status and text data from the other participants is then retransmitted by the Server to the phone in SMS. Photographs and Video Clip data is held by the Server for retransmission to the phone in SMS until the phone call is completed and the phone has returned to high speed GPRS/1XEVDO. When the phone call is completed, the phone returns to GPRS/EDGE/1XEVDO and that fact is detected by the Server which then reverts to high speed GPRS/EDGE/1XEVDO communications with the phone.

(Para 49) Referring now to Figure 5, which depicts a process flow diagram of the present invention transfer protocol that allows photographs and video transfer across multiple cellular carriers between smart phones and personal computers (PCs). In contrast to existing multimedia services offered by cellular carriers, the present invention functions across different cellular carriers including carriers using CDMA, GSM and WiFi. The primary key to the invention lies in the command Server which includes a collection of software applications and publicly visible IP addresses that can be accessed by internet capable mobile devices.

(Para 50) Specifically, the present invention transfer is comprised of several key concepts which include the use of a globally accessible Server to facilitate the transfer of photographs and video clips. The specification of a protocol uses distinct control and data ports that are capable of supporting multiple simultaneous transfers. This protocol can be implemented on a variety of intelligent phones and personal computers. As shown in Figure 5, the hand set is

sending to the command Server that listens for connect port 81. The data is sent in one K-blocks (which can be throttled if needed) and then closes the socket to indicate EOF. At the Server, available status is made on port 80 with notification via UL. User picks download in UL. The Server sends out the new command center file available message with available status on port 80. The hand set that is receiving provides notification back to the Server via UL and the user picks download in UL. The hand set receiving then connects to port 81. Once the hand set receiving is prepared, the data is sent in one K-blocks from the Server to the hand set receiving which is closed out to indicate EOF.

(Para 51) By the use of this protocol shown in Figure 5, photographs, video clips, and video can be transferred between cell phones operated by different cell phone vendors in either CDMA, GSM or a combination of the two.

(Para 52) Referring now to Figure 6, a flow chart shows how the device operator can switch between voice and SMS and high speed internet data transfer. As shown in Figure 6, the operator turns the cellular phone on and selects the application software. The application software puts the telephone in a digital data transfer mode. The software operates exchanging position, tracks, text, photographs and video clips. The operator then decides to make a voice telephone call either by hooking a participant unit cellular phones' symbol or a fixed facility symbol and selecting the voice call, conference call, or 800 call soft switch. The application software then puts the phone in voice and SMS mode for that voice call. When the voice transmission is finished, the operator hangs the telephone up. The application software detects the hang up and automatically shifts back to the digital data transfer mode.

(Para 53) The invention also allows an operator to assign text, photographs, or a video to a map symbol that is displayed on the navigation map display. When the operator enters text, takes a photograph or takes a video clip, the operator can then touch the map symbol with which the operator wants to associate the map symbol with the text, photograph or video clip. A soft switch is selected to associate the text, photograph or video. The symbol to which the text, photograph or video clips are assigned, can be moving or stationary. Subsequently, if any other users on the cellular phone network or the operator touches i.e. "hooks" the symbol, the text, photograph or video will be displayed. This is a very important feature in that instead of a participant looking at what would be a symbolic display of, for

example, an enemy tank, the sending and receiving participants are able to hook the symbol, view an actual photograph or video of the stationary or moving tank.

(Para 54) The touch screen display includes an activating switch that, when touched, causes a matrix of software driven layered switches (soft switches) to appear on the cellular phone/PDA display in place of the readout and insert areas. Some of these soft switches, when touched, cause the cell phone/PDA device's functions to occur. Other soft switches cause yet another layer of soft switches to appear, replacing those that were previously displayed. The operator is provided a visual display indicating the specific layer in use from the layers of switches, and is able to return to the previous layer or to cause the layered switches to disappear such that only the basic switches remain. The operator can also use the cell phone's hardware pointing device (navigation pad) to control the soft switches. By using these soft switches and hard switches that are part of the cellular phone, the operator can activate different maps, change map scales, select which fixed entities are desired to be displayed, display the information concerning the symbol the operator has touched, initiate phone voice calls, send messages (free text, preformatted messages, photographs and videos), enter symbols and information representative of other entities, view the locations and statuses of the other communications net participants, establish conference calls, and pre-establish conference sub-nets. The conference sub-nets, when activated, cause all the phone numbers that are specified to be conferenced for voice, text, preformatted messages, photograph and video communications, and transmit messages to remote phones which cause the remote phones to make calls, verbal announcements, vibrate, increase sound levels and other functions. The operator can also use the soft switches to cause the cell phone/PDA or if embodied in a cellular or WiFi enabled personal computer or tablet to automatically access "hooked" fixed facility web sites and to automatically addresses E-mails.

(Para 55) The soft switch application software causes a visual display of a matrix such as five across by six up (or other matrix) in which switch names are placed on the cellular PDA display. The soft switch application software knows the touch screen location of each of the switches in the matrix and the software routines that will be activated upon touching the switch.

(Para 56) The bottom row of soft switches displayed on the touch screen remains visually fixed. These switches concern the functions that are the most often used. One of the

switches causes a matrix of other soft switches to appear above the visually fixed soft switches. These switches are function soft switches, the activation of any one of which causes a different matrix of soft switches to appear, which are known as the action soft switches. When the action soft switches appear, the function soft switch which causes the action soft switches to appear as a label in the lower left (or some other standard location) indicating to the operator the types of actions the operator can take. When the operator selects an action soft switch, the appropriate application software to accomplish the action is activated.

(Para 57) Upon receiving a soft switch activation message, the software accesses the appropriate task execution software which accomplishes the required tasks including enter track data, enter track amplification data, send alpha/numeric messages, send photographs, send video, read messages, select map types, voice call, conference call, 800 call, set up selections, display actions, polling units, set up nets such as groups of users or locations, and drop track. By providing a matrix and layers of soft switches which are easily manipulated by a stylus, each cell phone device in the communication network is extremely efficient in accessing and coordinating the appropriate application program for the device to perform.

(Para 58) There are several ways that the network can be established including: A. POLLING - To initialize the communications net, the cellular phone "one" operator selects, from a list, the other users (or all of them), that the operator desires to be part of the communications net. The system then polls the selected phones to activate and become part of the communications net. The selected phones then transmit their GPS positions to all the other phones in the established net. Through interaction with one or more other software enabled cellular phones, symbols are generated on the operators' displays based on the participants' latitude and longitude that is exchanged between the cellular phones. The transmission of this information is based on an algorithm which considers time and/or movement or which is based upon a polling request. B. ALL REPORT – Another method is for each cell phone sets its own transmission times based on time or movement. When its initial message is received by the other participants they report their location and any tracks that they have entered. C. GROUP – IDENTIFIER BY TYPE – Another method is for each phone to have a group identification that is transmitted in its initial message which relates it to a particular group who are their own net, only those with that identifier (i.e. singles, coin

collectors, etc.) are permitted to join that net, and yet another method. D. FRIENDS AND FAMILY – Only those who are in an approved list maintained by the server or internal to each phone are permitted to join that network.

(Para 59) Each of the communication net symbols on the display represents a different cellular phone remote from cellular phone "one". Each of the cellular phones has the phone numbers of all the phones that it expects to exchange data with in its database. If additional phones desire to join the net, they transmit their designation and their phone number in their initial message so that they can be identified. The net can be set to either enable these phones to join the net or to be set to exclude them from the net. Each of the phones also has in its database the pre-established phone numbers and, if available, the E-mail addresses and URLs for the fixed locations buildings, facilities, military bases, and other desired locations that can be called or accessed in its database. The touch screen provided with the LCD display in the cellular phone includes x, y coordinates that are correlated with the geo-referenced map on the cellular phone display and the geographic location of the fixed sites and the cellular phones participants in the communications net. The operator of each cellular phone can enter an object of interest by touching the display screen at the object's location on the display screen map. The operator can then assign each object a category (car, person, tank, accident, or other category) and amplification data including: text, photographs and video. The latitude and longitude of each object along with its category and other information is then sent on the communications network. Because each of the receiving cellular phone/PDA devices has software that automatically converts the received data to the correct map location, the transmitted symbols appear at the correct location without operator intervention and their category information and amplification information is available by touching the symbol on the display screen.

(Para 60) Each cellular phone/PDA/GPS device contains the communications hardware, along with the circuitry and software, to initiate a voice telephone call or transmit data messages, photographs, or videos by an operator touching the display screen with a stylus or finger at the symbol location displayed on the screen of the desired cell phone net participant to be called and then selecting the: "call", "free text", "preformatted message", "photograph" or "video" software switch on the display touch screen. The call is then done automatically. Each of the fixed facilities can be called in a similar manner; however, since the fixed facilities' phones are not one of the participating phone devices, they do not have

the application code; thus "free text", "preformatted message", "photograph" or "video" type data can not be sent. The software will then cause the participant cellular phone to call or send the appropriate data to the specific phone number represented by the symbol on the screen. This action alleviates completely the steps of looking up a phone number and manually entering the phone number required or IP address to make a cellular phone call or a WiFi, VoIP call, or to send data. Each cell phone device can use software for VoIP calls. The database in the cellular phone/PDA devices includes the phone numbers of each the other network participant symbols and, if available, the E-mail and URL address of each fixed facility on the map. The fixed facility E-mail and URL address enable the operator to go to the fixed facilities' web sites or to automatically fill in their E-mail addresses by hooking the fixed site's symbol and selecting the appropriate soft switch.

(Para 61) Using the application software on a cellular phone/PDA device in accordance with the present invention, permits the cellular phone user to enter and transmit data such as text, preformatted messages, photographs or video clips associated with a symbol on the geo-referenced map display and to then transmit the data associated with the symbol to other net participants automatically or by hooking the symbol and selecting transmit. The touch screen symbol can be stationary or moving. When the receiving participant points at the symbol, the symbol is hooked. The associated data (text, preformatted message, photographs or video clips) that was entered by the participant and transmitted will appear on a portion or on the whole touch screen of the receiving participant's display. Thus, if the operator of a cell phone device were in a situation where the operator observed a moving target, such as a tank, that had a symbol representative of a target on the operator screen, the operator can enter the text data or preformatted message, a photograph of the actual tank that is being observed, or a video clip of the actual tank that is being observed, which can all be transmitted rapidly to a recipient participant involved in the entire situation. Thus, when the recipient participant hooks the symbol he can view the free text, preformatted message, photograph or video of the actual target that has been sent by the operator. In this case, the cell phone software program generates the moving symbol and stores the entered text message or has a selected preformatted message stored, or captures and stores the photographs or video clips using a video camera into memory, and associates the entered data with the symbol that was generated that represents the moving target and transmits the data to one or more participants of the net.

(Para 62) Another embodiment of the present invention provides for full transfer of photographs, video clips, and high speed data between any cellular phone vendors in either CDMA, GSM, WiFi or a combination of these. Thus, using the present invention, photographs and video can be transferred across multiple cellular carriers between smart phones and personal computers. This is accomplished by a command server which includes a collection of machines publicly visible IP addresses which can be accessed by internet capable mobile devices. With the present invention, there is the use of a globally accessible server to facilitate the transfer of photographs and video clips between each of the cellular phone users in the communication network. The method and communication network also includes the specification of a protocol that uses distinct control and data ports capable of supporting multiple simultaneous transfers. This protocol is implemented on a variety of intelligent phones and personal computers.

(Para 63) The software in the present communication device can provide to each user participating with the same software the ability to make voice calls and to send free text, operator selected messages, photographs, and video to all other user participants within a certain distance to be determined by the initiator of the call or data. The software enables the initiating user to indicate the farthest recipient within the geographical range to whom the initiating user wants to call, and to send free text, operator selected preformatted messages, photographs or video, by selecting an appropriate soft switch. The initiating user's device will then call or transmit the free text, operator selected preformatted message, photograph or video to the farthest participant in the selected range and all other participants that are closer. This is similar to the conference voice call discussed above but, in this particular software managed situation, all of the parties, from the farthest to the nearest, within that range can receive the same call, free text message, operator selected preformatted message, photograph and video. Again, this action is a tremendous time saver for the initiating user to get these types of messages to all of the participants within a given range. The operator "hooks" a track that is stationary or moving and selects a soft switch specifying that the operator desires to conference call all network participants or to send free text, operator selected preformatted message, photographs or video that are the same distance or closer than the range of the hooked track. The application software then searches the geo-referenced database (containing latitude and longitude or similar positional attribute) for all the network participants within the specified range. Upon finding

them, the application software: (1) sends a message to the cell phone to call or conference call the identified participant's network, (If the number of participants is greater than the number permitted by the phone's conferencing capability, the application software instructs the phone to make a call to an 800 number and cause all of the other phones to make a similar call and to automatically enter their participant code) or (2) sends a free text message, an operator selected preformatted message, a photograph or a video to all the participants within the specified range. The operator can use the same technique to call fixed facilities, but because the fixed facilities do not have the application software, the operator can not send text, preformatted messages, photographs or videos.

(Para 64) The present invention includes other features for a cellular telephone communications device that provides calling all other people on the communications network that have a specific attribute such as all of the squad leaders within a company or all the company commanders within a battalion. Also, the device will notify one or more of the users within a variable range when someone else using the software approaches and provides for automatic calling within a specified range of a particular user's cellular phone.

(Para 65) Another feature of the present communication system is to enable the cellular user to use a Smart Phone or a personal computer such as a desktop, a laptop computer or a tablet computer that is equipped with a CDMA, GSM cellular telephone or WiFi card, a global positioning system (GPS) receiver and a digital camera that can accomplish all of the communications that have been described in the application. Thus, the PDA software provided for this communication system is readily adaptable into a personal computer, laptop computer or tablet along with a digital camera and GPS once the cellular telephone or WiFi card is installed in the system. The present communication system is also capable, based on the software and hardware of the present invention, of using wireless communications (WiFi) in lieu of the cellular communications that have been described herein. The system can use an integrated wireless capability or a wireless card that allows transmission and receipt of wireless communications in accordance with any conventional wireless protocol.

(Para 66) Automatic Identification System (AIS) is a communication system that is used between ships for identifying the name, position, heading, and velocity of nearby ships. Each ship has its own display and receives constant signals from all the other ships within line of sight. The AIS constantly transmits updates of each ship's current location, course and

speed and other pertinent data within line of sight. The AIS reports are transmitted at a variable rate. With the software in the present communication system, a remote server receives, processes and correlates the AIS reports. The server then transmits the AIS ship locations to all the cellular/PDA phones (and PC/tablets) that are network participants. Each network participant is able to view the location of all of the other participants in the net and to also view the location of the AIS equipped ships on each participant's display. Furthermore, the AIS data content (ship name and other data) of the AIS reports are displayed when the AIS symbol is hooked on a participant's cell phone/PDA display. The server application code receives the AIS digital message, determines the type of AIS message and processes the data appropriately, storing the AIS data into a database organized by MMSI number or another unique AIS ship identification means. The AIS data is then retrieved from the database using one of several criteria including the: (a) time since last transmitted and (b) speed of the ship. The retrieved AIS data is then processed by a transmission routine which transforms the data into a format that is compatible with the cellular Internet transmission means or SMS or WiFi and outputs the data to net participant cellular phones/PDA (and PC/Tablets) at the correct latitude and longitude. The AIS cellular phone/PDA (and PC/Tablet) application software receives the server formatted AIS data and stores the data in a database. The data associated with each AIS track is then retrieved from the database by the cell phone device display software and transformed to the correct x, y display position to correspond to each track's latitude and longitude. When the track is hooked, the AIS amplification data, or a subset of it, is displayed to the user.

(Para 67) The software program contained in the cellular phone/PDA using the present invention can generate a display indication of a symbol's speed and heading. The speed and heading are indicated by a small line attached to the symbol. The line's direction indicates the symbol's heading and line's length indicates the symbol's speed. When the cell phone generated symbol's speed and heading are transmitted, the receiving participant's device also displays the speed and heading in the same manner. When the user notices that a track has moved from the location that the user first observed, the user can point by touch screen to the display location where the track has moved to on his cellular/PDA display. This new location data is then converted to the appropriate latitude and longitude. The velocity generation application code then computes the speed and heading, taking into account the time interval between the time the track's previous position

was entered and the time that the new location was entered. The velocity generation application code then passes the velocity (heading and speed) to the display generation code. When the display generation application code receives the speed and heading data from the velocity generation application code, the display generation code attaches a line to the symbol. The line's length indicates the track's speed and the line's direction indicates the track's heading.

(Para 68) The cell phone/PDA map display in accordance with the map software program provides a geophysical display using a geo-referenced map, chart, satellite image or aerial photograph of a given area or location. This map can be based upon and received from the worldwide databases that are maintained by the U.S. Government and others and loaded on to the cellular phone CPU database. The cell phone device application software, however, can also provide to a user the ability to request a specific geo-referenced map or chart, aerial photograph or satellite image from a remote image server by pointing at the specific location desired for the map, aerial photograph or satellite image and selecting the display range and selecting the request image soft switch. Activation of the request soft switch causes a message to be sent to the remote server that causes a geo-referenced chart, map, aerial photograph or satellite image to be sent to the requestor's cell phone/PDA device where the image is geo-referenced and displayed.

(Para 69) Another feature of the present communication system is to provide to each user's cell phone device geographic notification on the touch screen display of the location of the sender of a message to the user. With two or more of the cellular phone/PDA devices in the network, a message recipient can hear an audible voice alert, or beep or tone that alerts the participating recipient to an incoming message. The additional feature is that a different color box or circle will appear around the symbol on the geographic display that represents the participating sender of the incoming message. Thus, the participating recipient is immediately apprised of the specific location and, thus the importance, of the party who is calling or transmitting a message to the recipient. In the case of a battle or disaster scenario, it could be that the geographical display screen will shown an incoming message from someone who is right along the forward battle line or in an area of a recent disaster. This will tell the recipient to immediately read the message. The recipient can either select the read message soft switch and then select the message from the message list or hook the indicated symbol to display the message whether it is text, preformatted message,

photographs, or video. Thus, the internal software program in each cell phone device can alert the recipient that a message is being received and the location of the sender on the display by a color or other type of indicia surrounding the symbol that represents the message sender for rapid notification to the recipient of who is sending the message.

(Para 70) The present cell phone/PDA devices used in the communication network system can provide to each user the ability to cause a text, preformatted message, photograph, video clip and high speed data to be "pushed" to other participants' cell phones so that the data sent does not have to go to a website to pull off the photograph or video clips.

(Para 71) Another feature of the cell phone device used in the present communication system is to provide to each user the ability to go to a fixed faculty's web site (such as a restaurant) by hooking fixed site's symbol (and thus obtaining its URL) and selecting a soft switch that requests that specific web site. This same feature can be used to automatically address E-mails by hooking a fixed site's symbol (and thus obtaining their E-mail address) and selecting a soft switch that requests an E-mail form and automatically fills in the fixed site's E-mail address.

(Para 72) The software with the present communication system provides to each user the ability to cause an alert (verbal, vibrate, or text) to emanate from or appear on the user's display when another user is within a predetermined distance of the user and, furthermore, to be able to automatically call that individual by selecting the call soft switch.

(Para 73) The cellular phone/PDA device can provide the user with the ability to select a soft switch that causes the cell phone to call the geographically nearest member of a particular group of members such as the nearest police station, fire station, EMT unit, or other member that can include services such as plumbers or electricians. The software can be set up so that the cellular phone/PDA's software searches the database to find the nearest geographic police station or fire station, or whatever the selected group is, and would automatically make a cell phone call to that number. The GPS application software is constantly updating the database with the GPS location of the user which is then superimposed on the display map. Fixed facility locations of interest to the user are stored in a non-network facility location database along with their phone numbers and, if available, their email addresses and their URLs. These groups and member locations include types of facilities such as: restaurants, police stations, fire departments, gas stations, restaurants and military installations. When the operator selects to call the nearest facility location, the

position application software searches the non-network fixed facility database to determine the closest facility of the type that the operator has selected. When the nearest facility of interest is found, the position application software sends a message containing the nearest facility's phone number, (and if available URL and E-mail address) to the application software. When the application software receives the nearest location of interest, the software places a modifier around the symbol that is associated with the location of interest and places the call or if different soft switches have been selected goes to their web site or automatically addresses an E-mail.

(Para 74) The data link application software is constantly updating the database with information concerning the position, identity and status information of the network participants' devices in each cell phone CPU transmitting on the cellular, WiFi or SMS network. Tracks that are entered are being constantly repositioned as the tracks move. The database is constantly sending the cell phone device and track data to the display database so that the display can be updated with new device positions and track data received from the participants in the network. The position application software computes the range from the user to the other network participants and tracks "entities" received from the other net participants and creates an alert if the range is less than the range specified by the operator as the notification range. When the alert is created, the alert is sent to the display and voice announcement application code. When the display application code receives the alert, the code then posts a visual indication such as a modifier around or near the cell phone device or track that is within range. When the voice alert application code receives the alert, the code either accesses a prerecorded voice announcement or utilizes a speech to text software application to make a verbal announcement.

(Para 75) The instant invention has been shown and described herein in what is considered to be the most practical and preferred embodiment. It is recognized, however, that departures may be made there from within the scope of the invention and that obvious modifications will occur to a person skilled in the art.

What is claimed is:

(Claim 1) A method of expediting a cellular phone voice call over a cellular phone telephone network using a PDA cellular phone that includes a touch screen visual display for calling a fixed location including individually but not limited to a restaurant, police station, and fire station having a conventional telephone, displayed symbolically on a geographical map on said display, said fixed location having a telephone and said fixed location being displayed on said geographical map on the cell phone touch screen display comprising:

providing the PDA cellular phone with a database and application program for displaying a selected geographical area on a map or chart on the touch screen display that includes at least one fixed location at its latitude and longitude on said map or chart;

providing the cellular phone with a database containing the telephone number of said fixed location displayed on said geographical map or chart;

providing the cellular phone with an application program to initiate a voice call to said fixed location upon touching the touch screen at the equivalent latitude and longitude location of said fixed location;

retrieving the stored telephone number of said fixed location upon initiating said telephone call by touching said fixed location on said display;

executing a call switch to turn on said cellular phone internal software to begin calling said fixed location;

establishing a call in progress symbol on said display screen when said telephone call to said fixed location is in progress; and

establishing a second different symbol on said map display indicating that the telephone call to said fixed location has been established.

(Claim 2) A method as in claim 1,

providing a database in said cell phone PDA that includes the E-mail address of said fixed location;

addressing an E-mail of entered free text or a pre-selected message to said fixed location by touching the symbol of said fixed location on said map or chart displayed on said visual display; and

sending the E-mail by selecting the send or transmit switch.

(Claim 3) A method as in claim 1,

providing a database in said cell phone PDA that includes the web site address of said fixed location;

going to the web site of said fixed location by touching the symbol of said fixed location on said map or chart on a soft or hard switch that indicates to go to that symbol's web site.

(Claim 4) A method of expediting a cellular phone call to a fixed location as in claim 1 including the step of:

executing a conference call with said fixed location(s) telephone.

(Claim 5) A method of providing a cellular phone communication network for designated participating users, each having a similarly equipped PDA cellular phone that includes a CPU, a GPS navigational system and a touch screen display:

providing rapid voice call initiation and communication to the users of the cellular telephone PDA/GPS network system using a touch screen;

providing high speed internet rapid transmission of operator selected text messages, photographs and video to other cellular phone users using the touch screen;

providing a server for establishing high speed internet communications between said cellular phone network users and said server;

providing a network of cellular phone PDA devices for said users having the same operating software that permits either voice communication and low speed communications or high speed internet communications;

providing a remote server that can receive and transmit over the internet high speed internet communications or low speed communications to each of the users' cellular phones in the cellular phone network;

detecting when one cellular phone initiates or receives a voice call;

automatic shifting from high speed internet communications to voice communications and low speed data communications upon making or the receipt of a voice call;

transmitting data to the phone(s) during the voice transmission call using a slower, short message standard communication protocol (SMS); and

automatically restoring high speed internet communications between each of the cellular phones in the communication network after the completion of voice communications.

(Claim 6) A method of providing a cellular phone communication network for designated participating users, each having a similarly equipped PDA cellular phone that includes a CPU, a GPS navigational system and a touch screen display:

providing rapid voice call initiation and communication to the users of the cellular phone PDA/GPS network system using a touch screen;

providing high speed internet rapid transmission of operator selected text messages, photographs and video to other cellular phones using the touch screen;

providing a server for establishing high speed internet communications between said cellular phone network users and said server;

establishing at the server networks that can be accessed by the phones in different manners including:

providing all the phones with an identifier (i.e. singles, coin collectors, etc.) to independently report position and status information from one user to all of the other users with that identifier and equipped with cellular phone/PDA/GPS system and its associated software; and

providing all the phones within an approved list (at the phone or the server) to independently report position and status information from one user to all the other users in that list equipped with cellular phones/PDA/GPS system and its associated software.

(Claim 7) A method of providing a cellular phone communication network for designated participating users each having a PDA cellular phone that includes a CPU, GPS navigational system and touch screen:

providing rapid voice call initiation to the users of the cellular phone PDA/GPS network using the touch screen;

providing rapid transmission of photographs and video to another cellular phone using the touch screen; and

providing a server that allows for global access to facilitate the transfer of photographs and video clips between cellular phone users that functions across different cellular carriers.

(Claim 8) A communication system as in claim 1 capable of using CDMA, GSM or WiFi in operation; and

said cell phone PDA operating communication units in the network can also include: smart phones, personal computers (PC), laptop or tablet computers having a telephone.

(Claim 9) A method for providing a cellular phone communication network for designated participating users each having a similarly equipped PDA cellular phone that includes a CPU, GPS navigational system, a touch screen display and a server that can receive AIS data from ships equipped with Automatic Identification System (AIS) transponders and retransmit the data on a communications network comprising:

providing for the selective polling of position and status information from one user among all of the other users equipped with cellular phones/PDA/GPS system and its associated software;

providing rapid voice call initiation to the users of the cellular phone/PDA/GPS network system having said first communication protocol using a touch screen;

providing rapid transmission of free operator selected text messages, photographs, and video to another cellular phone having said first communication protocol using the touch screen;

providing a network server that can communicate with each of the cellular phone devices of the participants in a network having said first communication protocol, said server including processing and correlating AIS signals that are used between ships for identifying the position, heading and velocity of the ship and the name of the ship and other data; and

having the server transmit AIS ship locations to all participants' cellular phones network participants having said first communication protocol.

(Claim 10) A method as in claim 1, including:

providing a command server with a collection of names, telephone numbers and IP addresses that can be accessed by internet capable, mobile devices.

(Claim 11) A method of providing a PDA cellular phone communication network for designating participating users displayed symbolically on a geographical map, each user having a similarly equipped cellular phone that includes CPU, GPS navigational system symbol generator and a touch screen display comprising the steps of:

providing symbols on said display touch screen representing other participants having similar cellular phones forming a communication network;

selectively polling position and status information from one user among all of the other users equipped with the cellular phone/PDA/GPS system and its associated software and displaying the user's symbol on the map display at the correct location;

providing rapid voice call initiation to the users of the cellular phone/PDA/GPS navigational system using a touch screen and the users' symbols;

providing rapid transmission of free, operator selected text messages, photographs and video to another cellular phone using the touch screen; and

generating a display that indicates a selected symbol's velocity upon activation of a particular velocity switch.

(Claim 12) A communication system as in claim 11, including:

displaying the symbol's velocity as a line emanating from the symbol whose direction is representative of heading and whose length is representative of speed that is seen by the other participants in the communication network when the symbol's velocity is transmitted to them.

(Claim 13) A method for providing a cellular phone communication network for designated participating users, each having a similarly equipped cellular PDA phone that includes a CPU, a GPS navigational system, and a touch screen display comprising:

selectively polling position and status information from one user among all of the other users equipped with said cellular phones and its associated software; and

automatically reporting position and status to one or more other participant users' cell PDA phones in said communication network based on a predetermined condition.

(Claim 14) A method for providing a communication network for designated participating users as in claim 13, wherein:

the user has the ability to make voice conference calls and to send free text, operator selected messages, photographs, and video to all other network participants within a distance determined by the initiator of the voice call, free text, operator selected messages, photographs, and video.

(Claim 15) A method for providing a communication network for designated participating users as in claim 13, wherein:

said predetermined condition is automatically reporting at specific times and/or distances traveled by the reporting user.

(Claim 16) A method for providing a cellular phone communication network for designated participating users as in claim 13, wherein:

transmitting an alert automatically activated when one or more network cell phone participants, fixed facilities or entered tracks reach a minimum predetermined distance from another cellular phone user.

(Claim 17) A method for providing cellular phone communication network for designated participating users, each having a similarly equipped cellular phone that includes a CPU, a GPS navigational system, and a touch screen display comprising:

generating a map of a geographical display on each user's cell phone display screen;

selectively polling position and status information from one participating user between one or more of the other participant users equipped with similarly configured cellular phones and its associated software;

providing rapid voice call initiation from one participating cell phone user between and among the participating users of the cellular phone network system using a touch screen;

providing one or more symbols on said map displayed on touch screen representing other user participants, each user having a similar cell phone forming the communication network;

calling one or more participant users by touching the screen symbol representing another participant user on the touch screen and touching a call switch;

adding a new track symbol representing an object, person or event, fixed or mobile, to the geographical display by touching the geographical display at the location of the new track to be added;

assigning a category to the new track to be added on the geographical display screen, said category being an object, person or event;

selecting an appropriate category switch for identifying the new track selected; and

sending to one or more of the other participant users of the cellular telephone network information concerning the new track including the new track's location and category to the other participant users.

(Claim 18) A method for providing a cellular phone communication network for designated participating users, each user having a similarly equipped cellular phone that includes a CPU, GPS navigational system, an internet message transmitter and receiver and a touch screen display comprising:

providing a database in each cell phone that includes a geographical map of a predetermined area for user viewing on the touch screen display;

providing an application program in each cell phone for generating one or more symbols representative of one or more participating users, each of whom have a similarly equipped cellular phone;

providing a database in each cell phone that includes cellular telephone numbers of each of the participating users having similarly equipped cellular phones, said database including the generation of one or more symbols associated with a particular participating user;

calling a participating user by touching the symbol on the map display and touching a call switch;

providing each of the cell phones with an internet connection capability;

performing at least one or more of the following steps:

(1) exchanging automatically IP addresses using SMS or other digital message format between and among each of the participant users;

(2) pushing photographs or video clips between and among each of the cellular telephone participant users across multiple cellular carriers and between smart phone and PCs;

(3) providing each known participant user in each of said users' cellular phones, a cellular phone number, an IP address and an E-mail address in each of said participants' databases;

(4) adding an additional cell phone participant user having a similar cell phone configuration into the communication network of participating users by having the added cell phone participating user transmit designation and a cell phone number in an initial message to other participant users for identification;

(5) sending each participating user geographic notification of the location of the sender of a message;

(6) calling the nearest fixed location on the map display from the participant selected from a particular group including a police station, fire station, or EMT or other fixed location by one of the cellular phone network participants; and

(7) entering on a user's touch screen display a new track including generating a symbol for the new track and periodically sending data to the other participants relative to the new track so that each of the participating users' display is updated with new track's position periodically; and

(8) amplifying a moving new track symbol on a user's touch screen display with free text, preformatted messages, photographs or video and periodically sending data to the other participants relative to the new track so that each of the participating users' display is updated with said new track position and data periodically.

(Claim 19) A method of providing a cellular phone communication network for designated participating users, each having a similarly equipped PDA cellular phone that includes a CPU, a GPS navigational system and a touch screen display comprising:

providing rapid voice call initiation and communication to the users of the cellular telephone PDA/GPS network system using a touch screen;

providing high speed internet rapid transmission of operator selected text messages, photographs and video to other cellular phone users using the touch screen;

providing a server for establishing high speed internet communications between said cellular phone network users and said server; and

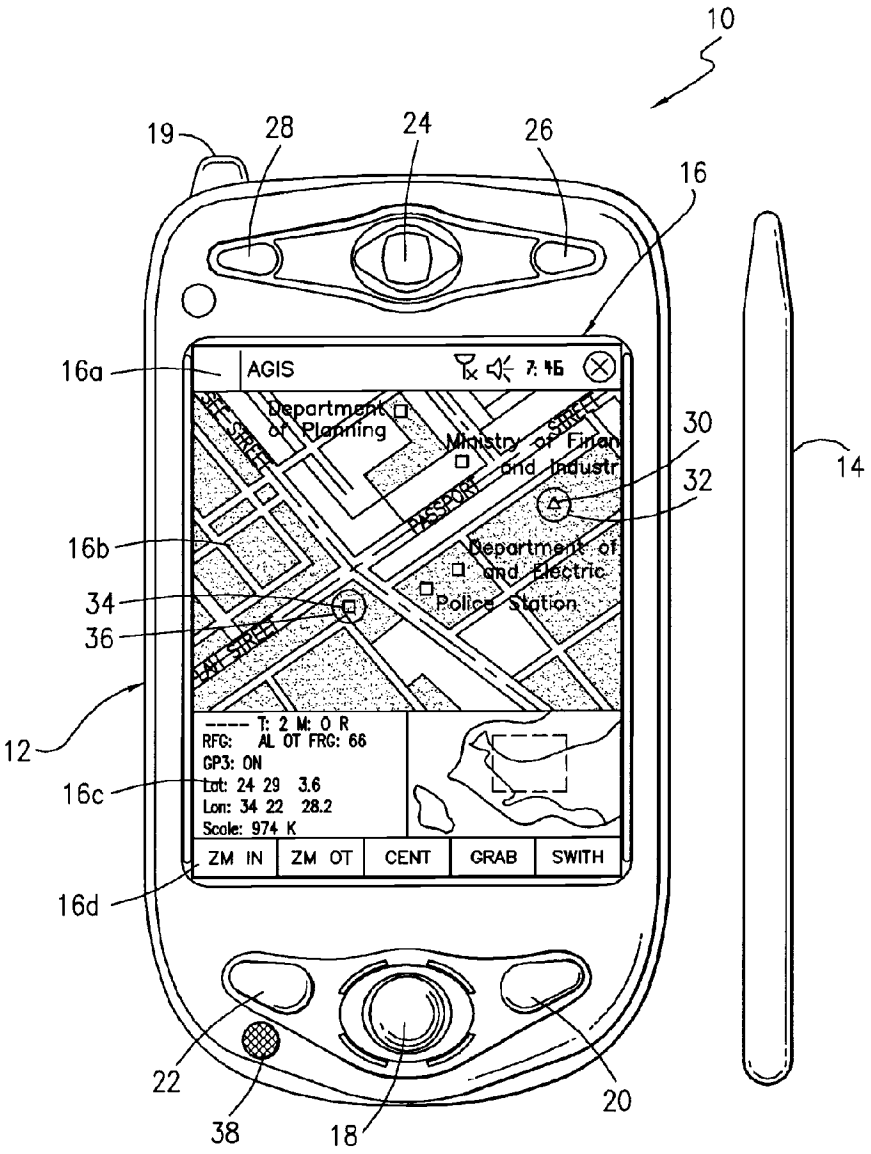
establishing at the server networks that can enable anonymous voice and data communications so that neither the originator of the phone call or data transmission nor the receiver of the phone call or data transmission need know the other's phone number, name or other identifier other than a symbol location on a map.

(Claim 20) A method of providing a cellular phone the ability to request geo-referenced maps, images or data concerning an area; and

providing the operator the ability to request geo-referenced data for an area by pointing at the center of the area for the requested information, then selecting a range scale and then taking an action to request the data from a server where the data is held.

ABSTRACT

A cellular, PDA communication device and communication system for allowing a plurality of cellular phone users to monitor each others' locations and status, to initiate cellular phone calls by touching a symbol on the touch screen display with a stylus which can also include point to call conferencing calling. Each participant's cellular phone PDA device includes GPS navigation receiver with application software for point to call cellular phone initiation to participants and geographical entities including vehicles, persons or events, conference calls and video transfers. The method and system also includes automatic shifting from GPRS/EDGE/CDMA/1XEVDO to SMS when any of the cellular phones in the communication network is in the voice mode and in use and for automatic shifting back to GPRS/EDGE/CDMA/1XEVDO upon completion of the voice phone call. In addition, using the system, a full transfer of photographs, video clips and high speed data can be used between any cellular phones regardless of who the cellular phone vendors or cellular phone companies are and in either CDMA, GSM, WiFi or a combination of the two.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GP3: ON
16c
Lat: 24 29 3.6
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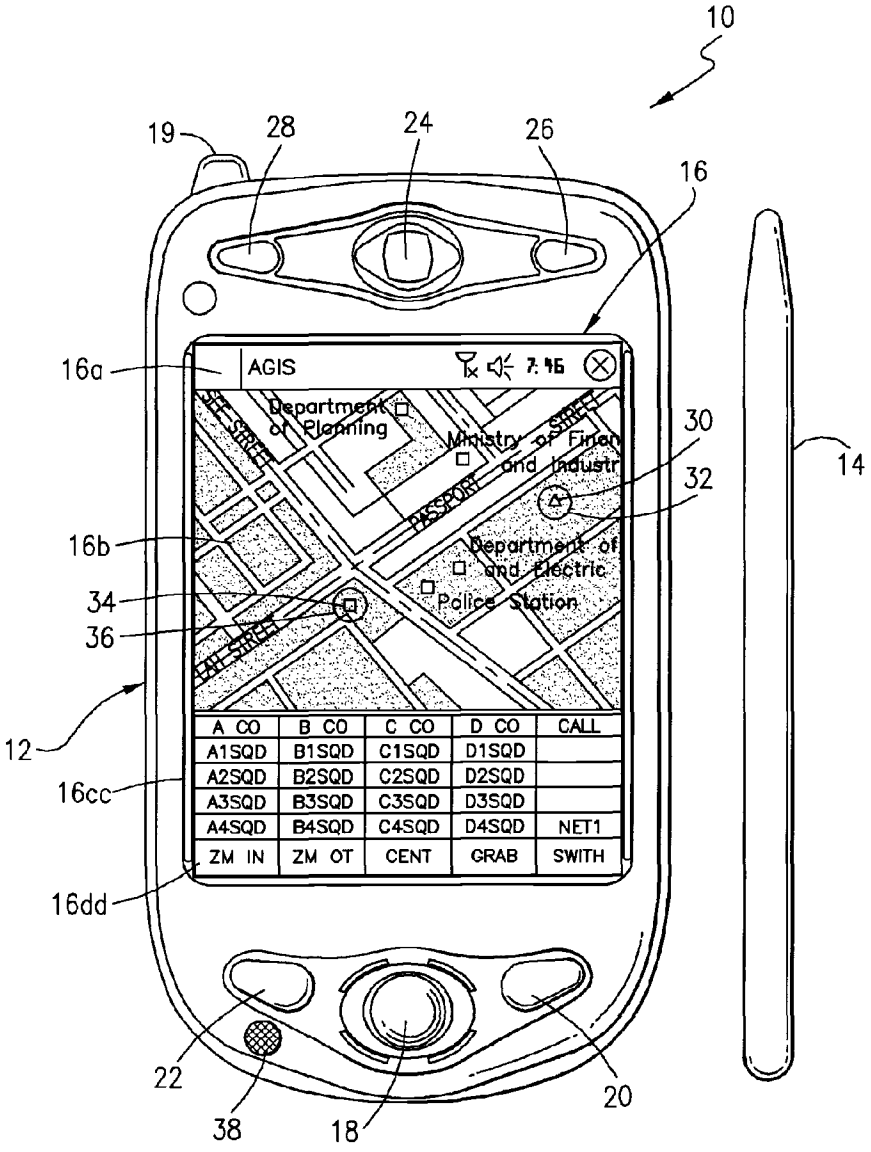
FIG. 1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D CO
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FIG. 2

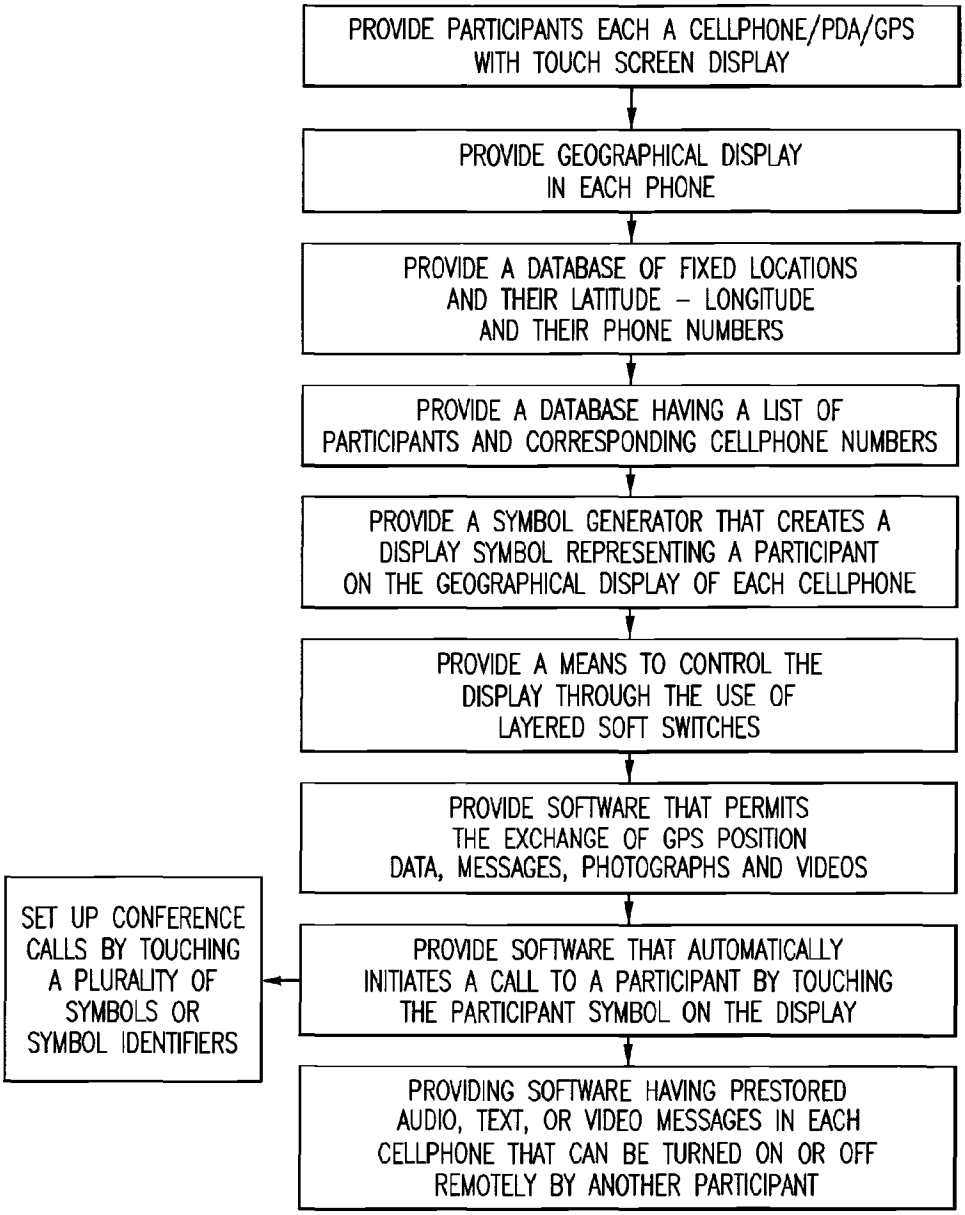
PROVIDE PARTICIPANTS EACH A CELLPHONE/PDA/GPS WITH TOUCH SCREEN DISPLAY
PROVIDE GEOGRAPHICAL DISPLAY IN EACH PHONE
PROVIDE A DATABASE OF FIXED LOCATIONS AND THEIR LATITUDE – LONGITUDE AND THEIR PHONE NUMBERS
PROVIDE A DATABASE HAVING A LIST OF PARTICIPANTS AND CORRESPONDING CELLPHONE NUMBERS
PROVIDE A SYMBOL GENERATOR THAT CREATES A DISPLAY SYMBOL REPRESENTING A PARTICIPANT ON THE GEOGRAPHICAL DISPLAY OF EACH CELLPHONE
PROVIDE A MEANS TO CONTROL THE DISPLAY THROUGH THE USE OF LAYERED SOFT SWITCHES
PROVIDE SOFTWARE THAT PERMITS THE EXCHANGE OF GPS POSITION DATA, MESSAGES, PHOTOGRAPHS AND VIDEOS
SET UP CONFERENCE CALLS BY TOUCHING A PLURALITY OF SYMBOLS OR SYMBOL IDENTIFIERS
PROVIDE SOFTWARE THAT AUTOMATICALLY INITIATES A CALL TO A PARTICIPANT BY TOUCHING THE PARTICIPANT SYMBOL ON THE DISPLAY
PROVIDING SOFTWARE HAVING PRESTORED AUDIO, TEXT, OR VIDEO MESSAGES IN EACH CELLPHONE THAT CAN BE TURNED ON OR OFF REMOTELY BY ANOTHER PARTICIPANT

FIG. 3

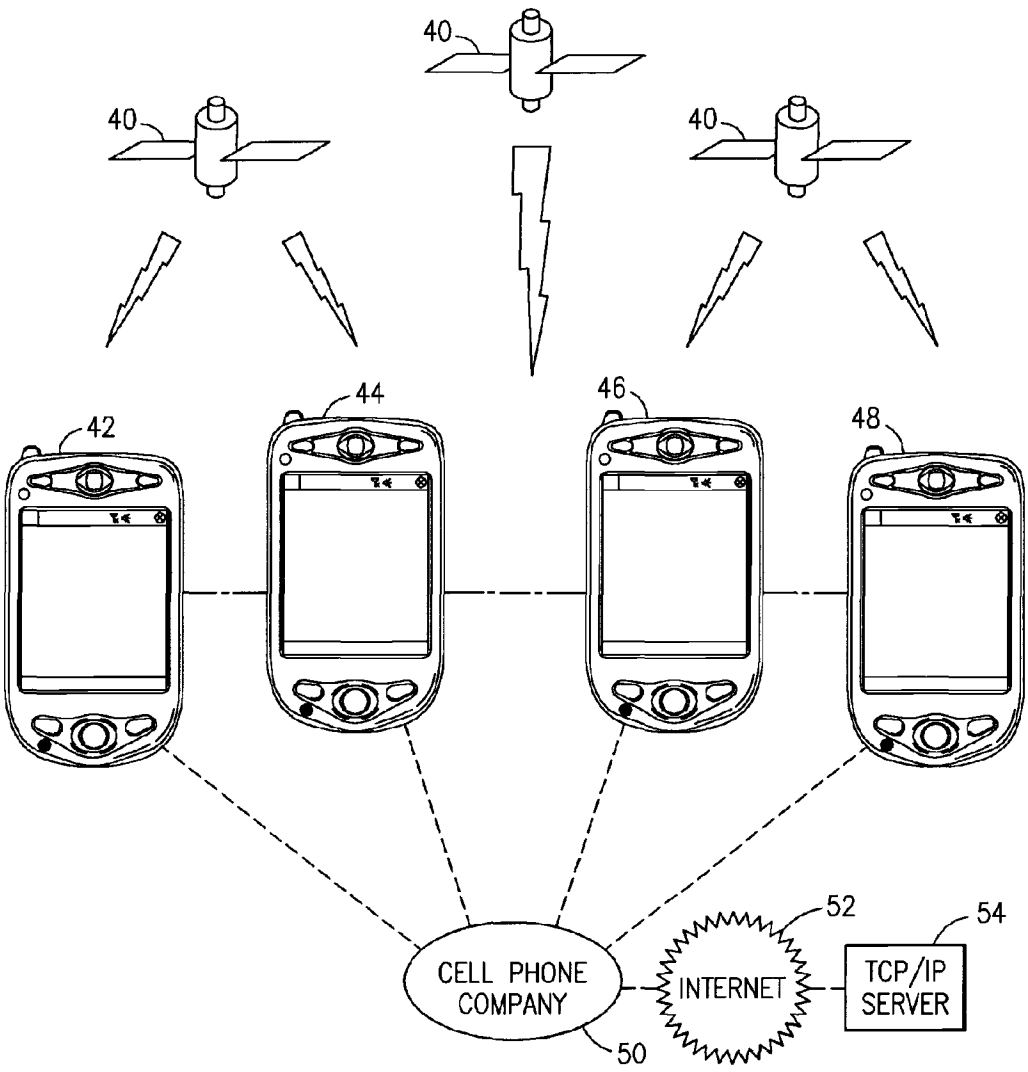
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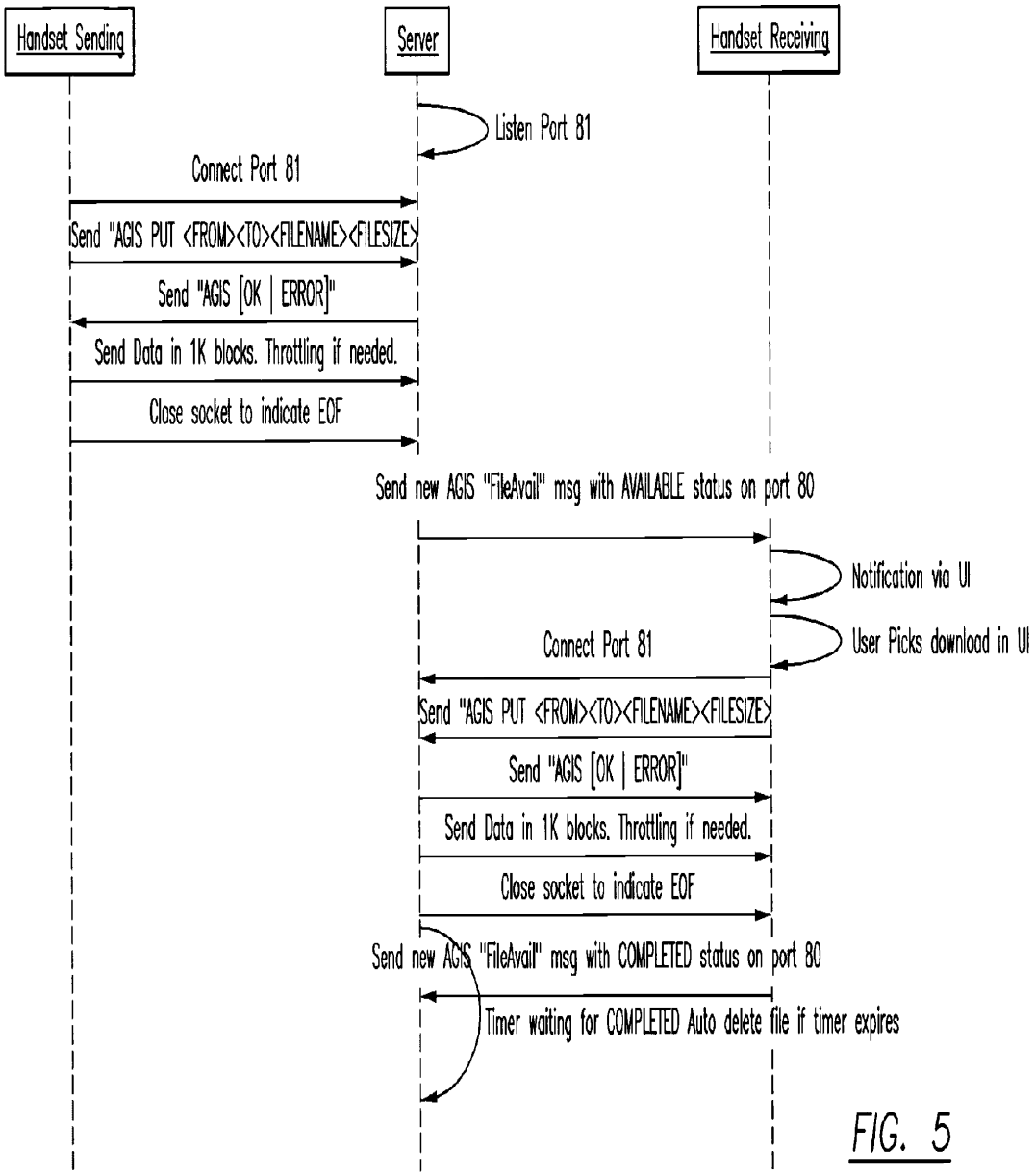
FIG. 4


Handset Sending
Server
Handset Receiving
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Connect Port 81
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Send "AGIS [OK | ERROR]"
Send Data in 1K blocks. Throttling if needed.
Close socket to indicate EOF
Send new AGIS "FileAvail" msg with AVAILABLE status on port 80
Notification via UI
User Picks download in UI
Connect Port 81
Send "AGIS PUT <FROM><TO><FILENAME><FILESIZE>"
Send "AGIS [OK | ERROR]"
Send Data in 1K blocks. Throttling if needed.
Close socket to indicate EOF
Send new AGIS "FileAvail" msg with COMPLETED status on port 80
Timer waiting for COMPLETED Auto delete file if timer expires

FIG. 5

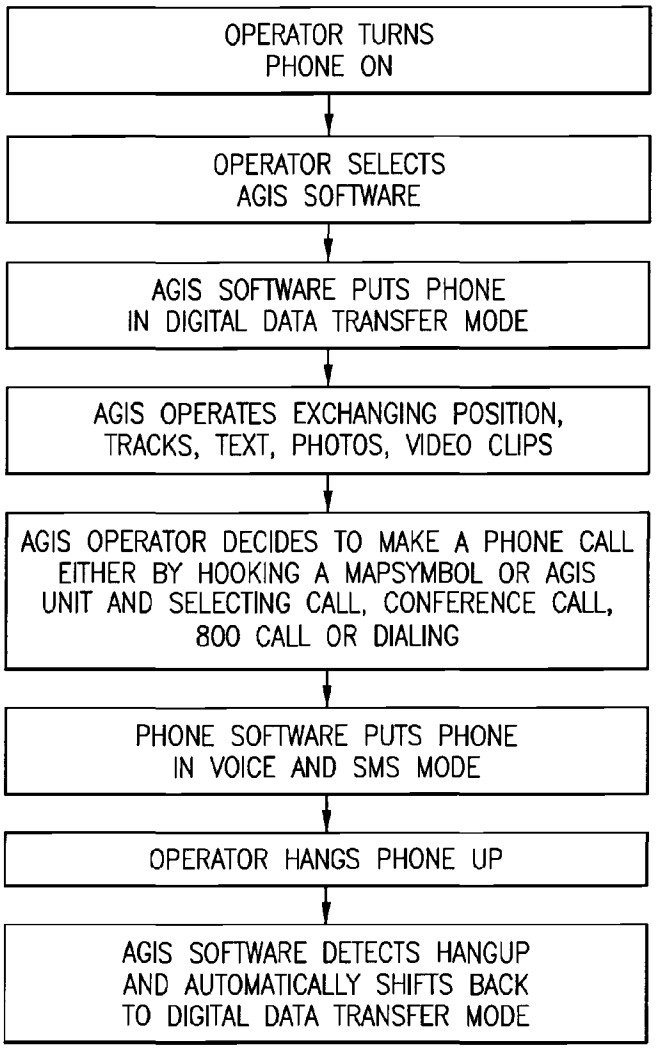
OPERATOR TURNS PHONE ON
OPERATOR SELECTS AGIS SOFTWARE
AGIS SOFTWARE PUTS PHONE IN DIGITAL DATA TRANSFER MODE
AGIS OPERATES EXCHANGING POSITION, TRACKS, TEXT, PHOTOS, VIDEO CLIPS
AGIS OPERATOR DECIDES TO MAKE A PHONE CALL EITHER BY HOOKING A MAPSYMBOL OR AGIS UNIT AND SELECTING CALL, CONFERENCE CALL, 800 CALL OR DIALING
PHONE SOFTWARE PUTS PHONE IN VOICE AND SMS MODE
OPERATOR HANGS PHONE UP
AGIS SOFTWARE DETECTS HANGUP AND AUTOMATICALLY SHIFTS BACK TO DIGITAL DATA TRANSFER MODE

FIG. 6

PTO/SB/06 (12-04)
Approved for use through 7/31/2006. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

PATENT APPLICATION FEE DETERMINATION RECORD
Substitute for Form PTO-875

Application or Docket Number: 11308648

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY RATE ($)	SMALL ENTITY FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY FEE ($)
BASIC FEE (37 CFR 1.16(a), (b), or (c))				75			
SEARCH FEE (37 CFR 1.16(k), (i), or (m))				250			
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))				100			
TOTAL CLAIMS (37 CFR 1.16(i))	20 minus 20 =	*	X$ 25=		OR	X$50=	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	11 minus 3 =	* 8	X$100=	800		X$200=	
APPLICATION SIZE FEE (37 CFR 1.16(s))							
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))			N/A			N/A	
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	1225		TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT A		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE ($)	SMALL ENTITY ADDITIONAL FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=	X =		OR	X =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X =		OR	X =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					N/A		OR	N/A	
						TOTAL ADD'T FEE		OR	TOTAL ADD'T FEE	

AMENDMENT B		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)	OR	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=	X =		OR	X =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X =		OR	X =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					N/A		OR	N/A	
						TOTAL ADD'T FEE		OR	TOTAL ADD'T FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

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Alexandria, Virginia 22313-1450
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/308,648	04/17/2006	Malcolm K. Beyer JR.	10963.3803	3647

22235 7590 09/26/2008
MALIN HALEY AND DIMAGGIO, PA
1936 S ANDREWS AVENUE
FORT LAUDERDALE, FL 33316

EXAMINER	
LEBASSI, AMANUEL	
ART UNIT	PAPER NUMBER
2617	
MAIL DATE	DELIVERY MODE
09/26/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	11/308,648	BEYER ET AL.	
	Examiner	Art Unit	
	AMANUEL LEBASSI	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *1* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 April 2006*.

2a)☐ This action is FINAL. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-20* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 April 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-4, 8, 10 and 20 are drawn to position based services, classified in class 455, subclass 456.3.

II. Claim 5-7 drawn to channel allocation based on quality of service, classified in class 455, subclass 452.2.

III. Claim 9 drawn to location display, classified in class 455, subclass 457.

IV. Claims 11-18 and 19 drawn to position based conferencing or data sharing, classified in class 455, subclass 416 and 456.3.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I, II, III and IV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different designs, modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case, the different inventions are performing different tasks for the user that are unrelated.

3. Restriction for examination purposes as indicated is proper because all these inventions listed in this action are independent or distinct for the reasons given above and there would be a serious search and examination burden if restriction were not required because one or more of the following reasons apply:

(a) the inventions have acquired a separate status in the art in view of their different classification;

(b) the inventions have acquired a separate status in the art due to their recognized divergent subject matter;

(c) the inventions require a different field of search (for example, searching different classes/subclasses or electronic resources, or employing different search queries);

(d) the prior art applicable to one invention would not likely be applicable to another invention;

(e) the inventions are likely to raise different non-prior art issues under 35 U.S.C. 101 and/or 35 U.S.C. 112, first paragraph.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a invention to be examined even though the requirement may be traversed (37 CFR 1.143) **and (ii) identification of the claims encompassing the elected invention.**

The election of an invention may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse. Traversal must be presented at the time of election in order to be considered timely. Failure to timely traverse the requirement will result in the loss of right to petition under 37 CFR 1.144. If claims are added after

the election, applicant must indicate which of these claims are readable on the elected invention.

If claims are added after the election, applicant must indicate which of these claims are readable upon the elected invention.

Should applicant traverse on the ground that the inventions are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Conclusion

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AMANUEL LEBASSI whose telephone number is (571)270-5303. The examiner can normally be reached on M-F 7:30AM - 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Corsaro can be reached on 571-272-7876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/NICK CORSARO/
Supervisory Patent Examiner, Art Unit 2617

/NICK CORSARO/
Supervisory Patent Examiner, Art Unit 2617

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

October 27, 2008

In re application of	:	BEYER, Malcolm K., Jr.
Serial No.	:	11/308,648
Filed	:	April 17, 2006
For	:	**METHOD OF PROVIDING A CELLULAR PHONE/PDA COMMUNICATION SYSTEM**
Examiner	:	Lebassi, Amanuel
Art Unit	:	2617
Our File No.	:	10963.3803

APPLICANT'S RESPONSE
TO THE EXAMINER'S RESTRICTION REQUIREMENT

Mail Stop Non-Fee Amendment
Hon. Commissioner for Patents
Alexandria, VA 22313-1450

Dear Sir:

In response to the Examiner's Restriction Requirement dated September 26, 2008, this response is submitted. Reconsideration is respectfully requested.

The Examiner has required restriction to one of the following inventions under 35 U.S.C. 121:

I. Claims 1-4, 8, 10, and 20 drawn to position based services classified in class 455, sub-class 456.3.

II. Claims 5-7 drawn to channel allocation based on quality of service, classified in class 455, sub-class 452.2.

III. Claims 9 drawn to location display, classified in class 455, sub-class 457.

IV. Claims 11-18, and 19 drawn to position based conferencing or data sharing,

classified in class 455, sub-class 416 and 456.3.

It is the Examiner's position that the inventions are distinct, each from the other because of the following reasons:

Inventions I, II, III, and IV are unrelated according to the Examiner. It is the Examiner's position that in the instant case the different inventions listed above are performing different tasks for the user that are unrelated.

The Applicant traverses the Examiner's restriction requirement.

The Applicant hereby elects the Examiner's category IV, claims 11-18 and 19, which the Examiner states are drawn to position based conferencing or data sharing for prosecution.

It is Applicant's position that although the Applicant's invention in method and structure is capable of multiple inventive operational modes accomplishing different functions, the overall communication system is a single unit that has mutliple features which is part of its uniqueness and novelty that a single device or series of devices used together in a communication system can accomplish so many important different functions and modes of operation.

Respectfully submitted,

Barry L. Haley, Esq. (Reg. No. 25,739)
Malin Haley DiMaggio Bowen & Lhota, P.A.
1936 South Andrews Avenue
Fort Lauderdale, FL 33316
Telephone: (954) 763-3303
Facsimile: (954) 522-6507
E-Mail: info@mhdpatents.com

I:\\10963\amend\3803.restriction requirement.doc

Electronic Acknowledgement Receipt

EFS ID:	4181959
Application Number:	11308648
International Application Number:	
Confirmation Number:	3647
Title of Invention:	METHOD OF PROVIDING A CELLULAR PHONE/PDA COMMUNICATION SYSTEM
First Named Inventor/Applicant Name:	Malcolm K. Beyer
Customer Number:	22235
Filer:	Barry Lee Haley
Filer Authorized By:	
Attorney Docket Number:	10963.3803
Receipt Date:	27-OCT-2008
Filing Date:	17-APR-2006
Time Stamp:	15:56:23
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Response to Election / Restriction Filed	3803restrictionrequirement.pdf	46423 30fd08609052ffc6f77ade4b5975c1954e416856	no	2

Warnings:

Information:

Total Files Size (in bytes):	46423

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/308,648	04/17/2006	Malcolm K. Beyer JR.	10963.3803	3647

22235 7590 02/24/2009
MALIN HALEY AND DIMAGGIO, PA
1936 S ANDREWS AVENUE
FORT LAUDERDALE, FL 33316

EXAMINER	
LEBASSI, AMANUEL	
ART UNIT	**PAPER NUMBER**
2617	
MAIL DATE	**DELIVERY MODE**
02/24/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	11/308,648	BEYER ET AL.	
	Examiner	Art Unit	
	AMANUEL LEBASSI	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04/17/2006*.

2a)☐ This action is FINAL. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *11-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 April 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Claims 1-10 and 20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant elected invention IV, claims 11-19 in a timely reply filed on 10/31/2008.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claim 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gorday (US 20040192331) in view of Buckham et al. (US 6662016).

Regarding claim 11, Gorday discloses a method of providing a PDA cellular phone communication network (Fig. 1 and paragraph [0013]) for designating participating users displayed symbolically on a geographical map (paragraph [0013], where set of communication devices are organized as a wireless network), each user having a similarly equipped cellular phone that includes CPU, GPS navigational system symbol generator and a touch screen

display (paragraph [0013], where each device is a handheld wireless communication module, such as a personal digital assistant (PDA), mobile telephone, or other similar wireless device) . Gorday discloses providing symbols on said display touch screen representing other participants having similar cellular phones forming a communication network (paragraph [0013], where each device is represented by an icon on the display). Gorday discloses selectively polling position and status information from one user among all of the other users equipped with the cellular phone/PDA/GPS system (paragraph [0013], where each device is represented by an icon, and the icons are arranged to show relative geographic locations in an appropriate scale and paragraph [0015], where the network employs a protocol that allows for an exchange of setup information, and location information) and its associated software and displaying the user's symbol on the map display at the correct location (paragraph [0013], where and the icons are arranged to show relative geographic locations in an appropriate scale). Gorday discloses providing rapid voice call initiation to the users of the cellular phone/PDA/GPS navigational system using a touch screen and the users' symbols (Paragraph [0012] - sending messages from a particular communication device to one or more target communicants and paragraph [0014] - sending messages via the touch screen - the targeted device in order to initiate communication). Gorday discloses providing rapid transmission of free, operator selected text messages, photographs and video to another

cellular phone using the touch screen (Paragraph [0002], where e-mail message or instant message to a mobile device is usually initiated).

Gorday fails to disclose generating a display that indicates a selected symbol's velocity upon activation of a particular velocity switch. However, Buckham teaches generating a display that indicates a selected symbol's velocity upon activation of a particular velocity switch (col. 12, lines 13-30).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the invention of Gorday and add generating a display that indicates a selected symbol's velocity upon activation of a particular velocity switch. The motivation would be to determine the coordinates of the entity as well as travel direction and speed (Buckham, Column 1, lines 51-58).

Regarding claim 12, Buckham teaches displaying the symbol's velocity as a line emanating from the symbol whose direction is representative of heading and whose length is representative of speed that is seen by the other participants in the communication network when the symbol's velocity is transmitted to them (col. 9, lines 1-13).

3. Claim 13 -16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gorday (US 20040192331) in view of Fumarolo (US 6204844).

Regarding claim 13, Gorday teaches a method for providing a cellular phone communication network (Fig. 1 and paragraph [0013]) for designated participating users (paragraph [0013], where set of communication devices are organized as a wireless network), each having a similarly equipped cellular PDA phone that includes a CPU, a GPS navigational system, and a touch screen display (paragraph [0013], where each device is a handheld wireless communication module, such as a personal digital assistant (PDA), mobile telephone, or other similar wireless device). Gorday teaches selectively polling position and status information from one user among all of the other users equipped with said cellular phones and its associated software (paragraph [0012], where the communication device obtains information from the other networked devices to determine their relative geographic location with respect to that of the communication device). Gorday teaches automatically reporting position and status to one or more other participant users' cell PDA phones in said communication network (paragraph [0014], where communicates with the other network devices to obtain information on the geographic locations of those devices relative to the instant device, step 320). However, Gorday fails to disclose automatically reporting position and status to one or more other participant users' cell PDA phones in said communication network based on a predetermined condition. Fumarolo discloses selectively polling position and status information from one user among all of the other users equipped with said cellular phones and its associated software and automatically reporting position

and status to one or more other participant users' (i.e. talk group) cell PDA phones in said communication network based on a predetermined condition (Fumarolo, Column 9, lines 53-65).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the invention of Gorday and add polling position and status information from one user among all of the other users equipped with said cellular phones and its associated software and automatically reporting position and status to one or more other participant users' (i.e. talk group) cell PDA phones in said communication network based on a predetermined condition. The motivation would be to determine the coordinates of the entity as well as travel direction and speed (Fumarolo, **column 1, lines 51-58**).

Regarding claim 14, Gorday teaches wherein the user has the ability to make voice conference calls and to send free text, operator selected messages, photographs, and video to all other network participants within a distance determined by the initiator of the voice call, free text, operator selected messages, photographs, and video (paragraph [0014], where the user sends messages to targeted device-steps 332, 334 and 336).

Regarding claim 15, Fumarolo teaches predetermined condition is automatically reporting at specific times and/or distances traveled by the reporting user (Fumarolo, Column 12, lines 6 -17).

Regarding claim 16, Gorday teaches transmitting an alert automatically activated when one or more network cell phone participants, fixed facilities or entered tracks reach a minimum predetermined distance from another cellular phone user paragraph [0013]).

4. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gorday (US 20040192331) in view of Tsuge (US 20030200259).

Regarding claim 17, Gorday teaches a method for providing cellular phone communication network (Fig. 1 and paragraph [0013]) for designated participating users, each having a similarly equipped cellular phone that includes a CPU, a GPS navigational system, and a touch screen display comprising: generating a map of a geographical display on each user's cell phone display screen (paragraph [0013], where each device is a handheld wireless communication module, such as a personal digital assistant (PDA), mobile telephone, or other similar wireless device) . Gorday teaches selectively polling position and status information from one participating user between one or more of the other participant users equipped with similarly configured cellular phones (paragraph [0013], where each device is represented by an icon, and the icons are arranged to show relative geographic locations in an appropriate scale and

paragraph [0015], where the network employs a protocol that allows for an exchange of setup information, and location information) and its associated software (paragraph [0013], where and the icons are arranged to show relative geographic locations in an appropriate scale). Gorday teaches providing rapid voice call initiation from one participating cell phone user between and among the participating users of the cellular phone network system using a touch screen (Paragraph [0012] - sending messages from a particular communication device to one or more target communicants and paragraph [0014] - sending messages via the touch screen - the targeted device in order to initiate communication). Gorday discloses providing one or more symbols on said map displayed on touch screen representing other user participants (paragraph [0013], where set of communication devices are organized as a wireless network), each user having a similar cell phone forming the communication network (paragraph [0013], where each device is a handheld wireless communication module, such as a personal digital assistant (PDA), mobile telephone, or other similar wireless device). Gorday discloses calling one or more participant users by touching the screen symbol representing another participant user on the touch screen and touching a call switch (Paragraph [0012] - sending messages from a particular communication device to one or more target communicants).

Gorday fails to disclose adding a new track symbol representing an object, person or event, fixed or mobile, to the geographical display by touching the geographical display at the location of the new track to be added; assigning a

category to the new track to be added on the geographical display screen, said category being an object, person or event; selecting an appropriate category switch for identifying the new track selected; and sending to one or more of the other participant users of the cellular telephone network information concerning the new track including the new track's location and category to the other participant users.

However, Tsuege teaches adding a new track symbol representing an object, person or event, fixed or mobile, to the geographical display by touching the geographical display at the location of the new track to be added (paragraph [0097]) and [0099], where the user could add icon type at the corresponding position) and assigning a category to the new track to be added on the geographical display screen, said category being an object, person or event (Tsuge, Figure 3 and paragraph [0149]). Tsuege teaches selecting an appropriate category switch for identifying the new track selected; and sending to one or more of the other participant users of the cellular telephone network information concerning the new track including the new track's location and category to the other participant users (Tsuge, paragraph [0101]).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the invention of Gorday and add that of Tsuege. The motivation would be to establish an icon in the optional place on the map (Tsuge, paragraph [0006]).

4. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gorday (US 20040192331) in view of Mizuno (US 20060031927).

Regarding claim 18, Gorday teaches a method for providing a cellular phone communication network (Fig. 1 and paragraph [0013]) for designated participating users, each user having a similarly equipped cellular phone that includes a CPU, GPS navigational system, an internet message transmitter and receiver and a touch screen display (paragraph [0013], where each device is a handheld wireless communication module, such as a personal digital assistant (PDA), mobile telephone, or other similar wireless device). Gorday teaches providing a database in each cell phone that includes a geographical map of a predetermined area for user viewing on the touch screen display (paragraph [0013], where devices are represented on the screen / geographical map in an iconic representation) Gorday teaches providing an application program (see abstract, where a device joins a network of potential communicants, and exchanges information) in each cell phone for generating one or more symbols representative of one or more participating users, each of whom have a similarly equipped cellular phone (paragraph [0013], where each device is a handheld wireless communication module, such as a personal digital assistant (PDA), mobile telephone, or other similar wireless device). Gorday teaches providing a database (paragraph [0014] - selected devices) in each cell phone that includes

cellular telephone numbers of each of the participating users having similarly equipped cellular phones (paragraph [0014], step 336 and Fig. 3, step 336 where transmits a message to the selected devices). Gorday teaches said database including the generation of one or more symbols associated with a particular participating user (paragraph [0013], where each device is represented by an icon on the display) and calling a participating user by touching the symbol on the map display and touching a call switch (Paragraph [0012] - sending messages from a particular communication device to one or more target communicants). Gorday teaches providing each of the cell phones with a cellular capability. Gorday teaches performing at least one or more of the following steps: (1) exchanging automatically cell phone numbers using SMS or other digital message format between and among each of the participant users (paragraph [0002]); (2) pushing photographs or video clips between and among each of the cellular telephone participant users across multiple cellular carriers and between smart phone and PCs (paragraph [0012], where messages are transmitted);(3) providing each known participant user in each of said users' cellular phones, a cellular phone number, an (cell phone numbers) IP address and an E-mail address in each of said participants' databases (paragraph [0002] and [0012] - email and messages); (4) adding an additional cell phone participant user having a similar cell phone configuration into the communication network of participating users by having the added cell phone participating user transmit designation (paragraph [0014] - instant device communicates with the other network devices)

and a cell phone number in an initial message to other participant users for identification (paragraph [0002] and [00014]); (5) sending each participating user geographic notification of the location of the sender of a message (abstract- where particular device forms or joins a network of potential communicants, and exchanges information to determine their relative geographic location with respect to that of the particular device); (6) calling the nearest fixed location on the map display from the participant selected from a particular group including a police station, fire station, or EMT or other fixed location by one of the cellular phone network participants (paragraph [0012] - sending messages from a particular communication device to one or more target communicants); and (7) entering on a user's touch screen display a new track including generating a symbol for the new track and periodically sending data to the other participants relative to the new track so that each of the participating users' display is updated with new track's position periodically (paragraph [0015] - periodically sending data to the other vehicles relative to the new track); and (8) amplifying a moving new track symbol on a user's touch screen display with free text, preformatted messages, photographs or video and periodically sending data to the other participants relative to the new track so that each of the participating users' display is updated with said new track position and data periodically (paragraph [0015] - direction of travel symbol).

Gorday fails to disclose where each of the cell phones with an internet connection capability. However Mizuno teaches providing each of the cell phones with an internet connection capability (Mizuno, paragraph [0026]).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the invention of Gorday and add providing each of the cell phones with an internet connection capability. The motivation would be to have internet connection with each other (Mizuno, Fig. 1).

5. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gorday (US 20040192331) in view of August et al. US 20040204070

Regarding claim 19, Gorday teaches a method of providing a cellular phone communication network (Fig. 1 and paragraph [0013]) for designated participating users, each having a similarly equipped PDA cellular phone that includes a CPU, a GPS navigational system and a touch screen display (paragraph [0013], where each device is a handheld wireless communication module, such as a personal digital assistant (PDA), mobile telephone, or other similar wireless device). Gorday discloses providing rapid voice call initiation and communication to the users of the cellular telephone PDA/GPS network system using a touch screen (Paragraph [0012] - sending messages from a particular communication device to one or more target communicants and paragraph

[0014] - sending messages via the touch screen - the targeted device in order to initiate communication).

Gorday discloses providing rapid transmission of operator selected text messages, photographs and video to other cellular phone users using the touch screen (Paragraph [0002], where e-mail message or instant message to a mobile device is usually initiated) and establishing at the server networks that can enable anonymous voice and data communications so that neither the originator of the phone call or data transmission nor the receiver of the phone call or data transmission need know the other's phone number, name or other identifier other than a symbol location on a map (paragraph [0014]).

However, Gorday fails to disclose providing a server for establishing high speed internet communications between said cellular phone network users and said server. August teaches providing a server for establishing high speed internet communications between said cellular phone network users and said server (Paragraph [0032], where there is a cellular phone company internet server for establishing high speed internet)

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the invention of Gorday and add providing a server for establishing high speed internet communications between said cellular phone network users and said server. The motivation would be to have a server

to establish high speed internet and allow data transmissions of substantial sizes (August, Paragraph [0010]).

Conclusion

1. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Amanuel Lebassi, whose telephone number is (571) 270-5303. The Examiner can normally be reached on Monday-Thursday from 8:00am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Nick Corsaro can be reached at (571) 272-7876. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Amanuel Lebassi
/A. L./
02/03/2009

/NICK CORSARO/
Supervisory Patent Examiner, Art Unit 2617

Notice of References Cited	Application/Control No. 11/308,648	Applicant(s)/Patent Under Reexamination BEYER ET AL.	
	Examiner AMANUEL LEBASSI	Art Unit 2617	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2004/0192331	09-2004	Gorday et al.	455/456.1
*	B	US-6,662,016	12-2003	Buckham et al.	455/457
*	C	US-6,204,844	03-2001	Fumarolo et al.	715/736
*	D	US-2003/0200259	10-2003	Tsuge, Kazuo	709/203
*	E	US-2006/0031927	02-2006	Mizuno et al.	726/011
*	F	US-2004/0204070	10-2004	August et al.	455/557
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11308648	BEYER ET AL.
	Examiner	**Art Unit**
	AMANUEL LEBASSI	4134

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	02/02/2009								
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	16	✓								
	17	✓								
	18	✓								
	19	÷								
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Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11308648	BEYER ET AL.
	Examiner	Art Unit
	AMANUEL LEBASSI	2617

SEARCHED			
Class	Subclass	Date	Examiner
455	452.3, 416, 457	2/3/2009	AL

SEARCH NOTES		
Search Notes	Date	Examiner
Inventor Search	2/3/2009	AL
Consulted Nick Corsaro (SPE)	2/3/2009	AL

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner

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CONFIRMATION NO. 3647

SERIAL NUMBER	FILING or 371(c) DATE / RULE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
11/308,648	04/17/2006	455	2617	10963.3803

APPLICANTS

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Christopher R. Rice, Monroe, WA;

**** CONTINUING DATA ***************************

This application is a CIP of 10/711,490 09/21/2004 PAT 7,031,728

**** FOREIGN APPLICATIONS ***************************

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05/30/2006

Foreign Priority claimed	35 USC 119(a-d) conditions met	Verified and Acknowledged	Met after Allowance	STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS
☐ Yes ☑ No	☐ Yes ☐ No	/AMANUEL LEBASSI/ Examiner's Signature	☐ Initials	FL	6	20	11

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UNITED STATES

TITLE

METHOD OF PROVIDING A CELLULAR PHONE/PDA COMMUNICATION SYSTEM

FILING FEE RECEIVED		
1225	FEES: Authority has been given in Paper No._____ to charge/credit DEPOSIT ACCOUNT No._____ for following:	☐ All Fees ☐ 1.16 Fees (Filing) ☐ 1.17 Fees (Processing Ext. of time) ☐ 1.18 Fees (Issue) ☐ Other _____ ☐ Credit

BIB (Rev. 05/07).

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	47	(web site) same (fix$2 location) and @ad<"20060417"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2009/02/03 17:49
L2	0	455/452.3, "416".ccls. and L1	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2009/02/03 17:49
S2	3	"20030139150"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/15 09:26
S3	27	("2003/0139150").URPN.	USPAT	ADJ	ON	2008/02/15 09:27
S4	1	11/308648	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/15 10:04
S5	68	PDA near5 database$1 near5 (application$1 program$4 or software$1)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/15 11:11
S6	68	(PDA or wireless devise) near5 database$1 near5 (application$1 program$4 or software$1)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/15 11:12
S7	68	(PDA or wire$1less devise) near5 database$1 near5 (application$1 program$4 or software$1)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/15 11:12
S8	0	S7 and (lattitude and longitude)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/15 11:13
S9	0	S7 and (lattitude orlongitude)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/15 11:13

S10	63	S7 and @ad<"20060417"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/15 11:15
S11	13	PDA near5 database$1 near5 (application$1 program$4 or software$1) and touch screen	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/15 11:18
S12	10	S10 and touch screen	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/15 11:18
S13	0	S10 and touch screen and fixed location	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/15 11:34
S14	5	S7 and (lattitude or longitude)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/15 11:34
S15	1	S7 and (lattitude or longitude) and (initiate call)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/15 11:49
S16	322	(PDA or wire$1less) and (lattitude or longitude) and (initiate call) and (application$1 program$4 or software$1)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/15 11:51
S17	14	S16 and touch screen and fixed location	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/15 11:52
S18	64	S16 and fixed location	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/15 11:52
S19	357	(PDA or wire$1less) and (lattitude or longitude) and (initiate call) and (application$1 program$4 or software$1 or database $1)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/15 11:55

S20	297	S19 and @ad<"20060417"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/15 11:56
S21	66	(PDA or wire$1less) and ((lattitude or longitude) and fixed location$1) and (initiate call) and (application$1 program$4 or software$1 or database $1)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/15 11:57
S22	63	S21 and @ad<"20060417"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/15 11:58
S23	10	("20010044321" | "20030139150" | "20040192331" | "20040266456" | "20050130634" | "5555286" | "6204844" | "6542475" | "6775560" | "6868337").PN. OR ("7031728").URPN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2008/02/15 13:18
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S26	235	display$3 same (Symbol$1 or icon$1) same (participant$1 or user$1) same (LCD or screen$1) and (PDA or cell$1 adj1 phone$1) and free$1 near10 (SMS$1 or message $1 or text$1)	US-PGPUB; USPAT; USOCR	ADJ	ON	2008/02/15 14:55

S27	158	S26 and @ad<"20060417"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/15 15:09
S28	704	PDA and (Geographical with Map$1) and @ad<"20060417"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 08:47
S29	704	(PDA or wire$1less devise) and (Geographical with Map $1) and @ad<"20060417"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 08:48
S30	513	(PDA or wire$1less devise) and (Geographical with Map $1)and (SMS or email or message$1) and @ad<"20060417"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 08:48
S31	6	(PDA or wire$1less devise) same (Geographical with Map$1) same (SMS or email or message$1) and @ad<"20060417"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 08:49
S32	236	(PDA or wire$1less) and (lattitude or longitude) and (initiate call) and (Geographcal or map$1)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 09:02
S33	740	(PDA or wire$1less) and (lattitude or longitude) and (initiat$3 near3 call$4) and (Geographcal or map$1)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 09:04
S34	625	S33 and @ad<"20060417"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 09:05
S35	0	(PDA or wire$1less devise) same (Geographical with Map$1) same (initiate call $1 fixed location) and @ad<"20060417"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 09:11
S36	0	(PDA or wire$1less devise) and (Geographical with Map $1) same (initiate call$1 fixed location) and @ad<"20060417"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 09:11

S37	0	((PDA or wire$1less devise) and (Geographical with Map$1)) same (initiate call$1 fixed location) and @ad<"20060417"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 09:12
S38	0	(PDA or wire$1less devise) same (initiate call$1 fixed location) and @ad<"20060417"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 09:12
S39	0	(initiate call$1 fixed location) and @ad<"20060417"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 09:12
S40	0	(initiate call$1 fixed location)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 09:13
S41	4	(PDA or wire$1less devise) same (call$1 fixed location) and @ad<"20060417"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 09:13
S42	0	PDA and (Geographical with Map$1) and @ad<"20060417" and (call progress symbol)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 09:15
S43	0	@ad<"20060417" and (call progress symbol)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 09:15
S44	0	@ad<"20060417" and (call in progress symbol)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 09:16
S45	0	(call in progress symbol)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 09:16
S46	0	call in progress symbol. clm.	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 09:18

S47	0	"call in progress symbol".clm.	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 09:18
S48	1	"call progress symbol".clm.	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 09:19
S49	1023	"455"/.clas. and (call indicat $5)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 09:20
S50	34	S49 and (PDA or were $1less) and (Map$1)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 09:21
S51	24	S50 and @ad<"20060417"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 09:22
S52	3	"20040192331"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 09:29
S53	15208	"455"/.clas. and (call indicat $5 or symbol)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 09:31
S54	2	"455"/.clas. and (call indicat $5 symbol)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 09:32
S55	49	S49 and (fixed location)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 09:34
S56	4	("2004/0192331").URPN.	USPAT	ADJ	ON	2008/02/19 09:40
S57	2762	PDA and map and (e$1mail address) and @ad<"20060417"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 09:43

S58	219	PDA and (map same e $1mail address) and @ad<"20060417"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 09:44
S59	7	PDA same (map same e $1mail address) and @ad<"20060417"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 09:45
S60	0	PDA same (map same e $1mail address) and (web site address) and @ad<"20060417"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 10:29
S61	22	PDA same (web site address) and @ad<"20060417"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 10:30
S62	443866	(call indicator or symbol) and @ad<"20060417"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 10:53
S63	872	(call indicator) and @ad<"20060417"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 10:53
S64	137	S63 and map	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 10:53
S65	0	S64 and web link	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 10:54
S66	96	S64 and link	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 10:54
S67	10	S64 and web site	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 10:55

S68	0	(web site address) same (fixed location) and @ad<"20060417"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 11:03
S69	0	(web site address) same (fix$1 location) and @ad<"20060417"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 11:03
S70	0	(web site address) same (fix$2 location) and @ad<"20060417"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 11:03
S71	47	(web site) same (fix$2 location) and @ad<"20060417"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 11:03
S72	3	"455"/.clas. and S71	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 11:06
S73	335	PDA and website address and @ad<"20060417"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 11:08
S74	366	PDA and web$1site address and @ad<"20060417"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 11:09
S75	67018	"366" and (fixed or wired)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 11:10
S76	198	S74 and (fixed or wired)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 11:10
S77	3	"20040192331"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 11:29

S78	0	(PDA or wire$1less devise) report$3 status info$10	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 17:16
S79	0	(PDA or wire$1less) report $3 status info$10	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 17:17
S80	0	(PDA or wire$1less) report $3 status information$1	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 17:17
S81	23	(PDA or wire$1less) same report$3 status information $1	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 17:17
S82	1	(PDA or wire$1less) near5 report$3 status information $1	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 17:18
S83	0	"200702007613"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 17:33
S84	2	"20070200713"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 17:33
S85	5	(PDA or wire$1less devise) near5 (Automatic Identification System$1 or AIS)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 17:52
S86	63	(PDA or wire$1less devise) same (Automatic Identification System$1 or AIS)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 17:54
S87	8	(PDA or wire$1less devise) same (Automatic Identification System$1)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 17:54

S88	44	(ship) same (Automatic Identification System$1)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/19 18:02
S89	0	"20031039150"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 08:33
S90	3	"20030139150"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 08:34
S91	44	(ship) same (Automatic Identification System$1)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 08:36
S92	3	S91 and PDA	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 08:36
S93	9	S91 and (voice or text)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 08:51
S94	5483	PDA and server near5 (name$1 or telephone number$1 or Ip$1address $2) and @ad<"20060417"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 09:04
S95	59	PDA near10 server near5 (name$1 or telephone number$1 or Ip$1address $2) and @ad<"20060417"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 09:04
S96	7	(PDA or wire$1less devise $1) same (symbol$1 near5 touch screen)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 09:41
S97	49	(PDA or wire$1less devise $1) same ((symbol$1 or icon$1) near5 touch screen)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 09:47

S98	43	(PDA or wire$1less devise $1) same (icon$1 near5 touch screen)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 09:48
S99	0	(similar (PDA or wire$1less devise$1)) same (icon$1 near5 touch screen)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 09:54
S100	0	(PDA or wire$1less devise $1) same (icon$1 near5 touch screen) same (similar cellular phones)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 09:54
S101	0	(icon$1 near5 touch screen) same (similar cellular phones)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 09:55
S102	45	(icon$1 near5 touch screen) same similar	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 09:55
S103	35	PDA with similar with icon $1	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 09:56
S104	0	PDA similar icon$1	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 09:57
S105	981	PDA similar	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 09:58
S106	0	PDA similar symbol$1	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 09:58
S107	4	"6868337"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 10:29

S108	3	PDA same (velocity or speed) switch	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 10:51
S109	5100	PDA same (velocity or speed)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 10:52
S110	0	PDA same (icon$3 velocity)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 10:53
S111	0	PDA same (icon$3 speed)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 10:53
S112	1	PDA same ((icon$3 or symbol$3) speed)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 10:54
S113	1	PDA same ((icon$3 or symbol$3) velocity)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 10:54
S114	1	PDA same ((icon$3 or symbol$3) near (fast or slow))	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 10:54
S115	0	S102 same velocity	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 10:56
S116	1	(icon$1 near5 touch screen) same velocity	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 10:56
S117	1	(symbol$11 near5 touch screen) same velocity	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 11:01

S118	0	(symbol$11 near10 touch screen) same velocity	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 11:02
S119	0	(symbol$11 near8 touch screen) same velocity	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 11:02
S120	1	(symbol$11 near4 touch screen) same velocity	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 11:02
S121	0	(symbol$11 near4 touch screen) with velocity	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 11:03
S122	2	(symbol$11 with touch screen) same velocity	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 11:03
S123	2	"20020050952"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 11:37
S124	896	PDA with (position$5 or status$3 or Location$3) information$5	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 11:40
S125	3	S124 with touch screen	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 11:40
S126	2	"20060199612"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 12:17
S127	2	"20060114862"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 12:25

S128	0	PDA with automatc$5 with report$4 with position$5 with status$3	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 12:27
S129	0	PDA same (automatc$5 with report$4 with position $5 with status$3)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 12:27
S130	0	"455"/$.ccls. and (automatc $5 with report$4 with position$5 with status$3)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 12:28
S131	0	(automatc$5 with report$4 with position$5 with status $3)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 12:28
S132	1	PDA with automatic$5 with report$4 with position$5 with status$3	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 12:28
S133	3	PDA same (automatic$5 with report$4 with position $5 with status$3)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 12:28
S134	39384	automatic$5 with (position $5 or status$3) with (distance or time)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 12:36
S135	2631	automatic$5 with (position $5 or status$3) with (based with (distance or time))	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 12:37
S136	711	automatic$5 with (position $5 or status$3) near5 (based with (distance or time))	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 12:37
S137	286	automatic$5 near5 (position $5 or status$3) near5 (based with (distance or time))	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 12:37

S138	104	automatic$5 near3 (position $5 or status$3) near3 (based with (distance or time))	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 12:38
S139	14	automatic$5 near2 (position $5 or status$3) near2 (based with (distance or time))	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 12:38
S140	6	pDA with automatic$5 with (position$5 or status$3) with (based with (distance or time))	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 12:42
S141	0	PDA with S136	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 12:44
S142	0	PDA with S136	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 12:45
S143	0	PDA same S136	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 12:45
S144	32	PDA same S134	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 12:45
S145	2	("2006/0199612").URPN.	USPAT	ADJ	ON	2008/02/20 12:53
S146	1	"20050090298".PN.	US-PGPUB	ADJ	ON	2008/02/20 12:55
S147	0	PDA with voice$1 with text $5 with video$1 with photograph$3	USPAT	ADJ	ON	2008/02/20 13:57
S148	18	PDA with voice$1 with text $5 with video$1	USPAT	ADJ	ON	2008/02/20 13:57
S149	2	PDA with report$3 (time$3 or distance$5)	USPAT	ADJ	ON	2008/02/20 14:16
S150	128	user with report$3 (time$3 or distance$5)	USPAT	ADJ	ON	2008/02/20 14:17
S151	2898	user with report$3 with (time$3 or distance$5)	USPAT	ADJ	ON	2008/02/20 14:17
S152	6	user report$3 (time$3 or distance$5)	USPAT	ADJ	ON	2008/02/20 14:18

S153	59	user near5 report$3 (time $3 or distance$5)	USPAT	ADJ	ON	2008/02/20 14:19
S154	0	"455"/$.ccls.user near5 report$3 (time$3 or distance$5)	USPAT	ADJ	ON	2008/02/20 14:19
S155	5	"455"/$.ccls. and user near5 report$3 (time$3 or distance$5)	USPAT	ADJ	ON	2008/02/20 14:19
S156	0	"455"/$.ccls. and distance travelled user	USPAT	ADJ	ON	2008/02/20 14:21
S157	0	"455"/$.ccls. and distance near5 travelled near5 user	USPAT	ADJ	ON	2008/02/20 14:22
S158	65	"455"/$.ccls. and distance $3 near5 travel$ near5 user $1	USPAT	ADJ	ON	2008/02/20 14:22
S159	0	"455"/$.ccls. and PDA same (distance$3 near5 travel$ near5 user$1)	USPAT	ADJ	ON	2008/02/20 14:23
S160	2	PDA same (distance$3 near5 travel$ near5 user $1)	USPAT	ADJ	ON	2008/02/20 14:23
S161	157	"455"/$.ccls. and (distance $3 or time$5) near5 travel $ near5 user$1	USPAT	ADJ	ON	2008/02/20 14:24
S162	29	"455"/$.ccls. and (distance $3 and time$5) near5 travel $ near5 user$1	USPAT	ADJ	ON	2008/02/20 14:25
S163	0	"455"/$.ccls. and report$5 near5(distance$3 and time $5) near5 travel$ near5 user$1	USPAT	ADJ	ON	2008/02/20 14:27
S164	0	"455"/$.ccls. and report$5 near5 (distance$3 and time $5) near5 travel$ near5 user$1	USPAT	ADJ	ON	2008/02/20 14:27
S165	0	"455"/$.ccls. and report$5 with (distance$3 and time $5) near5 travel$ near5 user$1	USPAT	ADJ	ON	2008/02/20 14:27
S166	1	"455"/$.ccls. and (\report $5 or notif$5) with (distance$3 and time$5) near5 travel$ near5 user$1	USPAT	ADJ	ON	2008/02/20 14:28
S167	1	"455"/$.ccls. and (report$5 or notif$5) with (distance $3 and time$5) near5 travel $ near5 user$1	USPAT	ADJ	ON	2008/02/20 14:28

S168	1	"455"/$.ccls. and PDA same (distance$3 near5 travel$5 near5 user$1)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 14:29
S169	0	"455"/$.ccls. and user$1 report$5 near5 (distance$3 and time$1) near5 travel$4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/02/20 14:32
S170	0	"455"/$.ccls. and user$1 report$5 distance$3 travel $4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/02/20 14:33
S171	0	"455"/$.ccls. and user$1 with report$5 with distance $3 wirh travel$4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/02/20 14:33
S172	0	"455"/$.ccls. and report$5 with distance$3 wirh travel $4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/02/20 14:33
S173	5	"455"/$.ccls. and user$1 with report$5 with distance $3 with travel$4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/02/20 14:33
S174	4	"6868337"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 15:15
S175	150	call$5 with touch$3 with screen with (symbol or icon)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 15:32
S176	19	"455"/$.ccls. and S175	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 15:32
S177	17	S176 and @ad<"20060417"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 15:33
S178	4	"6868337"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 16:21

S179	16	PDA same ((icon$3 or symbol$3) type)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 16:28
S180	8	S179 and @ad<"20060417"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 16:28
S181	7	PDA same ((new icon$3 or symbol$3) type)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 17:25
S182	0	PDA same ((new track$3) type)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 17:26
S183	2	PDA same (new track$3)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 17:27
S184	3989	PDA same (track$3)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 17:28
S185	6	PDA same (track$3 select $3)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 17:28
S186	2	"20030200259"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 17:35
S187	15	"6204844"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 18:08
S188	2	"6204844".pn.	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/20 18:08

S189	0	PDA internet connection$3 capabilit$3	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 13:08
S190	0	PDA web connection$3 capabilit$3	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 13:09
S191	4	PDA web connection$3	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 13:09
S192	0	(PDA$1 or cellphon$3) (web or internet) connection$3 capabilit$5	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 13:11
S193	19	(PDA$1 or cellphon$3) (web or internet) connection$3	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 13:11
S194	0	(PDA$1 or cellphon$3) (web or internet) connection$3 with server $1	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 13:53
S195	2	(PDA$1 or cellphon$3) (web or internet) connection$3 same server $1	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 13:54
S196	1	(cell$5 phone or PDA) ability with request geo $1referenced map	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 14:22
S197	1	(cell$5 phone or PDA) ability with request geo$1	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 14:23
S198	1	(cell$5 phone or PDA) with request geo$1	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 14:24

S199	2	"7289772".pn.	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 15:21
S200	11	"6532477"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 15:24
S201	2	"6532477".pn.	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 15:24
S202	2	call progress symbol	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 15:27
S203	181	call symbol	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 15:28
S204	11	"455"/$.ccls. and call symbol	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 15:29
S205	0	"455"/$.ccls. and call established (symbol or icon)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 15:40
S206	58	"455"/$.ccls. and call (symbol or icon)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 15:40
S207	22	"6269254"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 16:00
S208	0	(symbol or icon) near2 connected and "455"/$.ccls	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 16:05

S209	0	call near3(symbol or icon) near2 connected and "455"/$.ccls	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 16:06
S210	0	call near3 (symbol or icon) near2 establish$4 and "455"/$.ccls	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 16:06
S211	0	call mesa (symbol or icon) same establish$4 and "455"/$.ccls	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 16:07
S212	0	call mesa (symbol or icon) same establish$4 and "370"/$.ccls	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 16:07
S213	0	call same (symbol or icon) same establish$4 and "455"/$.ccls	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 16:07
S214	0	call same (symbol or icon) same establish$4 and "370"/$.ccls	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 16:08
S215	0	call established symbol	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 16:08
S216	0	call establish$ symbol	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 16:08
S217	5	call made symbol	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 16:08
S218	0	(indicat$4) near2 connected and "455"/$.ccls	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 16:09

S219	0	(indicat$4) near2 connect $5 and "455"/$.ccls	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 16:10
S220	15694	call connection	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 16:10
S221	62	S220 with symbol	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 16:10
S222	55	S220 with icon	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 16:14
S223	1	10/812617	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 16:24
S224	0	2007/0073870	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 16:49
S225	2	"20070073870"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 16:49
S226	3	"20010028470"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 16:52
S227	2	"20070073870"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 17:00
S228	3	"20060007932"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 17:02

S229	2	"20030158891"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 17:03
S230	3	"7187332"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 17:04
S231	2	"20020050952"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 17:12
S232	2	"20060114862"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 17:13
S233	2	"20030061503"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 17:17
S234	2	Cellular PDA communication system	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 17:35
S235	3	"11308648"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 17:37
S236	5	"6574209"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 17:43
S237	2	"20040171380"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 17:51
S238	1	10/511849	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 17:57

S239	10	"6545669"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 17:59
S240	2	"20060031927"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/21 18:02
S241	3	"20040192331"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/25 09:26
S242	2	"20060135197"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/25 09:27
S243	11	"6532477"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/25 09:29
S244	2	"20070073870"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/25 09:32
S245	3	"20010028470"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/25 09:34
S246	1	09/173145	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/25 09:41
S247	43	"4955083"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/25 09:42
S248	3	"20060007932"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/25 09:50

S249	3	"20020160836"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/25 10:18
S250	2	"20020141442"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/25 10:19
S251	4	"6868337"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/25 10:43
S252	10	"6545669"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/25 10:44
S253	15	"6204844"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/25 11:16
S254	3	"7187332"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/25 11:18
S255	2	"20040171380"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/25 11:33
S256	2	"20030200259"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/25 11:43
S257	2	"20060031927"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/25 14:14
S258	2	"20060031927"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/25 14:39

S259	1	"10511849"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/25 14:48
S260	1	10/511849	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/25 14:48
S261	2	"20050246419"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/25 15:32
S262	1	11/686890	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/25 16:59
S263	2	"20040030670"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/25 17:15
S264	3	"7098795"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/25 17:27
S265	1	(comcast or high$1speed) with internet same (shift$3 or switch$3 or chang$3) with voice with SMS	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/26 08:33
S266	11	(shift$3 or switch$3 or chang$3) with high$1 speed internet with voice	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/26 08:37
S267	0	automatic$5 (shift$3 or switch$3 or chang$3) from high$1 speed internet with voice	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/26 08:41
S268	0	automatic$5 (shift$3 or switch$3 or chang$3) high $1 speed internet with low $1 speed internet	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/26 08:43

S269	44	automatic$5 (shift$3 or switch$3 or chang$3) high $1 speed with low$1 speed	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/26 08:44
S270	0	automatic shifting from high speed internet communications to voice communications	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/26 08:50
S271	0	automatic shifting high speed internet communications voice communications	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/26 08:50
S272	16	(high speed internet) same (low speed internet)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/26 08:50
S273	467	(high speed internet) same (voice)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/26 09:00
S274	2	automatic$5 (shift$3 or switch$3 or chang$3) same (high speed internet) same (voice)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/26 09:01
S275	105	(shift$3 or switch$3 or chang$3) same (high speed internet) same (voice)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/26 09:02
S276	89	(VOIP and internet$3) and sms and (gateway) and gatekeep$5 and pstn	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/26 13:07
S277	13489	(converg$5 or integrat$5 or combine$5) same (IP or internet) same (voice or audio or VOIP or voice $1over!IP)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/26 13:25
S278	4378	(converg$5 or integrat$5 or combine$5) with (IP or internet) with (voice or audio or VOIP or voice $1over!IP)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/26 13:25

S279	388	S278 same (mobile phone or cell phone or PDA)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/26 13:27
S280	14	S279 same (high speed or low speed)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/26 13:28
S281	388	(shift$3 or switch$3 or chang$3 or alternat$3) same (voice near9 high near3 rate)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/26 14:26
S282	111	(shift$3 or switch$3 or chang$3 or alternat$3) with (voice near9 high near3 rate)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/26 14:27
S283	173	low with high with speed with (voice or audio) with switch$3	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/26 15:20
S284	167	S283 and @ad<"20060417"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/26 15:21
S285	2	10/711490	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/26 17:09
S286	2	"20070073870"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/26 17:29
S287	11	"6542733"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/26 18:09
S288	1	09/173145	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/26 18:09

S289	2	"20060148515"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/02/27 08:38
S290	2	"7031728".pn.	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2009/02/02 13:26
S291	11	("20010044321" | "20030139150" | "20040192331" | "20040266456" | "20050130634" | "5555286" | "6204844" | "6542475" | "6775560" | "6868337").PN. OR ("7031728").URPN.	US-PGPUB; USPAT; USOCR	ADJ	OFF	2009/02/02 13:37
S292	2	"6545669".pn.	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2009/02/02 15:55
S293	3	(symbol$3 near (velocity or speed)) same activation	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2009/02/02 16:16
S294	10	(symbol$3 near (velocity or speed)) same activat$4	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2009/02/02 16:16
S295	130369	"455"/$.ccls.	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2009/02/02 16:17
S296	2	S294 and S295	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2009/02/02 16:17
S297	28	(symbol$3 near (velocity or speed)) and PDA	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2009/02/02 16:20
S298	3	S297 and S295	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2009/02/02 16:20

S299	45354	(symbol$3 or icon) and PDA	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2009/02/02 16:21
S300	3532	(symbol$3 or icon) same PDA	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2009/02/02 16:21
S301	358	S300 and S295	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2009/02/02 16:22
S302	214	S301 and activat$4	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2009/02/02 16:22
S303	728	455/457.ccls.	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2009/02/02 16:29
S304	6	S302 and S303	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2009/02/02 16:29
S305	13	PDA near5 database$1 near5 (application$1 program$4 or software$1) and touch screen	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2009/02/02 16:31
S306	1	S294 and S305	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2009/02/02 16:31
S307	3	S297 and ais	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2009/02/02 16:38
S308	3	S297 and "ais"	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2009/02/02 16:39

S309	27	Automatic Identification System and PDA and (speed or velocity)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2009/02/02 16:40
S310	11	S309 and direction	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2009/02/02 16:40
S311	5658305	icon same (speed or velocity) same heading or direction	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2009/02/02 16:54
S312	61173	PDA and S311	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2009/02/02 16:54
S313	3597	icon same (speed or velocity) same heading or direction same PDA	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2009/02/02 16:54
S314	210	icon same (speed or velocity) same heading or direction same PDA same activat$4	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2009/02/02 16:55
S315	3	S303 and S314	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2009/02/02 16:55

2/3/2009 5:59:55 PM
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ELECTRONIC INFORMATION DISCLOSURE STATEMENT

Electronic Version v18

Stylesheet Version v18.0

Title of Invention	METHOD OF PROVIDING A CELLULAR PHONE/PDA COMMUNICATION SYSTEM

Application Number :

Confirmation Number:

First Named Applicant: Malcolm Beyer

Attorney Docket Number: 10963.3803

Art Unit:

Examiner:

Search string: (6868337 or 20040266456 or 20030139150 or 20040192331).pn

US Patent Documents

Note: Applicant is not required to submit a paper copy of cited US Patent Documents

init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass
	1	6868337	2005-03-15	Muramatsu			

US Published Applications

Note: Applicant is not required to submit a paper copy of cited US Published Applications

init	Cite.No.	Pub. No.	Date	Applicant	Kind	Class	Subclass
	1	20040266456	2004-12-30	Bostrom, et al.			
	2	20030139150	2003-07-24	Rodriguez, et al.			
	3	20040192331	2004-09-30	Gorday, et al.			

Signature

Examiner Name	Date
/Amanuel Lebassi/	02/03/2009

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /A.L./

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

June 10, 2009

In re application of	:	BEYER, Malcolm K., Jr.
Serial No.	:	11/308,648
Filed	:	April 17, 2006
For	:	**METHOD OF PROVIDING A CELLULAR PHONE/PDA COMMUNICATION SYSTEM**
Examiner	:	Lebassi, Amanuel
Art Unit	:	2617
Our File No.	:	10963.3803

AMENDMENT

Mail Stop [Non-Fee OR Fee] Amendment
Hon. Commissioner for Patents
Alexandria, VA 22313-1450

Dear Sir:

In response to the Examiner's Office Action dated February 24, 2009, this amendment is submitted. Applicant submits herewith a one-month extension of time extending the time for response to June 24, 2009. Reconsideration is respectfully requested. Claims 11-19 remain in the case. Claims 1-10 and claim 20 have been withdrawn.

Amendments to the claims are on page 2-13.

The Remarks begin on page 14.

Amend the claims as follows:

1. (Withdrawn) A method of expediting a cellular phone voice call over a cellular phone telephone network using a PDA cellular phone that includes a touch screen visual display for calling a fixed location including individually but not limited to a restaurant, police station, and fire station having a conventional telephone, displayed symbolically on a geographical map on said display, said fixed location having a telephone and said fixed location being displayed on said geographical map on the cell phone touch screen display comprising:

providing the PDA cellular phone with a database and application program for displaying a selected geographical area on a map or chart on the touch screen display that includes at least one fixed location at its latitude and longitude on said map or chart;

providing the cellular phone with a database containing the telephone number of said fixed location displayed on said geographical map or chart;

providing the cellular phone with an application program to initiate a voice call to said fixed location upon touching the touch screen at the equivalent latitude and longitude location of said fixed location;

retrieving the stored telephone number of said fixed location upon initiating said telephone call by touching said fixed location on said display;

executing a call switch to turn on said cellular phone internal software to begin calling said fixed location;

establishing a call in progress symbol on said display screen when said telephone call to said fixed location is in progress; and

establishing a second different symbol on said map display indicating that the telephone call to said fixed location has been established.

2. (Withdrawn) A method as in claim 1,

providing a database in said cell phone PDA that includes the E-mail address of said fixed location;

addressing an E-mail of entered free text or a pre-selected message to said fixed location by touching the symbol of said fixed location on said map or chart displayed on said visual display; and

sending the E-mail by selecting the send or transmit switch.

3. (Withdrawn) A method as in claim 1,

providing a database in said cell phone PDA that includes the web site address of said fixed location;

going to the web site of said fixed location by touching the symbol of said fixed location on said map or chart on a soft or hard switch that indicates to go to that symbol's web site.

4. (Withdrawn) A method of expediting a cellular phone call to a fixed location as in claim 1 including the step of:

executing a conference call with said fixed location(s) telephone.

5. (Withdrawn) A method of providing a cellular phone communication network for designated participating users, each having a similarly equipped PDA cellular phone that includes a CPU, a GPS navigational system and a touch screen display:

providing rapid voice call initiation and communication to the users of the cellular telephone PDA/GPS network system using a touch screen;

providing high speed internet rapid transmission of operator selected text messages, photographs and video to other cellular phone users using the touch screen;

providing a server for establishing high speed internet communications between said cellular phone network users and said server;

providing a network of cellular phone PDA devices for said users having the same operating software that permits either voice communication and low speed communications or high speed internet communications;

providing a remote server that can receive and transmit over the internet high speed internet communications or low speed communications to each of the users' cellular phones in the cellular phone network;

detecting when one cellular phone initiates or receives a voice call;

automatic shifting from high speed internet communications to voice communications and low speed data communications upon making or the receipt of a voice call;

transmitting data to the phone(s) during the voice transmission call using a slower, short message standard communication protocol (SMS); and

automatically restoring high speed internet communications between each of the cellular phones in the communication network after the completion of voice communications.

6. (Withdrawn) A method of providing a cellular phone communication network for designated participating users, each having a similarly equipped PDA cellular phone that

includes a CPU, a GPS navigational system and a touch screen display:

providing rapid voice call initiation and communication to the users of the cellular phone PDA/GPS network system using a touch screen;

providing high speed internet rapid transmission of operator selected text messages, photographs and video to other cellular phones using the touch screen;

providing a server for establishing high speed internet communications between said cellular phone network users and said server;

establishing at the server networks that can be accessed by the phones in different manners including:

providing all the phones with an identifier (i.e. singles, coin collectors, etc.) to independently report position and status information from one user to all of the other users with that identifier and equipped with cellular phone/PDA/GPS system and its associated software; and

providing all the phones within an approved list (at the phone or the server) to independently report position and status information from one user to all the other users in that list equipped with cellular phones/PDA/GPS system and its associated software.

7. (Withdrawn) A method of providing a cellular phone communication network for designated participating users each having a PDA cellular phone that includes a CPU, GPS navigational system and touch screen:

providing rapid voice call initiation to the users of the cellular phone PDA/GPS network using the touch screen;

providing rapid transmission of photographs and video to another cellular phone using the touch screen; and

providing a server that allows for global access to facilitate the transfer of photographs and video clips between cellular phone users that functions across different cellular carriers.

8. (Withdrawn) A communication system as in claim 1 capable of using CDMA, GSM or WiFi in operation; and

said cell phone PDA operating communication units in the network can also include: smart phones, personal computers (PC), laptop or tablet computers having a telephone.

9. (Withdrawn) A method for providing a cellular phone communication network for designated participating users each having a similarly equipped PDA cellular phone that includes a CPU, GPS navigational system, a touch screen display and a server that can receive AIS data from ships equipped with Automatic Identification System (AIS) transponders and retransmit the data on a communications network comprising:

providing for the selective polling of position and status information from one user among all of the other users equipped with cellular phones/PDA/GPS system and its associated software;

providing rapid voice call initiation to the users of the cellular phone/PDA/GPS network system having said first communication protocol using a touch screen;

providing rapid transmission of free operator selected text messages, photographs, and video to another cellular phone having said first communication protocol using the touch

screen;

providing a network server that can communicate with each of the cellular phone devices of the participants in a network having said first communication protocol, said server including processing and correlating AIS signals that are used between ships for identifying the position, heading and velocity of the ship and the name of the ship and other data; and

having the server transmit AIS ship locations to all participants' cellular phones network participants having said first communication protocol.

10. (Withdrawn) A method as in claim 1, including:

providing a command server with a collection of names, telephone numbers and IP addresses that can be accessed by internet capable, mobile devices.

11. (Currently Amended) A method of providing a PDA cellular phone communication network for designating participating users displayed symbolically on a geographical map, each user having a similarly equipped cellular phone that includes CPU, GPS navigational system symbol generator and a touch screen display comprising the steps of:

providing rapid voice call initiation and communication to the users of the cellular telephone PDA/GPS network system using a touch screen;

providing high speed internet rapid transmission of operator selected text messages, photographs and video to other cellular phone users using by touching their geo-located symbol on the touch screen;

providing a network of cellular phone PDA devices for said users having the same operating software that permits either voice communication and low speed communications or

high speed internet communications;

providing a remote server that can receive and transmit over the internet high speed internet communications or low speed communications to each of the users' cellular phones in the cellular phone network;

providing symbols on said display touch screen representing other participants having similar cellular phones forming a communication network;

providing application software in each cell phone or a server for automatic triggering of stored selectable individual criteria and subject type and range for netting of said cell phone in a like group;

providing said remote server with the selectable criteria and subject matter and cell phone numbers and IP addresses of the selected user's having the criteria and subject matter;

providing application software in each cell phone or a server to utilize a list of approved net participants that can join a net;

selectively polling or reporting position and status information from one user among all of the other users equipped with the cellular phone/PDA/GPS system and its associated software and displaying the user's symbol on the map display at the correct location;

providing rapid voice call initiation to the users of the cellular phone/PDA/GPS navigational system using a touch screen and the users' symbols; and

providing rapid transmission of free, operator selected text messages, photographs and video to another cellular phone using the touch screen[.][;] ~~and~~

~~generating a display that indicates a selected symbol's velocity upon activation of a particular velocity switch.~~

12. (Currently Amended) A communication system as in claim 11, including:

displaying the selected user's symbol's velocity as a line emanating from the symbol whose direction is representative of heading and whose length is representative of speed that is seen by the other participants in the communication networks as in claim 11 ~~network~~ when the symbol's velocity is transmitted to them.

13. (Currently Amended) A method for providing a cellular phone communication network for designated participating users, each having a similarly equipped cellular PDA phone that includes a CPU, a GPS navigational system, and a touch screen display comprising:

selectively polling position and status information from one user among all of the other users equipped with said cellular phones and its associated software; and

automatically reporting position and status to a server for appropriate retransmission or directly to one or more other participant users' cell PDA phones in said communication network based on a predetermined condition.

14. (Currently Amended) A method for providing a communication network for designated participating users as in claim 13, wherein:

said predetermined condition includes distance traveled since last report; and

the user has the ability to make voice conference calls and to send free text, operator selected messages, photographs, and video to all other network participants within a distance determined by the initiator of the voice call, free text, operator selected messages,

photographs, and video.

15. (Currently Amended) A method for providing a communication network for designated participating users as in claim 13, wherein:

said predetermined condition is specific users automatically reporting at specific times and/or distances traveled by the reporting user.

16. (Currently Amended) A method for providing a cellular phone communication network for designated participating users as in claim 13, wherein:

transmitting an alert automatically activated ~~when one or more network cell phone participants~~[,] by previously entered information, or obtained from a database about fixed facilities or entered tracks that reach a minimum predetermined distance from ~~another~~ a cellular phone user.

17. (Currently Amended) A method for providing cellular phone communication network for designated participating users, each having a similarly equipped cellular phone that includes a CPU, a GPS navigational system, and a touch screen display comprising:

generating a map of a geographical display on each user's cell phone display screen;

selectively polling position and status information from one participating user between one or more of the other participant users equipped with similarly configured cellular phones and its associated software;

providing rapid voice call initiation from one participating cell phone user between and among the participating users of the cellular phone network system using a touch

screen;

providing one or more symbols on said map displayed on touch screen representing other user participants, each user having a similar cell phone forming the communication network;

calling one or more participant users by touching the screen symbol representing another participant user on the touch screen and touching a call switch;

adding a new track symbol representing an object, person or event, fixed or mobile, to the geographical display by touching the geographical display at the location of the new track to be added;

assigning a category to the new track to be added on the geographical display screen, said category being an object, person or event;

selecting an appropriate category switch for identifying the new track selected;

selectively attaching text, photographs video clips, voice recordings, Email address and URL addresses to the track so that when the user receiver of the track touches the symbol associated with the track, the user receives this information; and

sending to one or more of the other participant users of the cellular telephone network information concerning the new track including the new track's location and category and attached data to the other participant users.

18. (Currently Amended) A method for providing a cellular phone communication network for designated participating users, each user having a similarly equipped cellular phone that includes a CPU, GPS navigational system, an internet message transmitter and receiver and a

touch screen display comprising:

providing a database in each cell phone that includes a geographical map of a predetermined area for user viewing on the touch screen display;

providing an application program in each cell phone for generating one or more symbols representative of one or more participating users, each of whom have a similarly equipped cellular phone;

providing a database in each cell phone that includes cellular telephone numbers of each of the participating users having similarly equipped cellular phones, said database including the generation of one or more symbols associated with a particular participating user;

calling a participating user by touching the symbol on the map display and touching a call switch;

providing each of the cell phones with an internet connection capability;

exchanging IP addresses using SMS or other digital message format between and among each of the network participant users so that communications can between participants can then be established via IP or transmission of a network participant's IP address to a server which then transmits data to other network participants using the IP address which they have also sent to the server.

19. (Currently Amended) A method of providing a cellular phone communication network for designated participating users, each having a similarly equipped PDA cellular phone that includes a CPU, a GPS navigational system and a touch screen display comprising:

providing rapid voice call initiation and communication to the users of the cellular

telephone PDA/GPS network system ~~using~~ by touching their symbol on the phone's a touch screen;

providing high speed internet rapid transmission of operator selected text messages, photographs, voice recordings and video to other cellular phone users using the touch screen;

providing a server for establishing high speed internet communications between said cellular phone network users and said server; and

establishing at the server networks that can enable anonymous voice and data communications so that neither the originator of the phone call or data transmission nor the receiver of the phone call or data transmission need to know the other's phone number, name or other identifier other than a symbol location on a map.

20. (Withdrawn) A method of providing a cellular phone the ability to request geo-referenced maps, images or data concerning an area; and

providing the operator the ability to request geo-referenced data for an area by pointing at the center of the area for the requested information, then selecting a range scale and then taking an action to request the data from a server where the data is held.

21. (New) A method for providing a cellular phone communication network as in Claim 18 comprising the additional steps of:

pushing photographs or video clips files between and among each of the cellular telephone participant users across multiple cellular carriers and between smart phone and PCs.

22. (New) A method for providing a cellular phone communication network as in

Claim 18 comprising the additional steps of :

enabling data exchange between network participants who have common cellular phone numbers in their phone's or PC's database;

23. (New) A method for providing a cellular phone communication network as in Claim 18 including the additional steps of:

adding a new cell phone participant into a communication network of participating users by having the new cell phone participant transmit an identifier, a cell phone number and an IP address in an initial message to other participant users or to a server for retransmission of the data to other network participants;

24. (New) A method for providing a cellular phone communication network as in Claim 18 including the additional steps of:

sending each participating user directly or to a server for retransmission the geographic location of the sender of a message;

25. (New) A method for providing a cellular phone communication network as in Claim 18 including the additional steps of:

automatically calling the nearest fixed location from a particular group including: police stations, fire stations, or EMTs or other fixed locations by one or more of the cellular phone network participants;

26. (New) A method for providing a cellular phone communication network as in Claim 18 including the additional steps of:

entering on a user's touch display screen a new track by touching the display screen at the correct map location and selecting the type of symbol to be displayed, causing that symbol identifier to be transmitted to the other network participants either directly or through a server and as the track's location moves, sending new location data to the other participants relative to the new track so that each of the participating user's display is updated with the new track's position.

27. (New) A method for providing a cellular phone communication network as in claim 17 including the additional steps of:

displaying track symbols received from other network participants on the cell phone's touch display screen at the correct geographic location superimposed on a geographic map and further display the identity of the symbol and the text of the transmitted location and other received data when the track symbol is touched or selected by a different means.

28. (New) A method for providing a cellular phone communication network as in claim 17 including the additional steps of:

amplifying an entered track symbol on a user's touch screen display with free text, preformatted messages, photographs or video or other digital files and transmitting the data to the other participants either directly or through a Server so that each of the participating network users' can receive and view the information associated with the track symbol by touching the geographic located map symbol.

REMARKS

Claims 1-10 and 20 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention. The Examiner's position is that there is no allowable generic or linking claim.

Applicant has amended claims 11-19 and added new claims 21-28.

Applicant has elected prosecution of the invention in Group IV for claims 11-19.

Gorday et al. (US 2004/0192331)

The Examiner has done a thorough review of the Gorday et al. reference (US 2004/0192331) and provided a detailed an analysis in comparing or showing that the Gorday structure and system and method have some similarities to Applicant's invention recited in Claims 11-19. However, Applicant believes that the method and system shown in Gorday et al. is quite operationally and systemically different than the method and system claimed by Applicant in Claims 11-19. In fact there are discrepancies and inaccuracies stated by the Examiner in the Examiner's comparison between Applicant's claimed invention in Claims 11-19 and the system and method disclosed in the Gorday reference.

The following discrepancies or inaccuracies are noted in the Examiner's comments with respect to Gorday:

1) The Examiner states that Gorday discloses providing rapid voice call initiation to user's of the cell phones PDA/GPS navigation system using a touch screen, Paragraph (0012) in Gorday. It is Applicant's position that there is no voice call capability mentioned in Gorday.
2) The Examiner states at the end of Page 3 that "Gorday discloses providing rapid

transmission of free, operator selected text messages, photographs and video to another cellular using touch screen" and cites Paragraph (0002) in Gorday. There is no mention in Gorday concerning transmission of photographs or video.

3) With respect to Claim 14, the Examiner states that Gorday in Paragraph (0014) covers Applicant's claimed invention "the user has the ability to make voice conference calls and to send free text, operator select messages, photographs, and video to all other network participants within in a distance determined by the initiator of the voice call, free text, operator selected messages, photographs, and video". The Gorday reference in Paragraph (0014) is clear that the basis is relative range and bearing from the user which is the selection basis used in Gorday. Again, reference is made to voice calls and exchange of photographs and videos which are not disclosed in Gorday et al.

4) The Examiner states that "regarding Claim 16, Gorday teaches transmitting and alert automatically activated when one or more networks cellular phone participants fixed facilities or enter tracks reach a minimum predetermined distance from another cellular phone user" as stated in Gorday Paragraph (0013). It is Applicant's position that Gorday does not disclose fixed facilities or enter tracks. Although Gorday Figure 5 does cover automatic transmission of messages when the relative location of units in an ad hoc network meets a criterion, Gorday does not discuss alerting the user when within range of fixed facilities or enter tracks that are not part of the ad hoc network.

5) The Examiner states with respect to Claim 17 that "Gorday teaches providing rapid voice call initiation from one participating cell phone user between and among the participating users of the cell phone network using a touch screen" in Paragraph (0012). It is Applicant's position that Gorday makes no mention of voice calls but discloses manual or automatic exchange of data messages between user vehicles in an ad hoc network based on relative location, namely bearing and range. Further, Gorday makes no mention of a voice call switch.

6) The Examiner states with respect to Claim 18 that "Gorday teaches providing a database in each cell phone that includes a geographical map of a predetermined area..." in Paragraph (0013). It is Applicant's position that the Gorday reference does not state the above, but rather states "that icons are arranged to show relative locations in approximate scale". At no time does Gorday discuss a geographical map or relating the icons to a geographical map. No drawing of a geographical map is depicted in the displays shown in Gorday but only a relative position of points of small circles is depicted.

7) The Examiner states that "Gorday teaches performing at least one or more of the following steps on Pages 11 and 12 of the Examiner's office action. It is Applicant's position that none of the items in the list are correct including automatically exchanging cell phone numbers using SMS, pushing photographs or video clips, exchanging IP addresses and Email addresses, calling the nearest fixed location (police station, fire station, and EMT).

8) With respect to Claim 19, the Examiner states that Gorday discloses providing rapid voice initiation and communication to the users of a PDA/GPS network system using a touch screen as in Paragraph (0012). It is Applicant's position that there is no mention of voice transmission in Gorday's patent but it is strictly digital communications. Gorday does not discuss photographs or video.

The Examiner's rejection of claims 11-12 under 35 U.S.C. 103(a) as being unpatentable over Gorday (US 2004/0192331) in view of Buckham et al. (US 6,662,016) is respectfully traversed.

The Gorday et al. reference discloses "A Method of Targeting a Message to a Communication Device Selected from Among a Set of Communication Devices". The system uses relative geographic location of the targeted devices as location address criteria. The relative distance location that includes a relative directional distance and range component from the originator. The communication device selects for communication those devices that meet the specific criteria such as specific direction and range and transmits a message to the selected devices. The Gorday et al. system is therefore quite different in scope by using relative position information such as direction and range to limit those message recipients without specific knowledge of an address uniquely associated with those communicants. As an example the system allows for vehicles to be capable of exchanging vehicular status information such as braking status, speed, acceleration, turn signal positions and the like.

Overall, the Gorday et al. system is very limited in scope as far as providing a total

communications device for intercommunications. The Gorday system does not provide voice, photographs, video and free text messages between selected recipients in the system. There is no teaching in Gorday et al. to provide a communication system in which the desired unique predetermined group network recipients communicate directly or through a server which controls which participants are on each network (singles, coin collectors, etc.) that can be identified solely by predetermined conditions such as unique criteria or subject matter in the operating system to form a very exclusive group of communicants. The communication network described in Applicant's claims 11 and 12 is quite different structurally and operationally than anything disclosed in Gorday et al. Claim 11 has been amended to specifically delineate the operational differences from Gorday et al. which are numerous. Claim 12 includes the additional limitation that allows for specific communicants that are selected by particular criteria or subject matter to also be visually identified on the latitude/longitude geographical screen with a specific vector diagram which is a line that shows the specific geographical direction by the direction of the line on the map and the speed indicated by the length of the line designated at the specific icon on the screen. The Examiner has stated that Buckham et al. (US 6,662,016) renders Applicant's claims 11 and 12 obvious when combined with Gorday et al. Applicant's position is that the combination suggested by the Examiner of Buckham and Gorday et al. would not structurally or operationally produce Applicant's claimed invention in claims 11 and 12. Thus, even if one were to combine the teachings of these references Applicant's claimed invention would not result. Gorday et al is very different than Applicant's claimed invention. Buckham does not teach the specific structure to provide a line representing a vector of direction and speed attached to an

icon on a geographical map visible display. It provides numerical values of range and speed in alpha numeric terms.

Rejection Based on Obviousness

Non-obviousness as defined in 35 U.S.C. 103(a) is a condition of patentability under U.S. Patent law. Essentially this means that an invention as claimed must not have been obvious to one of ordinary skill in the art to which the subject matter of the invention pertains at the time of the invention. The Examiner has not found a single reference that includes all the limitations expressed in Applicant's claims 11-19. Having not found a single reference containing all of the claimed elements, the Examiner has cited two prior art references for various claims that the Examiner believes when combined would render Applicant's claims 11-19 obvious in view of 35 U.S.C. 103(a) to one of ordinary skill in the art.

The United States Supreme Court has provided specific guidelines on the issue of the standard of invention beginning with the venerable case Graham *v.* John Deere Co., 383 U.S. I 148 U.S.P.Q. 457 (1966). Under these guidelines in determining non-obviousness of an invention as claimed, the scope and content of the prior art must be determined. Also the level of ordinary skill in the art should be evaluated. Finally the differences between the prior art and the claims has to be discerned. Based on previous Court decisions including the Court of Customs and Patent Appeals (CCPA), the burden is initially upon the Patent and Trademark Office to produce factual evidence indicating that the claimed invention is *prima facie* obvious. The Federal Circuit embraced and applied the *prima facie* obviousness concept beginning in 1984. *In*

re Piasecki, 745 Fed. 2d 1468, 223 U.S.P.Q. 785 (Fed. Cir. 1984). If the Examiner fails to establish a *prima facie* case, the rejections are improper.

Combining References

The traditional test for combining references used for many years is called the teaching, suggestion or motivation to combine, known as "TSM". The purpose of this court instituted test was to ensure that the Examiner does not use the Applicant's teachings in hind-sight to combine references to arrive at Applicant's claimed invention. The standard for many years was that the prior art must itself contain a teaching, suggestion, or motivation to combine the elements shown in the prior art to arrive at Applicant's claimed invention.

The requirement for teaching, suggestion, motivation and combining references was first established by the Court of Customs and Patent Appeals in 1961. In re Bergel, 292 Fed 2d 955 (CCPA 1961). The establishment of the Federal Circuit Court of Appeals for the Federal Circuit continued following the TSM doctrine up until the KSR International case.

In a recent decision in KSR International Co. *v.* Teleflex Inc., 550 U.S. 398; 127 S. Ct. 1727; L. Ed 2d 750 (2007), the Supreme Court reviewed the TSM doctrine and stated that the TSM requirement can be a helpful insight but that it should not be applied with a rigid and mandatory formula. The Court did state that hind-sight bias should be avoided but a rigid preventative rule must not deny fact finders recourse to common sense.

It is further Applicant's position that there is no teaching suggestion or motivation that would allow one of ordinary skill in the communication art for wireless communication to suggest combining these two disparate references. The operation and function of the Gorday et

al. reference is quite different than the system shown in Buckham et al. and one would not be motivated to combine these references because they do not teach the claimed invention when combinted. Applicant's amended claimed 11 provides for a server and a group of communicating devices that include information that allows one user to seek a group of other users that have a specific desirable unique criterion or subject matter that can be communicated with through a server to create a specific unique group of users in a communication network. Claim 12 also allows for other members of that unique group to observe the vector speed and direction of that particular icon on a visual screen. It is Applicant's position that the Examiner has used hind sight in an attempt to arrive at Applicant's claimed invention with the combination of Gorday et al. and Buckham. The Examiner has not created a *prima facie* case of obviousness under 35 U.S.C. 103.

The Examiner's rejection of claims 13-16 under 35 U.S.C. 103(a) as being unpatentable over Gorday (2004/0192331) in view of Fumarolo (US 6,204,844) is respectfully traversed.

Applicant herein reiterates the comments made above with respect to the Gorday et al. reference and the differences between the Gorday et al. reference and Applicant's claimed invention in claims 13-16. Fumarolo shows "A Method and Apparatus for Dynamically Grouping Communication Units in a Communication System". The system is more compatible with a dispatch type of communication system that has a wireless infrastructure with a plurality of two way radios. The map display allows the dispatcher a tool for evaluating emergency situations. The Fumarolo system provides a method and apparatus that allows a user of a display based terminal such as a computer aided dispatch system of having integrated mapping program

to dynamically group and ungroup communication units from a single map environment. This is quite different than the system disclosed in Gorday et al. and Applicant's system. Fumarolo has to do with establishing position related voice talk groups where units are shifted to a different talk group (frequency) when cars having radios enter and exit a geographical area. Fumarolo does not address an identifier of any type such as coin collectors, golfers or singles, nor does that device create a server table that relates units to an identifier which is the predetermined condition. The fact is that Fumarolo relates to a car dispatcher manually adjusting call groups. It has nothing to do with the ability of user to enter an identifier incorporating people of like, subject matter, or criteria into a communications group. Therefore, it is Applicant's position that when viewing claims 13-16 a person of ordinary skill in the art even if that person did try to combine Gorday et al. with Fumarolo would not arrive at Applicant's specifically claimed invention in claims 13-16.

In Applicant's amended claimed 17, Gorday makes no mention at all of voice calls. Gorday's patent is about the manual or automatic exchanging data messages between users (vehicles) in an ad-hoc network. Gorday Figures 3 and 5 are based on the relative location between an ad-hoc group of other devices . Furthermore, Gorday makes no mention of a voice call switch.

The Examiner's rejection of claim 17 under U.S.C. 103(a) as being unpatentable over Gorday (2004/0192331) in view of Tsuge (US 2003/0200259) is respectfully traversed.

Gorday fails to disclose adding a new track symbol representing an object, person or event, fixed or mobile to the geographic display by touching the geographical display at the

location of the new track to be added; assigning a category to the new track to be added to the geographical display screen.

Tsuge's patent concerns the remote updating of a map database with information and then determining the shortest distance from the user's location to the entered fixed object. Tsuge then specifies different methods of determining the reliability of the entered data. Multiple users may update the location to improve the entered data's positional accuracy. Tsuge's patent does not discuss simply touching the map at a location to enter the location and also does not discuss transmitting the location data to others in an ad-hoc network. The combination of references does not produce the claimed invention in claim 17.

The Examiner's rejection of claim 18 under U.S.C. 103(a) as being unpatentable over Gorday (2004/0192331) in view of Mizuno (US 2006/0031927) is respectfully traversed. Applicant herein reiterates the numerous differences in structure and operation between the Gorday reference and Applicant's claimed invention in Claim 18 as reiterated above. Again, it is Applicant's position that the information management system shown in Mizuno is completely different and unrelated to the specific structure and function of Applicant's claimed invention in Claim 18. Column 2 in Paragraphs 0013 through Page 2, Column 1 in Paragraph 0023 of the Mizuno reference describes a system completely different than Applicant's claimed invention in Claim 18. Overall, the Mizuno reference is a system for controlling an apparatus provided to an intranet for managing group information and files. Sufficient to say that it's the Applicant's position is that if one were to combine Gorday and Mizuno one could not possibly arrive at the structure and operational system defined in applicant's Claim 18.

The Examiner's rejection of claim 19 under U.S.C. 103(a) as being unpatentable over Gorday (2004/0192331) in view of August et al. (US 2004/0204070) is respectfully traversed. Applicant herein reiterates the comments and descriptions of the Gorday reference above and the numerous differences between the Gorday reference and the structure in Applicant's Claim 19 which are applicable to the comments made on earlier claims on Gorday's deficiencies. The August et al reference US 2004/0204070 published October 14, 2004 shows a system and method for remotely accessing configuration information. August is classified in US class 455 and subclass 557. The system is a cellular phone response to a request for configuration information by forming a data packet containing the configuration information which is sent to a remote computer where it is stored in permanent storage for later retrieval. The August et al system is completely unrelated to Applicant's communication system and the network for unique individuals in Applicant's communication network as defined and recited in Applicant's amended claim 19. It is Applicant's position that the combination of Gorday et al and August et al cannot result in the Applicant's Claim 19 invention because of the serious deficiencies in both Gorday and August. August makes absolutely no reference to anonymous calls. Thus, it is Applicant's position that the Examiner has not provided a *prima facie* case of obviousness with respect to Claim 19.

In summary, it is Applicant's position that Claims 11-19 are clearly allowable over the primary reference of Gorday which is completely different than Applicant's claimed invention in these claims and the other references cited by the Examiner in hind sight.

New claims 21-26 are dependent claims from claim 18, which is believed allowable.

New claims 27 and 28 are dependent claims from claim 17, which is also believed to be allowable.

Respectfully submitted,

Barry L. Haley, Esq. (Reg. No. 25,339)
Malin Haley DiMaggio Bowen & Lhota, P.A.
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Telephone: (954) 763-3303
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I:\10000\10963\amend\3803June2009Amend.Revisions(2).doc

Electronic Patent Application Fee Transmittal

Application Number:	11308648
Filing Date:	17-Apr-2006
Title of Invention:	METHOD OF PROVIDING A CELLULAR PHONE/PDA COMMUNICATION SYSTEM
First Named Inventor/Applicant Name:	Malcolm K. Beyer
Filer:	Barry Lee Haley
Attorney Docket Number:	10963.3803

Filed as Small Entity

Utility under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Extension - 1 month with $0 paid	2251	1	65	65

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
			Total in USD ($)	**65**

Electronic Acknowledgement Receipt	
EFS ID:	5488998
Application Number:	11308648
International Application Number:	
Confirmation Number:	3647
Title of Invention:	METHOD OF PROVIDING A CELLULAR PHONE/PDA COMMUNICATION SYSTEM
First Named Inventor/Applicant Name:	Malcolm K. Beyer
Customer Number:	22235
Filer:	Barry Lee Haley
Filer Authorized By:	
Attorney Docket Number:	10963.3803
Receipt Date:	10-JUN-2009
Filing Date:	17-APR-2006
Time Stamp:	13:35:31
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$65
RAM confirmation Number	8635
Deposit Account	131130
Authorized User	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)

1	Extension of Time	3803OneMonExtension.pdf	398566 7ca8a4437f7045681b44bf0a7d40bcda16a1310c	no	2
Warnings:					
Information:					
2	Amendment/Req. Reconsideration-After Non-Final Reject	3803June2009Amend.pdf	704753 59e2092971866e5cb1c2bc87712c612f8d7af49a	no	27
Warnings:					
Information:					
3	Fee Worksheet (PTO-875)	fee-info.pdf	30483 bc3caba7895467863823e44ce48524d0a9a34688	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	1133802		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

<u>New Applications Under 35 U.S.C. 111</u>
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

<u>National Stage of an International Application under 35 U.S.C. 371</u>
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

<u>New International Application Filed with the USPTO as a Receiving Office</u>
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/22 (03-09)
Approved for use through 04/30/2009. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARMENT OF COMMERCE

PETITION FOR EXTENSION OF TIME UNDER 37 CFR 1.136(a) **FY 2009** ***(Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).)***	Docket Number (Optional) Lebassi, Amanuel
Application Number 11/308,648	Filed April 17, 2006
For METHOD OF PROVIDING A CELLULAR PHONE/PDA COMMUNICATION SYSTEM	
Art Unit 2617	Examiner Lebassi, Amanuel

This is a request under the provisions of 37 CFR 1.136(a) to extend the period for filing a reply in the above identified application.

The requested extension and fee are as follows (check time period desired and enter the appropriate fee below):

		Fee	Small Entity Fee	
☑	One month (37 CFR 1.17(a)(1))	$130	$65	$ 65.00
☐	Two months (37 CFR 1.17(a)(2))	$490	$245	$
☐	Three months (37 CFR 1.17(a)(3))	$1110	$555	$
☐	Four months (37 CFR 1.17(a)(4))	$1730	$865	$
☐	Five months (37 CFR 1.17(a)(5))	$2350	$1175	$

☐ Applicant claims small entity status. See 37 CFR 1.27.

☐ A check in the amount of the fee is enclosed.

☐ Payment by credit card. Form PTO-2038 is attached.

☐ The Director has already been authorized to charge fees in this application to a Deposit Account.

☑ The Director is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account Number 13-1130.

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest. See 37 CFR 3.71.
Statement under 37 CFR 3.73(b) is enclosed (Form PTO/SB/96).

☐ attorney or agent of record. Registration Number _____

☑ attorney or agent under 37 CFR 1.34.
Registration number if acting under 37 CFR 1.34 25,339

/barry. haley/	June 10, 2009
Signature	Date
Barry L. Haley, Esq.	954.763.3303
Typed or printed name	Telephone Number

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.

☑ Total of One (1) forms are submitted.

This collection of information is required by 37 CFR 1.136(a). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 6 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

PTO/SB/06 (07-06)
Approved for use through 1/31/2007. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number	Filing Date	☐ To be Mailed
11/308,648	04/17/2006	

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY ☒ RATE ($)	SMALL ENTITY ☒ FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =		OR	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =			X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $250 ($125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).						
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))							
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT 06/10/2009

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE ($)	SMALL ENTITY ADDITIONAL FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	* 28	Minus	** 20	= 8	X $26 =	208	OR	X $ =	
Independent (37 CFR 1.16(h))	* 11	Minus	***11	= 0	X $110 =	0	OR	X $ =	
☐ Application Size Fee (37 CFR 1.16(s))									
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
					TOTAL ADD'L FEE	208	OR	TOTAL ADD'L FEE	

AMENDMENT

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)	OR	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =		OR	X $ =	
Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =		OR	X $ =	
☐ Application Size Fee (37 CFR 1.16(s))									
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
					TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

Legal Instrument Examiner:
/JASON B. EADDY/

Document code: WFEE

United States Patent and Trademark Office
Sales Receipt for Accounting Date: 07/24/2009

JEADDY SALE #00000003 Mailroom Dt: 06/10/2009 131130 11308648
01 FC : 2202 208.00 DA

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

22235 7590 09/21/2009

MALIN HALEY DIMAGGIO BOWEN & LHOTA, P.A.
1936 S ANDREWS AVENUE
FORT LAUDERDALE, FL 33316

EXAMINER	
LEBASSI, AMANUEL	
ART UNIT	PAPER NUMBER
2617	

DATE MAILED: 09/21/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/308,648	04/17/2006	Malcolm K. Beyer JR.	10963.3803	3647

TITLE OF INVENTION: METHOD OF PROVIDING A CELLULAR PHONE/PDA COMMUNICATION SYSTEM

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	$755	$300	$0	$1055	12/21/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

22235 7590 09/21/2009

MALIN HALEY DIMAGGIO BOWEN & LHOTA, P.A.
1936 S ANDREWS AVENUE
FORT LAUDERDALE, FL 33316

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/308,648	04/17/2006	Malcolm K. Beyer JR.	10963.3803	3647

TITLE OF INVENTION: METHOD OF PROVIDING A CELLULAR PHONE/PDA COMMUNICATION SYSTEM

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	$755	$300	$0	$1055	12/21/2009

EXAMINER	ART UNIT	CLASS-SUBCLASS
LEBASSI, AMANUEL	2617	455-417000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

❑ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

❑ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,

(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 _____

2 _____

3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ❑ Individual ❑ Corporation or other private group entity ❑ Government

4a. The following fee(s) are submitted:

❑ Issue Fee

❑ Publication Fee (No small entity discount permitted)

❑ Advance Order - # of Copies _____

4b. Payment of Fee(s): **(Please first reapply any previously paid issue fee shown above)**

❑ A check is enclosed.

❑ Payment by credit card. Form PTO-2038 is attached.

❑ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)

❑ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

❑ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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P.O. Box 1450
Alexandria, Virginia 22313-1450
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/308,648	04/17/2006	Malcolm K. Beyer JR.	10963.3803	3647

22235 7590 09/21/2009

MALIN HALEY DIMAGGIO BOWEN & LHOTA, P.A.
1936 S ANDREWS AVENUE
FORT LAUDERDALE, FL 33316

EXAMINER	
LEBASSI, AMANUEL	
ART UNIT	PAPER NUMBER
2617	

DATE MAILED: 09/21/2009

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 450 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 450 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability	Application No.	Applicant(s)	
	11/308,648	BEYER ET AL.	
	Examiner	Art Unit	
	AMANUEL LEBASSI	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *06/10/2009*.

2. ☒ The allowed claim(s) is/are *11-19 and 21-28*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Barry L. Haley (Registration No. 25,339) on 09/08/2009 at 3:50 PM EST.

The application has been amended as shown in the "Listing of Claims" below and is summarized as follows:

Claims 1-10 and 20 have been withdrawn after elections of restriction.

Claim 13 is cancelled.

Begin Amendment:

Listing of the claims:

11. (Currently Amended) A method of providing a PDA cellular phone communication network for designating participating users displayed symbolically on a geographical map, each user having a similarly equipped cellular phone that includes CPU, GPS navigational system symbol generator and a touch screen display comprising the steps of:

~~providing~~ selecting screen icons for establishing rapid voice call initiation and

communication to the users of the cellular telephone PDA/GPS network system using a touch screen;

~~providing~~ transmitting high speed internet ~~rapid transmission of operator~~ selected text messages, photographs and video to other cellular phone users ~~using~~ by touching ~~their~~ each user's geo-located symbol on the touch screen;

~~providing~~ establishing a network of cellular phone PDA devices for said users having the same operating software that permits either voice communication and low speed communications or high speed internet communications;

~~providing~~ communicating by icon selection with a remote server ~~that can receive~~ for receiving and ~~transmit~~ transmitting over the internet high speed internet communications or low speed communications to each of the users' cellular phones in the cellular phone network;

~~providing~~ selecting symbols on said display touch screen representing other participants having similar cellular phones forming a communication network;

~~providing~~ selecting by screen icon application software in each cell phone or a server for automatic triggering of stored selectable individual criteria and subject type and range for netting of said cell phone in a like group;

~~providing~~ selecting icons for communicating with said remote server with the selectable criteria and subject matter and cell phone numbers and IP addresses of the selected user's having the criteria and subject matter;

~~providing~~ selecting application software in each cell phone or a server ~~to utilize~~ for utilizing a list of approved net participants that can join a net;

~~selectively polling or reporting position~~ selecting screen icons for communicating a position report and status information from one user among all of the other users equipped with the cellular phone/PDA/GPS system and its associated software and displaying the user's symbol on the map display at the correct location;

~~providing~~ selecting a screen icon for transmitting rapid voice call initiation to the users of the cellular phone/PDA/GPS navigational system using a touch screen and the users' symbols; and

~~providing~~ selecting a screen icon for transmitting rapid transmission of free, operator selected text messages, photographs and video to another cellular phone using the touch screen.

12.(Previously Amended) A communication system as in claim 11, including: displaying the selected user's symbol's velocity as a line emanating from the symbol whose direction is representative of heading and whose length is representative of speed that is seen by the other participants in the communication networks as in claim 11 when the symbol's velocity is transmitted to them.

13. (Cancelled)

14. (Currently Amended) ~~A method for providing a communication a network for designated participating users as in claim 13, wherein~~ : A method for providing a cellular phone communication network for designated participating users, each having a

similarly equipped cellular PDA phone that includes a CPU, a GPS navigational system, and a touch screen display comprising:

Selectively activating one or more touch screen icons for activating transmission of selectively polling position and status information from one user among all of the other users equipped with said cellular phones and its associated software;

activating a touch screen icon for automatically reporting position and status to a server for appropriate transmission or directly to one or more other participant users' cell PDA phones in said communication network based on predetermined condition;

~~said~~ activating a touch screen icon for reporting position and status based on a predetermined condition that includes distance traveled since last report; and

~~the user has the ability to make~~ selecting a touch screen icon establishing voice conference calls and ~~to send~~ sending free text, operator selected messages, photographs, and video to all other network participants within a distance determined by the initiator of the voice call, free text, operator selected messages, photographs, and video.

15. (Currently Amended) A method for providing a communication network for designated participating users as in claim ~~13~~ 14,wherein:

~~said~~ selecting an icon for creating a predetermined condition ~~is~~ having specific users automatically reporting at specific times and/or distances traveled by the reporting user.

16. (Previously Amended) A method for providing a cellular phone communication

network for designated participating users as in claim ~~13~~ 14, wherein:

transmitting an alert automatically activated by previously entered information, or obtained from a database about fixed facilities or entered tracks that reach a minimum predetermined distance from a cellular phone user.

17. (Previously Amended) A method for providing cellular phone communication network for designated participating users, each having a similarly equipped cellular phone that includes a CPU, a GPS navigational system, and a touch screen display comprising:

generating a map of a geographical display on each user's ceil phone display screen;

selectively polling position and status information from one participating user between one or more of the other participant users equipped with similarly configured cellular phones and its associated software;

providing rapid voice call initiation from one participating cell phone user between and among the participating users of the cellular phone network system using a touch screen;

providing one or more symbols on said map displayed on touch screen representing other user participants, each user having a similar cell phone forming the communication network;

calling one or more participant users by touching the screen symbol representing another participant user on the touch screen mad touching a call switch;

adding a new track symbol representing an object, person or event, fixed or mobile, to the geographical display by touching the geographical display at the location of the new track to be added;

assigning a category to the new track to be added on the geographical display screen, said category being an object, person or event;

selecting an appropriate category switch for identifying the new track selected;

selectively attaching text, photographs video clips, voice recordings, Email address and URL addresses to the track so that when the user receiver of the track touches the symbol associated with the track, the user receives this information; and

sending to one or more of the other participant users of the cellular telephone network information concerning the new track including the new track's location and category and attached data to the other participant users.

18. (Currently Amended) A method for providing a cellular phone communication network for designated participating users, each user having a similarly equipped cellular phone that includes a CPU, GPS navigational system, an interact message transmitter and receiver and a touch screen display comprising:

~~providing~~ accessing a database in each cell phone that includes a geographical map of a predetermined area for user viewing on the touch screen display;

~~providing~~ accessing an application program in each cell phone for generating one or more symbols representative of one or more participating users, each of whom

have a similarly equipped cellular phone;

~~providing~~ accessing a database in each cell phone that includes cellular telephone numbers of each of the participating users having similarly equipped cellular phones, said database including the generation of one or more symbols associated with a particular participating user;

calling a participating user by touching the symbol on the map display and touching a call switch;

~~providing~~ connecting each of the cell phones ~~with~~ to an internet connection ~~capability~~;

exchanging IP addresses using SMS or other digital message format between and among each of the network participant users so that communications ~~can~~ between participants ~~can then be~~ is established via IP or transmission of a network participant's IP address to a server which then transmits data to other network participants using the IP address previously ~~which they have also sent to the server~~.

19. (Currently Amended) A method of providing a cellular phone communication network for designated participating users, each having a similarly equipped PDA cellular phone that includes a CPU, a GPS navigational system and a touch screen display comprising:

~~providing~~ selecting an icon that establishes rapid voice call initiation and communication to the users of the cellular telephone PDA/GPS network system ~~using~~

by touching their symbol on the phone's a touch screen;

~~providing~~ transmitting high speed internet rapid transmission of operator selected text messages, photographs, voice recordings and video to other cellular phone users using the touch screen;

~~providing~~ accessing a server for establishing high speed internet communications between said cellular phone network users and said server; and

~~establishing~~ generating at the server networks ~~that can enable~~ enabling anonymous voice and data communications so that neither the originator of the phone call or data transmission nor the receiver of the phone call or data transmission need to know the other's phone number, name or other identifier other than a symbol location on a map.

20. (Withdrawn) A method of providing a cellular phone the ability to request geo-referenced maps, images or data concerning an area; and
providing the operator the ability to request geo-referenced data for an area by pointing at the center of the area for the requested information, then selecting a range scale and then taking an action to request the data from a server where the data is held.

21. (Previously Presented) A method for providing a cellular phone communication network as in Claim 18 comprising the additional steps of:

pushing photographs or video clips files between and among each of the

cellular telephone participant users across multiple cellular carriers and between smart phone and PCs.

22. (Previously Presented) A method for providing a cellular phone communication network as in Claim 18 comprising the additional steps of :

enabling data exchange between network participants who have common cellular phone numbers in their phone's or PC's database;

23. (Previously Presented) A method for providing a cellular phone communication network as in Claim 18 including the additional steps of:

adding a new cell phone participant into a communication network of participating users by having the new cell phone participant transmit an identifier, a ceil phone number and an IP address in an initial message to other participant users or to a server for retransmission of the data to other network participants;

24. (Previously Presented) A method for providing a cellular phone communication network as in Claim 18 including the additional steps of:

sending each participating user directly or to a server for retransmission the geographic location of the sender of a message;

25. (Previously Presented) A method for providing a cellular phone communication network as in Claim 18 including the additional steps of:

automatically calling the nearest fixed location from a particular group

including: police stations, fire stations, or EMTs or other fixed locations by one or more of the cellular phone network participants;

26. (Previously Presented) A method for providing a cellular phone communication network as in Claim 18 including the additional steps of:

entering on a user's touch display screen a new track by touching the display screen at the correct map location and selecting the type Of symbol to be displayed, causing that symbol identifier to be transmitted to the other network participants either directly or through a server and as the track's location moves, sending new location data to the other participants relative to the new track so that each of the participating user's display is updated with the new track's position.

27. (Previously Presented) A method for providing a cellular phone communication network as in claim 17 including the additional steps of:

displaying track symbols received from other network participants on the ceil phone's touch display screen at the correct geographic location superimposed on a geographic map mid further display the identity of the symbol and the text of the transmitted location and other received data when the track symbol is touched or selected by a different means.

28. (Previously Presented) A method for providing a cellular phone communication network as in claim 17 including the additional steps of:

amplifying an entered track symbol on a user' s touch screen display with free text, preformatted messages, photographs or video or other digital files and transmitting

the data to the other participants either directly or through a Server so that each of the participating network users' can receive and view the information associated with the track symbol by touching the geographic located map symbol.

[End Amendment]

Allowable Subject Matter

2. Claims 11-19, and 21-28 are allowed.

3. The following is an examiner's statement of reasons for allowance: The prior art made of record and relied upon by the examiner in the prosecution of this Application, fails or even suggest "A method of providing a PDA cellular phone communication network for designating participating users displayed symbolically on a geographical map, each user having a similarly equipped cellular phone that includes CPU, GPS navigational system symbol generator and a touch screen display comprising the steps of: selecting screen icons for establishing rapid voice call initiation and communication to the users of the cellular telephone PDA/GPS network system using a touch screen; transmitting high speed internet selected text messages, photographs and video to other cellular phone users by touching each user's geo-located symbol on the touch screen; establishing a network of cellular phone PDA devices for said users having the same operating software that permits either voice communication and low speed communications or high speed internet communications; communicating by icon selection with a remote for receiving and transmitting over the internet high speed

internet communications or low speed communications to each of the users' cellular phones in the cellular phone network; selecting symbols on said display touch screen representing other participants having similar cellular phones forming a communication network; selecting by screen icon application software in each cell phone or a server for automatic triggering of stored selectable individual criteria and subject type and range for netting of said cell phone in a like group; selecting icons for communicating with said remote server with the selectable criteria and subject matter and cell phone numbers and IP addresses of the selected user's having the criteria and subject matter; selecting application software in each cell phone or a server for utilizing a list of approved net participants that can join a net; selectively attaching text, photographs video clips, voice recordings, Email address and URL addresses to the track so that when the user receiver of the track touches the symbol associated with the track, the user receives this information and exchanging IP addresses using SMS or other digital message format between and among each of the network participant users so that communications ~~can~~ between participants is established via IP or transmission of a network participant's IP address to a server which then transmits data to other network participants using the IP address previously ", as recited in independent claims 11, 13, 14, 17, 18 and 19.

4. Dependent claims 12, 15, 16, 21, 22, 23, 24, 25, 26, 27 and 28 respectively depend on allowed claims 11, 13, 14, 17, 18 and 19, and for the mere dependence on those allowed claims, claims 12, 15, 16, 21, 22, 23, 24, 25, 26, 27 and 28 are also allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

1. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Amanuel Lebassi, whose telephone number is (571) 270-5303. The Examiner can normally be reached on Monday-Thursday from 8:00am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Nick Corsaro can be reached at (571) 272-7876. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Amanuel Lebassi
/A. L./

09/09/2009

/NICK CORSARO/

Supervisory Patent Examiner, Art Unit 2617

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11308648	BEYER ET AL.
	Examiner	Art Unit
	AMANUEL LEBASSI	2617

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	02/02/2009	09/10/2009							
	1	÷	÷							
	2	÷	÷							
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	10	÷	÷							
1	11	✓	=							
2	12	✓	=							
	13	✓	-							
3	14	✓	=							
4	15	✓	=							
5	16	✓	=							
6	17	✓	=							
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16	19	÷	=							
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13	24		=							
14	25		=							
15	26		=							
7	27		=							
8	28		=							

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11308648	BEYER ET AL.
	Examiner	Art Unit
	AMANUEL LEBASSI	2617

SEARCHED			
Class	Subclass	Date	Examiner
455	452.3, 416, 457	2/3/2009	AL

SEARCH NOTES		
Search Notes	Date	Examiner
Inventor Search	2/3/2009	AL
Consulted Nick Corsaro (SPE)	2/3/2009	AL
Consulted Nick Corsaro (SPE)	9/8/2009	AL

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner
455	457	9/9/2009	AL

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	0	(A method of providing a PDA cellular phone communication network for designating participating users displayed symbolically on a geographical map, each user having a similarly equipped cellular phone that includes CPU, GPS navigational system symbol generator and a touch screen display comprising the steps of: selecting screen icons for establishing rapid voice call initiation and communication to the users of the cellular telephone PDA/GPS network system using a touch screen).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO	ADJ	OFF	2009/09/09 14:37
L2	0	(A method of providing a PDA cellular phone communication network for designating participating users displayed symbolically on a geographical map, each user having a similarly equipped cellular phone that	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO	AND	OFF	2009/09/09 14:37

		includes CPU, GPS navigational system symbol generator and a touch screen display comprising the steps of: selecting screen icons for establishing rapid voice call initiation and communication to the users of the cellular telephone PDA/GPS network system using a touch screen).clm.				
L3	0	(A method of providing a PDA cellular phone communication network for designating participating users displayed symbolically on a geographical map, each user having a similarly equipped cellular phone that includes CPU, GPS navigational system symbol generator and a touch screen display comprising the steps of selecting screen icons for establishing rapid voice call initiation and communication to the users of the cellular telephone PDA/GPS network system using a touch screen).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO	AND	OFF	2009/09/09 14:37

L4	0	(transmitting high speed internet selected text messages photographs and video to other cellular phone users by touching each user $2geo-located symbol on the touch screen).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO	AND	OFF	2009/09/09 14:39
L5	0	(transmitting high speed internet selected text messages photographs and video to other cellular phone users by touching each user $2 geo-located symbol on the touch screen).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO	AND	OFF	2009/09/09 14:39

9/9/2009 2:44:04 PM
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Issue Classification

Application/Control No.	Applicant(s)/Patent Under Reexamination
11308648	BEYER ET AL.
Examiner	**Art Unit**
AMANUEL LEBASSI	2617

ORIGINAL		INTERNATIONAL CLASSIFICATION														
CLASS	SUBCLASS	CLAIMED					NON-CLAIMED									
455	457	H	0	4	W	24 / 00 (2009.01.01)										

CROSS REFERENCE(S)					
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)				
455	416	417			

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
	1	6	17												
	2	9	18												
	3	16	19												
	4		20												
	5	10	21												
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	7	12	23												
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1	11	7	27												
2	12	8	28												
	13														
3	14														
4	15														
5	16														

/AMANUEL LEBASSI/ Examiner.Art Unit 2617	09/09/2009	**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	17	
/NICK CORSARO/ Supervisory Patent Examiner.Art Unit 2617	09/13/2009	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	11	Fig. 1

U.S. Patent and Trademark Office

Part of Paper No. 20090909

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

22235 7590 09/21/2009

MALIN HALEY DIMAGGIO BOWEN & LHOTA, P.A.
1936 S ANDREWS AVENUE
FORT LAUDERDALE, FL 33316

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/308,648	04/17/2006	Malcolm K. Beyer JR.	10963.3803	3647

TITLE OF INVENTION: METHOD OF PROVIDING A CELLULAR PHONE/PDA COMMUNICATION SYSTEM

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	$755	$300	$0	$1055	12/21/2009

EXAMINER	ART UNIT	CLASS-SUBCLASS
LEBASSI, AMANUEL	2617	455-417000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,

(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 Malin Haley DiMaggio
2 Bowen & Lhota, P.A.
3

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE: Advanced Ground Information Systems, Inc.

(B) RESIDENCE: (CITY and STATE OR COUNTRY): 92 Lighthouse Drive Jupiter Inlet Colony, FL 33469

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☒ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

☒ Issue Fee
☒ Publication Fee (No small entity discount permitted)
☒ Advance Order - # of Copies Ten (10)

4b. Payment of Fee(s): **(Please first reapply any previously paid issue fee shown above)**

☐ A check is enclosed.
☐ Payment by credit card. Form PTO-2038 is attached.
☒ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number 131130 (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)

☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature /Barry L. Haley/ Date October 2, 2009

Typed or printed name Barry L. Haley, Esq. Registration No. 25339

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Electronic Patent Application Fee Transmittal

Application Number:	11308648
Filing Date:	17-Apr-2006
Title of Invention:	METHOD OF PROVIDING A CELLULAR PHONE/PDA COMMUNICATION SYSTEM
First Named Inventor/Applicant Name:	Malcolm K. Beyer
Filer:	Barry Lee Haley
Attorney Docket Number:	10963.3803

Filed as Small Entity

Utility under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Utility Appl issue fee	2501	1	755	755
Publ. Fee- early, voluntary, or normal	1504	1	300	300

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Miscellaneous:				
Printed copy of patent - no color	8001	10	3	30
		Total in USD ($)		**1085**

Electronic Acknowledgement Receipt	
EFS ID:	6199179
Application Number:	11308648
International Application Number:	
Confirmation Number:	3647
Title of Invention:	METHOD OF PROVIDING A CELLULAR PHONE/PDA COMMUNICATION SYSTEM
First Named Inventor/Applicant Name:	Malcolm K. Beyer
Customer Number:	22235
Filer:	Barry Lee Haley
Filer Authorized By:	
Attorney Docket Number:	10963.3803
Receipt Date:	05-OCT-2009
Filing Date:	17-APR-2006
Time Stamp:	10:57:38
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$1085
RAM confirmation Number	6809
Deposit Account	131130
Authorized User	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)

1	Issue Fee Payment (PTO-85B)	3803IssueFee.pdf	68342 aa8b9166c6284d948eba5fbc6e04fea2c78d a127	no	1
Warnings:					
Information:					
2	Fee Worksheet (PTO-875)	fee-info.pdf	33620 42bf10a0ed297ba8b9a5ac70f969d58a15a eed64	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	101962		

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New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
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New International Application Filed with the USPTO as a Receiving Office
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/308,648	04/17/2006	Malcolm K. Beyer JR.	10963.3803	3647

22235 7590 11/12/2009

MALIN HALEY DIMAGGIO BOWEN & LHOTA, P.A.
1936 S ANDREWS AVENUE
FORT LAUDERDALE, FL 33316

EXAMINER	
LEBASSI, AMANUEL	
ART UNIT	**PAPER NUMBER**
2617	

NOTIFICATION DATE	DELIVERY MODE
11/12/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

info@mhdpatents.com

Supplemental Notice of Allowability	Application No. 11/308,648	Applicant(s) BEYER ET AL.	
	Examiner AMANUEL LEBASSI	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *06/10/2009*.

2. ☒ The allowed claim(s) is/are *11-19 and 21-28*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☐ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☒ Other *Application Data Sheet*.

/NICK CORSARO/
Supervisory Patent Examiner, Art Unit 2617

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APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/308,648	12/08/2009	7630724	10963.3803	3647

22235 7590 11/18/2009

MALIN HALEY DIMAGGIO BOWEN & LHOTA, P.A.
1936 S ANDREWS AVENUE
FORT LAUDERDALE, FL 33316

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment is 450 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site http://pair.uspto.gov for additional applicants):

Malcolm K. Beyer JR., Jupiter Inlet Colony, FL;
Christopher R. Rice, Monroe, WA;

Exhibit 1013

PTO/SB/14 (08-05)
Approved for use through 07/31/2006. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	10963.3805
	Application Number	
Title of Invention	METHOD OF CONTROLLING USER AND REMOTE CELL PHONE TRANSMISSIONS AND DISPLAYS	

The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76.
This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.

Secrecy Order 37 CFR 5.2

☐ Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)

Applicant Information:

Applicant 1 Remove

Applicant Authority ◉ Inventor ○ Legal Representative under 35 U.S.C. 117 ○ Party of Interest under 35 U.S.C. 118

Prefix	Given Name	Middle Name	Family Name	Suffix
	Malcolm	K.	Beyer	Jr.

Residence Information (Select One) ◉ US Residency ○ Non US Residency ○ Active US Military Service

City	Jupiter Inlet Colony	State/Province	FL	Country of Residence i	US

Citizenship under 37 CFR 1.41(b) i: US

Mailing Address of Applicant:

Address 1	92 Lighthouse Drive
Address 2	

City	Jupiter Inlet Colony	State/Province	FL
Postal Code	33469-3504	Country i	US

All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the **Add** button. Add

Correspondence Information:

Enter either Customer Number or complete the Correspondence Information section below.
For further information see 37 CFR 1.33(a).

☐ **An Address is being provided for the correspondence Information of this application.**

Customer Number	22235		
Email Address	info@mhdpatents.com	Add Email	Remove Email

Application Information:

Title of the Invention	METHOD OF CONTROLLING USER AND REMOTE CELL PHONE TRANSMISSIONS AND DISPLAYS		
Attorney Docket Number	10963.3805	Small Entity Status Claimed	☒
Application Type	Nonprovisional		
Subject Matter	Utility		
Suggested Class (if any)		Sub Class (if any)	
Suggested Technology Center (if any)			
Total Number of Drawing Sheets (if any)	7	Suggested Figure for Publication (if any)	

PTO/SB/14 (08-05)
Approved for use through 07/31/2006. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	10963.3805
	Application Number	
Title of Invention	METHOD OF CONTROLLING USER AND REMOTE CELL PHONE TRANSMISSIONS AND DISPLAYS	

Publication Information:	
☐	Request Early Publication (Fee required at time of Request 37 CFR 1.219)
☒	Request Not to Publish. I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application has not been and will not be the subject of an application filed in another country, or under a multilateral agreement, that requires publication at eighteen months after filing.

Representative Information:

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32).
Enter either Customer Number or complete the Representative Name section below. If both sections are completed the Customer Number will be used for the Representative Information during processing.

Please Select One:	◉ Customer Number	○ US Patent Practitioner	○ US Representative (37 CFR 11.9)
Customer Number	22235		

Domestic Priority Information:

This section allows for the applicant to claim benefit under 35 U.S.C. 119(e), 120, 121, or 365(c). Providing this information in the application data sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78(a)(2) or CFR 1.78(a)(4), and need not otherwise be made part of the specification.

Prior Application Status	Pending		Remove
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)
	Continuation in part of	11308648	2006-04-17

Prior Application Status	Patented				Remove
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
	Continuation in part of	11711490	2004-09-21	7031728	2006-04-18

Additional Domestic Priority Data may be generated within this form by selecting the **Add** button. Add

Foreign Priority Information:

This section allows for the applicant to claim benefit of foreign priority and to identify any prior foreign application for which priority is not claimed. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55(a).

Remove

Application Number	Country i	Parent Filing Date (YYYY-MM-DD)	Priority Claimed
			◉ Yes ○ No

Additional Foreign Priority Data may be generated within this form by selecting the **Add** button. Add

PTO/SB/14 (08-05)
Approved for use through 07/31/2006. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	10963.3805
	Application Number	
Title of Invention	METHOD OF CONTROLLING USER AND REMOTE CELL PHONE TRANSMISSIONS AND DISPLAYS	

Assignee Information:

Providing this information in the application data sheet does not substitute for compliance with any requirement of part 3 of Title 37 of the CFR to have an assignment recorded in the Office.

Assignee 1 Remove

If the Assignee is an Organization check here. ☐

Prefix	**Given Name**	Middle Name	**Family Name**	Suffix

Mailing Address Information:

Address 1			
Address 2			
City		**State/Province**	
Country [i]		Postal Code	
Phone Number		Fax Number	
Email Address			

Additional Assignee Data may be generated within this form by selecting the **Add** button. Add

Signature:

A signature of the applicant or representative is required in accordance with 37 CFR 1.33 and 10.18. Please see 37 CFR 1.4(d) for the form of the signature.

Signature	/barry lee haley/			Date (YYYY-MM-DD)	2006-12-19
First Name	Barry Lee	Last Name	Haley	Registration Number	25339

This collection of information is required by 37 CFR 1.76. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 23 minutes to complete, including gathering, preparing, and submitting the completed application data sheet form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

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METHOD OF CONTROLLING USER AND REMOTE CELL PHONE TRANSMISSIONS AND DISPLAYS

BACKGROUND OF THE INVENTION

This application is a continuation-in-part of U.S. Patent Application Serial No. 11/308,648 filed April 17, 2006 which is a continuation-in-part of U.S. Patent Application Serial No. 10/711,490 now U.S. Patent No. 7,031,728.

1. Field of the Invention

A communications system using a plurality of cellular phones each having an integrated PDA and GPS receiver for the coordination of two or more people through the use of a communications network. The method and system provide each user with an integrated handheld cellular/PDA/GPS/phone that has advanced communication software application programs (hereinafter referred to as ACS) and databases used in conjunction with a remote server that enable a user to control the user's cell phone and to remotely control other users' cellular/PDA phones to create a passive mode and partial shutdown.

2. Description of Related Art

The purpose of a communications system is to transmit information bearing digital messages from a source, located at one point, to a user destination, located at another point some distance away. A communications system is generally comprised of three basic elements: transmitter, information channel and receiver. One form of communication in recent years is cellular phone telephony. A network of cellular communication systems set up around an area such as the United States allows multiple users to talk to each other, either on individual calls or on group calls. Some cellular phone services enable a cellular phone to engage in conference calls with a small number of users. Furthermore, cellular conference

calls can be established through 800 number services. Cellular telephony also now includes systems that include Global Positioning System (GPS) navigation that utilizes satellite navigation. These devices thus unite cellular phone technology with navigation information, computer information transmission and receipt of data.

The method and operation of the communication devices (cell phone/PDA/GPS with touch screen) used herein are described in U.S. Patent 7,031,728 which is hereby incorporated by reference and pending U.S. Patent Application Serial No. 11/308,648 and are usually discussed herein as a cell phone.

It is desirable in certain specific communication networks such as military or police to: (a) enable each network participant having a cell phone that provides other participants with ongoing information such as location to stop reporting and transmitting to other participants messages and to go into a listen only passive mode for transmission silence and (b) provide each cell phone the ability to quickly destroy its message location processing and/or display software in case of capture. Furthermore, it is desirable for a commander's cell phone to be able to remotely control one or more of the cell phones operating in the entire network to: (a) cause another busy phone to interrupt and to accept a voice call, (b) force a phone to accept an incoming call, and (c) quickly disable or destroy a remote phone's message location processing and/or display software in case of capture.

SUMMARY OF THE INVENTION

Applicant's communication system and method described herein is embodied in the advanced communication software (ACS) application programs developed by applicant and installed in the integrated PDA/GPS cell phones used herein.

A plurality of cellular phone/PDA/GPS devices each having ACS application programs and databases provide a communication network in conjunction with a remote server dedicated to the communication network of cell phone devices with the ability to: a) selectively poll each of the other PDA/GPS cell phone devices requiring each participant phone to start automatically reporting its position and status information to all or selected users equipped with the same cellular phone/PDA software devices in the communications net so that each of the phone devices exchange location, status and other information, (b) remotely control from one cellular phone/PDA/GPS any of the other cellular phone/PDA/GPS systems phones including the ability to control remote cellular phones, place return calls, place calls to another phone number, vibrate, execute text to speech software, change sound intensity, and remotely control software and functions resident on the remote phones, (c) display remote phone information by touching the user phone display screen depicting remote phone's location on the PDA user display, (d) make calls to or send data to remote phones by touching their display symbols and selecting the appropriate user phone displayed soft switch; (e) layer a sufficient number of switches or buttons on the PDA display to perform the above functions

without overlaying the map; and (f) change the nomenclature of a series of soft switches for different operating environments.

A communication network server acts as a forwarder for IP communications between any combination of cell phone/PDA users and/or PC based users. Network participant location, identity and status messages are sent to the server by each network participant or user phone device. Network participant entered tracks are also sent to the server. Because this data is of interest to all the network participants, the server forwards the data received from one participant to all other participants, thus providing the information necessary for all network participants to know the identity, location and status of all other network participants.

The server also acts as a forwarder of data addressed from one participant to one or more addressed participants, thus permitting the transmission of free text, preformatted messages, photographs, video, E-mail and URL data from one network participant to other selected network participants.

The above functions can also be accomplished using peer to peer WiFi, WiMax or other peer to peer communications. However, for use with cellular communications and to assure the level of security that cell phone companies require, a centralized static IP routable server is used.

The IP server also fills another role of being a database from which data can be requested by network participants (i.e. maps, satellite images, etc.) or can be pushed to network participants (i.e. symbology and soft switch changes, etc.).

It is an object of this invention is to enable each participant in the communications net to poll the other net participants to report or cease reporting their locations, identity and status on the communication net.

It is another object of this invention to provide and enable each participant in the communications net to select an ACS software switch that directs each participant's cell phone software to limit the application to receive messages only at the cell phone thus making it passive.

Another object of the invention is to provide a communication system having a plurality of individual cell phones that allow an operator of one cell phone to remotely control any of the other cell phone/PDA system phones including the ability to: (a) control remote cellular phones that cause another phone to automatically accept a voice call, (b) select a soft switch that destroys the message location processing software of the remote phone and to activate a microphone so conversations can be monitored, (c) remotely turn off and turn on the specific message location processing and/or display software in the remote phone and (d) remotely cause a cell phone to destroy its message location processing and display software.

In accordance with these and other objects which will become apparent hereinafter, the instant invention will now be described with particular reference to the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1a shows a front plan view of a cellular phone/PDA/GPS having a touch screen that includes ACS software described herein.

Figure 1b shows a flow chart that provides a method of calling a remote cell phone by hooking a symbol representing the remote user and selecting the CALL soft switch and causing a remote phone to make a call.

Figure 2a shows a flow chart that provides a method to the user to preclude the user's own cell phone transmissions.

Figure 2b shows a flow chart of a user method to disable the user's own cell phone message location processing display software.

Figure 2c shows a flow chart showing a user method to destroy the user's own cell phone processing and display software.

Figure 3a shows a flow chart of a user method to transmit a digital message to a remote cell phone to turn off the remote cell phone's display.

Figure 3b shows a flow chart of a method for a user cell phone to transmit a digital message to a remote cell phone to destroy the remote cell phone's message location processing and display software.

PREFERRED EMBODIMENT OF THE INVENTION

A method and communication system that joins participants in a communications network using handheld cell phones having integrated PDA and GPS circuitry with ACS application programs that allow a participant having an Advanced Communications Software (ACS) equipped cell phone to activate and control other participants' remote cell phones/PDAs that contain ACS.

Each cell phone described herein for the participant network has its own individual on/off power and can function just as any other cell phone. It can also function with its PDA and GPS system. In addition to its own on and off power switch, it has another switch that activates the ACS advanced communication software programs resident in each cell phone including the special databases that provide all the other participants' telephone numbers, E-mail addresses and other information necessary to carry on the communications described herein. To operate the network, obviously the cell phone power switch has to be on. If the cell phone is completely turned off, then it is not part of the participating network.

The communication system includes a server that acts as a forwarder for IP communications between any combination of cell phone/PDA users and/or PC based users. Network participant location, identity and status messages are sent to the server by each user. The users are the network participants. Network participant entered tracks are also sent to the server. Because this data is of interest to all the network participants, the server forwards the data received from one participant to all other participants, thus providing the information

necessary for all network participants to know the identity, location and status of all other network participants.

The server also acts as a forwarder of data addressed from one participant to one or more addressed participants, thus permitting the transmission of free text, preformatted messages, photographs, video, E-mail and URL data from one network participant to other selected network participants.

The above functions can also be accomplished using peer to peer WiFi, WiMax or other peer to peer communications. However, for use with cellular communications and to assure the level of security that cell phone companies require, a centralized static IP routable server is used.

The IP server also fills another role of being a database from which data can be requested by network participants (i.e. maps, satellite images, etc.) or can be pushed to network participants (i.e. symbology and soft switch changes, etc.).

Referring now to the drawings and, in particular, Figure 1a, a small handheld cellular phone 10 is shown that includes a personal digital assistant (PDA) and a global positioning system receiver (GPS) communications device integrated in housing 12 that includes an on/off power switch 19, a microphone 38, and an LCD display 16 that is also a touch screen system. The small area 16a is the navigation bar that depicts the telephone, GPS and other status data and the active software. Each cell phone includes a CPU and databases that store information useful in the communication network. The CPU also includes a symbol generator for creating touch screen display symbols discussed herein. With the touch screen 16, the screen symbols

are entered through GPS inputs or by the operator using a stylus 14 (or operator finger) by manipulatively directing the stylus 14 to literally touch display 16. The soft switches 16d displayed on the display 16 are likewise activated by using a stylus 14 and physically and manipulatively directing the stylus to literally touch display 16. The display x, y coordinates of the touched point are known by a CPU in the PDA section of the communication system in housing 12 that can coordinate various information contained in the PDA relative to the x, y coordinate position on the display 16. Inside housing 12 is contained the conventional cellular phone elements including a modem, a CPU for use with a PDA and associated circuitry connected to speaker 24 and microphone 38. A GPS navigational receiver that receives signals from satellites that can determine the latitude and longitude of the cellular phone housing 12 can be internal or external to the housing 12. Conventional PDA/cellular phones are currently on sale and sold as a unit (or with an external connected GPS) that can be used for cellular telephone calls and sending cellular SMS and TCP/IP or other messages using the PDA's display 16 and computer (CPU). The GPS system including a receiver in housing 12 is capable of determining the latitude and longitude and through SMS, TCP/IP, WiFi or other digital messaging software, to also transmit this latitude and longitude information of housing 12 to other cellular phones in the communication network via cellular communications, WiFi or radio. The device 10 includes a pair of cellular phone hardware activating buttons 20 to turn the cellular phone on and 22 to turn the cellular phone off. Navigation pad actuator 18 is similar to a joy or force stick in that the actuator 18 manually provides movement commands that can be used by the PDA's software to move a cursor on display 16. Switches 26 and 28

are designed to quickly select an operator specified network software program. Speaker 24 and microphone 38 are used for audio messages. Switch 19 at the top left of device 10 is the power on and power off switch for the entire device.

The heart of the invention lies in the applicant's ACS application programs provided in each cell phone/PDA device. The ACS programs are activated by clicking on an icon on the cell phone/PDA display screen to turn the ACS programs on or off. Mounted within housing 12 as part of the PDA is the display 16 and the CPU (not shown). The internal CPU includes databases and software application programs that provide for a geographical map and georeferenced entities that are shown as display portion 16b that includes as part of the display various areas of interest in the particular local map section.

When looking at display 16, the software switches (soft switches) which appear at the very bottom of the display 16d are used to control by touch many of the software driven functions of the cellular phone and PDA. The soft switches are activated through the operator's use of the navigation pad 18, or a small track ball, force stick or similar hardware display cursor pointing device. Alternatively, the operator may choose to activate the software switches by touching the screen with a stylus 14 (or finger) at the switches' 16d locations. When some of the software switches are activated, different software switches appear. The bar display 16d shows the software switches "ZM IN (zoom in)," "ZM OT (zoom out)," "CENT (center)" and "GRAB (pan/grab)" at the bottom of the screen. These software switches enable the operator to perform these functions. The "SWITH (switch)" software switch at the lower right causes a matrix of layered software switches (soft switches) to appear above the bottom

row of switches. Through use of the software switches, the operator can also manipulate the geographical map 16b or chart display. When looking at Figure 1a, display symbols depict permanent geographical locations and buildings are shown. For example, the police station is shown and, when the symbol is touched by the stylus or finger, the latitude and longitude of the symbol's location, as shown in display section 16c, is displayed at the bottom left of the screen. The bottom right side of display 16c is a multifunction inset area that can contain a variety of information including: a) a list of the communication link participants; b) a list of received messages; c) a map, aerial photograph or satellite image with an indication of the zoom and offset location of the main map display, which is indicated by a square that depicts the area actually displayed in the main geographical screen 16b; d) applicable status information; and e) a list of the communication net participants. Each participant user would have a device 10 shown in Figure 1a.

Also shown on the display screen 16, specifically the geographical display 16b, is a pair of different looking symbols 30 and 34, a small triangle and a small square, which are not labeled. These symbols 30 and 34 can represent communication net participants having cellular phones in the displayed geographical area that are part of the overall cellular phone communications net, each participant having the same device 10 used. The latitude and longitude of symbol 30 is associated within a database with a specific cell phone number and, if available, its IP address and E-mail address. The screen display 16b, which is a touch screen, provides x and y coordinates of the screen 16b to the CPU's software from a map in a geographical database. The software has an algorithm that relates the x and y coordinates to

latitude and longitude and can access a communications net participant's symbol or a fixed or movable entity's symbol as being the one closest to that point.

In order to initiate a telephone call to the cellular phone user (communication net participant) represented by symbol (triangle) 30 at a specific latitude and longitude displayed on chart 16b, the operator touches the triangle 30 symbol with the stylus 14. The operator then touches a "call" software switch from a matrix of displayed soft switches that would overlay the display area 16c. Immediately, the cellular phone will initiate a cellular telephone call to the cellular phone user at the geographical location shown that represents symbol 30. A second cellular phone user (communication net participant) is represented by symbol 34 which is a small square (but could be any shape or icon) to represent an individual cellular phone device in the display area. The ring 32 around symbol 30 indicates that the symbol 30 has been touched and that a telephone call can be initiated by touching the soft switch that says "call." When this is done, the telephone call is initiated. Other types of symbolic elements on the display 16 can indicate that a cellular phone call is in effect. Additionally, the operator can touch both symbol 34 and symbol 30 and can activate a conference call between the two cellular phones and users represented by symbols 30 and 34. Again, a symbolic ring around symbol 34 indicates that a call has been initiated.

Equally important, an operator/user with a cell phone call the police station or any other specific geographical facility displayed on the cell display map, including: buildings, locations of people, vehicles, facilities, restaurants, and the like, whose cellular phone numbers and, if available, E-mail addresses, IP addresses and their URLs are previously

stored in the database, by touching a specific facility location on the map display using the stylus 14 and then touching the cellular phone call switch. As an example, the operator/user can touch and point to call a restaurant using a soft switch by touching the restaurant location on the display with a stylus and then touching the call soft switch. The cellular phone will then call the restaurant. Thus, using the present invention, each participant can touch and point to call to one or more other net participants symbolically displayed on the map, each of whom has a device as shown in Figure 1a and can also point to call facilities and regular phone numbers that had been previously stored in the phone's database. Furthermore, this symbol hooking and soft switch technique can be used to go to a fixed facility's website or to automatically enter the fixed facility's E–mail address in an e-mail.

Each cellular phone/PDA/GPS user device is identified on the map display of the other participants users' phone devices by a display symbol that is generated on each user phone display to indicate each user's identity. Each symbol is placed at the correct geographical location on the user display and is correlated with the map on the display. The operator of each cellular phone/PDA/GPS device may also enter one or more other fixed entities (buildings, facilities, restaurants, police stations, etc.) and geo-referenced events such as fires, accidents, or other events into its database. This information can be likewise transmitted to all the other participants on the communications net. The map, fixed entities, events and cellular phone/PDA/GPS device communication net participants' latitude and longitude information is related to the "x" and "y" location on the touch screen display map by a mathematical correlation algorithm.

When the cellular phone/PDA/GPS device user uses a stylus or finger to touch one or more of the symbols or a location displayed on the cellular phone map display, the system's software causes the status and latitude and longitude information concerning that symbol or location to be displayed. In order to hook a symbol or "track" such as another net participant which represents an entity on the geo-referenced map display, or a fixed geographical entity such as a restaurant, police station or a new entity observed by a cell phone user which is discussed below, the operator points at or near the location of a geo-referenced symbol appearing on the cellular phone/PDA display that represents a specific track or specific participant or other entity. The hook application software determines that the stylus is pointed close to or at the location of the symbol and puts a circle, square or other indication around the symbol indicating that amplification information concerning the symbol is to be displayed and indicating that additional data or change in data can be made to the indicated symbol. The hook application code then sends a message to the display application code to display the net participant, facility or entity's amplifying data. The display application code retrieves the primary data and amplification data concerning the symbol or entity from the database and displays the information at the correct screen location. The operator can then read the amplification data that relates to that specific symbol at the specific location. The cell phone operator can also select soft switches on the touch screen display to change the primary data and amplification data. Furthermore, the operator can use a similar method of hooking and selecting to activate particular soft switches to take other actions which could include: making cellular phone calls, conference calls, 800 number calls; sending a free text message, operator

selected preformatted messages, photographs or videos to the hooked symbol; or to drop a entered symbol.

Each known net participant has a cellular phone number, IP address and, if available, E-mail address that is stored in each participant's device database.

To use the communication system, the operator starts the PDA/cellular phone device system by selecting the cell phone and ACS network software which causes: a) the cellular phone to be activated (if it has not already been activated); b) the GPS interface receiver to be established; c) a map of the geographic area where the operator is located and operator's own unit symbol to appear at the correct latitude and longitude on the map on the display; d) the locations of fixed facilities such as restaurants, hotels, fire departments, police stations, and military barracks, that are part of the database to appear as symbols on the map; e) the device selected item read out area which provides amplification information for the communications net participants or the entity that has been hooked (on the display screen) to appear on the display; f) an insert area that contains various data including: the list of net participants, a list of messages to be read, an indication of what portion of the map is being displayed in major map area and other information to appear on the display; and g) a row of primary software created "soft switches" that are always present on the display to appear.

For point to call network units and fixed facilities, the application code detects the x, y display screen location of the symbol that is designated by the user's stylus and translates the x, y coordinates to latitude and longitude and then: (1) searches the database to find the symbol at that location, (2) places a "hook" indicator (a circle, square or other shape) around

the symbol, (3) displays any amplifying data and (4) obtains the symbol's associated phone number (or for VoIP calls an IP address) from the database. Upon receiving a "call" designation from the soft switch, the operator's device's ACS causes the appropriate phone number or IP number to be called. Upon receiving an indication that the phone number is being called, the application code places a box around the symbol (color, dashed or the like). When the call is connected, the box changes to indicate that the connection is made. When the other party hangs up, the box disappears.

As each of the cell phone participants reports its identity, location and status to the other participants' devices, the received data is geo-referenced and filed in their databases that are accessible by identity and by location. This data is then displayed on each cell phone display. When a request for data is received by touching the display screen, a location search is made by the ACS and a symbol modifier (circle, square, etc.) is generated around the symbol closest to the x, y position of the stylus. When the application code receives a soft switch command to place a phone call or send data, the software uses the phone number (or IP address) associated with the unit to place the call or to send data.

If a cell phone device receives a digital message that a call is being received, the receiving cell phone's ACS application code places a box or similar object around the transmitter symbol indicating who the call is from. When the call is answered, the application software changes the visual characteristics of the box. In a similar manner, when a phone receives a digital text message, photograph or video, a box appears around the transmitter's symbol indicating the transmitter of the message. The point to call network devices are

participants and each one has a similar device with the same software for use as a total participant network. Other situations for calling facilities that are not part of the network are described below.

Thus, the operator device is capable of initiating a cellular phone call by touch only, and initiating conference calls by touching the geo-referenced map symbols. Furthermore, by using a similar symbol touching technique, a cellular phone can send operator selected messages to cause a remote cellular phone to display and optionally announce emergency and other messages and to optionally elicit a response from the remote cellular phone.

All of the user network participants have the same communication cell phone/PDA/GPS device described herein. The method and system include the ability of a specific operator device to provide polling in which other cellular phones, using SMS, internet or WiFi, report periodically based on criteria such as time, speed, distance traveled, or a combination of a time, speed and distance traveled. The operator can manually poll any or all of the cell phone devices that are used by all of the participants in the communication network having the same devices. The receiving cellular phone application code responds to the polling command with the receiving cellular phone's location and status which could include battery level, GPS status, signal strength and entered track data. Optionally, the phone operators can set their phones to report automatically, based on time or distance traveled intervals or another criterion.

The soft switch application software causes a visual display of a matrix such as five across by six up (or another matrix) in which switch names are placed on the cellular/PDA

display. The soft switch network application software knows the touch screen location of each of the switches in the matrix and the software routines that will be activated upon touching the switch.

The bottom row of soft switches displayed on the touch screen remains visually fixed. These switches concern the functions that are the most often used. One of the switches causes a matrix of other soft switches to appear above the visually fixed soft switches. These switches are function soft switches, the activation of any one of which causes a different matrix of soft switches to appear, which are known as the action soft switches. When the action soft switches appear, the function soft switch, which caused the action soft switches to appear, itself appears as a label in the lower left (or some other standard location) indicating to the operator the function soft switch that has been selected. When the operator selects an action soft switch, the appropriate application software to accomplish the action is activated.

Upon receiving a soft switch activation message, the ACS accesses the appropriate task execution software which accomplishes the required tasks including: entry of track data, entry of track amplification data, transmission of alpha/numeric messages, photographs, videos, display of messages to be read, selection of map types, placing voice calls, placing conference calls and 800 conference calls, presenting different potential operator selections, control of the display actions, polling network participants, establishing nets of participants (groups) so that communications with all in the group can be accomplished with a single soft switch action, and dropping a previously entered track. By providing a matrix and layers of soft switches which are easily manipulated by a stylus, each cell phone device in the

communication network is extremely efficient in accessing and coordinating the appropriate application program for the device to perform.

Referring now to Figure 1b, a flow chart is shown that describes how each user's cell phone/PDA/GPS can be used to remotely control a specific participant's cell phone ACS messaging program and display. Within the communication network of participants, each user has the ability to cause the remote phone(s') ACS program to perform a variety of functions described herein. This is accomplished by having the ACS operate in each user's cell phone/PDA that can identify through the telephone number or IP address, a remote cell phone or group of remote cell phones. These remote phone(s) can be controlled by touching their symbols on the user's screen, then activating the appropriate soft switch which sends a digital message to the remote phone(s) ACS to perform the desired function. Each cell phone has the ability to remotely control from one cellular phone/PDA/GPS any of the other cellular phone/PDA/GPS systems phones including the ability to control remote cellular phones to make verbal prerecorded announcements, place return calls, place calls to another phone number, vibrate, execute text to speech software, change sound intensity, remotely control software and functions resident on the remote phone and process and display information by touching the display screen at their location on the PDA display and selecting the appropriate soft switch; the ability to layer a sufficient number of switches or buttons on the PDA display to perform the above functions without overlaying the map; and the ability to change the nomenclature of a series of soft switches and symbology for different operating environments.

Referring now to Figures 2a through 2c, each user/participant's cell phone ACS program allows each user to select a soft switch that creates in each user's cell phone the ability to control both the user phone and a remote user's phone's transmission, reception and display of network data. One soft switch, once activated by the user, prevents the user's own cell phone from transmitting any messages. This is important if it is desirous for one or more users to be in a passive mode in an environment where RF transmission could disclose location of the cell phone. Thus, each user can independently select a software program that allows only the receipt of messages. Figure 2a shows a flow chart that provides a method for the user to preclude the user's own cell phone transmissions. Figure 2b shows a flow chart of a user method to disable the user's own cell phone display software. Figure 2c shows a flow chart showing a user method to destroy the user's own cell phone message location processing and display software.

Referring now to Figures 3a and 3b, the ACS program in each cell phone allows each independent cell phone/PDA user to turn off a remote user's ACS phone message location processing and/or display software. Each cell phone has an ACS program connected through a soft switch that can transmit a digital message to remotely turn off a remote user's cell phone ACS message location processing and display software. A user with ACS can send data to a geographically displayed symbol representative of a network participant by touching the participant's symbol and selecting a display screen soft switch that causes a digital message to be sent to that remote network participant. The digital message can then turn off (or on) the remote phone's message processing and / or display software. The remote cell phone power

is not turned off. Only the ACS message position processing and display software is turned off.

As depicted in Figure 3a, a specific user can transmit a digital message to a specifically identified remote network participant's cell phone by touching its symbol on the user's display screen and selecting the appropriate soft switch that makes inoperable (destroys) the remote participant's display but not its position determination software. The user cell phone ACS program can also generate a digital message that selectively turns off the phone's speaker and activates the phone's microphone in the remote participant's cell phone so that any conversations, along with the remote cell phone's location, could be monitored by the user's cell phone. As depicted in Figure 3b, a specific user can transmit a digital message to a specifically identified remote network participant's cell phone by touching its symbol on the user's display screen that makes inoperable (destroys) the remote participant's display and its message location processing software. The user's cell phone ACS program can also generate a digital message that selectively turns off the phone's speaker and activates a microphone in the remote participant's cell phone so that any conversations could be monitored by the user's cell phone.

To accomplish the above, the ACS cell phone sends the server a message to send to the remote ACS cell phone, commanding the remote cell phone to disable its message location processing and/or its display software and (optionally) to turn off its speaker and turn on its microphone. The server then sends the message to the remote cell phone, commanding it to

disable its display software and/or message location processing, and (optionally) to turn off its speaker and turn on its microphone

The remote ACS cell phone receives the message and destroys its display software, and the message location processing; and optionally turns on its microphone and turns off its speaker.

The instant invention has been shown and described herein in what is considered to be the most practical and preferred embodiment. It is recognized, however, that departures may be made there from within the scope of the invention and that obvious modifications will occur to a person skilled in the art.

CLAIMS

What is claimed is:

1. A method of providing a cellular phone communication network for designated participating users, each user having a similarly equipped PDA/cell phone that includes a CPU, a GPS navigational system and a touch screen display:

providing rapid voice call initiation and communication among the users of the cellular phone/PDA/GPS network system using a touch screen;

providing each cellular/PDA/GPS phone with a software application program and database that permits each cell phone user to continuously know each other's geographical location and status which is displayed on the display touch screen of each cell phone;

displaying on each cell phone display one or more symbols representing the other users in the network having similarly equipped cell phones that transmit their geographical location upon request, time, distance traveled, or other criteria to the other users in the network periodically so that each cell phone user has a touch display with symbols representing the other users in the network geographically;

providing a plurality of soft switches on each touch screen display of each cell phone in the user network that includes initiating a rapid voice call to any other user in the network through touching said first voice call switch after hooking a specific symbol or symbols that automatically calls the symbol(s) touched at the location(s), said database in each of said cell phone including the data link received, operator loaded or pre-loaded cell phone

telephone number of each of the users and the phone numbers, URLs and E-mail addresses of fixed sites displayed in the network geographically and symbolically;

providing a remote server for communicating with each cell phone;

providing in each PDA/cell phone an application program that includes messaging software for transmitting and receiving messages including: voice, text photographs and video among all of the users in the network having a similarly equipped cell phone/PDA unit;

providing within each user's own cell phone a software program and soft switch display to preclude the detection of its use or its use by unauthorized users;

providing a soft switch and the software accessed by said soft switch for turning off the transmitter of the user's own cell phone to prevent transmission of data and thereby deny the ability for non-authorized persons to detect the location of the network participant;

providing a soft switch and the software accessed by the soft switch for destroying the display software of the user's own cell phone thus precluding non-authorized personnel from seeing the location of the other network participants while permitting continued tracking of the phone's location and optionally turning off the phone's speaker and turning on the phone's microphone so that conversations of personnel in the vicinity of the phone can be heard; and

providing a soft switch and the software accessed by the soft switch that causes destruction of the user's own cell phone message received location processing and display

software thus precluding its use by others and optionally turning off its speaker and on its microphone so that the conversations of personnel in the vicinity can be heard.

2. A method as in claim 1, including the additional steps of:

providing a soft switch and the software accessed by the soft switch, that causes a digital message to be sent to a remote cell phone disabling in each cell phone the remote phone's display thus precluding non-authorized personnel from seeing the location of the other network participants while permitting continued tracking of the phone's location and optionally turning off the phone's speaker and turning on the phone's microphone so that conversations of personnel in the vicinity of the phone can be heard; and

providing a soft switch and the software accessed by the soft switch that causes a digital message to be sent to the remote phone commanding destruction of the network participant's message receive location processing and display software thus precluding its use by others and optionally turning off its speaker and turning on its microphone thus permitting the monitoring of conversations in the vicinity of the microphone.

3. A communication system to provide a cellular phone network for a group of participants, each of the participants having an individual portable cellular phone that includes a CPU and a GPS navigational system that can accurately determine the location of the cellular phone. Each of the cellular phones in the communications net of participants contains:

a CPU and memory;

a touch screen display;

symbol generator in said CPU that can generate symbols that represent each of the participants in the communication network on the display screen;

a database that stores the individual telephone numbers related to each of the symbols each of which represents a participant in the communication network;

cellular phone call initiating software in said CPU connected to the telephone number database and the touch screen and the symbols on the touch screen whereby touching an individual symbol will automatically initiate a cellular phone telephone call to the use represented by the symbol;

said display including databases that display geographical information that includes showing the geographical location of each of the symbols representing participants in the communication network, fixed locations, and entered items of interest;

a server for remotely controlling a remote cell phone transmissions and display; and

cell phone software including a displayed soft switch that causes destruction of the user's own cell phone message received location processing and display software to preclude its use by others.

4. A communication system as in claim 3, including:

cell phone software in each of the network users' cell phones including a soft switch that initiates a digital message to be sent to a remote cell phone that includes the destruction of the remote cell phone message received location processing and display

software allowing one user to remotely shut down the remote user's location processing and display software.

5. A cellular phone for use in a communication network for a plurality of participants comprising:

a cellular phone transmitter and receiver;

a small hand held portable housing containing said cellular phone transmitter and receiver;

a touch display screen mounted in said housing;

a modem connected to said cellular phone transmitter and receiver;

a CPU connected to said cellular phone transmitter and receiver;

a GPS navigation system connected to said CPU and to said cellular phone transmitter and receiver on said touch screen;

a database connected to said CPU that includes the symbol of a list of telephone numbers that relate to specific symbols;

a symbol generator connected to said CPU and said database for generating symbols on said touch screen, each of said symbols representing a participant in a communication network that has a cellular phone;

CPU software for selectively polling other participants with a cellular phone;

call initiating software connected through said CPU and said telephone database and said symbol generator whereby when a user touches the symbol displayed on a

display screen the cellular phone call is automatically initiated to the cellular phone represented by the symbol;

a geographical database connected to said CPU to provide a geographical display on said touch screen representing a defined geographical area that also displays symbols representing each of the participants that has an identical cellular phone by latitude and longitude;

software program in each cell phone to control a remote cell phone including stopping transmissions from a remote cell phone; and

software provided in each cell phone including a corresponding soft switch that causes a digital message to be sent to a remote cell phone commanding destruction of the network participant's message received location processing and display software thus precluding its use by others.

6. A cell phone as in claim 5, including:

means for remotely turning off a remote cell phone speaker and turning on its microphone to permit monitoring of conversations in the vicinity of the remote microphone.

ABSTRACT OF THE DISCLOSURE

A method, a combined cellular, PDA communication device, and a system having specialized software applications for allowing a plurality of combined cellular phone/PDA device users to monitor each others' locations and status, to initiate cellular phone calls by touching a symbol on the touch screen display with a stylus which can also include point to call conferencing calling. Each participant's cellular phone/PDA device includes a GPS navigation receiver with application software for point to call cellular phone initiation to participants and geographical entities including vehicles, persons or events, conference calls and video transfers. The method, device and system also includes several features that allow each individual cell phone/PDA device user to: a) transmit and remotely control one or more other participants' cell phones; b) allow a user to stop sending or transmitting digital messages or messages from an individual user phone; c) provide the individual user with a soft switch that causes destruction of the user's display and/or message location processing software in the user's cell phone while turning off the speaker and activating a microphone so that conversations near the user's cell phone can be monitored; and d) transmit and destroy a remote phone's location display and/or message location processing software while turning off the remote phone speaker and activating the remote phone microphone so that conversations near the remote phone can be monitored

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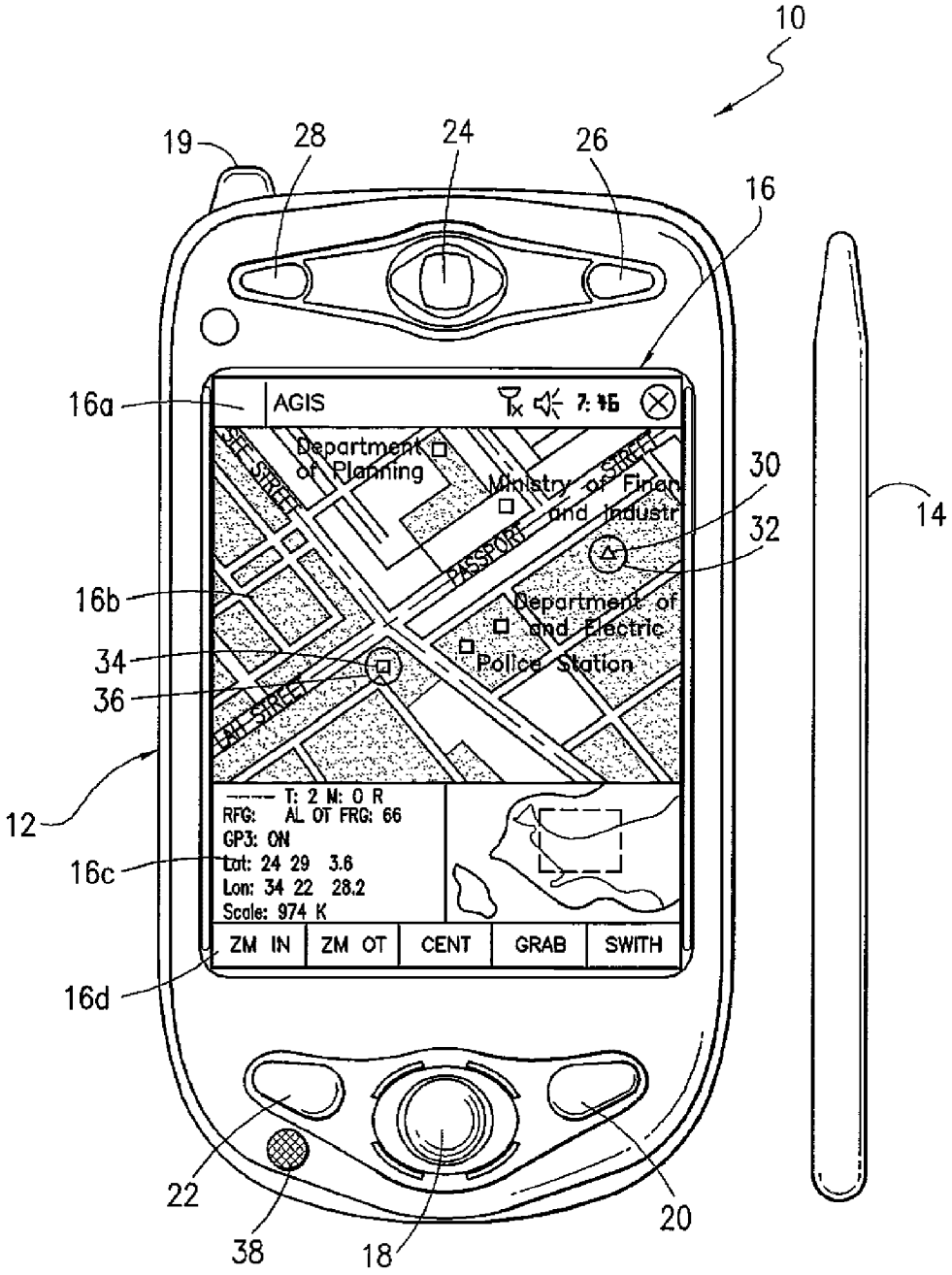
10
19
28
24
26
16
16a
AGIS
7:16
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Ministry of Finan and Industr
PASSPORT
30
32
14
16b
Department of and Electric
Police Station
34
36
12
T: 2 M: 0 R
RFG: AL OT FRG: 66
GP3: ON
Lat: 24 29 3.6
Lon: 34 22 28.2
Scale: 974 K
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ZM IN
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CENT
GRAB
SWITH
16d
22
38
18
20

FIG. 1a

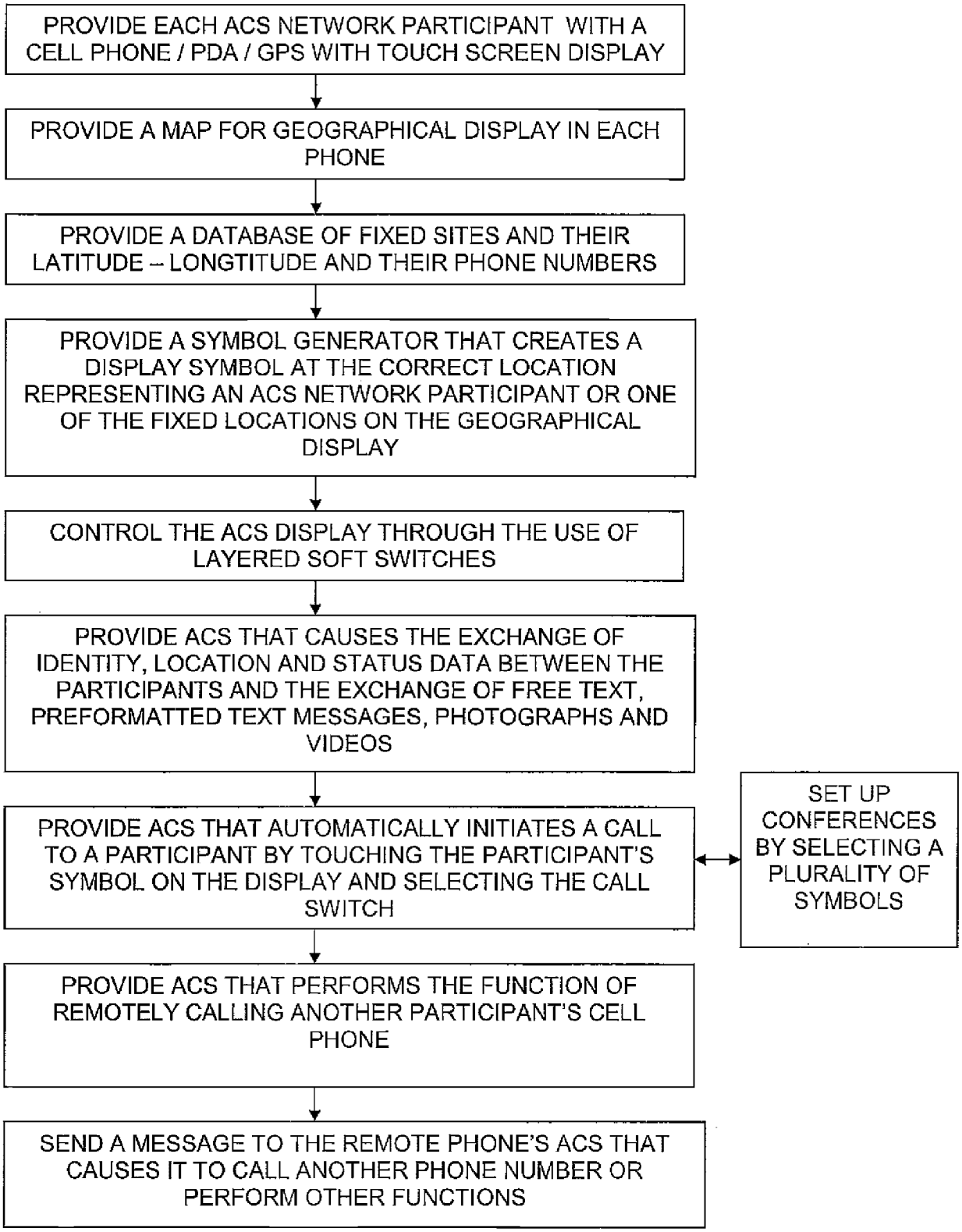
PROVIDE EACH ACS NETWORK PARTICIPANT WITH A CELL PHONE / PDA / GPS WITH TOUCH SCREEN DISPLAY
PROVIDE A MAP FOR GEOGRAPHICAL DISPLAY IN EACH PHONE
PROVIDE A DATABASE OF FIXED SITES AND THEIR LATITUDE – LONGTITUDE AND THEIR PHONE NUMBERS
PROVIDE A SYMBOL GENERATOR THAT CREATES A DISPLAY SYMBOL AT THE CORRECT LOCATION REPRESENTING AN ACS NETWORK PARTICIPANT OR ONE OF THE FIXED LOCATIONS ON THE GEOGRAPHICAL DISPLAY
CONTROL THE ACS DISPLAY THROUGH THE USE OF LAYERED SOFT SWITCHES
PROVIDE ACS THAT CAUSES THE EXCHANGE OF IDENTITY, LOCATION AND STATUS DATA BETWEEN THE PARTICIPANTS AND THE EXCHANGE OF FREE TEXT, PREFORMATTED TEXT MESSAGES, PHOTOGRAPHS AND VIDEOS
PROVIDE ACS THAT AUTOMATICALLY INITIATES A CALL TO A PARTICIPANT BY TOUCHING THE PARTICIPANT'S SYMBOL ON THE DISPLAY AND SELECTING THE CALL SWITCH
SET UP CONFERENCES BY SELECTING A PLURALITY OF SYMBOLS
PROVIDE ACS THAT PERFORMS THE FUNCTION OF REMOTELY CALLING ANOTHER PARTICIPANT'S CELL PHONE
SEND A MESSAGE TO THE REMOTE PHONE'S ACS THAT CAUSES IT TO CALL ANOTHER PHONE NUMBER OR PERFORM OTHER FUNCTIONS

FIG. 1b

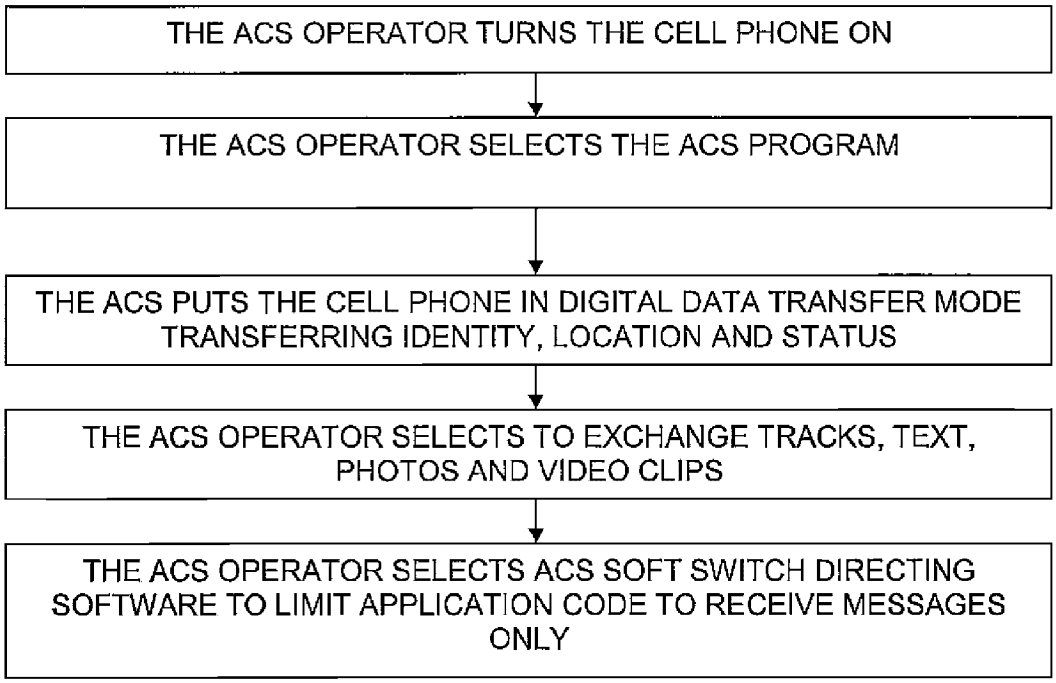
THE ACS OPERATOR TURNS THE CELL PHONE ON
THE ACS OPERATOR SELECTS THE ACS PROGRAM
THE ACS PUTS THE CELL PHONE IN DIGITAL DATA TRANSFER MODE TRANSFERRING IDENTITY, LOCATION AND STATUS
THE ACS OPERATOR SELECTS TO EXCHANGE TRACKS, TEXT, PHOTOS AND VIDEO CLIPS
THE ACS OPERATOR SELECTS ACS SOFT SWITCH DIRECTING SOFTWARE TO LIMIT APPLICATION CODE TO RECEIVE MESSAGES ONLY

FIG. 2a

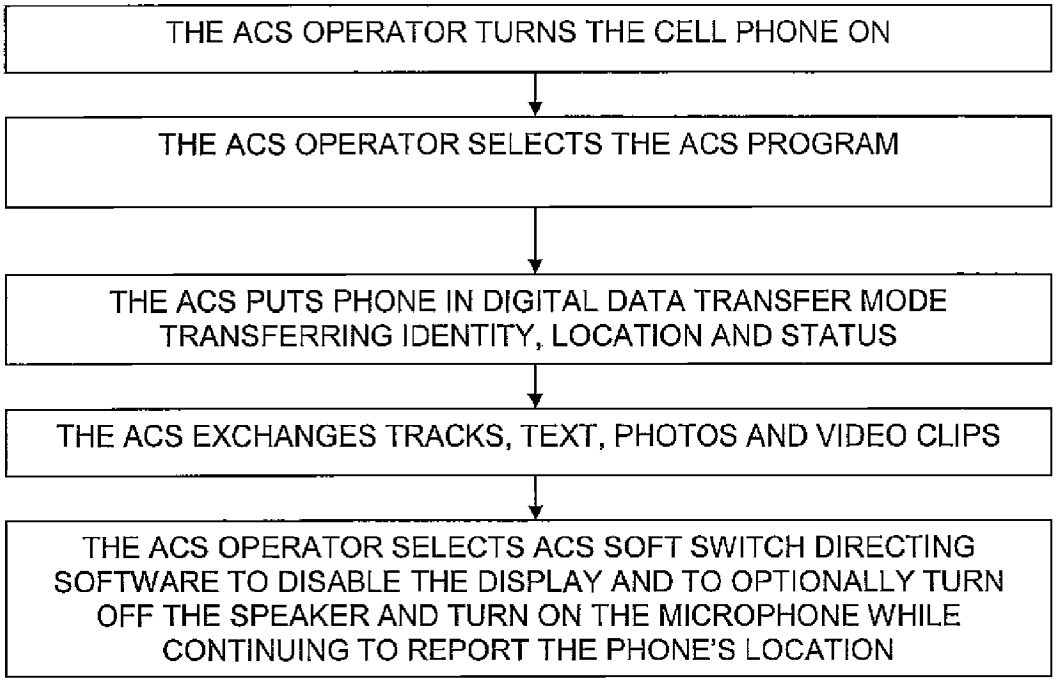
THE ACS OPERATOR TURNS THE CELL PHONE ON
THE ACS OPERATOR SELECTS THE ACS PROGRAM
THE ACS PUTS PHONE IN DIGITAL DATA TRANSFER MODE TRANSFERRING IDENTITY, LOCATION AND STATUS
THE ACS EXCHANGES TRACKS, TEXT, PHOTOS AND VIDEO CLIPS
THE ACS OPERATOR SELECTS ACS SOFT SWITCH DIRECTING SOFTWARE TO DISABLE THE DISPLAY AND TO OPTIONALLY TURN OFF THE SPEAKER AND TURN ON THE MICROPHONE WHILE CONTINUING TO REPORT THE PHONE'S LOCATION

FIG. 2b

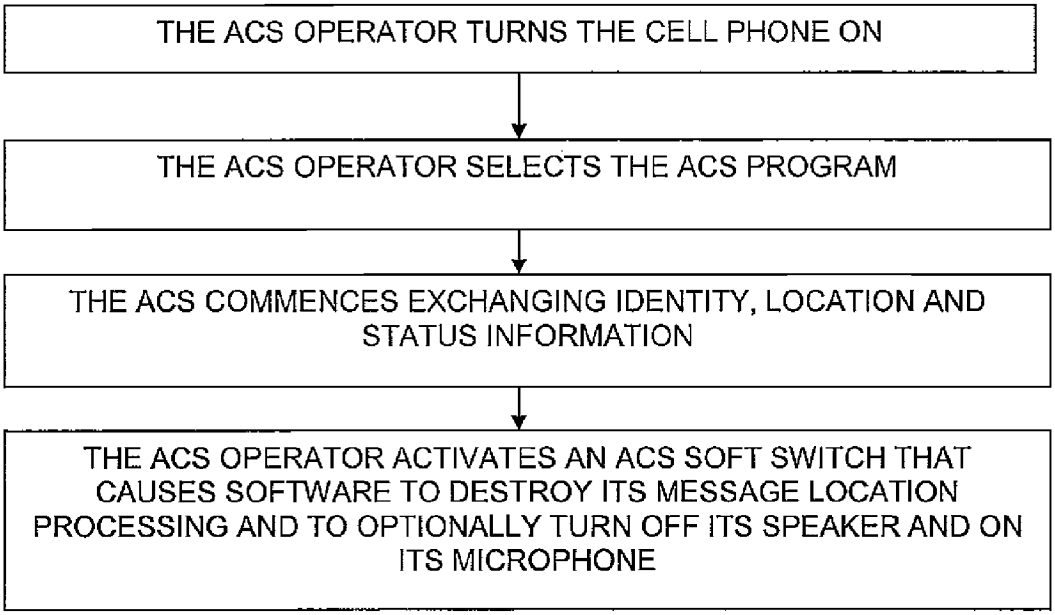
THE ACS OPERATOR TURNS THE CELL PHONE ON
THE ACS OPERATOR SELECTS THE ACS PROGRAM
THE ACS COMMENCES EXCHANGING IDENTITY, LOCATION AND STATUS INFORMATION
THE ACS OPERATOR ACTIVATES AN ACS SOFT SWITCH THAT CAUSES SOFTWARE TO DESTROY ITS MESSAGE LOCATION PROCESSING AND TO OPTIONALLY TURN OFF ITS SPEAKER AND ON ITS MICROPHONE

FIG. 2c

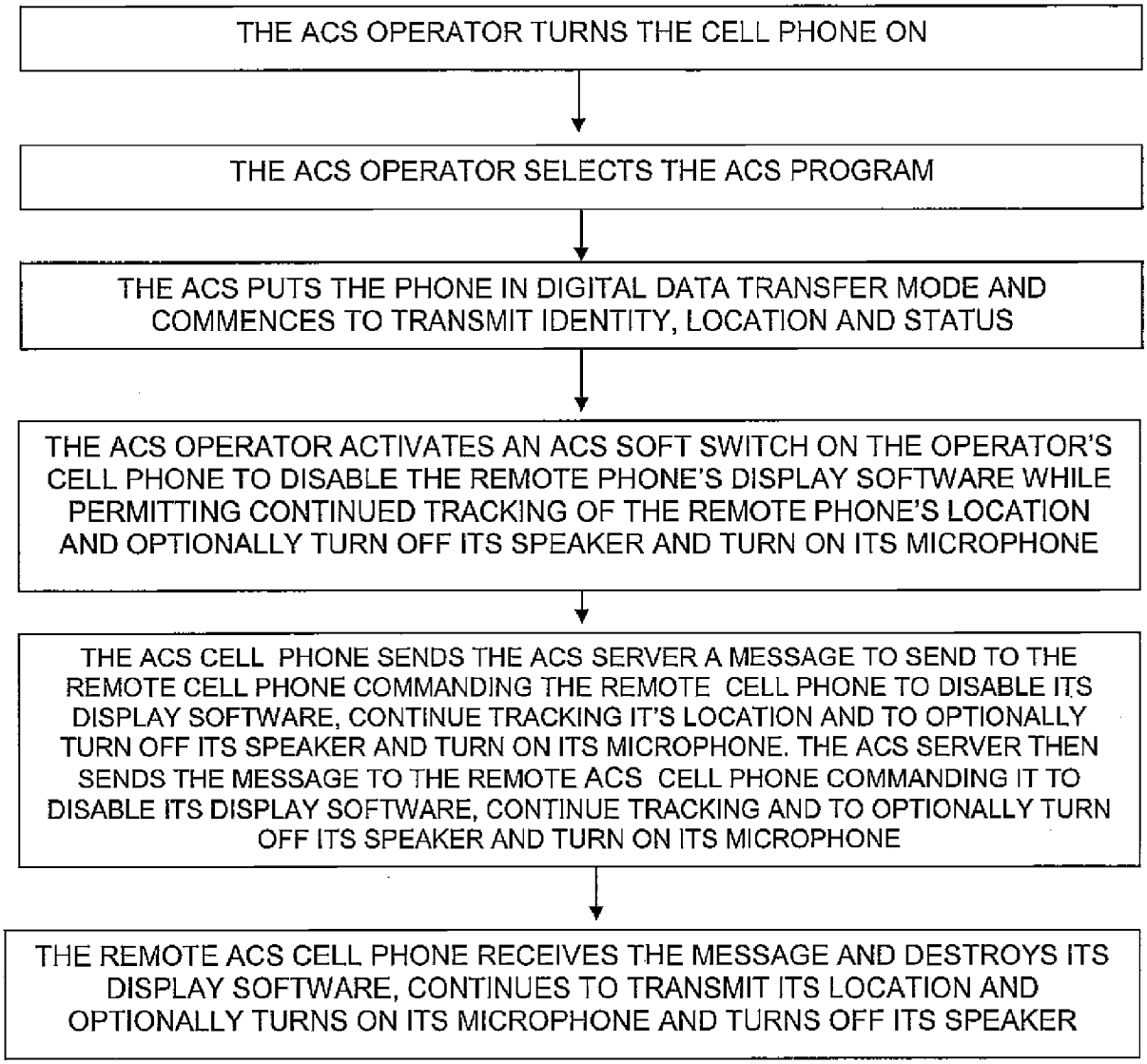
THE ACS OPERATOR TURNS THE CELL PHONE ON
THE ACS OPERATOR SELECTS THE ACS PROGRAM
THE ACS PUTS THE PHONE IN DIGITAL DATA TRANSFER MODE AND COMMENCES TO TRANSMIT IDENTITY, LOCATION AND STATUS
THE ACS OPERATOR ACTIVATES AN ACS SOFT SWITCH ON THE OPERATOR'S CELL PHONE TO DISABLE THE REMOTE PHONE'S DISPLAY SOFTWARE WHILE PERMITTING CONTINUED TRACKING OF THE REMOTE PHONE'S LOCATION AND OPTIONALLY TURN OFF ITS SPEAKER AND TURN ON ITS MICROPHONE
THE ACS CELL PHONE SENDS THE ACS SERVER A MESSAGE TO SEND TO THE REMOTE CELL PHONE COMMANDING THE REMOTE CELL PHONE TO DISABLE ITS DISPLAY SOFTWARE, CONTINUE TRACKING IT'S LOCATION AND TO OPTIONALLY TURN OFF ITS SPEAKER AND TURN ON ITS MICROPHONE. THE ACS SERVER THEN SENDS THE MESSAGE TO THE REMOTE ACS CELL PHONE COMMANDING IT TO DISABLE ITS DISPLAY SOFTWARE, CONTINUE TRACKING AND TO OPTIONALLY TURN OFF ITS SPEAKER AND TURN ON ITS MICROPHONE
THE REMOTE ACS CELL PHONE RECEIVES THE MESSAGE AND DESTROYS ITS DISPLAY SOFTWARE, CONTINUES TO TRANSMIT ITS LOCATION AND OPTIONALLY TURNS ON ITS MICROPHONE AND TURNS OFF ITS SPEAKER

FIG. 3a

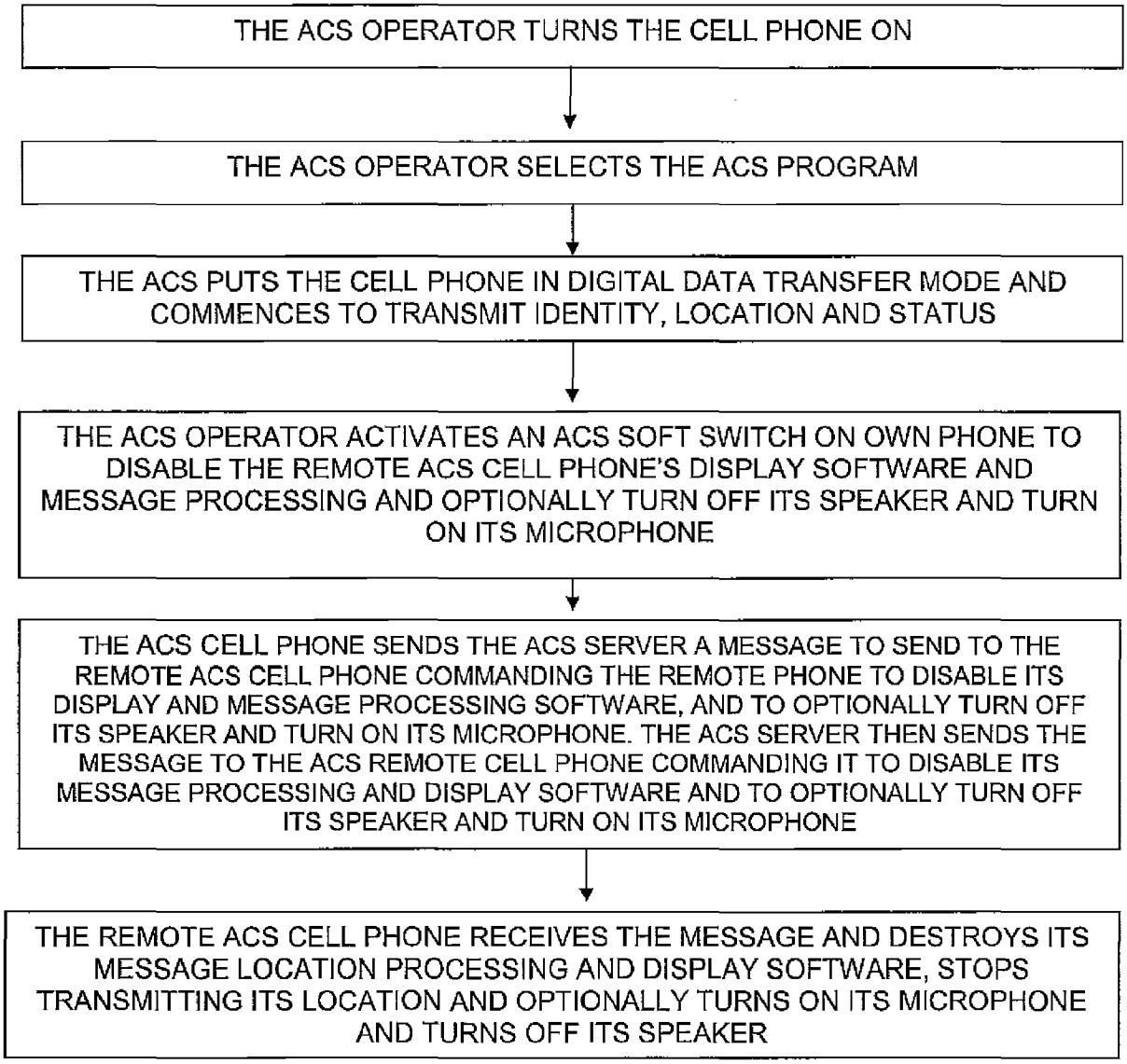
THE ACS OPERATOR TURNS THE CELL PHONE ON
THE ACS OPERATOR SELECTS THE ACS PROGRAM
THE ACS PUTS THE CELL PHONE IN DIGITAL DATA TRANSFER MODE AND COMMENCES TO TRANSMIT IDENTITY, LOCATION AND STATUS
THE ACS OPERATOR ACTIVATES AN ACS SOFT SWITCH ON OWN PHONE TO DISABLE THE REMOTE ACS CELL PHONE'S DISPLAY SOFTWARE AND MESSAGE PROCESSING AND OPTIONALLY TURN OFF ITS SPEAKER AND TURN ON ITS MICROPHONE
THE ACS CELL PHONE SENDS THE ACS SERVER A MESSAGE TO SEND TO THE REMOTE ACS CELL PHONE COMMANDING THE REMOTE PHONE TO DISABLE ITS DISPLAY AND MESSAGE PROCESSING SOFTWARE, AND TO OPTIONALLY TURN OFF ITS SPEAKER AND TURN ON ITS MICROPHONE. THE ACS SERVER THEN SENDS THE MESSAGE TO THE ACS REMOTE CELL PHONE COMMANDING IT TO DISABLE ITS MESSAGE PROCESSING AND DISPLAY SOFTWARE AND TO OPTIONALLY TURN OFF ITS SPEAKER AND TURN ON ITS MICROPHONE
THE REMOTE ACS CELL PHONE RECEIVES THE MESSAGE AND DESTROYS ITS MESSAGE LOCATION PROCESSING AND DISPLAY SOFTWARE, STOPS TRANSMITTING ITS LOCATION AND OPTIONALLY TURNS ON ITS MICROPHONE AND TURNS OFF ITS SPEAKER

FIG. 3b

DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION
(English Language Declaration)

Our File No. 10963.3805

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled: **METHOD OF CONTROLLING USER AND REMOTE CELL PHONE TRANSMISSIONS AND DISPLAYS**, the specification of which (check one):

[X] is attached hereto
[] was filed on as Serial No. and was amended on (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the Office all information known to me to be material to patentability, as defined in Title 37, Code of Federal Regulations §1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)			Priority Claimed	
Number	Country	Day/Month/Year	Yes	No

I hereby claim the benefit under Title 35, United States Code, Section 120, of any United States application(s) or PCT international application(s) designating the United States of America listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, Section 112, I acknowledge the duty to disclose to the Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations 1.56, which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

Serial No.	Filing Date	Status
11/308,648	**April 17, 2006**	**Pending**
11/711,490	**September 21, 2004**	**Issued**

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

POWER OF ATTORNEY

As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith along with any and all foreign applications filed and foreign patents issued therefrom.

Barry L. Haley, Registration No. 25,339
Dale Paul DiMaggio, Registration No. 31,823
Joseph R. Englander, Registration No. 38,871
Jerry D. Haynes, Registration No. 42,646
James David Johnson, Registration No. 47,685
Clark A.D. Wilson, Registration No. 55,732

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MALIN, HALEY & DIMAGGIO, P.A.
Customer No. 22235
1936 South Andrews Avenue
Fort Lauderdale, Florida 33316

Direct telephone calls to: Barry L. Haley
(954) 763-3303

Full Name of Sole or First Inventor
MALCOLM K. BEYER, JR.

Citizenship
UNITED STATES OF AMERICA

Inventor's Signature

Dec 18, 2006
Date

Residence
Jupiter Inlet Colony, Florida

Post Office Address
92 Lighthouse Drive
Jupiter Inlet Colony, Florida 33469-3504

Full Name of Second Joint Inventor

Citizenship

Second Inventor's Signature

Date

Residence

Post Office Address

I:\10693\firm\3805.226pal

Electronic Patent Application Fee Transmittal

Application Number:	
Filing Date:	
Title of Invention:	METHOD OF CONTROLLING USER AND REMOTE CELL PHONE TRANSMISSIONS AND DISPLAYS
First Named Inventor/Applicant Name:	Malcolm K. Beyer, Jr.
Filer:	Barry Lee Haley
Attorney Docket Number:	10963.3805
Filed as Small Entity	

Utility Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Utility filing Fee (Electronic filing)	4011	1	75	75
Utility Search Fee	2111	1	250	250
Utility Examination Fee	2311	1	100	100
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
			Total in USD ($)	**425**

Electronic Acknowledgement Receipt

EFS ID:	1385480
Application Number:	11612830
International Application Number:	
Confirmation Number:	6774
Title of Invention:	METHOD OF CONTROLLING USER AND REMOTE CELL PHONE TRANSMISSIONS AND DISPLAYS
First Named Inventor/Applicant Name:	Malcolm K. Beyer, Jr.
Customer Number:	22235
Filer:	Barry Lee Haley
Filer Authorized By:	
Attorney Docket Number:	10963.3805
Receipt Date:	19-DEC-2006
Filing Date:	
Time Stamp:	15:32:56
Application Type:	Utility

Payment information:

Submitted with Payment	yes
Payment was successfully received in RAM	$425
RAM confirmation Number	183
Deposit Account	131130
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: Charge any Additional Fees required under 37 C.F.R. Section 1.16 and 1.17	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)	Multi Part /.zip	Pages (if appl.)
1	Application Data Sheet	3805applicationdatasheet.pdf	1602774	no	4
Warnings:					
Information:					
2		3805application.pdf	749493	yes	29
	Multipart Description/PDF files in .zip description				
	Document Description		**Start**	**End**	
	Specification		1	22	
	Claims		23	28	
	Abstract		29	29	
Warnings:					
Information:					
3	Drawings	3805drawings.pdf	120432	no	7
Warnings:					
Information:					
4		3805declpoa.pdf	70022	yes	2
	Multipart Description/PDF files in .zip description				
	Document Description		**Start**	**End**	
	Oath or Declaration filed		1	1	
	Oath or Declaration filed		2	2	
Warnings:					
Information:					
5	Fee Worksheet (PTO-06)	fee-info.pdf	8410	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	2551131		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

PTO/SB/06 (12-04)
Approved for use through 7/31/2006. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

11/612,830

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY RATE ($)	SMALL ENTITY FEE ($)		OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY FEE ($)
BASIC FEE (37 CFR 1.16(a), (b), or (c))				75			
SEARCH FEE (37 CFR 1.16(k), (i), or (m))				250			
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))				100			
TOTAL CLAIMS (37 CFR 1.16(i))	6 minus 20=		X$25=		OR	X$50	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	3 minus 3 =		X$100=			X$200=	
APPLICATION SIZE FEE (37 CFR 1.16(s))							
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))			N/A			N/A	
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	425		TOTAL	

APPLICATION AS AMENDED – PART II

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE ($)	SMALL ENTITY ADDITIONAL FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY ADDI- TIONAL FEE ($)
AMENDMENT A	Total (37 CFR 1.16(i))	*	Minus	**	=	X =		OR	X =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X =		OR	X =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					N/A		OR	N/A	
						TOTAL ADD'T FEE		OR	TOTAL ADD'T FEE	

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)	OR	RATE ($)	ADDI- TIONAL FEE ($)
AMENDMENT B	Total (37 CFR 1.16(i))	*	Minus	**	=	X =		OR	X =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X =		OR	X =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					N/A		OR	N/A	
						TOTAL ADD'T FEE		OR	TOTAL ADD'T FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	DRAWINGS	TOT CLAIMS	IND CLAIMS
11/612,830	12/19/2006	2617	425	10963.3805	7	6	3

CONFIRMATION NO. 6774

22235
MALIN HALEY AND DIMAGGIO, PA
1936 S ANDREWS AVENUE
FORT LAUDERDALE, FL33316

FILING RECEIPT

Date Mailed: 01/26/2007

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please mail to the Commissioner for Patents P.O. Box 1450 Alexandria Va 22313-1450. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).**

Applicant(s)

Malcolm K. Beyer JR., Jupiter Inlet Colony, FL;

Power of Attorney:

Barry Haley--25339
Dale Di Maggio--31823
Joseph Englander--38871
Jerry Haynes--42646
James Johnson--47685
Clark Wilson--55732

Domestic Priority data as claimed by applicant

This application is a CIP of 11/308,648 04/17/2006
which is a CIP of 10/711,490 09/21/2004 PAT 7,031,728

Foreign Applications

If Required, Foreign Filing License Granted: 01/25/2007

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US11/612,830**

Projected Publication Date: Request for Non-Publication Acknowledged

Non-Publication Request: Yes

Early Publication Request: No

** SMALL ENTITY **

Title

METHOD OF CONTROLLING USER AND REMOTE CELL PHONE TRANSMISSIONS AND DISPLAYS

Preliminary Class

455

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at http://www.uspto.gov/web/offices/pac/doc/general/index.html.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, http://www.stopfakes.gov. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4158).

LICENSE FOR FOREIGN FILING UNDER

Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date

thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign AssetsControl, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

PTO/SB/36 (12-07)
Approved for use through 12/31/2007. OMB 0651-0031
U.S. Patent and Trademark Office; U. S. DEPARTMENT OF COMMERCE

RESCISSION OF PREVIOUS NONPUBLICATION REQUEST
(35 U.S.C. 122(b)(2)(B)(ii))
AND, IF APPLICABLE,
NOTICE OF FOREIGN FILING
(35 U.S.C. 122(b)(2)(B)(iii))

Send completed form to:
Mail Stop PG Pub
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450
FAX: (571) 273-8300

Application Number	11/642,830
Filing Date	December 19, 2006
First Named Inventor	Malcolm K. Beyer, Jr.
Title	METHOD OF CONTROLLING USER AND REMOTE CELL PHONE TRANSMISSIONS AND DISPLAYS
Atty Docket Number	10963.3805
Art Unit	2617
Examiner	

A request that the above-identified application not be published under 35 U.S.C. 122(b) (nonpublication request) was included with the above-identified application on filing pursuant to 35 U.S.C. 122(b)(2)(B)(i).
I hereby **rescind** the previous nonpublication request.

If a notice of foreign or international filing is or will be required by 35 U.S.C. 122(b)(2)(B)(iii) and 37 CFR 1.213(c), I hereby provide such notice. This notice is being provided no later than forty-five (**45**) days after the date of such foreign or international filing.

*If a notice of subsequent foreign or international filing required by 35 U.S.C. 122(b)(2)(B)(iii) and 37 CFR 1.213(c) was not filed within forty-five (**45**) days after the date of filing of the foreign or international application, the application is ABANDONED, and a petition to revive under 37 CFR 1.137(b) is required. See 37 CFR 1.137(f).*

Barry L Haley — Signature
December 17, 2007 — Date

Barry L. Haley — Typed or printed name
25,339 — Registration Number, if applicable

954-763-3303 — Telephone Number

This request must be signed in compliance with 37 CFR 1.33(b).

If information or assistance is needed in completing this form, please contact the Pre-Grant Publication Division at (703)605-4283 or by e-mail at PGPub@USPTO.gov.

CERTIFICATE OF MAILING OR TRANSMISSION
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop PG Pub, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, or facsimile transmitted to the U.S. Patent and Trademark Office on the date shown below.

Signature: Arlette J. Breakstone
Name (Print/Type): Arlette J. Breakstone
Date: December 17, 2007

Electronic Acknowledgement Receipt

EFS ID:	2597220
Application Number:	11612830
International Application Number:	
Confirmation Number:	6774
Title of Invention:	METHOD OF CONTROLLING USER AND REMOTE CELL PHONE TRANSMISSIONS AND DISPLAYS
First Named Inventor/Applicant Name:	Malcolm K. Beyer
Customer Number:	22235
Filer:	Barry Lee Haley
Filer Authorized By:	
Attorney Docket Number:	10963.3805
Receipt Date:	17-DEC-2007
Filing Date:	19-DEC-2006
Time Stamp:	10:21:47
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes) /Message Digest	Multi Part /.zip	Pages (if appl.)
1	Rescind Nonpublication Request for Pre Grant Pub	3805rescind.pdf	47717 d4e8337b96ab24107e2554fb2ee95fd82f4f49f1	no	1

Warnings:	
Information:	

Total Files Size (in bytes):	47717

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
11/612,830	12/19/2006	Malcolm K. Beyer JR.	10963.3805

CONFIRMATION NO. 6774

22235
MALIN HALEY AND DIMAGGIO, PA
1936 S ANDREWS AVENUE
FORT LAUDERDALE, FL 33316

NONPUBLICATION RESCISSION LETTER

OC000000027404501

Date Mailed: 12/21/2007

Communication Regarding Rescission Of Nonpublication Request and/or Notice of Foreign Filing

Applicant's rescission of the previously-filed nonpublication request and/or notice of foreign filing is acknowledged. The paper has been reflected in the Patent and Trademark Office's (USPTO's) computer records so that the earliest possible projected publication date can be assigned.

The projected publication date is 03/27/2008.

If applicant rescinded the nonpublication request before or on the date of "foreign filing,"[1] then no notice of foreign filing is required.

If applicant foreign filed the application after filing the above application and before filing the rescission, and the rescission did not also include a notice of foreign filing, then a notice of foreign filing (not merely a rescission) is required to be filed within 45 days of the date of foreign filing. See 35 U.S.C. § 122(b)(2)(B)(iii), and Clarification of the United States Patent and Trademark Office's Interpretation of the Provisions of 35 U.S.C. § 122(b)(2)(B)(ii)-(iv), 1272 Off. Gaz. Pat. Office 22 (July 1, 2003).

If a notice of foreign filing is required and is not filed within 45 days of the date of foreign filing, then the application becomes abandoned pursuant to 35 U.S.C. § 122(b)(2)(B)(iii). In this situation, applicant should either file a petition to revive or notify the Office that the application is abandoned. See 37 CFR 1.137(f). Any such petition to revive will be forwarded to the Office of Petitions for a decision. Note that the filing of the petition will not operate to stay any period of reply that may be running against the application.

Questions regarding petitions to revive should be directed to the Office of Petitions at (571) 272-3282. Questions regarding publications of patent applications should be directed to the patent application publication hotline at (703) 605-4283 or by e-mail pgpub@uspto.gov.

[1] Note, for purpose of this notice, that "foreign filing" means "filing an application directed to the same invention in another country, or under a multilateral international agreement, that requires publication of applications 18 months after filing".

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APPLICATION NUMBER	FILING OR 371(c) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
11/612,830	12/19/2006	Malcolm K. Beyer JR.	10963.3805

CONFIRMATION NO. 6774

22235
MALIN HALEY AND DIMAGGIO, PA
1936 S ANDREWS AVENUE
FORT LAUDERDALE, FL33316

Date Mailed. 12/27/2007

NOTICE OF NEW OR REVISED PROJECTED PUBLICATION DATE

The above-identified application has a new or revised projected publication date. The current projected publication date for this application is 03/27/2008. If this is a new projected publication date (there was no previous projected publication date), the application has been cleared by Licensing & Review or a secrecy order has been rescinded and the application is now in the publication queue.

If this is a revised projected publication date (one that is different from a previously communicated projected publication date), the publication date has been revised due to processing delays in the USPTO or the abandonment and subsequent revival of an application. The application is anticipated to be published on a date that is more than six weeks different from the originally-projected publication date.

More detailed publication information is available through the private side of Patent Application Information Retrieval (PAIR) System. The direct link to access PAIR is currently http://pair.uspto.gov. Further assistance in electronically accessing the publication, or about PAIR, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

Questions relating to this Notice should be directed to the Office of Patent Publication at 1-888-786-0101.

PART 1 - ATTORNEY/APPLICANT COPY

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APPLICATION NUMBER	FILING OR 371(c) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
11/612,830	12/19/2006	Malcolm K. Beyer JR.	10963.3805

CONFIRMATION NO. 6774

22235
MALIN HALEY AND DIMAGGIO, PA
1936 S ANDREWS AVENUE
FORT LAUDERDALE, FL33316

Title: METHOD OF CONTROLLING USER AND REMOTE CELL PHONE TRANSMISSIONS AND DISPLAYS

Publication No. US-2008-0076410-A1
Publication Date: 03/27/2008

NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publically available Searchable Databases via the Internet at www.uspto.gov. The direct link to access the publication is currently http://www.uspto.gov/patft/.

The publication process established by the Office does not provide for mailing a copy of the publication to applicant. A copy of the publication may be obtained from the Office upon payment of the appropriate fee set forth in 37 CFR 1.19(a)(1). Orders for copies of patent application publications are handled by the USPTO's Office of Public Records. The Office of Public Records can be reached by telephone at (703) 308-9726 or (800) 972-6382, by facsimile at (703) 305-8759, by mail addressed to the United States Patent and Trademark Office, Office of Public Records, Alexandria, VA 22313-1450 or via the Internet.

In addition, information on the status of the application, including the mailing date of Office actions and the dates of receipt of correspondence filed in the Office, may also be accessed via the Internet through the Patent Electronic Business Center at www.uspto.gov using the public side of the Patent Application Information and Retrieval (PAIR) system. The direct link to access this status information is currently http://pair.uspto.gov/. Prior to publication, such status information is confidential and may only be obtained by applicant using the private side of PAIR.

Further assistance in electronically accessing the publication, or about PAIR, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

Pre-Grant Publication Division, 703-605-4283

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/612,830	12/19/2006	Malcolm K. Beyer JR.	10963.3805	6774

22235 7590 10/06/2009

MALIN HALEY DIMAGGIO BOWEN & LHOTA, P.A.
1936 S ANDREWS AVENUE
FORT LAUDERDALE, FL 33316

EXAMINER	
LEBASSI, AMANUEL	
ART UNIT	**PAPER NUMBER**
2617	

NOTIFICATION DATE	DELIVERY MODE
10/06/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

info@mhdpatents.com

Office Action Summary	Application No.	Applicant(s)	
	11/612,830	BEYER, MALCOLM K.	
	Examiner	Art Unit	
	AMANUEL LEBASSI	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 December 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 December 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
>
> In claims 1, 2, 5 and 6, the word 'providing" makes the claims indefinite because it is not active step performed by the system.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gorday (US 20040192331) in view of Hendrey et al. (US 20020107008).

Regarding claim 3, Gorday discloses a communication system to provide a cellular phone network for a group of participants, each of the participants having an individual portable cellular phone that includes a CPU and a GPS navigational system that can accurately determine the location of the cellular phone (paragraph [0013], **where set of communication devices are organized as a wireless network and where each device has the capability of determining the relative geographic location of another similarly equipped**

device, such as by analyzing transmission signals). Gorday discloses each of the cellular phones in the communications net of participants contains: a CPU and memory and a touch screen display (**Fig. 1 and paragraph [0013], where the PDA's are equipped with memory and CPU).** Gorday discloses symbol generator in said CPU that can generate symbols that represent each of the participants in the communication network on the display screen network **(paragraph [0013], where each device is represented by an icon on the display).** Gorday discloses a database that stores the individual telephone numbers related to each of the symbols each of which represents a participant in the communication network (**Fig. 5, step 540** where **list of network members is updated).** Gorday discloses cellular phone call initiating software in said CPU connected to the telephone number database and the touch screen and the symbols on the touch screen whereby touching an individual symbol will automatically initiate a cellular phone telephone call to the use represented by the symbol **(Paragraph [0012] - sending messages from a particular communication device to one or more target communicants and paragraph [0014] - sending messages via the touch screen - the targeted device in order to initiate communication).** Gorday discloses said display including databases that display geographical information that includes showing the geographical location of each of the symbols representing participants in the communication network, fixed locations, and entered items of interest **(paragraph [0013], where each device is represented by an icon, and the**

icons are arranged to show relative geographic locations in an appropriate scale and paragraph [0015], where the network employs a protocol that allows for an exchange of setup information, and location information). Gorday discloses a server for remotely controlling a remote cell phone transmissions and display **(paragraph [0014], where** the relative geographic locations are presented by displaying a list of coordinates). Gorday is silent on cell phone software including a displayed soft switch that causes destruction of the user's own cell phone message received location processing and display software to preclude its use by others.

However, Hendrey teaches where cell phone software including a displayed soft switch that causes destruction of the user's own cell phone message received location processing and display software to preclude its use by others (paragraph [0042] where the location information is hidden).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the invention of Gorday and add that of Hendrey. **T**he motivation would be to conceal the location of the mobile user (paragraph [0003]).

Regarding claim 4, the combination of above discloses cell phone software in each of the network users' cell phones including a soft switch that initiates a digital message to be sent to a remote cell phone that includes the destruction of the remote cell phone message received location processing and

display software allowing one user to remotely shut down the remote user's location processing and display software (see above)

Allowable Subject Matter

3. Claims 1, 2, 5 and 6 would be allowable if you fix the 112 second.

Conclusion

1. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Amanuel Lebassi, whose telephone number is (571) 270-5303. The Examiner can normally be reached on Monday-Thursday from 8:00am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Nick Corsaro can be reached at (571) 272-7876. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Amanuel Lebassi
/A. L./
09/29/2009

/NICK CORSARO/

Supervisory Patent Examiner, Art Unit 2617

Notice of References Cited	Application/Control No. 11/612,830	Applicant(s)/Patent Under Reexamination BEYER, MALCOLM K.	
	Examiner AMANUEL LEBASSI	Art Unit 2617	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2004/0192331	09-2004	Gorday et al.	455/456.1
*	B	US-2002/0107008	08-2002	Hendrey et al.	455/416
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11612830	BEYER, MALCOLM K.
	Examiner	**Art Unit**
	AMANUEL LEBASSI	2617

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	09/29/2009								
	1	✓								
	2	✓								
	3	✓								
	4	✓								
	5	✓								
	6	✓								

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11612830	BEYER, MALCOLM K.
	Examiner	Art Unit
	AMANUEL LEBASSI	2617

SEARCHED			
Class	Subclass	Date	Examiner
455	457	9/29/2009	A.L

SEARCH NOTES		
Search Notes	Date	Examiner
Consulted Nick Corsaro (SPE)	9/29/2009	AL

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner

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BIB DATA SHEET

CONFIRMATION NO. 6774

SERIAL NUMBER	FILING or 371(c) DATE RULE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
11/612,830	12/19/2006	455	2617	10963.3805

APPLICANTS
Malcolm K. Beyer JR., Jupiter Inlet Colony, FL;

**** CONTINUING DATA ***************************
This application is a CIP of 11/308,648 04/17/2006
which is a CIP of 10/711,490 09/21/2004 PAT 7,031,728

**** FOREIGN APPLICATIONS ***************************

**** IF REQUIRED, FOREIGN FILING LICENSE GRANTED **** ** SMALL ENTITY **
01/25/2007

Foreign Priority claimed ☐ Yes ☑ No 35 USC 119(a-d) conditions met ☐ Yes ☐ No Verified and Acknowledged /AMANUEL LEBASSI/ Examiner's Signature	☐ Met after Allowance Initials	STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS
		FL	7	6	3

ADDRESS

MALIN HALEY DIMAGGIO BOWEN & LHOTA, P.A.
1936 S ANDREWS AVENUE
FORT LAUDERDALE, FL 33316
UNITED STATES

TITLE

METHOD OF CONTROLLING USER AND REMOTE CELL PHONE TRANSMISSIONS AND DISPLAYS

FILING FEE RECEIVED		
425	FEES: Authority has been given in Paper No._____ to charge/credit DEPOSIT ACCOUNT No._____ for following:	☐ All Fees ☐ 1.16 Fees (Filing) ☐ 1.17 Fees (Processing Ext. of time) ☐ 1.18 Fees (Issue) ☐ Other _____ ☐ Credit

BIB (Rev. 05/07).

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	2	11/612,830	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO	ADJ	OFF	2009/09/28 12:53
S3	2	"20040192331".pn. or "6662016".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO	ADJ	OFF	2009/09/28 15:23
S4	0	(group near10 participnats) and (cell $1phone or mobile or PDA) and symbol and database	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO	ADJ	OFF	2009/09/28 16:17
S5	0	(group same participnats) and (cell $1phone or mobile or PDA) and symbol and database	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO	ADJ	OFF	2009/09/28 16:18
S6	0	(group andparticipnats) and (cell$1phone or mobile or PDA) and symbol and database	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO	ADJ	OFF	2009/09/28 16:18
S7	0	(group and participnats) and (cell $1phone or mobile or PDA) and symbol and database	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO	ADJ	OFF	2009/09/28 16:18
S8	180	(group near10 participants) and (cell $1phone or mobile or PDA) and symbol and database	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO	ADJ	OFF	2009/09/28 16:18
S9	13	S8 and (automatical$5 near3 initiat$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO	ADJ	OFF	2009/09/28 16:20

S10	1	455/457.ccls. and S8	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO	ADJ	OFF	2009/09/28 16:38
S11	14	"455"/$.ccls. and S8	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO	ADJ	OFF	2009/09/28 16:38
S12	0	display$4 and (soft switch) and ((hide$1 or hiding) near3 location)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO	ADJ	ON	2009/09/28 18:57
S13	207	display$4 and (switch) and ((hide$1 or hiding) near3 location)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO	ADJ	ON	2009/09/28 18:57
S14	12	"455"/$.ccls. and S13	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO	ADJ	OFF	2009/09/28 18:58

9/29/2009 11:32:08 AM
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

January 5, 2010

In re application of	:	BEYER, Malcolm K., Jr.
Serial No.	:	11/612,830
Filed	:	December 19, 2006
For	:	**CELLULAR PHONE/PDA COMMUNICATION SYSTEM**
Examiner	:	Lebassi, Amanuel
Art Unit	:	2617
Confirmation No.	:	6774
Our File No.	:	10963.3805

AMENDMENT

Mail Stop Non-Fee Amendment
Hon. Commissioner for Patents
Alexandria, VA 22313-1450

Dear Sir:

In response to the Examiner's Office Action dated October 6, 2009, this amendment is submitted.

Amendments to the claims are on page 2-7.

The Remarks begin on page 8.

Amend the claims as follows:

1. (Currently Amended) A method of providing a cellular phone communication network for designated participating users, each user having a similarly equipped PDA/cell phone that includes a CPU, a GPS navigational system and a touch screen display:

establishing ~~providing~~ rapid voice call initiation and communication among the users of the cellular phone/PDA/GPS network system using a touch screen;

establishing within ~~providing~~ each cellular/PDA/GPS phone ~~with~~ a software application program and database that permits each cell phone user to continuously know each other's geographical location and status which is displayed on the display touch screen of each cell phone;

displaying on each cell phone display one or more symbols representing the other users in the network having similarly equipped cell phones that transmit their geographical location upon request, time, distance traveled, or other criteria to the other users in the network periodically so that each cell phone user has a touch display with symbols representing the other users in the network geographically;

displaying ~~providing~~ a plurality of soft switches on each touch screen display of each cell phone in the user network that includes initiating a rapid voice call to any other user in the network through touching said first voice call switch after hooking a specific symbol or symbols that automatically calls the symbol(s) touched at the location(s), said database in each of said cell phone including the data link received, operator loaded or pre-loaded cell phone telephone number of each of the users and the phone numbers, URLs and E-mail addresses of fixed sites displayed in the network geographically and symbolically;

establishing ~~providing~~ a remote server for communicating with each cell phone;

~~providing in each PDA/cell phone an application program that includes messaging software for~~ transmitting and receiving messages including: voice, text photographs and video among all of the users in the network having a similarly equipped cell phone/PDA unit that includes messaging software;

establishing ~~providing~~ within each user's own cell phone a software program and soft switch display to preclude the detection of its use or its use by unauthorized users;

using ~~providing~~ a soft switch and the software accessed by said soft switch for turning off the transmitter of the user's own cell phone to prevent transmission of data and thereby deny the ability for non-authorized persons to detect the location of the network participant;

using ~~providing~~ a soft switch and the software accessed by the soft switch for destroying the display software of the user's own cell phone thus precluding non-authorized personnel from seeing the location of the other network participants while permitting continued tracking of the phone's location and optionally turning off the phone's speaker and turning on the phone's microphone so that conversations of personnel in the vicinity of the phone can be heard; and

using ~~providing~~ a soft switch and the software accessed by the soft switch that causes destruction of the user's own cell phone message received location processing and display software thus precluding its use by others and optionally turning off its speaker and on its microphone so that the conversations of personnel in the vicinity can be heard.

2. (Currently Amended) A method as in claim 1, including the additional steps of:

using ~~providing~~ a soft switch and the software accessed by the soft switch, that causes a digital message to be sent to a remote cell phone disabling in each cell phone the remote phone's display thus precluding non-authorized personnel from seeing the location of the other network participants while permitting continued tracking of the phone's location and optionally turning off the phone's speaker and turning on the phone's microphone so that conversations of personnel in the vicinity of the phone can be heard; and

using ~~providing~~ a soft switch and the software accessed by the soft switch that causes a digital message to be sent to the remote phone commanding destruction of the network participant's message receive location processing and display software thus precluding its use by others and optionally turning off its speaker and turning on its microphone thus permitting the monitoring of conversations in the vicinity of the microphone.

3. (Currently Amended) A communication system to provide a cellular phone network for a group of participants, each of the participants having an individual portable cellular phone that includes a CPU and a GPS navigational system that can accurately determine the location of the cellular phone[~~,~~][.] ~~Each~~ each of the cellular phones in the communications net of participants containing ~~contains~~:

a CPU and memory;

a touch screen display;

symbol generator in said CPU that can generate symbols that represent each of the participants in the communication network on the display screen;

a database that stores the individual telephone numbers related to each of the symbols each of which represents a participant in the communication network;

cellular phone call initiating software in said CPU connected to the telephone number database and the touch screen and the symbols on the touch screen whereby touching an individual symbol will automatically initiate a cellular phone telephone call to the use represented by the symbol;

said display including databases that display geographical information that includes showing the geographical location of each of the symbols representing participants in the communication network, fixed locations, and entered items of interest;

a server for remotely controlling a remote cell phone transmissions and display; and

cell phone software including a displayed soft switch that causes destruction of the user's own cell phone message received location processing and display software to preclude its use by others.

4. (Original) A communication system as in claim 3, including:

cell phone software in each of the network users' cell phones including a soft switch that initiates a digital message to be sent to a remote cell phone that includes the destruction of the remote cell phone message received location processing and display software allowing one user to remotely shut down the remote user's location processing and display software.

5. (Currently Amended) A cellular phone for use in a communication network for a plurality of participants comprising:

a cellular phone transmitter and receiver;

a small hand held portable housing containing said cellular phone transmitter and

receiver;

a touch display screen mounted in said housing;

a modem connected to said cellular phone transmitter and receiver;

a CPU connected to said cellular phone transmitter and receiver;

a GPS navigation system connected to said CPU and to said cellular phone transmitter and receiver on said touch screen;

a database connected to said CPU that includes the symbol of a list of telephone numbers that relate to specific symbols;

a symbol generator connected to said CPU and said database for generating symbols on said touch screen, each of said symbols representing a participant in a communication network that has a cellular phone;

CPU software for selectively polling other participants with a cellular phone;

call initiating software connected through said CPU and said telephone database and said symbol generator whereby when a user touches the symbol displayed on a display screen the cellular phone call is automatically initiated to the cellular phone represented by the symbol;

a geographical database connected to said CPU to provide a geographical display on said touch screen representing a defined geographical area that also displays symbols representing each of the participants that has an identical cellular phone by latitude and longitude;

software application program connected to said CPU in each cell phone to control a remote cell phone including stopping transmissions from a remote cell phone; and

software ~~provided~~ application program connected to said CPU in each cell phone

including a corresponding soft switch that causes a digital message to be sent to a remote cell phone commanding destruction of the network participant's message received location processing and display software thus precluding its use by others.

6. (Original) A cell phone as in claim 5, including:

means for remotely turning off a remote cell phone speaker and turning on its microphone to permit monitoring of conversations in the vicinity of the remote microphone.

REMARKS

The Examiner's rejection of Claims 1-2 and 5-6 under 35 U.S.C. 112 on the grounds that the word "providing" makes the claims indefinite because it is not an active step performed by the system is respectfully traversed. Applicant has amended claims 1, 2 and 5 and have eliminated the word "providing" and substituted an action verb for the particular step thus removing any indefiniteness in the claims. The Examiner has indicated that correcting the 35 U.S.C. 112 matters would make Claims 1-2 and 5-6 allowable.

The Examiner's rejection of Claims 3 and 4 under 35 U.S.C. 103(a) as being unpatentable over Gorday et al. (Publication 2004/0192331) in view of Hendrey et al. (Publication 2002/0107008) is respectfully traversed. Claim 3 requires among other elements specific cell phone software that includes a displayed soft switch that causes destruction of the users own cell phone message receive location, processing display software to preclude its use by others, a specific element that is not suggested nor shown in the references as combined and cited by the Examiner. Even under the tenants of KSR International with respect to obviousness, the references when combined should at least disclose Applicant's claimed invention. It is Applicant's position that the combined references do not suggest nor disclose the entire combination of elements claimed since there is no teaching to have a cell phone software that includes display soft switch causing destruction of the user's own cell phone message received location and processing and display software to preclude its use by others. In the absence of the elements of Applicant's invention being taught by the combination of references, it is therefore Applicant's position that the Examiner has not established a *prima facie* case of obviousness as

required under 35 U.S.C. 103 and even as required under KSR International. Also, Claim 4 requires cell phone software in each of the network users cell phones that includes a soft switch that initiates a digital message to be sent to a remote cell phone that includes the destruction of the remote cell phone received location processing and display software so that one can shut down a remote users location processing and software. There is no teaching or suggestion in the references when combined cited by the Examiner that would include the additional limitation stated in Claim 4 which also depends from Claim 3 as discussed above. Therefore it is Applicant's position with respect to Claim 4, the Examiner has failed to provide a *prima facie* case of obviousness since the combined references do not remotely suggest Applicant's claimed invention.

It is noted that Claims 1-2 and 5-6 were indicated to be allowable once the 35 U.S.C. 112 matters have been corrected.

It is Applicant's position that Claims 1-6 as presented are allowable over the art of record.

Respectfully submitted,

s/barry l. haley
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E-Mail: info@mhdpatents.com

I:\10000\10963\amend\3805Amend.doc

Electronic Acknowledgement Receipt

EFS ID:	6751042
Application Number:	11612830
International Application Number:	
Confirmation Number:	6774
Title of Invention:	METHOD OF CONTROLLING USER AND REMOTE CELL PHONE TRANSMISSIONS AND DISPLAYS
First Named Inventor/Applicant Name:	Malcolm K. Beyer
Customer Number:	22235
Filer:	Barry Lee Haley
Filer Authorized By:	
Attorney Docket Number:	10963.3805
Receipt Date:	05-JAN-2010
Filing Date:	19-DEC-2006
Time Stamp:	14:47:29
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Amendment/Req. Reconsideration-After Non-Final Reject	3805Amend.pdf	45305 97746b837f12cfbb472f1e2505ddb76d5a0b0dd2	no	9

Warnings:	
Information:	

Total Files Size (in bytes):	45305

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/06 (07-06)
Approved for use through 1/31/2007. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number	Filing Date	☐ To be Mailed
11/612,830	12/19/2006	

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY ☒ RATE ($)	SMALL ENTITY ☒ FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =		OR	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =			X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $250 ($125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).						
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))							
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT	01/05/2010	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE ($)	SMALL ENTITY ADDITIONAL FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 6	Minus	** 20	= 0	X $26 =	0	OR	X $ =	
	Independent (37 CFR 1.16(h))	* 3	Minus	***3	= 0	X $110 =	0	OR	X $ =	
	☐ Application Size Fee (37 CFR 1.16(s))									
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE	0	OR	TOTAL ADD'L FEE	

AMENDMENT		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)	OR	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =		OR	X $ =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =		OR	X $ =	
	☐ Application Size Fee (37 CFR 1.16(s))									
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

Legal Instrument Examiner:
/KAREN VESTAL/

PTO/SB/06 (07-06)
Approved for use through 1/31/2007. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number	Filing Date	☐ To be Mailed
11/612,830	12/19/2006	

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY ☒ RATE ($)	SMALL ENTITY ☒ FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =		OR	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =			X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $250 ($125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).						
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))							
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT	01/05/2010	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE ($)	SMALL ENTITY ADDITIONAL FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 6	Minus	** 20	= 0	X $26 =	0	OR	X $ =	
	Independent (37 CFR 1.16(h))	* 3	Minus	***3	= 0	X $110 =	0	OR	X $ =	
	☐ Application Size Fee (37 CFR 1.16(s))									
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE	0	OR	TOTAL ADD'L FEE	

AMENDMENT		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)	OR	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =		OR	X $ =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =		OR	X $ =	
	☐ Application Size Fee (37 CFR 1.16(s))									
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

Legal Instrument Examiner:
/KAREN VESTAL/

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/612,830	12/19/2006	Malcolm K. Beyer JR.	10963.3805	6774

22235 7590 04/02/2010

MALIN HALEY DIMAGGIO BOWEN & LHOTA, P.A.
1936 S ANDREWS AVENUE
FORT LAUDERDALE, FL 33316

EXAMINER	
LEBASSI, AMANUEL	
ART UNIT	**PAPER NUMBER**
2617	

NOTIFICATION DATE	DELIVERY MODE
04/02/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

info@mhdpatents.com

Office Action Summary	Application No.	Applicant(s)	
	11/612,830	BEYER, MALCOLM K.	
	Examiner	Art Unit	
	AMANUEL LEBASSI	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01/05/2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *3 and 4* is/are rejected.

7)☒ Claim(s) *1,2,5 and 6* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 December 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 01/05/2010 have been fully considered but they are not persuasive.

2. The applicant argued features in the claims, i.e. A communication system to provide a cellular phone network for a group of participants, each of the participants having an individual portable cellular phone that includes a CPU and a GPS navigational system that can accurately determine the location of the cellular phone, each of the cellular phones in the communications net of participants containing a CPU and memory; a touch screen display; symbol generator in said CPU that can generate symbols that represent each of the participants in the communication network on the display screen; a database that stores the individual telephone numbers related to each of the symbols each of which represents a participant in the communication network, cellular phone call initiating software in said CPU connected to the telephone number database and the touch screen and the symbols on the touch screen whereby touching an individual symbol will automatically initiate a cellular phone telephone call to the use represented by the symbol; said display including databases that display geographical information that includes showing the geographical location of each of the symbols representing participants in the communication network, fixed locations, and entered items of interest; a server for remotely controlling a remote cell phone transmissions and display; and cell phone software including a displayed soft switch that causes

destruction of the user's own cell phone message received location processing and display software to preclude its use by others, reads upon Gorday in view of Hendrey, as follows.

Gorday is discussing where set of communication devices are organized as a wireless network and where each device has the capability of determining the relative geographic location of another similarly equipped device, such as by analyzing transmission signals. Therefore, Gorday is showing the limitation of "**a communication system to provide a cellular phone network for a group of participants, each of the participants having an individual portable cellular phone that includes a CPU and a GPS navigational system that can accurately determine the location of the cellular phone**". Gorday discusses where the PDA's are equipped with memory and CPU. Therefore, Gorday is showing the limitation of **"each of the cellular phones in the communications net of participants contains a CPU and memory and a touch screen display**". Gorday is discussing where each device is represented by an icon on the display. Therefore, Gorday shows the limitation of "**symbol generator in said CPU that can generate symbols that represent each of the participants in the communication network on the display screen network**". Gorday discusses where list of network members is updated in the network's database. Therefore, Gorday shows the limitation of "**a database that stores the individual telephone numbers related to each of the symbols each of which represents a participant in the communication network."** Gorday discusses sending messages from a particular communication device to one or more target communicants and

sending messages via the touch screen in order to initiate communication. Therefore, Gorday shows the limitation of "**cellular phone call initiating software in said CPU connected to the telephone number database and the touch screen and the symbols on the touch screen whereby touching an individual symbol will automatically initiate a cellular phone telephone call to the use represented by the symbol.**" Gorday discusses where each device is represented by an icon, and the icons are arranged to show relative geographic locations in an appropriate scale and where the network employs a protocol that allows for an exchange of setup information, and location information. Therefore, Gorday shows the limitation of "**where said display including databases that display geographical information that includes showing the geographical location of each of the symbols representing participants in the communication network, fixed locations, and entered items of interest.**" Gorday discusses where the relative geographic locations are monitored and presented by displaying a list of coordinates. Therefore, Gorday shows the limitation of "**a server for remotely controlling a remote cell phone transmissions and display.**"

Gorday showed cell phone software however did not show cell phone software including a displayed soft switch that causes destruction of the user's own cell phone message received location processing and display software to preclude its use by others. As a result Hendrey was used to excluding others from using the phone to access the user's own cell phone message.

Regarding the applicants arguments on dependent claims limitations, those limitation where shown by Gorday in view of Hendrey where Hendrey show selectively connecting mobile users based on physical proximity.

Regarding the applicants arguments on combination of references, all references were analogous and performing similar tasks and therefore are combinable.

Regarding the applicants argument on motivation, the motivation to combine was shown in the background of the secondary reference.

Therefore the argued features where read upon the cited references or are written broad enough that they read upon the cited references as follows.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gorday (US 20040192331) in view of Hendrey et al. (US 20020107008).

Regarding claim 3, Gorday discloses a communication system to provide a cellular phone network for a group of participants, each of the participants having an individual portable cellular phone that includes a CPU and a GPS navigational system that can accurately determine the location of the cellular phone (paragraph [0013], **where set of communication devices are organized as a wireless network and where each**

device has the capability of determining the relative geographic location of another similarly equipped device, such as by analyzing transmission signals). Gorday discloses each of the cellular phones in the communications net of participants contains: a CPU and memory and a touch screen display (**Fig. 1 and paragraph [0013], where the PDA's are equipped with memory and CPU)**. Gorday discloses symbol generator in said CPU that can generate symbols that represent each of the participants in the communication network on the display screen network **(paragraph [0013], where each device is represented by an icon on the display).** Gorday discloses a database that stores the individual telephone numbers related to each of the symbols each of which represents a participant in the communication network (**Fig. 5, step 540** where **list of network members is updated).** Gorday discloses cellular phone call initiating software in said CPU connected to the telephone number database and the touch screen and the symbols on the touch screen whereby touching an individual symbol will automatically initiate a cellular phone telephone call to the use represented by the symbol **(Paragraph [0012] - sending messages from a particular communication device to one or more target communicants and paragraph [0014] - sending messages via the touch screen - the targeted device in order to initiate communication).** Gorday discloses said display including databases that display geographical information that includes showing the geographical location of each of the symbols representing participants in the communication network, fixed locations, and entered items of interest **(paragraph [0013], where each device is represented by an icon, and the icons are arranged to show relative geographic locations in an appropriate scale and paragraph [0015],**

where the network employs a protocol that allows for an exchange of setup information, and location information). Gorday discloses a server for remotely controlling a remote cell phone transmissions and display **(paragraph [0014], where the relative geographic locations are presented by displaying a list of coordinates**). Gorday is silent on cell phone software including a displayed soft switch that causes destruction of the user's own cell phone message received location processing and display software to preclude its use by others.

However, Hendrey teaches where cell phone software including a displayed soft switch that causes destruction of the user's own cell phone message received location processing and display software to preclude its use by others (**paragraph [0042] where the location information is hidden** and **paragraph [0118] - excluding others from using the phone to access the user's own cell phone message**).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the invention of Gorday and add that of Hendrey. The motivation would be to conceal the location of the mobile user (**paragraph [0003]**).

Regarding claim **4**, the combination of above discloses cell phone software in each of the network users' cell phones including a soft switch that initiates a digital message to be sent to a remote cell phone that includes the destruction of the remote cell phone message received location processing and display software allowing one user to remotely shut down the remote user's location processing and display software (see above)

Allowable Subject Matter

3. Claims 1, 2, 5 and 6 are allowable.

Conclusion

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

2. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Amanuel Lebassi, whose telephone number is (571) 270-5303. The Examiner can normally be reached on Monday-Thursday from 8:00am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Nick Corsaro can be reached at (571) 272-7876. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Amanuel Lebassi

/A. L./

3/26/2010

/NICK CORSARO/

Supervisory Patent Examiner, Art Unit 2617

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11612830	BEYER, MALCOLM K.
	Examiner	**Art Unit**
	AMANUEL LEBASSI	2617

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	09/29/2009	03/26/2010							
	1	✓	O							
	2	✓	O							
	3	✓	✓							
	4	✓	✓							
	5	✓	O							
	6	✓	O							

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

August 2, 2010

In re application of	:	BEYER, Malcolm K., Jr.
Serial No.	:	11/612,830
Filed	:	December 19, 2006
For	:	**CELLULAR PHONE/PDA COMMUNICATION SYSTEM**
Examiner	:	Lebassi, Amanuel
Art Unit	:	2617
Confirmation No.	:	6774
Our File No.	:	10963.3805

AMENDMENT AFTER FINAL UNDER RULE 1.116

Mail Stop Non-Fee Amendment
Hon. Commissioner for Patents
Alexandria, VA 22313-1450

Dear Sir:

In response to the Examiner's Final Office Action dated April 2, 2010, this amendment after final is submitted to place the application in condition for allowance on its face. Claims 1, 2, 5 and 6 stand allowed. Rejected claims 3 and 4 are herein cancelled.

Amendments to the claims are on page 2-7.

The Remarks begin on page 8.

Amend the claims as follows:

1. (Previously Amended) A method of providing a cellular phone communication network for designated participating users, each user having a similarly equipped PDA/cell phone that includes a CPU, a GPS navigational system and a touch screen display:

establishing rapid voice call initiation and communication among the users of the cellular phone/PDA/GPS network system using a touch screen;

establishing within each cellular/PDA/GPS phone ~~with~~ a software application program and database that permits each cell phone user to continuously know each other's geographical location and status which is displayed on the display touch screen of each cell phone;

displaying on each cell phone display one or more symbols representing the other users in the network having similarly equipped cell phones that transmit their geographical location upon request, time, distance traveled, or other criteria to the other users in the network periodically so that each cell phone user has a touch display with symbols representing the other users in the network geographically;

displaying a plurality of soft switches on each touch screen display of each cell phone in the user network that includes initiating a rapid voice call to any other user in the network through touching said first voice call switch after hooking a specific symbol or symbols that automatically calls the symbol(s) touched at the location(s), said database in each of said cell phone including the data link received, operator loaded or pre-loaded cell phone telephone number of each of the users and the phone numbers, URLs and E-mail addresses of fixed sites displayed in the network geographically and symbolically;

establishing a remote server for communicating with each cell phone;

transmitting and receiving messages including: voice, text photographs and video among all of the users in the network having a similarly equipped cell phone/PDA unit that includes messaging software;

establishing within each user's own cell phone a software program and soft switch display to preclude the detection of its use or its use by unauthorized users;

using a soft switch and the software accessed by said soft switch for turning off the transmitter of the user's own cell phone to prevent transmission of data and thereby deny the ability for non-authorized persons to detect the location of the network participant;

using a soft switch and the software accessed by the soft switch for destroying the display software of the user's own cell phone thus precluding non-authorized personnel from seeing the location of the other network participants while permitting continued tracking of the phone's location and optionally turning off the phone's speaker and turning on the phone's microphone so that conversations of personnel in the vicinity of the phone can be heard; and

using a soft switch and the software accessed by the soft switch that causes destruction of the user's own cell phone message received location processing and display software thus precluding its use by others and optionally turning off its speaker and on its microphone so that the conversations of personnel in the vicinity can be heard.

2. (Previously Amended) A method as in claim 1, including the additional steps of:

using a soft switch and the software accessed by the soft switch, that causes a digital message to be sent to a remote cell phone disabling in each cell phone the remote phone's display thus precluding non-authorized personnel from seeing the location of the other network

participants while permitting continued tracking of the phone's location and optionally turning off the phone's speaker and turning on the phone's microphone so that conversations of personnel in the vicinity of the phone can be heard; and

using a soft switch and the software accessed by the soft switch that causes a digital message to be sent to the remote phone commanding destruction of the network participant's message receive location processing and display software thus precluding its use by others and optionally turning off its speaker and turning on its microphone thus permitting the monitoring of conversations in the vicinity of the microphone.

3. (Cancelled)

4. (Cancelled)

5. (Previously Amended) A cellular phone for use in a communication network for a plurality of participants comprising:

a cellular phone transmitter and receiver;

a small hand held portable housing containing said cellular phone transmitter and receiver;

a touch display screen mounted in said housing;

a modem connected to said cellular phone transmitter and receiver;

a CPU connected to said cellular phone transmitter and receiver;

a GPS navigation system connected to said CPU and to said cellular phone transmitter and receiver on said touch screen;

a database connected to said CPU that includes the symbol of a list of telephone numbers that relate to specific symbols;

a symbol generator connected to said CPU and said database for generating symbols on said touch screen, each of said symbols representing a participant in a communication network that has a cellular phone;

CPU software for selectively polling other participants with a cellular phone;

call initiating software connected through said CPU and said telephone database and said symbol generator whereby when a user touches the symbol displayed on a display screen the cellular phone call is automatically initiated to the cellular phone represented by the symbol;

a geographical database connected to said CPU to provide a geographical display on said touch screen representing a defined geographical area that also displays symbols representing each of the participants that has an identical cellular phone by latitude and longitude;

software application program connected to said CPU in each cell phone to control a remote cell phone including stopping transmissions from a remote cell phone; and

software application program connected to said CPU in each cell phone including a corresponding soft switch that causes a digital message to be sent to a remote cell phone commanding destruction of the network participant's message received location processing and display software thus precluding its use by others.

6. (Original) A cell phone as in claim 5, including:

means for remotely turning off a remote cell phone speaker and turning on its microphone to permit monitoring of conversations in the vicinity of the remote microphone.

REMARKS

Applicant has cancelled previously rejected claims 3 and 4. In the prior office action the Examiner indicated that claims 1, 2, 5 and 6 are allowed. This amendment after final cancels the rejected claims leaving only allowed claims. Therefore, the case is now in condition for allowance.

Claims 1, 2, 5 and 6 stand allowed.

Respectfully submitted,

s/barry l. haley
Barry L. Haley, Esq. (Reg. No. 25,339)
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Fort Lauderdale, FL 33316
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E-Mail: info@mhdpatents.com

I:\10000\10963\amend\3805April2010AmendAfterFinal.doc

Electronic Patent Application Fee Transmittal

Application Number:	11612830
Filing Date:	19-Dec-2006
Title of Invention:	METHOD OF CONTROLLING USER AND REMOTE CELL PHONE TRANSMISSIONS AND DISPLAYS
First Named Inventor/Applicant Name:	Malcolm K. Beyer
Filer:	Barry Lee Haley
Attorney Docket Number:	10963.3805

Filed as Small Entity

Utility under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Extension - 1 month with $0 paid	2251	1	65	65

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
			Total in USD ($)	**65**

Electronic Acknowledgement Receipt	
EFS ID:	8132752
Application Number:	11612830
International Application Number:	
Confirmation Number:	6774
Title of Invention:	METHOD OF CONTROLLING USER AND REMOTE CELL PHONE TRANSMISSIONS AND DISPLAYS
First Named Inventor/Applicant Name:	Malcolm K. Beyer
Customer Number:	22235
Filer:	Barry Lee Haley
Filer Authorized By:	
Attorney Docket Number:	10963.3805
Receipt Date:	02-AUG-2010
Filing Date:	19-DEC-2006
Time Stamp:	10:25:00
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$65
RAM confirmation Number	7551
Deposit Account	131130
Authorized User	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)

1	Amendment After Final	3805April2010AmendAfterFinal.pdf	32257 32f17a23b45861d73866a0d8dcb811e22fb84ed2	no	6
Warnings:					
Information:					
2	Fee Worksheet (PTO-875)	fee-info.pdf	30316 cc39cc38caca9861ff615fa85b6cbdb63987c5a7	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	62573		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/06 (07-06)
Approved for use through 1/31/2007. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number	Filing Date	To be Mailed
11/612,830	12/19/2006	☐

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY ☒ RATE ($)	SMALL ENTITY ☒ FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =		OR	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =			X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $250 ($125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).						
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))							
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT **08/02/2010**

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE ($)	SMALL ENTITY ADDITIONAL FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	* 4	Minus	** 20	= 0	X $26 =	0	OR	X $ =	
Independent (37 CFR 1.16(h))	* 2	Minus	***3	= 0	X $110 =	0	OR	X $ =	
☐ Application Size Fee (37 CFR 1.16(s))									
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
					TOTAL ADD'L FEE	0	OR	TOTAL ADD'L FEE	

AMENDMENT

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)	OR	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =		OR	X $ =	
Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =		OR	X $ =	
☐ Application Size Fee (37 CFR 1.16(s))									
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
					TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

Legal Instrument Examiner:
/DEBRA a. SAVOY/

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
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Alexandria, Virginia 22313-1450
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NOTICE OF ALLOWANCE AND FEE(S) DUE

22235 7590 09/07/2010

MALIN HALEY DIMAGGIO BOWEN & LHOTA, P.A.
1936 S ANDREWS AVENUE
FORT LAUDERDALE, FL 33316

EXAMINER	
LEBASSI, AMANUEL	
ART UNIT	PAPER NUMBER
2617	

DATE MAILED: 09/07/2010

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/612,830	12/19/2006	Malcolm K. Beyer JR.	10963.3805	6774

TITLE OF INVENTION: METHOD OF CONTROLLING USER AND REMOTE CELL PHONE TRANSMISSIONS AND DISPLAYS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	$755	$300	$0	$1055	12/07/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

22235 7590 09/07/2010

MALIN HALEY DIMAGGIO BOWEN & LHOTA, P.A.
1936 S ANDREWS AVENUE
FORT LAUDERDALE, FL 33316

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/612,830	12/19/2006	Malcolm K. Beyer JR.	10963.3805	6774

TITLE OF INVENTION: METHOD OF CONTROLLING USER AND REMOTE CELL PHONE TRANSMISSIONS AND DISPLAYS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	$755	$300	$0	$1055	12/07/2010

EXAMINER	ART UNIT	CLASS-SUBCLASS
LEBASSI, AMANUEL	2617	455-457000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

❑ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

❑ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,

(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 _____

2 _____

3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ❑ Individual ❑ Corporation or other private group entity ❑ Government

4a. The following fee(s) are submitted:

❑ Issue Fee

❑ Publication Fee (No small entity discount permitted)

❑ Advance Order - # of Copies _____

4b. Payment of Fee(s): **(Please first reapply any previously paid issue fee shown above)**

❑ A check is enclosed.

❑ Payment by credit card. Form PTO-2038 is attached.

❑ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)

❑ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

❑ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
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www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/612,830	12/19/2006	Malcolm K. Beyer JR.	10963.3805	6774

22235 7590 09/07/2010

MALIN HALEY DIMAGGIO BOWEN & LHOTA, P.A.
1936 S ANDREWS AVENUE
FORT LAUDERDALE, FL 33316

EXAMINER	
LEBASSI, AMANUEL	
ART UNIT	PAPER NUMBER
2617	

DATE MAILED: 09/07/2010

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 564 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 564 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability	Application No.	Applicant(s)	
	11/612,830	BEYER, MALCOLM K.	
	Examiner	Art Unit	
	AMANUEL LEBASSI	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ **This** communication is responsive to *08/02/2010*.

2. ☒ **The** allowed claim(s) is/are *1,2,5 and 6*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

Allowable Subject Matter

1. Claims 1, 2, 5 and 6 are allowed.

2. The following is an examiner's statement of reasons for allowance: Claims 1, 2, 5 and 6 have been found to be novel and the inventive because prior art record fails to show or teach using a soft switch and the software accessed by the soft switch for destroying the display software of the user's own cell phone thus precluding non-authorized personnel from seeing the location of the other network participants while permitting continued tracking of the phone's location and optionally turning off the phone's speaker and turning on the phone's microphone so that conversations of personnel in the vicinity of the phone can be heard; and using a soft switch and the software accessed by the soft switch that causes destruction of the user's own cell phone message received location processing and display software thus precluding its use by others and optionally turning off its speaker and on its microphone so that the conversations of personnel in the vicinity can be heard.

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

1. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Amanuel Lebassi, whose telephone number is (571) 270-5303. The Examiner can normally be reached on Monday-Thursday from 8:00am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Nick Corsaro can be reached at (571) 272-7876. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Amanuel Lebassi
/A. L/
08/16/2010

/NICK CORSARO/

Supervisory Patent Examiner, Art Unit 2617

Notice of References Cited	Application/Control No. 11/612,830	Applicant(s)/Patent Under Reexamination BEYER, MALCOLM K.	
	Examiner AMANUEL LEBASSI	Art Unit 2617	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2004/0192331	09-2004	Gorday et al.	455/456.1
*	B	US-2002/0107008	08-2002	Hendrey et al.	455/416
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Issue Classification

Application/Control No.	Applicant(s)/Patent Under Reexamination
11612830	BEYER, MALCOLM K.
Examiner	**Art Unit**
AMANUEL LEBASSI	2617

ORIGINAL		INTERNATIONAL CLASSIFICATION									
CLASS	SUBCLASS	CLAIMED					NON-CLAIMED				
455	457	H	0	4	W	24 / 00 (2009.01.01)					

CROSS REFERENCE(S)					
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)				
455	425	466			

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
1	1														
2	2														
	3														
	4														
4	5														
5	6														

/AMANUEL LEBASSI/ Examiner.Art Unit 2617 (Assistant Examiner)	08/16/2010 (Date)	**Total Claims Allowed:** 4
/NICK CORSARO/ Supervisory Patent Examiner.Art Unit 2617 (Primary Examiner)	08/26/2010 (Date)	O.G. Print Claim(s) 1 O.G. Print Figure Fig. 1a

U.S. Patent and Trademark Office

Part of Paper No. 20100816

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11612830	BEYER, MALCOLM K.
	Examiner	Art Unit
	AMANUEL LEBASSI	2617

SEARCHED			
Class	Subclass	Date	Examiner
455	457	9/29/2009	A.L

SEARCH NOTES		
Search Notes	Date	Examiner
Consulted Nick Corsaro (SPE)	9/29/2009	AL
Inventor Search	8/16/2010	AL

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner
455	457	8/16/2010	AL

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail **Mail Stop ISSUE FEE**
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22235 7590 09/07/2010

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(Depositor's name)
Filed Electronically (Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/612,830	12/19/2006	Malcolm K. Beyer JR.	10963.3805	6774

TITLE OF INVENTION: METHOD OF CONTROLLING USER AND REMOTE CELL PHONE TRANSMISSIONS AND DISPLAYS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	$755	$300	$0	$1055	12/07/2010

EXAMINER	ART UNIT	CLASS-SUBCLASS
LEBASSI, AMANUEL	2617	455-457000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,

(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 MALIN HALEY DiMAGGIO
2 BOWEN & LHOTA, P.A.
3

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

☒ Issue Fee
☒ Publication Fee (No small entity discount permitted)
☒ Advance Order - # of Copies 10

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☐ A check is enclosed.
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☒ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number 13-1130 (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)

☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.
☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature /Barry L. Haley/ Date November 3, 2010

Typed or printed name Barry L. Haley Registration No. 25,339

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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Electronic Patent Application Fee Transmittal

Application Number:	11612830
Filing Date:	19-Dec-2006
Title of Invention:	METHOD OF CONTROLLING USER AND REMOTE CELL PHONE TRANSMISSIONS AND DISPLAYS
First Named Inventor/Applicant Name:	Malcolm K. Beyer
Filer:	Barry Lee Haley/Amy Allen
Attorney Docket Number:	10963.3805

Filed as Small Entity

Utility under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Utility Appl issue fee	2501	1	755	755
Publ. Fee- early, voluntary, or normal	1504	1	300	300

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Miscellaneous:				
Printed copy of patent - no color	8001	10	3	30
		Total in USD ($)		**1085**

Electronic Acknowledgement Receipt	
EFS ID:	8762260
Application Number:	11612830
International Application Number:	
Confirmation Number:	6774
Title of Invention:	METHOD OF CONTROLLING USER AND REMOTE CELL PHONE TRANSMISSIONS AND DISPLAYS
First Named Inventor/Applicant Name:	Malcolm K. Beyer
Customer Number:	22235
Filer:	Barry Lee Haley/Amy Allen
Filer Authorized By:	Barry Lee Haley
Attorney Docket Number:	10963.3805
Receipt Date:	03-NOV-2010
Filing Date:	19-DEC-2006
Time Stamp:	16:02:54
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$1085
RAM confirmation Number	2407
Deposit Account	131130
Authorized User	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)

1	Issue Fee Payment (PTO-85B)	01_IssueFeeTransmittal.pdf	166100 55c2f6007d1ec56ad710bb277b4120af27f70719	no	1
Warnings:					
Information:					
2	Fee Worksheet (PTO-875)	fee-info.pdf	33581 fa7adabfb33fe75283a07e4ae64be395d0a6573d	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	199681		

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If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
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APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/612,830	12/14/2010	7853273	10963.3805	6774

22235 7590 11/23/2010

MALIN HALEY DIMAGGIO BOWEN & LHOTA, P.A.
1936 S ANDREWS AVENUE
FORT LAUDERDALE, FL 33316

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment is 924 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site http://pair.uspto.gov for additional applicants):

Malcolm K. Beyer JR., Jupiter Inlet Colony, FL;

Exhibit 1014

Introduction

The World Trade Center tragedy on September 11, 2001 was unparalleled in nature and magnitude. Never before had anyone intentionally flown commercial jetliners carrying thousands of gallons of fuel into a skyscraper. Never before had such buildings been so severely damaged by explosion and fire that they collapsed to the ground. Never before had a single terrorist act caused such a massive loss of life – 2,823 people in all. It was the worst terrorist attack in the history of terrorism.

In the aftermath of this extraordinary event, the enormous heroism of the members of the Fire Department of the City of New York stands out as an inspiration in the face of calamity. Three hundred forty-three FDNY personnel sacrificed their lives while trying to save others. They facilitated the safe evacuation of more than 25,000 people, the largest rescue operation in United States history.

This tragedy has reshaped our expectations about future threats and created a new urgency to increase preparedness. Many people believe that more large terrorist attacks on the United States are a certainty. The president and Congress are seeking to increase the nation's preparedness through a massive reorganization of homeland security agencies. The state, the city, and the FDNY must also take steps to prepare for the future.

At the Fire Department's request, McKinsey & Company spent five months working with Department personnel to develop recommendations for change to enhance the FDNY's preparedness. To do this, we studied the Department's response to the attack on September 11 in detail. Our goal was to learn from this incident and to define specific recommendations that the Department should implement. We did not attempt to reconstruct an exhaustive, minute-by-minute history of what the Department and its members did and did not do as they responded to the incident.

As our work progressed, we found many examples actions by FDNY personnel that saved lives, but we focused on identifying procedures, organization, and technology that should be improved to increase the Department's preparedness in the future.

Our team conducted more than 100 interviews with FDNY personnel who responded to the attack. We also examined the transcripts of hundreds more interviews that the Department conducted internally, and we reviewed a large number of dispatch records and about 60 hours of communications tapes. Throughout our effort, we had unfettered access to FDNY records and personnel, including the Fire Commissioner, his staff and all senior operations personnel. We spent more than 1,000 hours working closely with FDNY personnel who

responded to the World Trade Center attack, and with personnel who will be involved in implementing the recommendations of this report.

We also spoke with more than 100 experts in the United States and abroad, including those in other fire departments, emergency agencies and the military, as well as researchers and technology vendors. This helped us understand the diverse methods and best practices used around the world in responding to major disasters.

During the last three months of this effort, multiple FDNY task forces, involving about 50 Fire and EMS personnel (see Exhibit 1), joined us to develop detailed recommendations for change on a broad set of issues. Many of these recommendations were based directly on work and ideas that the FDNY developed. Even as this report was being prepared, several recommendations were already being implemented.

This report contains recommendations to the Fire Department in these key areas: operations, planning and management, communications and technology, and family and member support services. As background, the report also contains a description of the key events related to these areas during the Department's response to the attack on September 11.

The Fire Department now faces two major challenges: implementing the recommendations successfully and helping the city improve its inter-agency planning and coordination. Implementing these recommendations will bring about substantial change in the Department, requiring a renewed commitment to leadership, accountability, and discipline. But internal change is not enough. The FDNY and other government agencies must improve inter-agency planning and coordination if they are to fulfill their mission to protect the citizens of New York City. The last section of our report discusses this challenge.

* * *

The response to the World Trade Center attack was tremendously complex. We hope that this report will help the Fire Department, the city and the country be better prepared should we ever be forced to face such a crisis again.

Executive Summary

The terrorist attacks on the World Trade Center on September 11, 2001 reshaped expectations about future threats and created a new urgency to increase preparedness. At the Fire Department's request, McKinsey & Company spent five months working with Department personnel to develop recommendations for change to enhance the FDNY's preparedness.

These recommendations stem from the lessons that emerged from our detailed review of the Department's response on September 11, and from the many interviews we conducted with FDNY personnel and with other emergency service agencies, experts in fire operations, the military, and technology vendors. Many of the recommendations represent the joint efforts of several McKinsey-FDNY task forces involving approximately 50 FDNY members.

This Executive Summary contains recommendations to the Fire Department in these key areas: operations, planning and management, communications and technology, and family and member support services.[1] As background, the Executive Summary also contains a description of the key events related to these areas during the Department's response to the attack on September 11.

FIRE AND EMS RESPONSE: KEY EVENTS OF SEPTEMBER 11

The FDNY's response to the attack began at 8:46 a.m., the moment the first plane hit Tower 1 of the World Trade Center. The FDNY's First Battalion Chief witnessed the first crash from a nearby street and was the first arriving chief officer on the scene. In accordance with FDNY protocols, he established an Incident Command Post[2] in the lobby of World Trade Center 1 (WTC 1) at approximately 8:50 a.m.

[1] Family and member support services are the infrastructure and processes used to notify families of death or injury to FDNY personnel, along with post-incident peer and family counseling and support.

[2] The Incident Command Post is the location from which all aspects of an incident response are managed.

Chief of Department establishes command

At about 9:00 a.m., the Chief of Department took over as Incident Commander. At that time, he moved the Incident Command Post from the lobby of WTC 1 to a spot across West Street, an eight-lane highway, because of falling debris and other safety concerns. Chief officers considered a limited, localized collapse of the towers possible, but did not think that they would collapse entirely.

After the Incident Command Post was moved to West Street, several fire chiefs remained behind in the lobby of WTC 1, which became an Operations Post for fire units operating in that building. Their presence in the lobby was necessary so they would have access to important building systems, such as controls for alarms, elevators, and communications systems.

Within minutes, the chief officers in WTC 1 decided to focus efforts on rescue and evacuation. They sent firefighters up into the building to help the hundreds of people trapped in elevators, stairwells, and rooms, along with those who were unable to evacuate because they were injured. They also ordered firefighters to make sure that floors were fully evacuated.

At the same time, EMS commanders began to set up geographic areas around the scene where ambulances could be staged and patients triaged, treated and transported to hospitals. The EMS Assistant Chief of Operations assumed overall EMS Command at the Incident Command Post, reporting to the Incident Commander.

At 9:03 a.m., the second plane hit World Trade Center Tower 2 (WTC 2). Chiefs immediately called in additional Fire units[3] and deployed units from WTC 1.

Chiefs designate staging areas

As the mobilization escalated, dispatchers instructed responding Fire units to report to staging areas[4] that senior chiefs had designated near the World Trade Center. However, as these units approached the area, many failed to report to the staging areas and instead proceeded directly to the tower lobbies or other parts of the incident area. As a result, senior chiefs could not accurately track the whereabouts of all units. In addition, the failure to stage prevented Fire units from getting necessary information and orientation before going into the towers. For instance, several units that were not familiar with the World Trade Center layout

[3] A Fire unit is a group of firefighters who have the same assignment, e.g. an engine or ladder company. Most units include four to five firefighters and one officer.

[4] A staging area is a resource management area in close proximity to the incident. Units directed to stage are expected to respond to the staging area and await further deployment instructions.

had problems differentiating WTC 1 from WTC 2. Also, because some units did not stage and chiefs were unsure of their location, additional units, that might not have been required at that time, were deployed to the incident.

Units arriving at the lobby of WTC 1 checked in with the chief officers at the Operations Post to obtain their assignments. Chief officers sent these units up into the building in an orderly, controlled way. We believe the same happened in WTC 2.

Communications limitations emerge

A number of communications difficulties hindered FDNY chief officers as they coordinated the response.

For instance, problems with radio communications left the chief officers in the lobby of WTC 1, and probably those in WTC 2, with little reliable information on the progress or status of many of the units they had sent up into the buildings. The portable radios that were used by the FDNY on September 11 do not work reliably in high-rise buildings without having their signals amplified and rebroadcast by a repeater system. The World Trade Center had such a system, but chief officers deemed it inoperable early in the response after they tested it in the lobby of WTC 1. With the repeater malfunctioning, the chiefs in the lobby of WTC 1 would not have been able to communicate with any units whose radios were tuned to the repeater channel, even if such units were just a few feet away from them. On the other hand, the command and tactical channels[5] on these radios do support some, albeit unreliable, communications in high rises. Therefore, the chiefs decided to use their command and tactical channels for operations in WTC 1.

Radio communications between chief officers in the lobby of WTC 1 and the units they sent in the building were sporadic. The chiefs were able to get through to some units sometimes, but not others. Some units acknowledged receiving radio communications some times, but not others. This left the chiefs not knowing whether their messages failed to get through, whether the units failed to acknowledge because they were busy with rescue operations, or whether the units did acknowledge, but the acknowledgement did not get through. Because information about civilians in distress continued to reach the Operations Post in the lobby, the chief officers decided to continue their attempts to evacuate and rescue civilians, despite the communications difficulties. We believe that the chiefs and units in WTC 2 faced similar communications problems.

[5] Tactical radio channels are used for on-scene communications among chiefs and the units they command. Chiefs provide directions to units on this channel while units provide status reports to the chiefs and each other and request assistance. Command channels are used by chiefs at an incident to communicate with each other.

Chief officers in the lobbies of WTC 1 and WTC 2 also had very little reliable information on what was happening outside the towers. They had no reliable sources of intelligence, and had no external information about the overall status of the incident area, the condition of the towers, or the progression of the fires. For example, they had no access to television reports or reports from an NYPD helicopter that was hovering above the towers. This lack of information hindered their ability to evaluate the overall situation.

EMS chiefs and ambulances also faced communications problems due largely to radio traffic congestion. This occurred partly because two EMS channels are on the same frequency: the command channel, normally reserved for chief officers, and the citywide channel, normally used by ambulances and EMS Dispatch. This congestion problem was exacerbated by a number of ambulances that repeatedly asked to be dispatched to the World Trade Center.

Radio communications difficulties were one of several factors that led EMS Dispatch operators to be overwhelmed with work on September 11. In addition to communicating with ambulances and chief officers by radio, EMS operators must also act on requests for help sent by the 911 call center and the NYPD via phone calls or computer messages. They must assign ambulances, record actions in the computer system, monitor information from multiple sources and handle other phone calls. The complexity and amount of information related to the World Trade Center attack made it extremely difficult for EMS operators to review everything they received from multiple sources and take appropriate action quickly.

WTC 2 collapses

WTC 2 collapsed at 9:59 a.m., killing many civilians and first responders. However, firefighters and chief officers inside WTC 1 were initially unaware of precisely what was happening. Many believed that a partial collapse had occurred in WTC 1. As the lobby of WTC 1 filled with blinding dust and debris, the First Battalion Chief, who was at the Operations Post in WTC 1, immediately issued an evacuation order for WTC 1 over his portable radio. However, a number of firefighters did not hear that order. Several left the building only because they were told by other firefighters that an evacuation ordered had been issued.

The collapse of WTC 2 destroyed the Incident Command Post across West Street and weakened the command and control structure, as fire and EMS chiefs at the post sought shelter in surrounding structures. The collapse of WTC 1 at 10:29 a.m. killed the Chief of Department and other officers, temporarily leaving the incident without a commander. In addition, following the collapses, many EMS personnel were unaware of who was acting as EMS Command.

At 11:00 a.m., the Chief of Planning, a high-ranking EMS officer, assumed EMS Command, but overall incident command remained unclear for nearly another half hour. During this time, several senior fire chiefs took the initiative to restore overall command, sometimes leading to multiple incident commanders. Overall command was restored at 11:28 a.m. by Citywide Tour Commander 4C, [6] who replaced the Chief of Department as Incident Commander.

Inter-agency coordination was minimal

Throughout the response on September 11, the FDNY and NYPD rarely coordinated command and control functions and rarely exchanged information related to command and control. For example, there were no senior NYPD chiefs at the Incident Command Post established by the Fire Department. We believe there were very limited communications, either directly or through a liaison, between senior FDNY chief officers and the senior officers in charge of the NYPD response. In addition, some potentially important information on the structural integrity of the buildings never reached the Incident Commander.

Resource management was complex

The response of firefighters and EMS personnel to the World Trade Center on September 11 was unprecedented in scale and scope. More than 200 Fire units responded, approximately half of all units in the city. More than 100 ambulances in the emergency services system responded, about 30 percent of the total available. This massive response taxed the FDNY's efforts to manage its personnel and equipment in several ways.

For example, as the mobilization increased, a number of Fire units that had not been assigned to the incident – but wanted to help – contacted the Fire Dispatch Center repeatedly by radio, asking that they be authorized to respond. In some of these cases, Dispatch relented and assigned them. Many EMS, private, and community-based ambulance units did the same with the EMS Dispatch Center. This complicated efforts by the dispatchers to manage the response and, in some cases, led to the deployment of units that probably would not have been deployed had they not insisted.

Only four Fire units proceeded to the World Trade Center without being deployed by Fire Dispatch; however, a number of ambulances, both EMS and privately operated, responded without authorization from EMS Dispatch.

[6] A Citywide Tour Commander is a staff chief responsible for FDNY operations throughout the city. One citywide tour commander is on duty at all times. On September 11, seven citywide tour commanders were designated CWTC-4A through H, except for the designation CWTC-4F, which was unused.

Another factor that increased the size and complexity of the response was the timing of the attack. Because the attack came near a regular tour change, many firefighters and EMS personnel who had just finished their tours of duty responded with their units, complicating the Department's ability to keep track of who was on the scene.

When the Chief of Department issued a full recall, thousands of off-duty firefighters and EMS personnel left their families to help the city and the Department respond to the attacks. While the Fire Department had a recall procedure for Fire Operations personnel, it had not been activated for more than 30 years and personnel received no training in its activation. The Department had no recall procedure for EMS personnel. As a result, the recall was disorganized and ineffective. For instance, recalled firefighters and EMS personnel did not have clear guidance on where to go and the Department had substantial logistics problems transporting and equipping recalled personnel.

The FDNY requested and received mutual aid from Nassau and Westchester counties on September 11. However the Department had no process for evaluating the need for mutual aid, nor any formal methods of requesting that aid or managing it. Therefore, the Department had limited ability to evaluate how the mutual aid could be integrated into its operations. On September 11, this aid consisted mostly of engine and ladder companies, some of which deployed to the incident and some of which were used to help maintain citywide coverage. As the mobilization of personnel and resources grew, all senior fire and EMS operations officers responded to the scene. The experience and leadership of these senior chiefs proved crucial to re-establishing command and control after the towers collapsed. However, had some officers remained at a separate, protected location with the appropriate communications infrastructure, they may have been better able to support maintenance or re-establishment of incident command and control. Or they could have improved management of the Department's resource pool to ensure that all appropriate resources were sent to the scene, while at the same time fully protecting the rest of the city in case of another major incident.

In addition, most senior civilian FDNY staff members went to the scene, including several deputy and assistant commissioners. Many of them had no role or responsibility in the response.

The Fire Department Dispatch Center relocated dozens of firefighting units around the city during the incident and successfully maintained citywide coverage for regular fire operations. But the Department committed nearly all its special operations units such as Hazardous Materials and Rescue teams to the World Trade Center, leaving the rest of the city with extremely limited special operations coverage. For example, the Department would have been unable to respond quickly and effectively to another incident in the city requiring advanced hazardous materials capabilities.

Record keeping systems were insufficient

FDNY systems to track its own personnel proved insufficient on September 11, as did its ability to track patients treated by EMS and taken to hospitals.

Chief officers at the World Trade Center scene kept track of the location and assignment of units, but they had no way of backing-up their records. For example, the FDNY Field Communications Unit was responsible for tracking the assignment of Fire units to different alarms, towers, and staging areas. This unit worked next to the Incident Command Post and kept records on a magnetic command board, using small magnets placed on a diagram to indicate unit locations. Chief officers at the Operations Posts in the two towers also used magnetic command boards to track the units assigned to their buildings. These boards and the records they kept were destroyed when the towers collapsed. As a result, the Department could not quickly create a reliable list of missing and dead personnel.

In addition, the Department did not have a complete and accurate family notification database with records of whom to contact in case of death or injury of a member. Because of this, and because of the large number of firefighters missing and dead, there were substantial delays notifying families of the loss of loved ones, and the procedures to notify families varied substantially over time.

Throughout the incident, EMS patient-tracking capabilities, which are performed manually by EMS personnel, did not hold up well. Because of the large number of victims and patients requiring immediate treatment and transport, EMS personnel decided they could not accurately complete the paperwork required to enable accurate tracking of patients as those patients were transported to different hospitals.

Planning and logistics capabilities evolved

During the FDNY response on September 11, officers were not selected to coordinate planning or logistics functions[7] on a dedicated basis. However, the planning and logistics requirements of this incident, particularly post-collapse, were well beyond anything FDNY had experienced before. In the days immediately following, planning and logistics improved significantly as the Department assigned chief officers to coordinate these tasks and received support from the Federal Emergency Management Agency, the U.S. Department of Forestry Incident Management Teams (IMTs), the U.S. Army Corps of Engineers,

[7] Incident planning includes determining resource requirements and managing information flow. Logistics includes managing the deployment and tracking of supplies and equipment.

the city's Office of Emergency Management, construction companies and private donors.

RECOMMENDATIONS

Our detailed examination of the FDNY's response to the World Trade Center attack on September 11 indicates that the Fire Department should focus its efforts to improve preparedness in the following key areas: operations, planning and management, communications and technology, and family and member support services.

In operations, the FDNY needs to expand its use of the Incident Command System (ICS), a blueprint for emergency response widely used around the country. This will lead to the creation of a well-defined, flexible, and complete command and control structure for major incidents, with clear and consistent responsibilities and roles. In addition, the FDNY should improve the support it provides incident commanders so that crucial functions can be effectively performed, including command and control, planning, logistics and inter-agency coordination. And, the Department must improve its ability to assess the needs of the rest of the city during major incidents and deploy necessary resources to meet those needs. The Department would also benefit from having specialized teams that are highly trained in managing the response to large and complex incidents. Among other operational needs, the Department should have a formal, flexible procedure for recalling off-duty firefighters and for activating mutual aid from agencies in surrounding areas. It needs to improve its process for ensuring that firefighting units stage as required. And, it must expand its hazardous materials capabilities.

Planning is another important component of enhancing preparedness. The FDNY must do more to anticipate its future needs, plan ahead for them, and better manage the initiatives that will meet these needs. This includes developing, expanding and updating procedures and exchanging operational information with other agencies. It also involves improving the Department's ability to assess risks and threats across the city so it can create specific response plans for key locations and prioritize training and investments in new resources, including special operations.

Multiple difficulties involving communications and technology hindered firefighters and EMS personnel on September 11. These difficulties pointed out the FDNY's need for an improved process to evaluate, acquire and deploy technology and communications equipment and infrastructure. September 11 also highlighted a number of critical communications and technology needs that must be addressed immediately. These include improving radio communications, improving the Department's ability to receive and disseminate critical information

about incidents, and improving the tracking of Department personnel and patients treated by EMS.

September 11 also showed that the Department needs a broader and more flexible system for providing support services to members and their families, i.e., notifying family members when a member of the Fire Department is injured, missing or killed, and providing counseling and other services to families and affected Department members.

This report has a series of broad and detailed recommendations to address all of these needs. However, in order for the recommendations to have any major impact, the FDNY must make a renewed commitment to leadership, accountability and discipline at all levels, in the field and at headquarters.

We point this out because the FDNY had contemplated several of the recommendations in this report before, but never fully brought them to fruition. For instance, the Department purchased new UHF radios in 1999, but was unsuccessful in an attempt to deploy them in 2001. A few years ago, chief officers discussed and planned the creation of a robust Fire Department Operations Center that would provide the infrastructure and communications capabilities necessary for effective citywide command and control and planning. These plans were never implemented. When units failed to stage properly in the past, the Department did not follow up systematically so that it could retrain those units, and, if necessary, sanction them, their officers, and their commanders. On September 11, as they took part in a response of unprecedented scale and complexity, many Fire units did not stage properly. They went directly to the lobbies and immediate surroundings of WTC 1 and WTC 2.

In an effort to help the Department improve accountability and discipline, we have included in this report a number of recommendations for enhanced planning and management processes. Ultimately, however, recommendations and processes will only go so far. Success will be predicated on managers, civilian and uniformed, who are committed to bringing about profound change, are capable of leading all personnel by example and are eager to embrace full accountability for their own performance. As this report was being completed, the FDNY increased the number of staff chief officers in management positions. This additional management capacity will help the Department implement these recommendations.

We have computed the cost of our recommendations to the greatest extent possible. The largest cost could go to ensuring reliable communications in high-rise buildings. It would cost $150 million to $250 million to install repeater systems in all high-rises in the city. (This figure could be substantially reduced if the FDNY finds it can use an existing citywide infrastructure, such as the NYPD's, to help address the in-building communications problem.) The remainder of our recommendations would cost $15 million to $25 million, a figure

that could rise because several recommendations require that Department bureaus and groups change their composition and broaden their skill sets. Many of these changes will, no doubt, be accomplished with existing personnel. However, the Department may also need to add personnel, expertise and additional equipment to fully achieve what is required. Such steps could result in substantial additional costs that are difficult to quantify at this time. In addition, the cost estimate does not include the expansion of hazardous materials capabilities that we are recommending. Since the Department has yet to decide the specifics of the expansion, it is impossible to estimate its cost.

Below is a summary of our recommendations for increasing operational preparedness, improving planning and management, improving communications and technology capabilities and enhancing family and member support services.

Increase operational preparedness

We have seven recommendations regarding operational preparedness, centered on establishing procedures and command and control structures that are flexible and can be quickly expanded in the event of major emergencies.

1) Expand use of the Incident Command System. This system is used by many local, state and federal emergency response agencies around the country. It provides a basis for establishing a flexible command and control structure with defined roles, clear communications protocols and adaptable procedures. We recommend that the Department:

- ¶ Review all its procedures to ensure consistency with ICS principles.
- ¶ Train all FDNY personnel likely to be involved in incident response in ICS principles, and continue this training on a regular basis.
- ¶ Create dedicated, ongoing training programs for FDNY chiefs so that they are proficient in using ICS principles during large and complex incidents involving terrorism, chemical, biological and radiological materials, and attacks to critical infrastructure.

2) Further develop the Fire Department Operations Center. This center, which now monitors and reports on daily Department activities, should be expanded into a fully functional emergency operations center. It should have infrastructure and communications capabilities to provide citywide command, control, and operational planning, and support for inter-agency coordination during routine operations and major incidents. During resource-taxing events, senior operations personnel should report to the center to set operational priorities; manage resources and citywide coverage, including the initiations of recall and mutual aid requests; and ensure that command and control is maintained for incidents across the city.

3) Create Incident Management Teams. These teams should be comprised of specialized, highly trained personnel who would be activated in response to major incidents. Each team member should have expertise in a particular aspect of incident management, such as operations or planning. We recommend establishment of two teams of 21 individuals to ensure around-the-clock coverage over a period of weeks.

4) Deploy a flexible recall procedure. The FDNY should develop, deploy and train its personnel in a flexible recall procedure that allows the Department to efficiently mobilize all or part of its off-duty personnel in case of emergencies or other needs. The Department should strictly enforce adherence to the recall procedure during training and actual recalls. Off-duty firefighters who are not activated by a recall or do not report to specified mobilization areas should not be allowed to participate in the response, if the circumstances allow. Those who fail to adhere to the recall procedure should be referred for additional training and/or disciplinary action.

5) Seek formal mutual aid agreements for fire operations. The FDNY should develop and formalize mutual aid policies and establish agreements with other departments and agencies to provide for efficient pooling of resources when necessary. The Department should first assess the capabilities and compatibilities of neighboring public safety agencies to maximize effectiveness of any joint operations. The agreements should ensure that participants follow common operational and communications protocols to maintain command and control of mutual aid personnel. The agreements should also ensure that equipment and procedures are interoperable, and that participants conduct regular joint training.

6) Modify and enforce fire staging protocols. The Department should modify its staging procedure according to the following guidelines:

- Use staging in all incidents requiring a third alarm or greater.
- Train Fire Dispatch and firefighting personnel to follow strict communications protocols for communicating the designation and location of staging areas to responding units and enforce adherence to these rules on a day-to-day basis.
- Assign chief officers to command and coordinate staging areas. While the designated staging chief is en route to the area, the first officer responding to that area should perform these functions.
- Strictly enforce adherence to staging protocols in training and in day-to-day operations, including the application of sanctions to units, officers and chiefs if units fail to follow procedure.

7) Expand hazmat capabilities and re-evaluate other special operations capabilities. The FDNY has just one Hazmat Unit, which it committed to the

World Trade Center on September 11. That day, the Department would have been unable to respond quickly and effectively to another incident that required advanced hazardous materials capabilities.

Special operations units such as hazmat are likely to play crucial roles in the city's response to large and complex incidents, particularly those that result from terrorist acts. Such attacks could involve radiological, chemical, and biological agents, and/or multiple, simultaneous incidents, either on land or over water. Preparing for and responding to such attacks could require special operations capabilities well beyond those currently possessed by the FDNY.

We recommend that FDNY expand its hazmat capabilities and re-evaluate its heavy rescue and marine operations capabilities. To do this, the FDNY's Operational Planning Unit [8] should analyze the costs and benefits of different hazmat expansion alternatives and develop a specific expansion proposal, including new funding requirements. Possible expansion alternatives include: increasing training and equipment of FDNY Squads,[9] deploying a second hazmat unit similar to the current one, replacing the current unit with several smaller ones that could be stationed in different boroughs, or a combination of the above.

In addition, we believe that the city or state should create an inter-agency planning initiative that ensures all local, state and federal agencies likely to be involved in hazmat incidents understand each other's responsibilities, have the resources necessary to meet those responsibilities and respond to incidents cohesively and effectively.

If and when this initiative is put in place, it would help determine the FDNY's special operations capabilities. For example, it would define the type and scale of events the Department should be able to respond to. It would also define how long the Department would need to respond to such events alone before the deployment of additional special operations resources from other agencies such as FEMA, the U.S. Department of Defense, the U.S. Department of Energy, the U.S. Environmental Protection Agency, or the Coast Guard.

Improve planning and management

Better planning will enhance the FDNY's preparedness by identifying and implementing the most effective methods of responding to any kind of an event.

[8] The Planning and Management section of this report includes a series of additional recommendations for expansion of the Operational Planning Unit.

[9] A Squad is a specially trained and equipped engine company with expertise in hazardous materials, rescue and other special operations capabilities.

We recommend the Department: 1) enhance its planning and management processes and, 2) expand and reorganize its Operational Planning Unit.

1) Enhance the Department's planning and management processes. We recommend that the FDNY form a Planning Oversight Committee comprised of senior chiefs and commissioners that would lead the creation of a formal Annual Plan and closely track and manage the performance of the Department and its bureaus throughout the year.

The Annual Plan should consist of clearly laid-out objectives, and initiatives designed to meet those objectives. The committee should ensure that the Department sets specific performance targets for itself and its bureaus and creates clear responsibility and accountability.

The Planning Oversight Committee should be supported by an expanded Management Analysis and Planning (MAP) group, which would be responsible for coordinating all cross-bureau initiatives in the Department and supporting the creation of the Annual Plan. The MAP group should also monitor the overall performance of the Department and its bureaus, along with the progress of initiatives, using explicit metrics and milestones.

2) Expand and reorganize the Operational Planning Unit. This unit currently creates and maintains the Department's standard operating procedures. We recommend that it be reorganized and its role expanded. The new unit's first priorities should be to conduct a comprehensive risk assessment of potential hazards to city locations. This assessment should include creation of an FDNY risk database, which would compile information on unique hazards at specific locations such as chemicals or radioactive materials. The risk assessment should lead to the development of pre-plans for managing emergencies at particularly high-risk locations.

In addition, the unit should develop and maintain an FDNY All-Hazards Emergency Response Plan that would provide guidance for managing large incidents, including chemical, biological, and radiological attacks and other forms of terrorism.

Improve communications and technology capabilities

Firefighters and EMS personnel were hindered in their response on September 11 by failures and limitations of communications systems and processes, and technology. To address these challenges, we recommend FDNY proceed simultaneously on two tracks: 1) revamp the management process it uses to evaluate, acquire and deploy technology and communications equipment and protocols; and 2) immediately address several urgent communications and technology needs.

1) Revamp the communications and technology management process. We recommend the Department create a Technology Steering Committee that decides on communications and technology initiatives and manages their implementation. The committee should lead the development of a 5-year Technology Plan by assessing Department needs, and deciding on solutions. The committee should also manage the implementation of all technology and communications initiatives of the Department.

2) Immediately address urgent needs. The FDNY's urgent communications and technology needs fall into four broad areas: 1) improving communications capabilities; 2) improving the Department's ability to receive and disseminate critical incident information; 3) giving chief officers at incident scenes better ways to manage information and track personnel; and 4) improving EMS's ability to track patients during incidents.

2.1) Improve communications capabilities. Among several communications initiatives, the Department should accelerate the thorough testing of the UHF portable radios it bought in 1999. If the testing is successful, the Department should deploy the radios after personnel receive appropriate training to use them. While questions still exist about the performance of the radios, they could have significant advantages over current radios, such as support for a larger number of channels.

The Department also faces major problems with radio communications in high-rise buildings, subways and tunnels and should address these quickly.

In high-rises, it should pursue several initiatives. One is testing and deploying portable, mobile or air-based repeaters, which mitigate communications difficulties in high-rises. Additionally, the Department should pursue the deployment of permanent solutions that can resolve in-building communications issues in high-rises. FDNY should develop and seek adoption of a change in the city building code requiring large buildings and structures – existing and new – to support reliable in-building communications by first responders. While the new code should not require specific technologies, one possible solution could be installation of fixed, building-specific repeater systems. The city should consider establishing a subsidy system to give the owners of existing buildings incentives to expedite compliance with the new building code.

Additionally, the Department should assess, as an alternative, whether the city should build and operate a citywide radio infrastructure capable of meeting all or most of its in-building communication needs.

Moreover, the FDNY should seek to work with the NYPD to understand whether and how the NYPD's extensive citywide communications network infrastructure can be leveraged to support the FDNY's communications needs.

In subways, the FDNY could use portable repeaters as a limited, interim solution. It should also investigate using the new Police Radio System for the subways that is being deployed by the Metropolitan Transportation Authority. (This system is not due for completion until December 2004.)

When FDNY units are in tunnels, they cannot communicate with the Dispatch center, so they risk missing assignments or important information while traveling to emergencies. Communication between firefighters in tunnels is also unreliable. For the four major auto tunnels, we recommend the Department seek agreement with the MTA and Port Authority of New York and New Jersey to coordinate the evaluation and deployment of technology that would provide ubiquitous and reliable coverage in tunnels.

Finally, the FDNY should review the EMS communications practice of using one radio frequency for both its command and citywide channels. This dual use contributed to severe radio traffic congestion on September 11. The Technology Steering Committee should:

- Conduct a detailed evaluation with EMS Operations to determine if separate or additional channels are needed and how they might be deployed.
- Put in place training and procedures to ensure that EMS personnel adhere strictly to radio communications protocols.

2.2) Improve the Department's ability to receive and disseminate critical information about incidents. The Department must provide chief officers on the scene of any major incident with critical information about the overall situation. The FDNY has already taken an important step by working with the NYPD on protocols to put an FDNY chief officer in a police helicopter when the FDNY feels it would be helpful to manage incidents. FDNY should also pursue agreements with the NYPD and local media to obtain live video feeds from their helicopters, in addition to two-way voice communications with those helicopters.

FDNY should also continue to re-evaluate the organization of the EMS Dispatch Center, where operators became overwhelmed with tasks during September 11. The Department should consider whether operators should continue to perform multiple tasks or focus on specialized, functionally defined tasks.

In addition, FDNY should ensure that personnel at the Fire Department Operations Center (FDOC) have the capability to receive, synthesize and communicate information from multiple sources, in particular other agencies such as the NYPD. For example the FDOC should monitor transmissions on key NYPD radio channels and it should receive copies of the data messages that the 911 call center and the NYPD send by computer to EMS Dispatch.

2.3) Give chief officers at incident scenes better ways to manage information and track personnel. The Department should evaluate electronic command boards to

replace the current magnetic boards. Electronic boards would give chief officers better ways of managing incident information because these boards can store and display on a screen maps, building plans, procedures, and location characteristics. In addition, they could improve the chiefs' ability to record the location of deployed personnel and perhaps provide for wireless transmission of that data to create a remote backup.

2.4) Improve EMS's ability to track patients during incidents. The Technology Steering Committee and EMS Operations should evaluate the deployment of technology and associated procedures to ensure that a flexible patient tracking process capable of supporting large multiple casualty incidents is in place.

Enhance the system to provide family and member support services

Family and member support services include notifying specified emergency contacts or families if a Department member is injured, killed or missing on duty, and providing counseling and other services to affected families and Department members. The events of September 11 created a need for support services vastly greater than the Department's capabilities. We recommend that the Department establish a flexible infrastructure and process that would provide these services efficiently and reliably should such a large-scale need ever arise again.

This new system would be created and managed by a Support Services Committee. The committee would keep up-to-date emergency contact names for all FDNY personnel, lists of trained peer counselors and information on specialized service providers. It would also provide plans for quickly deploying the necessary support infrastructure in case of a large emergency, and it would mobilize to deploy and manage that infrastructure. An internal FDNY task force has started to develop guidelines for such plans and infrastructure. We recommend the Support Services Committee complete these guidelines and deploy the new infrastructure and process, after receiving input from the Family Advisory Board and unions.

ADDITIONAL ISSUES TO BE ADDRESSED

The recommendations in this report focus on changing internal FDNY procedures, technology, management processes and organization to better prepare for major incidents. However, we believe the Department cannot do the critical job of enhancing preparedness alone.

To truly improve New York City's preparedness, emergency services and other public safety agencies must plan and execute their response to major incidents together.

The FDNY and NYPD have taken a few important first steps towards improving coordination, such as working on a protocol to post a fire chief in an NYPD helicopter, exchanging liaison officers, and conducting regular meetings of senior NYPD and FDNY personnel. But for the FDNY and the city to be fully prepared to face the threats posed by terrorism and other major incidents, the city or state governments must establish a much broader, detailed and more formalized inter-agency planning and coordination process. This process would have the FDNY and NYPD as major participants, along with a number of other city, regional, state and federal agencies. The process would include:

- Establishment of common command and control structures and terminology, and agreement on the roles and responsibilities of each agency for managing the response to any incident.
- Deployment of interoperable communications infrastructures and protocols to improve response coordination and exchange of information.
- Implementation of joint training exercises to ensure that agencies can and will cooperate effectively during incidents, e.g., by operating under a unified command and control structure.

In addition, an inter-agency planning process would help agencies develop and deploy detailed, consistent and complete citywide emergency response plans for different types of threats and hazards.

Finally, the process would help ensure that the FDNY and all agencies likely to be involved in hazmat incidents understand each other's responsibilities, have the resources necessary to meet those responsibilities and respond to these incidents cohesively and effectively.

* * *

The attack on the World Trade Center has created a new urgency for the Fire Department to improve its preparedness. We believe that, if the recommendations in this report are implemented, they will protect civilians and firefighters from injury and loss of life, and will minimize property damage, if the city ever again has to face a crisis like it did on September 11.

Report Organization

This report has four parts.

Part I is a summary of the key events of the FDNY response on September 11, including events related to command and control, communications, and resource deployment. It has separate sections on the response by Fire and EMS personnel.

Part II contains recommendations for the FDNY across four areas:

Operations: Broader deployment of the Incident Command System, development of the Fire Department Operations Center, creation of Incident Management Teams, improvement of recall, mutual aid and staging processes, and expansion of hazardous materials capabilities.

Planning and Management: Improvement of planning and management processes.

Communications and Technology: A new process to identify the Fire Department communications and technology needs, and test, acquire and deploy solutions. Also, solutions to a number of urgent needs concerning communications, personnel tracking and information management.

Family and Member Support Services: Enhancing the system for notifying families of injured or deceased personnel and providing counseling services to personnel and their families.

Part III contains a discussion of additional issues to be addressed, including inter-agency coordination and joint planning.

Part IV contains exhibits that provide additional detail and graphic illustrations to support the material contained in Part I.

FDNY Fire Operations response on September 11

This section of our report describes the major aspects of the response of FDNY Fire Operations to the World Trade Center attack. It has four parts. The first describes how FDNY commanders exercised overall command and control of fire operations at the scene. The second deals more specifically with how those commanders deployed and managed personnel and resources. The third describes how the Fire Department handled planning of its resource requirements on September 11 and afterwards, and how the Fire Department managed logistics (i.e., deployment of supplies and equipment). The fourth discusses the challenges faced by the Department as it sought to support and counsel its members and their families in the aftermath of September 11.

COMMAND, CONTROL AND COMMUNICATIONS

The FDNY's response to the attacks of September 11 began at 8:46 a.m., the moment that American Airlines Flight 11 crashed into Tower 1 of the World Trade Center (WTC 1).

Command is established

The Battalion Chief assigned to Battalion 1 (B1)[10] witnessed the impact of the plane from the corner of Church and Lispenard Streets. He immediately signaled a second alarm[11] and proceeded to the World Trade Center. En route, B1 requested additional resources by transmitting a third alarm at 8:48 a.m.

B1 informed the FDNY Communications Office (Dispatch) that the corner of West and Vesey Streets, one block north of WTC 1, would be the designated staging area for third alarm units.[12] B1 arrived at WTC 1 at approximately 8:50 a.m. As the first responding chief, he established the Incident Command Post

[10] A battalion is a collection of FDNY resources or "units" (e.g., engine and ladder companies) responsible for a geographical area of the city. Four to five firefighters and one officer generally comprise a unit. Five to eight units comprise a battalion. Four to seven battalions comprise a division. The World Trade Center was located in Battalion 1's response area within Division 1. "B1" and similar codes used in this document are radio designations.

[11] Alarms correspond to the number and type of units deployed to an incident. A second alarm in a high-rise building typically deploys 19 pieces of apparatus and 11 chiefs. Third, fourth and fifth alarms deploy additional resources.

[12] A staging area is a resource management area in close proximity to an incident. It is standard FDNY procedure to stage units assigned to third alarms and above. Units that are directed to stage are expected to respond to the staging area and await further deployment instructions.

(ICP) in the lobby, per FDNY's high-rise firefighting procedures.[13] In approximately 10 minutes, from 8:50 a.m. to about 9:00 a.m., Incident Command was established and passed (according to protocol) from B1 to the First Division Chief (D1) to the Citywide Tour Commander 4D (CWTC-4D)[14] and finally to the Chief of Department (COD) (see Exhibit 2 for a command and control timeline).

At approximately 9:00 a.m., the Incident Commander moved the Incident Command Post from the lobby of WTC 1 to the far side of West Street (an eight-lane highway) opposite WTC 1, because of the increasing risk from falling debris within and around the lobby and other safety concerns. Chief officers considered a limited, localized collapse of the towers possible, but did not think that they would collapse entirely. The command post in the lobby of WTC 1 became the Operations Post[15] (OP-1) for WTC 1, reporting to the ICP. This Operations Post was managed by senior chiefs and was responsible for all operations in WTC 1, including the assignment of units to search and rescue operations in that building. It was necessary for the chiefs to remain in the lobby so they would have direct access to important building systems, such as controls for alarms, elevators, and communications systems.

The Field Communications Unit (Field Com) set up operations at the West Street ICP at approximately 9:15 a.m., in accordance with protocols. This unit was responsible for tracking the location and job assignment of all resources at the incident (e.g., which units responded to which alarms and which units were assigned to each tower). Field Com was also responsible for coordinating the assignment of additional units to the incident with Dispatch, upon request by the Incident Commander.

Our interviews with the chief officers in charge of the Operations Post in WTC 1 indicated that, early in the response, they decided that operations in WTC 1 should focus on search and rescue of injured and trapped civilians. The chiefs dispatched units from the lobby of WTC 1 to higher floors in two situations:

- In response to specific distress calls (e.g., people stranded in elevators, trapped in rooms, or hurt who would either call 911 or contact OP-1 directly through WTC 1's internal telephone system).
- To ensure that floors below the fire had been totally evacuated.

[13] An Incident Command Post is the location from which all aspects of an incident, including operations, logistics, and planning are managed.

[14] The Citywide Tour Commander is a staff chief responsible for FDNY operations throughout the city. One citywide tour commander is on duty at all times. On September 11, seven citywide tour commanders were designated CWTC-4A through H, except for the designation CWTC-4F, which was unused.

[15] An Operations Post is where operations are led for one component of the incident.

Units arriving at the lobby of WTC 1 checked in with the chief officers at the Operations Post for their assignments. Chief officers sent these units up into the building in a controlled, orderly way.

Before 9:00 a.m., D1 and B1 directed Port Authority personnel to evacuate surrounding buildings as a precautionary measure.

Plane hits WTC 2

At 9:03 a.m., United Airlines Flight 175 hit World Trade Center Tower 2 (WTC 2). Resources were immediately deployed to WTC 2 from the West and Vesey staging area and WTC 1. CWTC-4B, in coordination with the Incident Commander and chiefs in command of OP-1, established an additional Operations Post in the lobby of WTC 2 (OP-2), reporting to the Incident Commander. As at WTC 1, we believe that chiefs sent units arriving at WTC 2 up into the building in a controlled, orderly way.

Chiefs designate staging areas

As the mobilization escalated, senior chiefs established staging areas near the World Trade Center. However, as units approached, many failed to report to these areas and instead proceeded directly to the tower lobbies or to other parts of the incident area (see Exhibit 3 for a staging timeline).

For instance, early in the response B1 designated the corner of West and Vesey Streets as the staging area for third alarm units. Starting at 8:53 a.m., Dispatch sent radio instructions to these units to stage at West and Vesey. At 8:57 a.m., the Chief of Department, while still en route to the incident, requested the assignment of a staging chief to coordinate activities at West and Vesey. He then issued a fifth alarm for WTC 1 and responding units were instructed to report to this staging area.

At 9:12 a.m., the Chief of Department issued a fifth alarm for WTC 2 and at approximately 9:16 a.m., the corner of West and Albany Streets (two blocks south of the World Trade Center) was designated as the staging area for WTC 2. All units responding to that fifth alarm were directed by Dispatch to stage there. Citywide Tour Commander CWTC 4E assumed command of that area as the staging chief.

However, it is unclear whether all units received Dispatch's radio transmissions instructing them to stage because the units were not explicitly asked to confirm receipt of the transmission and they did not acknowledge the messages. Some

units responding to WTC 2 from Brooklyn may have been in the Brooklyn-Battery Tunnel, out of the reach of the Dispatch's radio communication and Mobile Data Terminal[16] (MDT) systems, when the staging directions were transmitted.

As units converged on the scene and civilians were evacuated, there was traffic congestion and gridlock in the area. Several units traveling from the north had difficulty getting to their staging area south of the towers. Our interviews and reviews of dispatch tapes suggest that several responding units were unable to reach their staging areas with their apparatus and therefore proceeded on foot directly to the tower lobbies.

Among those units that failed to report to the West and Albany staging area were those responding to the fifth alarm for WTC 2. Interviews indicated that several units (probably including those responding to this fifth alarm) traveled past this staging area on their apparatus. After waiting approximately 23 minutes for adequate resources to arrive at the West and Albany staging area, CWTC-4E issued an additional second alarm for WTC 2. Units responding to this additional second alarm did report to the staging area.

At 9:47 a.m., the Incident Commander requested additional resources and issued a third fifth alarm for the incident. Units were directed to respond to the West and Vesey staging area.

The lack of staging had several effects.

- Chief officers on the scene, the Field Communications Unit, and Dispatch could not accurately track the whereabouts of all units.
- Units that failed to stage may have not received necessary information and orientation before going into the towers. As a result, several companies that were not from surrounding battalions had problems differentiating WTC 1 from WTC 2. Interviews with chief officers in command of the WTC 1 Operations Post indicated that several units that arrived there asked for confirmation of whether they were in the lobby of WTC 1 or WTC 2.
- If units had staged according to protocol, other units that were dispatched to the WTC might have been kept instead in the citywide pool. For example, the additional second alarm issued by CWTC-4E led to the dispatch of eight additional units to the incident.

[16] A Mobile Data Terminal is a computer screen and printer in an apparatus (e.g., engine or ladder truck) that can receive and send data such as deployment instructions and confirmations.

Communications limitations emerge

A number of communications difficulties hindered FDNY chief officers as they coordinated the response. For instance, problems with radio communications left the chief officers in the lobby of WTC 1, and probably those in WTC 2, with little reliable information on the progress or status of many of the units they had sent up into the buildings. The portable radios that were used by the FDNY on September 11 do not work reliably in high-rise buildings without having their signals amplified and rebroadcast by a repeater system. The World Trade Center had such a system, but chief officers deemed it inoperable early in the response after they tested it in the lobby of WTC 1. With the repeater malfunctioning, the chiefs in the lobby of WTC 1 would not have been able to communicate with any units whose radios were tuned to the repeater channel, even if such units were just a few feet away from them. On the other hand, the command and tactical channels on these radios do support some, albeit unreliable, communications in high rises. Therefore, the chiefs decided to use their command and tactical channels[17] for operations in WTC 1.

Radio communications between chief officers in the lobby of WTC 1 and the units they sent in the building were sporadic. The chiefs were able to get through to some units sometimes, but not others. Some units acknowledged receiving radio communications some times, but not others. This left the chiefs not knowing whether their messages failed to get through, whether the units failed to acknowledge because they were busy with rescue operations, or whether the units did acknowledge, but the acknowledgement did not get through. Because information about civilians in distress continued to reach the Operations Post in the lobby, the chief officers decided to continue their attempts to evacuate and rescue civilians, despite the communications difficulties. We believe that the chiefs and units in WTC 2 faced similar communications problems.

In attempts to improve their communications, chief officers tried to deploy the Department's mobile repeater and give units "standpipe phones" that could be connected to boxes along the building's standpipe system. These were all ineffective. Chief officers in WTC 1 had some success in getting information to units in high floors by instructing units in lower floors to relay messages to them.

When WTC 2 was hit, several chiefs who were in WTC 1 proceeded to that building, but first they coordinated with other chiefs the selection of command and tactical channels for the different towers.

[17] Tactical radio channels are used for on-scene communications among chiefs and the units they command. Chiefs provide directions to units on this channel while units provide status reports to the chiefs and each other and request assistance. Command channels are used by chiefs at an incident to communicate with each other.

Chief officers in the lobbies of both towers also had very little reliable information about what was happening outside the towers, beyond their communications with the ICP. They had no reliable sources of intelligence and had no external information about the overall status of the incident area, the condition of the towers or the progression of the fires. For example, they had no access to television reports or reports from an NYPD helicopter that was hovering above the towers. This lack of information hindered their ability to evaluate the overall situation.

Threat of third plane is announced

At approximately 9:30 a.m., personnel in the lobby of WTC 1 heard an unconfirmed report of a threat from a third plane. Due to this announcement and communications problems that were constraining command and control capabilities, CWTC-4D broadcast over the FDNY tactical radio channel assigned to WTC 1 an order to all FDNY members to come down to the lobby of WTC 1. There was no acknowledgement by officers or firefighters of the order.

Shortly after the order was given, chief officers in the lobby learned that the threat of a third plane was false. At this point, the chiefs continued the search and rescue operations.

Most of FDNY's senior leadership responds to scene

As the mobilization of personnel and resources grew, most of the senior uniformed and civilian leadership of the FDNY responded to the scene, including all senior Fire and EMS operations officers. Out of 32 staff chiefs and members of the executive staff,[18] 26 responded to the incident area, 22 of which arrived prior to the first collapse. Members of the executive staff who responded prior to the first collapse included the Fire Commissioner, Chief of Department, Chiefs of Fire and EMS Operations, and seven out of nine staff chiefs. The remaining two staff chiefs responded after the collapse of the towers.

The experience and leadership of these senior chiefs proved crucial to re-establishing command and control after the towers collapsed. However, had some senior officers remained at a separate, protected location with the appropriate communications infrastructure, they may have been better able to support maintenance or re-establishment of incident command and control. Or they could have improved management of the Department's resource pool to

[18] The 32-member executive staff includes the civilian fire commissioners who are responsible for bureaus within the Department, along with the Chief of Department, Chief of Operations, the Chief Fire Marshall and the nine staff chiefs. Staff chiefs include the seven citywide tour commanders, the Chief of Safety, and the Chief of Fire Prevention.

ensure that all appropriate resources were sent to the scene, while at the same time fully protecting the rest of the city in case of another major incident.

Many of the senior civilian FDNY staff members who responded to the scene had no role or responsibility in the response.

WTC 2 collapse destroys Command Post

The collapse of WTC 2 at 9:59 a.m. killed many civilians and first responders and destroyed the Incident Command Post on West Street and the Field Communications Unit. The collapse weakened the command and control structure as Fire and EMS chiefs at the ICP, including the Incident Commander, sought shelter in nearby structures.

However at OP-1, in the lobby of WTC 1, the collapse of WTC 2 was not immediately apparent. Our interviews indicate that many believed that a partial collapse within the lobby of WTC 1 had occurred or that the elevators or other debris had fallen into the lobby of WTC 1. The lobby of WTC 1 filled with blinding dust and debris and became untenable. In almost complete darkness, firefighters, officers, chiefs and civilians were forced to leave the lobby of WTC 1. Prior to searching for an exit for himself, B1 issued an order at approximately 10:00 a.m. over the portable (handie talkie) radio for all FDNY members to evacuate WTC 1.

Many firefighters and officers operating in WTC 1 informed us that they were unaware that WTC 2 had collapsed when they heard the order to evacuate. Also, firefighters and officers on upper floors never heard the evacuation order. In some cases, these firefighters were told by other firefighters that the evacuation order had been issued.

WTC 1 collapse impairs incident command

After the collapse of WTC 2, the Incident Commander and personnel operating at the Incident Command Post moved north on West Street toward Chambers Street. However, the Incident Commander along with other members of the command and executive staff returned to the incident area to assess the situation and were killed at 10:29 a.m. when WTC 1 collapsed.

Between 10:29 a.m. and 11:28 a.m., incident command and control was seriously impaired. Several factors complicated efforts to re-establish it. Dispatch and the staff chiefs were unable to determine which chiefs had survived the collapses, where they were, what resources were available in different sectors of the incident area, if there was an ICP, and who the Incident Commander was. In addition, radio communications were difficult due to the large numbers of transmissions, which included attempts to locate personnel, mayday calls and company units seeking orders. Several chief officers, including Division Chief 6 (D6), the Chief

of Fire Prevention, CWTC-4A and CWTC-4C, took the initiative to re-establish the incident command and control structure. This process led to the emergence of multiple, sometimes co-existing ICPs (see Exhibit 4).

Incident command reestablished

At the request of Dispatch at approximately 11:28 a.m., a single ICP was designated at West and Chambers when CWTC-4C assumed Incident Command (see Exhibit 5 for sample exchanges between Dispatch and responding chiefs and for sample, illustrative quotes from interviews regarding the re-establishment of command).

The ICP remained at West and Chambers until approximately 6:00 p.m. and was then moved to West and Vesey, closer to the incident area, where it remained until the morning of September 15. At that time, the ICP was relocated to Engine 10 and Ladder 10's quarters at 124 Liberty Street. On Monday, September 17, the ICP was moved to larger premises at Battalion 1, Engine 7 and Ladder 1's quarters at 100 Duane Street.

RESOURCE DEPLOYMENT AND MANAGEMENT

The response of FDNY Fire Operations personnel to the World Trade Center on September 11 was unprecedented in scale and scope. More than 200 Fire units responded, approximately half of all units in the city. In the first three hours alone, 121 engine companies, 62 ladder companies, and 27 fire chief officers were assigned to the incident.[19] This corresponds to 61 percent of engine companies, 43 percent of ladder companies, and 47 percent of chief officers (see Exhibit 6 for the resource deployment timeline and Exhibits 7 and 8 for apparatus and chief deployment).

Much of this massive response was ordered by chief officers as they dealt with an increasingly dangerous and challenging situation. However, some of the response occurred outside regular command procedures. The size of the response taxed the FDNY's efforts to effectively deploy and manage its personnel and resources.

Units ask to be dispatched to the WTC

For example, as the mobilization increased, a number of Fire units that had not been assigned to the incident – but wanted to help – contacted the Fire Dispatch

[19] In addition to 183 ladder and engine units, nearly all special operations units of the Department were assigned to the incident.

Center repeatedly by radio, asking that they be authorized to respond. In some of these cases, Dispatch relented and assigned them. Many EMS and private ambulance units did the same with the EMS Dispatch Center. This complicated efforts by the dispatchers to manage the response and, in some cases, led to the deployment of units that probably would not have been deployed had they not insisted.

Self-dispatch of Fire units is minimal

Out of the more than 200 Fire units responding, only four proceeded to the incident without being deployed by Fire Dispatch. Of these units, two informed Dispatch that they were responding and demanded an MDT ticket assigning them to the incident. Two others proceeded directly to the incident without Dispatch's knowledge: one of these responded at approximately 9:20 a.m. after responding to an unrelated incident. Another unit sent a radio transmission regarding injured civilians on the 35th floor of WTC 1 despite the fact that Dispatch records at that time indicated that this unit was available at the firehouse.

Incident timing leads to response of off-duty firefighters

Another factor that increased the size and complexity of the response was the timing of the attack. Because the attack coincided with the change of tours in the firehouses at 9:00 a.m., numerous units responded with both night-tour and day-tour members. (Exhibit 9 contains examples of units responding with additional off-duty personnel who were ending their shift.).

In addition, other off-duty firefighters and officers reported to firehouses and directly to the incident scene in response to the recall issued by the Department. Some recalled firefighters responded to the scene by riding with on-duty units.

Normally, the officer in charge of each company knows the names of all firefighters and officers responding to an incident. At the start of every tour, the officer fills out a "riding list," a form recording the names of personnel assigned to each apparatus. One copy of the riding list is stored on the apparatus and the officer keeps another copy himself. Multiple riding lists were destroyed on September 11. This was one of several factors that prevented the Department from having accurate records of those who responded to the incident.

Recall mobilizes additional off-duty firefighters

The Chief of Department directed issuance of a recall of all off-duty firefighters and officers at 9:29 a.m. The recall order was broadcast by public media outlets and dispatched across FDNY radio channels. Thousands of off-duty firefighters and EMS personnel left their families to help the city and the Department respond to the attacks.

While the Fire Department had a recall procedure for Fire Operations personnel, it had not been activated for more than 30 years and personnel received no training in its activation. As a result, the recall was disorganized and ineffective. The initial recall order did not include specific directions on where firefighters were to report. Recalled firefighters responded to multiple locations, including directly to the incident area, the firehouse closest to their location at the time of the recall, their own firehouse, or to recall staging areas which were established and communicated later in the morning.

Our interviews revealed that the Department faced substantial logistical problems transporting and equipping members responding to the recall, even after they had assembled in recall staging areas or had deployed to the incident area. All reserve apparatus and vehicles were put in service with recalled personnel. They were used at the WTC incident as well as to augment citywide coverage.

Mutual aid request brings Nassau and Westchester units

Before September 11, the FDNY had rarely requested mutual aid from departments outside the city to support fire operations. The Department had no process for evaluating the need for mutual aid, nor any formal methods of requesting that aid or managing it. Therefore, the Department had limited ability to evaluate how mutual aid could be integrated into its operations. However, due to the magnitude of the WTC incident, FDNY personnel sought mutual aid from Westchester County at approximately 10:07 a.m., and from Nassau County at 10:23 a.m.

These initial mutual aid requests did not specify the level and type of resources needed. In addition, the FDNY did not have adequate information on the resources and capabilities of departments in surrounding cities and counties (e.g., the size, capabilities and expertise of different units). And, the FDNY had minimal operational training with surrounding fire departments, and hence had limited ability to evaluate whether and how resources from other departments could be integrated with the FDNY's operations. For instance, it could not tell whether procedures could be integrated, equipment could interoperate, and whether the capabilities of units with the same names (e.g., rescue or hazmat) were comparable.

Our interviews and review of dispatch tapes indicate that mutual aid received from neighboring fire departments on September 11 consisted primarily of engine and ladder units. Some mutual aid units deployed to staging areas. Some deployed directly to the incident and others were paired with FDNY units to help maintain citywide coverage.

Personnel tracking systems were insufficient

FDNY systems to track personnel at incidents proved insufficient on September 11, as they lacked accuracy and were lost when the towers collapsed.

The FDNY Field Communications Unit was responsible for tracking the assignment of Fire units to different alarms, the release of units from the staging area to the incident area and unit locations at the incident. This unit worked next to the Incident Command Post and kept records on a magnetic command board, using small magnets placed on a diagram to indicate unit locations. This record was most likely inaccurate because many units went directly to the tower lobbies instead of their assigned staging areas. Field Com was destroyed at 9:59 a.m. when WTC 2 collapsed, and all unit assignment records were lost since the FDNY Field Communications units cannot create a remote back up of deployment records.

FDNY protocols also provide that operations posts at major incidents keep detailed records of deployments within their area of responsibility. A communications coordinator (Comcord) is designated at each operations post, responsible for tracking unit assignments and managing communications between tactical and command channels. Like Field Com, the Comcord uses a magnetic command board for record keeping. The Comcord sketches the building with a marker on the command board and places magnets designating individual units in the appropriate locations on the sketch to represent each unit's location within the building. In this case, the operations posts were located in the lobbies of the two towers. B2 was designated the Comcord in the lobby of WTC 1. It is likely that this procedure was also carried out in the lobby of WTC 2.

Radio difficulties on September 11 contributed to the complexity of keeping accurate records of individual units and tracking their progress. After units were given their assignments, the only way for the Comcords and other chief officers to track their whereabouts was through radio communications. Comcords could not ascertain, without a radio query and a response, whether units assigned to search a specific floor had reached that floor or the location of an individual firefighter in danger.

The command boards utilized by Comcords at the operation posts were destroyed when the towers collapsed. Just as with Field Com, all the information captured on them was lost, as there were no methods in place to back up the records of unit assignments.

The limitations of this tracking system were not unique to the response to the World Trade Center incident. However, the magnitude of the response, difficulties with in-building communications and the response from off-duty firefighters on September 11 significantly increased the uncertainty of firefighter

and unit locations. As a result, following the collapses, the Department could not quickly create a reliable list of missing and dead personnel.

Inter-agency coordination was minimal

Throughout the response on September 11, the FDNY and NYPD rarely coordinated command and control functions and rarely exchanged information related to command and control. For example, there were no senior NYPD chiefs at the Incident Command Post established by the Fire Department. We believe there were very limited communications, either directly or through a liaison, between senior FDNY chief officers and the senior officers in charge of the NYPD response. In addition, some potentially important information on the structural integrity of the buildings never reached the Incident Commander or the senior FDNY chiefs in the lobbies.

The evacuation and subsequent destruction of the headquarters of the city's Office of Emergency Management (OEM) in WTC 7 further impaired the coordination process among the FDNY, NYPD and other responding agencies on September 11.

Citywide coverage was maintained

As FDNY committed large numbers of units to the WTC incident, it followed existing procedures and protocols to maintain citywide coverage for fire operations. During the initial three hours of the incident, Dispatch relocated 68 units throughout the city to ensure coverage. In addition, at 9:00 a.m., FDNY reverted to a response status known as "Fallback 3"at the discretion of the Bureau of Fire Communications. Fallback refers to a situation in which the normal response to an alarm is lowered during a period of inordinately heavy fires or during an emergency that affects an entire borough or boroughs. This lowered response means that fewer units will respond initially to a first alarm and that additional units will be committed only after further evaluation. Fallback 3 corresponds to the minimum apparatus response to an alarm.

Dispatch also created several dispatch staging areas and directed resources in the citywide pool to these areas to facilitate resource management and expedite the response time to the WTC incident.

Even with the commitment of a massive amount of resources by FDNY to the WTC incident and the significant loss of resources resulting from the collapse of the towers, citywide coverage for regular fire operations was maintained. Average fire incident response times on September 11 did increase, but only by about one minute, to an average of 5.5 minutes. The total number of calls for fire related assistance received on September 11 was comparable to the same 24-hour period the previous year, 2,322 versus 2,225 respectively. Response times within the city

returned to normal on September 15 and thereafter. The Bureau of Fleet and Technical Services immediately began repairing apparatus and replacing equipment so that firehouses could be returned to service.

Citywide coverage for special operations was minimal

While the Department maintained citywide coverage for regular fire operations, it committed nearly all of its special operations units to the incident, leaving the remainder of the city with extremely limited special operations coverage.

Among the special operations units committed were the Hazardous Materials unit (Hazmat), High Rise units, a Field Communications[20] unit, the Mobile Command Center unit, all the Rescue units and six out of seven Squads.[21] Citywide Tour Commander 4D ordered Fire Dispatch to keep one Rescue Unit available for the rest of the city. However, that rescue unit contacted Dispatch multiple times asking that it be deployed until Dispatch relented and assigned it to the incident. As a result, prior to the collapses, all rescue units had deployed to the World Trade Center (see Exhibit 10).

The FDNY has just one Hazmat Unit, which was committed to the World Trade Center. Had there been another hazardous material incident in the city, terrorist-related or not, the Department's ability to respond would have been minimal. The one Squad that was left in reserve would have been able to carry out some hazmat tasks but not a prolonged, large or complex operation in the absence of the equipment, capabilities and specialized supervision of the Hazmat unit.

In addition, post-collapse, the FDNY's Marine Division was the primary source of water for all fire fighting activities on the west side of lower Manhattan. The pumping capabilities of the boats on September 11th and on succeeding days were below design capacity due to mechanical problems. A privately owned boat provided much additional pumping capacity.

[20] The Field Communications unit that was deployed and later destroyed was the Department's spare; the primary vehicle was out of service for maintenance reasons. Normally only one unit is on duty at any one time.

[21] A Squad is a specially trained and equipped engine company with expertise in hazardous materials, rescue and other special operations capabilities.

PLANNING AND LOGISTICS

During the FDNY response on September 11, officers were not selected to coordinate planning or logistics functions[22] on a dedicated basis (see Exhibit 11 for the planning and logistics timeline).

In accordance with usual FDNY practices, we believe that, before the collapse of WTC 2, the Incident Commander carried out needs assessment and resource tracking functions, with the assistance of Field Com. Personnel at the Incident Command Post were assigned tasks as needed to support the response in these areas.

However, the Incident Commander and the chief officers responsible for the operations posts were required to make decisions on these matters lacking some important information, including: reliable intelligence, media reports, aerial video coverage, or verbal reports from helicopters on the condition of the towers and traffic. After the buildings collapsed, planning and logistics requirements grew well beyond anything FDNY had experienced before.

For instance, the logistics required to support the search, rescue, and recovery operations after the collapses were massive and unprecedented for the FDNY. Our interviews suggest that the distribution of equipment (e.g., radios, self-contained breathing apparatus) may not have been adequately managed and tracked on the afternoon and evening of September 11, and as a consequence, equipment was not utilized or was lost.

In the days immediately following September 11, planning and logistics improved significantly. On September 15, a dedicated Battalion Chief was assigned as the planning chief for the incident. In addition, the U.S. Department of Forestry Incident Management Teams (IMTs), who arrived on September 13th, and the U.S. Army Corps of Engineers provided assistance with traditional planning functions and documentation. These included creation of sector logs, which are a recording of all events and actions that took place in a given sector each day. IMTs also helped create incident action plans, which outline the response plan and the resource requirements for the next 24 hours. The presence of the IMTs supplemented the FDNY's resource allocation and site mapping capabilities and enabled it to substantially improve coordination among various agencies and other parties operating at and around the incident site.

In addition, after September 11, IMTs, along with the city's Office of Emergency Management, construction companies and private donors, aided with logistics

[22] Incident planning includes determining resource requirements and managing information flow. Logistics includes managing the deployment and tracking of supplies and equipment.

coordination. An FDNY Deputy Chief was assigned as the logistics chief on September 18. Thereafter, he was responsible for leading a team to manage the logistics requirements of the incident and for addressing any safety issues. Early in October, an additional dedicated deputy chief assumed overall safety responsibilities for the site, including managing the safety officers who were already operating there. This enabled the separation of logistics and safety responsibilities.

FAMILY AND MEMBER SUPPORT SERVICES

The Fire Department has a proud tradition of supporting its members and their families when members are injured, killed, or missing. The procedures used by the FDNY to notify families that loved ones had been injured or killed, and the type and level of post-incident counseling and support given to members and families have changed over the years. However, the Department has always provided honorable, personal, and deeply felt support to its members and their families in the most difficult moments.

Faced with an unprecedented number of casualties on September 11, the Department had difficulties providing the appropriate level of support and care to its members and their families in a consistent way.

In the aftermath of the collapse of the towers, several factors made it extremely difficult for the Department to create an accurate list of personnel missing or deceased. For one thing, there was a lack of accurate records on who responded and where they were. In addition, many firefighters remained on site to help the search and rescue operation. And, the Department did not have a complete, accurate personnel notification database with records of whom to contact in case of death or injury to a member.

As a result, the Department could not provide reliable information to families immediately after the incident. There were substantial delays in notifying family members of the loss of loved ones, and the procedures to notify families varied over time, ranging from visits by retired chiefs to phone calls from the site.

The Department set up on-site counseling services for firefighters and, within a week, established remote counseling locations in Manhattan, Queens and Staten Island. However, the magnitude of the incident and the ensuing counseling needs overwhelmed the infrastructure of the Department's Counseling Services Unit. The unit's challenges at the time included evaluating, pre-screening and securing funding to pay for counselors.

Over the past several months, the Department has started to formalize several processes it developed in response to the counseling and support needs of members and their families. For example, in January, the Commissioner

appointed an assistant commissioner for family assistance to coordinate activities that meet the needs of members and their families.

Emergency Medical Service response on September 11

This section describes the major aspects of the response of the FDNY's Emergency Medical Service (EMS) to the World Trade Center attack. It has three parts. The first describes how EMS officers at the scene exercised command and control and how EMS Dispatch personnel handled communications issues. The second deals specifically with how EMS officers deployed and managed resources and personnel. The third covers how they addressed planning and logistics issues.

COMMAND, CONTROL AND COMMUNICATIONS

On the morning of September 11, the EMS dispatcher for the Manhattan Central borough area was also handling all dispatch needs for the Manhattan South borough area, where the World Trade Center is located. Normally each borough dispatch area has its own channel and dispatcher, however, the channel usually dedicated to Manhattan South was not being used due to insufficient staffing levels at the Emergency Medical Services Dispatch Center at that time.

Upon confirmation that an airplane had flown into WTC 1, the Manhattan Central dispatcher immediately assigned ambulance units to the scene and transferred the incident to the EMS citywide dispatcher, in accordance with EMS protocols. These protocols require that multiple casualty incidents (i.e., those involving more than five patients) have a dedicated dispatcher. This also leaves the regular borough dispatchers free to concentrate on activities within the borough not related to the incident. EMS personnel assigned to a multiple casualty incident are directed to switch their radios to the citywide channel.

Command is established

Protocols for responding to multiple casualty incidents covering a large area such as the World Trade Center require that commanders establish geographic areas at the scene called divisions. Within each division, one or more EMS activities take place: staging of EMS units, patient triage, treatment, and transportation to a hospital. Each of these functions is known as a sector within each division.

At approximately 8:53 a.m., Conditions Car 042,[23] the first responding EMS officer, established EMS operations outside WTC 1 near West Street. EMS personnel established an initial staging and triage area at 8:55 a.m. on West Street across from WTC 1. Shortly thereafter, this staging area was relocated to the corner of West and Vesey Streets (see Exhibit 4).

The Assistant Chief of EMS Operations (Car 6A, the second highest-ranking EMS officer) arrived at the incident at approximately 9:01 a.m., and assumed the position of EMS Command, making him responsible for managing the overall EMS response to the incident. He assigned Conditions Car 042 to establish a division on Church Street and decided to move the EMS Command Post to the lobby of WTC 1, next to the Incident Command Post (ICP) that had been established by Fire Operations. (FDNY protocols require that EMS Command report to the Incident Commander. See Exhibit 12 for an EMS command and control events timeline.)

However, as EMS Command moved into the lobby of WTC 1, he was not immediately aware that the FDNY Incident Commander (the Chief of Department) was moving the ICP to the far side of West Street, in front of 2 World Financial Center.

Upon notification of the ICP move, EMS Command, at 9:20 a.m., assigned the EMS Division 3 Chief[24] (Car 63) to be the EMS Operations Chief for the incident and to report to the new ICP. (The job of Operations Chief entailed tracking EMS resources and assisting EMS Command.) EMS Command joined Car 63 at the ICP at approximately 9:30 a.m.

As more EMS officers and personnel arrived at the incident, additional divisions and sectors were established. Around 9:10 a.m., the Chief of EMS Operations (Car 6) began setting up a division south of the World Trade Center complex. It was fully functional by 9:45 a.m. and was referred to as the South End Division; however, Car 6 experienced radio communications difficulties and was unable to communicate the existence of this division.

By 9:11 a.m., the staging and triage sectors at West and Vesey Streets had expanded to become part of a geographic division known as the Vesey Division. The Liberty Division was established on Liberty Street at about 9:20 a.m. The Chief of Planning (Car 4P) established a WTC 7 Division at around 9:30 a.m. By

[23] Some FDNY personnel have radio designations that use the term "Car," followed by numbers and/or letters. A "conditions car" is a designation for an EMS officer who supervises field operations within a specific area of the city.

[24] An EMS division chief has command responsibility for a larger geographic area of the city. This type of division is distinct from the divisions that EMS officers establish at multiple casualty incidents and from Fire Operations Divisions.

this time there were five divisions: Vesey, Church, South End, Liberty and WTC 7. (See Exhibit 13 for the incident organization timeline and Exhibit 14 for the initial EMS organization chart.)

Communications difficulties emerge

EMS chiefs responding to the incident had difficulty communicating over the radio due to the large volume of radio traffic. This impeded their ability to gain awareness of the overall situation at the scene. The radio problems may have been partly caused by the way EMS uses its radio frequencies.

EMS uses the same frequency for two communications channels: command and citywide. The command channel is used for point-to-point communication among EMS Chiefs and officers at an incident, while the citywide channel is used for communication among EMS personnel and Dispatch across the city. Transmissions on the command channel can only be heard on radios in the vicinity of the person transmitting. However, transmissions on the citywide channel can be heard throughout the city on both that channel *and* the command channel. This is done through the use of a citywide repeater system that receives transmissions from individual radios and repeats them over more powerful transmitters. Consequently, an EMS radio tuned to the command channel will receive all traffic on that channel in its immediate vicinity, in addition to all traffic on the citywide channel.

In order to relieve radio congestion, the Manhattan South Borough channel was opened at 9:45 a.m. for radio transmissions between EMS Dispatch and ambulances responding to the incident. The citywide channel was dedicated solely for communications among chief officers and supervisors coordinating the response. However, many units did not tune their radios to Manhattan South and continued to operate on the citywide channel. This contributed further to communications congestion and degraded the chiefs' ability to communicate, as dispatchers were continually repeating to units the order to switch to Manhattan South. The congestion problem was exacerbated by a number of ambulances that repeatedly asked to be dispatched to the incident.

EMS dispatchers were overwhelmed with tasks

In New York City, calls to 911 for medical help are answered initially by the 911 call center (which is managed by the NYPD), and then connected to EMS dispatchers. The 911 operators can communicate information to EMS via two methods: telephone or a data link called the Special Police Radio Inquiry Network (SPRINT). Usually, 911 operators, EMS and Fire dispatch operators try to communicate by phone to exchange urgent and/or complex information.

EMS dispatchers, in addition to handling incoming information from the 911 call center, are also responsible for assigning ambulances to incidents, communicating with chief officers and ambulances over the radio and the phone, monitoring incident information from multiple sources and handling other telephone calls.

On September 11, EMS dispatchers were dealing with a high volume of information, a very large number of responding units, a complex incident response, and a myriad of communications difficulties. As a result, they were overwhelmed, limiting their ability to synthesize information and disseminate it effectively.

Information flow to incident commanders was limited

In the section of this report on the response of FDNY Fire Operations, we cited several examples to show that the Incident Commander and senior chiefs had a limited amount of information available to them as they made important decisions. An additional example comes from a series of events that followed a phone call to 911 from a person in WTC 2 a few minutes before that tower collapsed. These events illustrate the urgent need for the city to increase the level and accuracy of information exchange and dissemination within and across emergency response agencies.

At 9:37 a.m., a male caller from the 105th floor of WTC 2 phoned 911 and reported that floors beneath him "in the 90-something floor" had collapsed. The 911 operator typed a record of the call into the SPRINT system at 9:41 a.m. That record mistakenly stated the gender of the caller as female and it was unspecific about the location of the collapsed floors.

The SPRINT system automatically forwarded the record to the computers at the EMS Dispatch and NYPD Dispatch centers. Our review of the SPRINT records showed that it was among thousands of SPRINT records that the EMS Dispatch computers received that morning.

The EMS Dispatch computer system received the record at 9:47 a.m. It read as follows:

"09:47:15 Supplement-PD (T70) ..sts 2 World Trade Cntr...Flr 105....sts floor underneath her...collapse..."

This record was not read by anyone at EMS Dispatch at the time because it was categorized as a "supplement message." Supplement messages are received by the EMS computer system and automatically added to a "job record," which is a record of events relating to a particular incident. EMS Dispatch operators are not expected to review supplement messages during incidents and never do so.

Therefore, under normal operating procedures, there is no reason this message would have been seen by anyone at EMS.

The SPRINT system also sent the record of this call to the NYPD Zone 1 dispatcher,[25] who interpreted the words "sts underneath her … collapse" as meaning that the floor that the caller was on was collapsing. At 9:42 a.m., this dispatcher broadcast a message on the NYPD Zone 1 radio channel stating, "106th floor of WTC2 has collapsed or is collapsing, on authority of female on 106th floor." Clearly, this broadcast was an inaccurate representation of the contents of the original call.

Upon hearing the 9:42 a.m. radio announcement, the NYPD Zone 1 dispatch supervisor created a new SPRINT record indicating that the 106th floor was collapsing. This record was forwarded to three places: the NYPD Special Operations Division (SOD) dispatcher, EMS Dispatch and the PD's traffic division. The SOD dispatcher received this new record just before 9:52 a.m. and broadcast a message over the NYPD's SOD frequency as, "106th floor of WTC2 is crumbling."

This record was also received at EMS Dispatch just before 9:52 a.m. It read:

"09:51:39 PDEMS (BO1A) Floor of 106 Floor of 2 World Trade Center in (sic) collapsing."

This message was categorized as a "PD-EMS" message, which means that, under normal circumstances, it would have been handled differently at EMS Dispatch than the earlier supplement message, and would have been reviewed by EMS Dispatch personnel.

On the morning of September 11, however, EMS dispatchers were asked to handle an enormous volume of calls and perform many extraordinary tasks under extreme pressure. This message arrived while EMS dispatchers were handling telephone and radio calls from dispatched units seeking further instructions, units that had not been dispatched, off-duty workers, hospitals, and personnel in the field having trouble with radio communication who called dispatchers on the phone.

We believe that EMS Dispatch operators did not have the time to review either the supplement message or the PD-EMS message before the collapse of WTC 2 at 9:59 a.m. We also believe that neither Fire Dispatch nor any senior Fire or EMS chiefs received the information in these messages.

[25] Zone 1 includes the area around the World Trade Center.

WTC 2 collapse impairs EMS command structure

WTC 2's collapse at 9:59 a.m. destroyed the EMS Command Post, which was next to the Incident Command Post on West Street. The EMS divisions and sectors that had been established prior to the collapse were dispersed as personnel evacuated the area and sought shelter in surrounding structures. Chief officers at the ICP also sought shelter in nearby structures. In the absence of ranking chief officers, the EMS Communications Officer, previously located at the ICP, recommended to EMS Dispatch that command be transferred until resources could regroup. However, EMS Dispatch was unable to immediately act on this for two reasons: 1) It is not a normal procedure to transfer command via Dispatch and; 2) It was unclear at that point in time who was available to assume command.

The overall command structure of EMS operations was unclear to EMS members and FDNY command for about one hour after WTC 2 collapsed. EMS Dispatch was unable to account for or contact EMS Command or any other senior personnel. EMS personnel had difficulty with multiple means of communication including portable radios (handie talkies), mobile radios, mobile phones and fixed line phones. Interviewees told us that no means of communication worked reliably immediately after the collapse.

Starting at approximately 10:09 a.m., a Division 2 Deputy Chief (Car 621) made repeated requests to Dispatch to conduct a roll call to determine the command structure and location of any chiefs. However, Dispatch was unable to conduct such a roll call because there was too much radio traffic following the collapse of WTC 2. At 10:29 a.m., WTC 1 collapsed, prolonging and exacerbating command, control and communications difficulties.

EMS chiefs and officers regroup

Approximately ten minutes after WTC 1 collapsed, several senior EMS chiefs and officers converged by chance in an area near the Embassy Suites Hotel, located at Vesey Street and North End Avenue. These chiefs held an impromptu meeting in the lobby of the hotel to discuss operations strategy, resource deployment and the safety of EMS personnel. Two primary decisions were made at this meeting:

- Car 6A and Car 6C (the Tour 1 EMS Chief Officer) would proceed to One Police Plaza, on the assumption that responding agencies would be coordinated from that location, given the destruction of the city's Office of Emergency Management (OEM) offices at WTC 7.
- EMS resources would be re-deployed to establish two divisions, one at Chelsea Piers and one at the Staten Island Ferry Terminal. The chief officers divided EMS personnel and ambulances located at West and Vesey Streets into two groups and assigned them to these new divisions, which were established by approximately 10:55 a.m.

While the chiefs and officers in the Embassy Suites hotel lobby set about the tasks decided on at their meeting, they were unable to communicate their actions to Dispatch.

Unknown to those chiefs and officers, other EMS chiefs had already established additional EMS divisions elsewhere. Car 6 and Division Chief 5 (Car 65) established a division at Robert F. Wagner Jr. Park at 10:27 a.m.[26] In addition, Car 621 designated the Brooklyn side of the Brooklyn Bridge as a new division at 10:36 a.m. During this time, many EMS personnel remained unaware of who was serving as overall EMS Command.

Command restored, but communications problems continue

Shortly before 11:00 a.m., Car 621 informed Dispatch that he was prepared to assume EMS Command from the Brooklyn Bridge, which was the closest point to his location that was clear of dust and debris. However, at that exact time, the Chief of Planning (Car 4P), a higher-ranking officer than Car 621, assumed EMS Command at West and Chambers Streets, alongside fire chiefs who were relocating the ICP there.

Car 4P, also unaware of the establishment of divisions at Chelsea Piers and Staten Island Ferry Terminal, immediately established a division at West and Chambers Street. (See Exhibit 15 for the post-collapse EMS organization chart.)

At 11:09 a.m., EMS Dispatch conducted a roll call of chiefs at the scene. At this time, Car 661 responded and provided an update on the steps that were being taken to set up the divisions at the Ferry terminal and at Chelsea Piers. At 11:48 a.m., telephone communications between EMS Dispatch and One Police Plaza were re-established. However, communications between Dispatch and the Chelsea Piers and Staten Island Ferry Terminal divisions were not established for several more minutes, continuing to hinder the coordination of operations.

Shortly before noon, Car 4P, in his capacity as EMS Command, conducted another EMS chief roll call to determine the locations of chiefs, divisions and sectors. At that time, he was informed of the locations of all operating divisions and the location of senior personnel at One Police Plaza.

Subsequently, Car 4P asked Car 63 (the Division 3 Chief) to assume EMS Command. Car 63 did so at approximately 2 p.m., upon his arrival at the relocated ICP at West and Chambers Streets.

[26] This division merged later with the division established at the Staten Island Ferry Terminal.

At approximately 6:00 p.m., Fire Operations moved the ICP to the corner of West and Vesey Streets, several blocks closer to the WTC site. The EMS Command Post remained at West and Chambers due to safety concerns (e.g., EMS personnel did not possess full protective clothing). However, an EMS liaison officer operated at the relocated ICP and reported to EMS Command.

At approximately 5:00 p.m., at Car 6's request, EMS chiefs held a second face-to-face meeting at the EMS Command Post. They discussed the status of the response, the strategy for ongoing operations, and safety issues. They also discussed strategies to provide staffing for the incident and the 911 system, to ensure that citywide EMS coverage was maintained.

RESOURCE DEPLOYMENT AND MANAGEMENT

FDNY's EMS resource commitment to the World Trade Center incident was, of course, extensive. About 30 percent of the 354 ambulances available that morning in the city's 911 emergency ambulance system were deployed. Deployments peaked at around 1:00 p.m., as units began to return to regular service. The resources committed to the incident included:

- 14 municipal and 23 voluntary[27] Advanced Life Support (ALS) units, or 33 percent of all ALS units on duty in the 911 emergency ambulance system.
- 51 municipal and 18 voluntary Basic Life Support (BLS) units, or 29 percent of all BLS units on duty in the system.
- 24 out of 31 EMS lieutenants and captains on duty.
- 15 out of 17 EMS chiefs on duty (See Exhibit 16).
- An unknown number of mutual aid units.
- An unknown number of volunteer/freelance units.
- An unknown number of volunteer medical professionals.

Incident's scope hindered resource management

During the initial phase of the response, senior EMS chiefs used a magnetic command board to track deployment of EMS resources. Car 6C set up the board

[27] Ambulances that do not belong to FDNY but participate in NYC's 911 emergency ambulance system. Many are operated by hospitals.

at 9:23 a.m. at the EMS Command Post on West Street, but the board was lost at 9:59 a.m. when WTC 2 collapsed.

A large number of other events complicated EMS efforts to manage personnel and other resources responding to the incident.

- Normally, EMS personnel who are arriving for duty log into the EMS Computer-assisted Dispatch (CAD) system with their radio number and ambulance unit number. The system then keeps a record of all assignments, recording their name, shield number, assigned ambulance, and tour number. In this incident, some personnel responded without radios, and therefore personnel tracking information was incomplete. This hindered efforts to determine who was operating at the incident after the collapses.

- A large number of ambulances that are not part of the 911 emergency system, volunteered and/or self-deployed to the incident (i.e., without coordination and direction of EMS Command or EMS Dispatch), which degraded the FDNY's ability to maintain control.

- Several EMS units requested to be dispatched to the incident repeatedly or self-dispatched without permission from a dispatcher, and several EMS units responded with additional personnel who had responded to the recall.

- A recall of EMS personnel was announced through several radio and TV stations early in the incident. Who, if anybody, made the decision to recall all EMS personnel remains unclear. In all likelihood there was confusion or misinterpretation whether EMS personnel were also being recalled when the Chief of Department recalled all Fire personnel. EMS had never conducted or trained for a total recall and did not have a recall procedure.

- Civilians requiring medical assistance flagged down ambulances en route from their staging areas to their assignments. Several of these ambulances could not or did not communicate with their staging areas to request that another unit be given their original assignment. Instead, they informed EMS Dispatch of the fact that they were not proceeding to their original assignment. This required EMS Dispatch to assign additional units from the citywide resource pool to the incident so that the diverted ambulance's assignment could be filled.

- ¶ Numerous medical personnel phoned EMS Dispatch offering to volunteer their help. Some volunteering medical personnel, whose credentials had not been verified, went directly to EMS staging areas. This taxed onsite operations as the responsibility of verifying credentials was shifted to EMS officers operating at the scene.

From 9:59 a.m. until at least mid-afternoon on September 11, EMS chiefs and officers did not have an accurate view of the number and location of resources deployed to the incident, including on-duty EMS personnel and equipment, volunteer ambulances, off-duty members and volunteer professionals responding to the incident.

Ad hoc efforts were made to re-establish EMS resource and personnel tracking, such as the radio roll calls requested by the Car 621 and Car 4P in order to ascertain the status and locations of EMS chiefs. Also, officers who were supervising various divisions created handwritten reports on the number of units at their respective locations. In addition, the EMS Resource Coordination Center collected personnel data from battalions, and battalions called homes of unaccounted-for members to determine their whereabouts.

The chiefs' ability to manage resources was also hindered by the fact that their span of control was significantly stretched.[28] During the response to the incident, interviewees reported that, in some cases, the span of control increased to as much as one chief/officer to 20 EMTs/paramedics, well above the ratio of one-to-seven that senior EMS chiefs believe is the maximum that will ensure that command, control and quality of care are maintained.[29]

Efforts made to ensure Citywide coverage

A number of EMS officials made efforts to ensure adequate emergency medical coverage throughout the city and at the World Trade Center incident. At 9:07 a.m., EMS Dispatch contacted the city Office of Emergency Management (OEM) and requested activation of the regional mutual aid plan. OEM activated the plan, and mutual aid ambulances from the New York region did respond to the WTC. However, administration of the plan was hindered when OEM personnel had to evacuate their headquarters at WTC 7.

At 9:08 a.m., an EMS officer directed Dispatch to contact the EMS Academy at Fort Totten and ask all qualified EMS personnel there to stand by for deployment.

[28] Span of control refers to the number of personnel that each officer is managing simultaneously.

29 The New York State Emergency Management Office recommends that the Incident Command System deployed by emergency responders maintain the span of control between three and seven.

Those personnel did later deploy and were transported to the World Trade Center in buses.

At 11:42 a.m., EMS, in conjunction with other agencies at One Police Plaza, requested state and federal assistance to include the Disaster Medical Assistance Team and the Disaster Mortuary Operational Response Team.

At 12:35 p.m., EMS dispatch started to release EMS units committed to the incident back into the 911 resource pool.

Throughout the incident, EMS patient tracking capabilities, which are performed manually by EMS personnel, did not hold up well. Because of the large number of victims and patients requiring immediate treatment and transport, EMS personnel decided they could not accurately complete the paperwork required to enable accurate tracking of patients as those patients were transported to different hospitals. Instead, EMS personnel focused on transporting victims to the hospital as fast as possible.

PLANNING AND LOGISTICS

On September 11, EMS officers made no formal, explicit assignments of planning and logistics functions. At the division level, informal planning occurred throughout the response. For example, resource assignments later in the day were calculated with the consideration of the city's overall need for emergency medical services. Formal planning at the command level occurred only twice: once at the face-to-face meeting of chiefs at the Embassy Suites Hotel in the morning and once at the chiefs' meeting at the ICP around 5 p.m.

The Division 4 Chief (Car 64) initiated informal pre-staging of logistical units (e.g., Major Emergency Response Vehicles (MERVs) and borough supply) before the collapse, but the overall difficulties that commanders had in tracking resources throughout the emergency limited the effectiveness of the pre-staged logistical units. (See Exhibit 18 for a planning and logistics timeline.)

In addition, managing corporate and public donations proved challenging in the days following September 11. Large amounts of resources were donated to EMS by multiple sources, but the supplies often did not match the supply needs of the units.

PART II
RECOMMENDATIONS

Introduction to Recommendations

The recommendations in this report result from the lessons that emerged from our detailed examination of the FDNY's response on September 11, and from the many interviews we conducted with Department personnel, and with other emergency services agencies, experts in fire operations, the military and technology vendors. Many of the recommendations represent the joint efforts of several McKinsey-FDNY task forces involving approximately 50 FDNY members.

Our examination and analyses indicate that the Fire Department should focus its efforts to improve preparedness in the following key areas: operations, planning and management, communications and technology, and family and member support services.

In operations, the FDNY needs to expand its use of the Incident Command System (ICS), a blueprint for emergency response widely used around the country. This will lead to the creation of a well-defined, flexible, and complete command and control structure for major incidents, with clear and consistent responsibilities and roles. In addition, the FDNY should improve the support it provides incident commanders so that crucial functions can be effectively performed including command and control, planning, logistics and inter-agency coordination. And, the Department must improve its ability to assess the needs of the rest of the city during major incidents and deploy necessary resources to meet those needs. The Department would also benefit from having specialized teams that are highly trained in managing the response to large and complex incidents. Among other operational needs, the Department should have a formal, flexible procedure for recalling off-duty firefighters and for activating mutual aid from agencies in surrounding areas. It needs to improve its process for ensuring that firefighting units stage as required. And, it must expand its hazardous materials capabilities.

Planning is another important component of enhancing preparedness. The FDNY must do more to anticipate its future needs, plan ahead for them, and better manage the initiatives that will meet these needs. This includes developing, expanding and updating procedures and exchanging operational information with other agencies. It also involves improving the Department's ability to assess risks and threats across the city so it can create specific response plans for key locations and prioritize training and investments in new resources, including special operations.

Multiple difficulties involving communications and technology hindered firefighters and EMS personnel on September 11. These difficulties demonstrated the FDNY's need for an improved process to evaluate, acquire and deploy

technology and communications equipment and infrastructure. September 11 also highlighted a number of critical communications and technology needs that must be addressed immediately. These include improving radio communications, improving the Department's ability to receive and disseminate critical information about incidents, and improving the tracking of Department personnel and patients treated by EMS.

September 11 also showed that the Department needs a broader and more flexible system for providing support services to members and their families, i.e., notifying family members when a member of the Fire Department is injured, missing or killed, and providing counseling and other services to families and affected Department members.

This report has a series of broad and detailed recommendations to address all of these needs. However, in order for the recommendations to have any major impact, the FDNY must make a renewed commitment to leadership, accountability and discipline at all levels, in the field and at headquarters.

We point this out because the FDNY had considered several of the recommendations in this report before, but never fully brought them to fruition. For instance, the Department purchased new UHF radios in 1999, but was unsuccessful in an attempt to deploy them in 2001. A few years ago, chief officers discussed and planned the creation of a robust Fire Department Operations Center that would provide the infrastructure and communications capabilities necessary for effective citywide command and control and planning. These plans were never implemented. When units failed to stage properly in the past, the Department did not follow up systematically so that it could retrain those units, and, if necessary, sanction them, their officers, and their commanders. On September 11, as they took part in a response of unprecedented scale and complexity, many Fire units also did not stage properly. They went directly to the lobbies and immediate surroundings of WTC 1 and WTC 2.

In an effort to help the Department improve accountability and discipline, we have included in this report a number of recommendations for enhanced planning and management processes. Ultimately, however, recommendations and processes will only go so far. Success will be predicated on managers, civilian and uniformed, who are committed to bringing about profound change, are capable of leading all personnel by example and are eager to embrace full accountability for their own performance. As this report was being completed, the FDNY increased the number of staff chief officers in management positions. This additional management capacity will help the Department implement these recommendations.

We have computed the cost of our recommendations to the greatest extent possible. The largest cost would go to ensuring reliable communications in high-rise buildings. It would cost $150 million to $250 million to install repeater

systems in all high-rises in the city. (This figure could be substantially reduced if the FDNY finds it can use an existing citywide infrastructure, such as the NYPD's, to help address the in-building communications problem.) The remainder of our recommendations would cost $15 million to $25 million, a figure that could rise because several of our recommendations require that Department bureaus and groups change their composition and broaden their skill sets. Many of these changes will, no doubt, be accomplished with existing personnel. However, the Department may also need to add personnel, expertise and additional equipment to fully achieve what is required. Such steps could result in substantial additional costs that are difficult to quantify at this time. In addition, our cost estimate does not include the expansion of hazardous materials capabilities that we are recommending. Since the Department has yet to decide the specifics of this expansion, it is impossible to estimate the cost.

These are our recommendations for increasing operational preparedness, improving planning and management, enhancing communications and technology capabilities and expanding family and member support services.

Increase operational preparedness

To effectively prepare for fire and EMS incidents of all sizes, emergency services organizations need well-defined systems and procedures that are flexible and can be quickly expanded. We have seven major recommendations to increase operational preparedness at the FDNY:

1) Expand the use of the Incident Command System (ICS) to provide a foundation for responding to and managing any type of emergency.
2) Further develop the existing Fire Department Operations Center to support the response to specific incidents and ensure that the Department's mission is accomplished citywide during major incidents.
3) Create Incident Management Teams, which are specialized highly trained teams that use ICS principles to manage large or complex incidents.
4) Fully deploy a flexible recall procedure to allow FDNY to recall specific off-duty personnel required to respond to an incident or maintain citywide coverage.
5) Develop agreements with neighboring departments for fire operations mutual aid, to augment FDNY's resources when necessary.
6) Modify and enforce staging protocols to increase command and control, and the capability to track personnel.
7) Expand capabilities to deal with hazardous materials incidents and re-evaluate heavy rescue and marine capabilities.

1) EXPAND USE OF THE INCIDENT COMMAND SYSTEM

The founding principles of the Incident Command System were designed 30 years ago to aid in the management of resources at emergency incidents. Today, ICS provides a basis for establishing a flexible command and control structure, along with defined roles, procedures and organizational principles that can be adapted to any specific situation or incident. In addition, ICS addresses specific operational, planning, logistics and finance issues relating to emergency incidents. Federal and state agencies mandate that all emergency response agencies operate in accordance with ICS.

The FDNY uses many ICS principles on a daily basis, but rarely uses other important aspects of the approach because of the nature and scale of most incidents in the city.

In order to examine ways to further deploy ICS, an FDNY task force of senior chiefs from Fire and EMS Operations worked with McKinsey for the last three months of our effort. This task force studied how ICS is used in other fire departments and agencies around the country and reviewed existing ICS models such as FIRESCOPE and the National Interagency Incident Management System (NIIMS). The task force chose the NIIMS model for FDNY. It then compared current FDNY command and control, procedures, tactics and operations with NIIMS and identified gaps between the two systems. The result of this effort was a clear, well-documented blueprint for expanding ICS at all levels in the FDNY.

We now recommend that the FDNY take the next steps toward increasing and further formalizing the day-to-day use of the Incident Command System. This will provide the basis for the Department to increase its ability to respond to large, complex incidents by:

- Ensuring that the command and control structure used by the Department is flexible, modular, and consistent across incidents and over time.
- Improving the Department's incident planning and logistics capabilities by creating specific planning and logistics functions consistent with ICS.
- Creating the foundation to achieve effective response coordination with other municipal, state, and federal agencies responding to major incidents.
- Defining clear roles and responsibilities for senior personnel responding to major incidents.

To achieve this, the Department must take three key steps over the next few months: review all FDNY procedures to ensure consistency with ICS principles; train FDNY personnel on the ICS; and establish ongoing ICS training programs for senior personnel.

1.1) Review all FDNY procedures to ensure consistency with ICS principles

In the course of its work, the FDNY task force examined how ICS principles might apply to procedures that the Department uses to fight a fire in a high-rise building. The task force developed recommendations for a number of changes. For instance, regarding the command and control structure, it recommended adopting ICS terminology to increase interagency understanding of FDNY operations. It also recommended new communications protocols that would

identify individual incidents and create consistent radio identification names for roles in the command structure.

We now recommend that FDNY review *all* its procedures to update them and make them comply fully with the ICS. The result of this review should be a comprehensive set of ICS-compliant FDNY procedures for emergency incident situations (e.g., multiple casualty, hazardous materials, transportation, residential and commercial building fires).

In addition, we recommend that, during this review of procedures, the Department explicitly re-evaluate the location and roles of operations and command posts. The Department needs to re-evaluate when to use a remote command post, when Fire and EMS command posts should be co-located, when Fire and EMS command posts should be in a mobile command vehicle, and how the incident command post should be made accessible to other agencies.

1.2) Train all FDNY personnel in ICS principles and procedures

It is crucial for the FDNY to increase its awareness, understanding, and use of the ICS to effectively lead the response to large incidents, or support other agencies when they lead such responses. Effective formalization and expansion of the use of the ICS will require training officers, firefighters and EMS personnel.

As a result, we recommend that, while the review and approval of new ICS-compatible procedures is taking place, the FDNY develop a training program to support the full rollout of those procedures. This program should be designed to ensure that FDNY personnel at all levels:

- Are knowledgeable about the ICS and its implementation at the FDNY and understand its importance and usefulness.
- Understand how the FDNY deploys the ICS for specific types of procedures.
- Are aware of the roles and responsibilities of the different ICS functions such as planning, logistics, and finance.
- Understand ICS communications protocols.

The training program must have two components: 1) a short-term component that will ensure that personnel have the training required to deploy revised, ICS-consistent procedures in the field; and 2) a long-term component that will ensure continuous training in ICS principles and their implementation at the FDNY.

We estimate that the total incremental cost to the Department of creating and implementing this training program over the next 12 months is $5 million to $7 million, depending upon the training program design and delivery method (e.g., classroom training supplemented with computer-simulated exercises).

Implementing a training program of this magnitude and importance would require a substantial commitment from all bureaus in the Department, particularly Fire and EMS Operations, which would have to commit resources to support the design and lead the delivery of the training program. We estimate that the Department would have to commit approximately 1,000 chief-hours over the next six months. In addition, the Bureau of Training would need to dedicate substantial resources to develop the curriculum and materials with the assigned chief officers.

Once the training program is developed and the first, short-term component is implemented, incremental training costs are expected to be minimal.

1.3) Establish ongoing ICS training programs for senior personnel

FDNY must ensure that all senior personnel such as Fire and EMS chief officers can perform all leadership roles associated with the FDNY ICS in a wide variety of situations. This requires that these chiefs be trained in the following functions:

- Incident command, including: coordinating the overall response strategy, managing (at a high level) all FDNY resources and those from other agencies, and ensuring a manageable span of control for other supervisors as incidents escalate.
- Operations, including the selection and execution of FDNY procedures.
- Planning, including the creation, updating, and use of incident action plans, management of interagency meetings, collection and synthesis of information from multiple sources (e.g., intelligence, media, other responding agencies) and estimation of future resource requirements for the incident response.
- Logistics, including the procurement, receipt, transportation, and management of equipment, materials and services to support FDNY operations, and tracking all additional or special FDNY equipment used at an incident.

In addition, the Department should put in place the financial and administrative capabilities to support incident response, including the ability to track and assign costs to a particular incident and carry out emergency procurements as needed.

The training programs described above will help chiefs better understand their roles, functions, and responsibilities under the ICS. However, in order for these chiefs to be more effective managers of the response to large, complex incidents, the Department must do more. It must train them regularly to perform these roles in a variety of specific scenarios.

Currently senior FDNY chiefs receive their last formal training when they are promoted to the rank of battalion chief or EMS captain. Some senior chiefs have not received routine, periodic training for more than 15 years. We recommend that the Department create a periodic (e.g., twice a year) training program for its senior chiefs to practice different ICS roles in the context of specific, complex incidents. This program should include incidents involving terrorism (e.g., biological, chemical and radiological agents), large numbers of victims, widespread damage to structures and disruption of communications or utility services.

We believe that the total annual cost of training the Department's 100 most senior chiefs (staff and deputy ranks) twice a year would be in the range of $1 million to $2 million.

2) FURTHER DEVELOP THE FIRE DEPARTMENT OPERATIONS CENTER

The existing Fire Department Operations Center (FDOC) today has three main functions: to notify senior staff of fire and EMS emergencies, to act as a point of contact for other city, state and federal agencies, and to prepare a daily report of Department activities. It is staffed 24 hours a day with one officer, three firefighters and an EMT.

We recommend that the FDNY expand the center into a fully functional emergency operations center with infrastructure and communications capabilities to provide citywide command, control, and operational planning for the Fire Department during routine operations and major incidents. Senior personnel should report to the FDOC during major incidents.

Specifically, the following activities should take place at the FDOC:

- Set the Department's operational priorities during resource-taxing events in the city.
- Keep up-to-date on the incidents taking place in and around the city and their current and future resource requirements.
- Monitor citywide coverage, analyzing the Department's resource availability and managing the Department's resource pool, including the initiation of recalls and mutual-aid requests.

- ¶ Be a single point of contact for other agencies to coordinate activities on a citywide or regional basis.
- ¶ Gather and analyze information on specific incidents and on relevant conditions throughout the city (e.g., relevant law enforcement activities, traffic and weather conditions) and disseminate this information to appropriate parties.
- ¶ Support the command and control of any major incident in the city as required (e.g., serving as temporary incident command post, leading the re-establishment of command and control structure).
- ¶ Serve as an area command post if multiple large incidents are taking place in the city.

The management structure of the FDOC should be consistent with the ICS deployed at the FDNY. Personnel will be assigned ICS roles such as operations and planning. All who regularly staff the FDOC will require ICS training (including civilian staff responsible for bureaus within the Department) and will be assigned to the FDOC for at least one year, after substantial training by experienced FDOC personnel.

The FDNY's ICS task force worked with McKinsey to develop a detailed set of guidelines for FDOC operations. The guidelines include multiple levels of readiness with corresponding staffing levels (which vary in numbers and seniority of the personnel at the FDOC), clear rules for decision-making within the FDOC, definition of roles and responsibilities, and communications needs.

We recommend that the Department implement the FDOC in line with the guidelines developed by the task force. The implementation must be followed by a set of planned drills for all responding staff.

3) CREATE INCIDENT MANAGEMENT TEAMS

ICS principles dictate that all first-responding chief officers and supervisors be able to perform any assigned role effectively at a variety of incidents. However, for large, complex incidents it is beneficial to deploy personnel who are highly trained and specialized in the specific functions of incident management (e.g., operations, planning or logistics).

To accomplish this, we recommend the Fire Department build at least two Incident Management Teams (IMTs), each composed of 21 individuals who will receive specific training. A minimum of two teams is required to guarantee that the Fire Department has adequate around-the-clock coverage capabilities over prolonged periods of time (e.g., weeks).

The teams should be made up of high-performing individuals who are selected by the Chiefs of Fire and EMS Operations. Each member of each team should be highly specialized in one specific function of ICS, but be able to carry out any other role within the ICS organization. These personnel would receive regular training, including scenario and tabletop training. They would continue to perform their regular functions at FDNY, but would be recalled when IMTs are activated to respond to a large, complex incident.

The effectiveness of highly trained individuals working in teams was evident on September 13, e.g., with the arrival of the U.S. Department of Forestry Southwest IMT, which assisted with the WTC rescue effort, and on the West Coast, where fire departments regularly deploy IMTs to manage the response to large forest fires, earthquakes and other major emergencies.

The FDNY ICS task force developed a specific proposal for the structure, roles and responsibilities for the IMTs. We recommend that FDNY create IMTs based on this proposal. We estimate that the one-time incremental cost to establish the two IMTs would be approximately $500,000 to $1 million with annual maintenance costs of approximately $500,000.

4) CREATE AND FULLY DEPLOY A FLEXIBLE RECALL PROCEDURE

Before September 11, the Department had not issued a recall of its personnel for more than 30 years. Firefighters and EMS personnel had not received much training or clear guidance on how to proceed in case of a recall.

We believe the Department should be able to efficiently mobilize all or part of its off-duty personnel in case of emergencies and increased threat levels. The recall process should enable the Department's operational leadership to mobilize specific, targeted capabilities, such as rescue or hazardous-materials units, and to recall large numbers of personnel in a simple, modular and orderly way.

An internal FDNY task force, with support from McKinsey, developed a set of detailed guidelines for the recall procedure. We recommend that the Department immediately take steps to finalize and deploy the recall policy consistent with these guidelines. We believe that once a recall procedure developed under these guidelines is fully deployed, the Department will rarely need to issue a full recall.

Below are the major aspects of the proposed recall guidelines.

- **Create pre-defined recall packages**. The Department should create multiple, pre-defined recall packages with different staffing levels and capabilities. These will form the building blocks necessary to tailor a recall to meet the needs of a specific situation. For example, different

recall packages could offer: manpower only, manpower with reserve apparatus, manpower and apparatus with special operations capabilities (e.g., hazardous-materials or rescue), rapid response teams, or incident management teams (IMTs). The packages should be designed to be self-contained, i.e., they should be organized so that, when a package is recalled, all necessary equipment and supporting personnel, such as logistics and planning, are mobilized. The Department should have the ability to issue a recall on a citywide basis or on a borough-by-borough basis. And it should be able to implement recall packages at different levels (e.g., different numbers of units of different types).

- **Clearly define who can issue a recall.** Only the Chief of Department or a specific designee (e.g., the Chief of Fire Operations or Chief of EMS Operations) at the FDOC should have the authority to issue a recall. Centralizing this authority ensures that citywide needs are considered (versus, for example, the needs of any specific incident or incidents). It also decreases the potential for confusion regarding the origin of the recall decision, who is being recalled, when and for what purposes.

- **Create pre-established recall trigger points.** The Chief of Department, or his designee, should be able to issue a recall at his discretion, or when specific trigger points are reached. Trigger points should be developed based on a number of variables, such as city coverage capabilities, identified threat levels and the need to proactively augment resources for pre-planned events such as VIP visits.

- **Enable FDOC to determine recall need and characteristics.** The planning personnel at the Fire Department Operations Center should play a major role in how recalls are ordered and conducted. They should have the responsibility and the capabilities to determine whether a recall is required (e.g., instead of or in addition to mutual aid), which personnel will be recalled and how the recall will be put into action. To make these determinations, they should leverage pre-determined recall packages, tables that detail the composition of these packages and staffing matrices. These determinations will allow them to develop a specific recall recommendation to the Chief of Department or his designee. Once the Chief or his designee authorizes the recall, the FDOC planning personnel should initiate the appropriate communications to all parties, such as Operations, the Public Information Office and Fleet Services.

- **Communicate recalls precisely and consistently.** The Department should develop a standard recall message to be communicated to FDNY members, consisting of specific instructions on who is being recalled and where they should report. The Department should have redundant means of communicating recall messages accurately. These should include

internal methods, such as phone trees and pager messages, and external methods such as the use of news media.

- **Create mobilization points.** The Department should instruct and train FDNY personnel to report to regular, pre-specified locations during a recall. In addition, the FDOC should maintain a list of alternative "mobilization points" for recalled personnel to be used when appropriate. For example, if the transportation infrastructure is compromised in a way that prevents recalled personnel from responding to their regular location, FDOC should identify a mobilization point and send personnel there. This will allow the Department to facilitate transportation, track and control recalled personnel.

- **Train for recalls.** The Department should communicate the new recall procedures to FDNY members and conduct regular training so that all personnel understand the procedures thoroughly. This regular training is especially important for those involved in the recall decision process – such as the Chief of Department, his designees and the FDOC personnel – along with those responsible for communicating recalls to FDNY personnel. The Department should conduct formal staff performance evaluations following this training. In addition, the Department should conduct drills on full deployment of different recall packages periodically (e.g., once or twice a year).

- **Enforce recall rules.** The Department should develop control measures and sanctions to ensure the appropriate response during drills and in the case of an actual recall. Recall discipline should be enforced, allowing only recalled personnel to respond. Off-duty personnel who are not recalled, but who report anyway should be sent away, if circumstances allow, and should be referred for disciplinary action. Company and Chief officers should not allow off-duty personnel to respond along with on-duty units.

5) DEVELOP MUTUAL AID AGREEMENTS FOR FIRE OPERATIONS

Mutual aid agreements allow emergency services agencies to utilize partnerships that augment their resource pools when necessary. The FDNY should develop a mutual aid policy for fire operations and sign agreements with other fire departments and agencies, allowing it to plan and operate joint responses to incidents that require additional resources beyond its own. It should also conduct joint training exercises with other agencies on deployment of mutual aid. Finally, it should ensure that its personnel (particularly FDOC personnel and chief

officers) are aware of the different capabilities of local, state, and federal agencies and understand the processes to activate them.

Increasing the resource pool available to FDNY through mutual aid agreements and inter-agency training will materially enhance the Department's ability to mobilize a large amount of resources in a short period of time. Such a system will not only allow FDNY to make targeted and measured responses to a broader variety of incidents, but will improve the coverage available to the city on a sustainable basis with limited investment.

5.1) Assess partner capabilities before signing agreements

Currently, local fire departments in New York State operate without close coordination and standardization.[30] Therefore, if the FDNY is to ensure that its mutual aid agreements are effective, it must first work with other departments and agencies to ensure that equipment and procedures interoperate. The first step in this process is for the FDNY and neighboring Departments to exchange information on their capabilities and procedures, such as resource availability, levels of training, special operations capabilities, command, control and communications procedures and interoperability of equipment and procedures with FDNY. This information will help FDNY determine how it should negotiate mutual aid agreements. For example, it will enable the FDNY to prioritize which departments would be the best initial candidates for such agreements.

5.2) Develop and deploy mutual aid agreements

We recommend that the Department negotiate mutual aid agreements for fire operations consistent with the following guidelines:

- **Develop memorandums of understanding.** These agreements with other public safety agencies pre-establish mutual aid procedures and guidelines for ongoing working relationships. They should define the levels of support that each partner can expect. They should include:
  - A detailed outline of responsibilities for all parties, such as equipment to be carried, response time, and operational requirements.

[30] This is not the case in several other states. In California, for example, the Governor's Office of Emergency Services ensures coordination among municipal and state agencies.

- A formalized mechanism for the communication of a mutual aid request and resulting response that incorporates standard language and specific instructions, such as units desired, time and place to respond to, and units responding.
- Standard terminology of units, equipment and capabilities to improve coordination and communication of units that would potentially work together.
- An agreement on the frequency and type of joint training to be pursued.
- Financial terms and conditions that guarantee parties are appropriately compensated (e.g., for overtime, equipment loss and damage).

¶ **Maintain FDNY command and control.** FDNY should develop procedures to ensure it has command and control of all mutual aid responders throughout the course of their deployment in response to incidents under FDNY's command.

- FDNY should develop procedures to activate and communicate mutual aid requests to partners and train personnel in the procedures. FDOC planning personnel should have the responsibility and capability to decide on the amount and type of resources to be requested from mutual aid partners, using information on each partner's resource levels, capabilities, estimated response time, and degree of interoperability. The Chief of Department or his designee at the FDOC should be responsible for authorizing the request of mutual aid for Fire Operations and for authorizing the release of FDNY resources to provide mutual aid to other agencies.
- FDNY should pre-define mobilization points in or around the city for responding mutual aid units, in order to establish initial command and control of those units. An FDNY chief or officer should meet mutual aid units at the mobilization point and serve as liaison to give them specific instructions.
- While FDNY would maintain overall command of all units responding to incidents under its jurisdiction, the immediate tactical command of responding mutual aid units would be handled by the unit's immediate chain of command (e.g., unit officer or supervisor).
- Only appropriately authenticated mutual aid units reporting to the pre-defined mobilization points should be allowed to participate in the incident response.

- **Conduct joint training.** FDNY should develop and conduct training drills with potential mutual aid partners. These drills must be built into the training cycle for FDNY units and conducted on a regular basis to increase the Department's understanding of mutual aid units' capabilities and increase the efficiency and coordination capabilities of FDNY and mutual aid units.

5.3) Seek help coordinating agreements

Establishing mutual aid agreements is likely to require a substantial commitment from the FDNY and its neighbors. We believe these agreements have great potential to significantly increase the pool of resources available to the Department on very short notice, thus improving the Department's preparedness. Their benefits more than justify the effort required to establish such agreements. However, as the number of mutual aid agreement grows, the Department will find it increasingly difficult to manage relationships with multiple agencies. Therefore, as it pursues mutual aid agreements, FDNY should seek to coordinate its Fire Operations mutual aid policies with the city Office of Emergency Management (OEM).

5.4) Participate in regional EMS mutual aid planning

EMS agencies deal with mutual aid policies differently than Fire Operations. FDNY'S EMS mutual aid policy is dictated by the New York Regional EMS Council, which creates a regional mutual aid plan and ensures coordination and standardization of procedures and equipment. The Department will take a leading role in the implementation and deployment of this plan.

We also recommend that the Department continue to implement the procedures established by the regional plan. And, we recommend that the Department develop, in cooperation with neighboring EMS agencies, a detailed, periodic inter-agency training program for regional EMS mutual aid.

6) MODIFY AND ENFORCE FIRE STAGING PROTOCOLS

FDNY should modify its current staging protocols to ensure that the incident commander can effectively maintain command and control of resources deployed at an incident as it escalates.

Below are the key aspects of our proposed staging protocol guidelines:

- **Use staging on third alarm or greater.** While the incident commander can use staging at his discretion at any time prior to a third alarm, staging areas must be used for all third alarm assignments and greater.

¶ **Let incident commander determine staging location.** The incident commander should use pre-identified factors to help him determine the location of the staging area(s). These factors might include: pre-planned, suggested staging areas, the effectiveness of unit response, unit ingress and egress routes, distance from the incident, safety of the location, location of responding resources, and proximity to other incidents. The FDOC should give the incident commander information on where responding units are most likely to be arriving from so that he can incorporate that information into the choice of staging location.

¶ **Assign staging chiefs.** A battalion chief should be assigned to control the staging area as his sole function. He should be responsible for maintaining personnel accountability at the staging site, command and control of the site and coordination and communication with the incident commander. If units arrive at the staging area before the designated staging chief, the first arriving officer should perform the staging coordination function until the designated chief officer relieves him.

¶ **Enforce staging protocols.** If staging protocols are to be effective, they must be adhered to at all levels by responding units. Discipline at the unit level must be maintained and enforced by the responding company officers, the battalion chief in charge of the staging area, the incident commander, and ultimately by the senior leadership of the Fire Department. To do this, the Department should:

- Clearly assess, during training and post-incident evaluations, how well units and individuals adhered to staging procedures.
- Develop and apply sanctions for personnel not adhering to procedures during training or on a daily basis.
- Ensure that Dispatch and responding units adhere to communications protocols when information on designated staging areas is relayed to units.
- Seek ways to leverage technology as a tool to help manage staging and enforce discipline. For instance, track the location of units assigned to staging areas, and enable chiefs in command posts to track which units have been assigned the incident area (either directly or after being released from a staging area).

7) EXPAND HAZMAT CAPABILITIES AND RE-EVALUATE OTHER SPECIAL OPERATIONS CAPABILITIES

The FDNY has just one hazardous materials unit (Hazmat Unit), which it committed to the World Trade Center on September 11. That day, the Department would have been unable to respond quickly and effectively to another incident that required advanced hazardous materials capabilities to assess and detect threats, rescue and evacuate civilians, and perform decontamination tasks.

Special operations units such as hazmat are likely to play crucial roles in the city's response to large and complex incidents, particularly those that result from terrorist acts. Such attacks could involve radiological, chemical, and biological agents, and/or multiple, simultaneous incidents, either on land or over water. Preparing for and responding to such attacks could require special operations capabilities well beyond those currently possessed by the FDNY.

We recommend that the FDNY expand its hazmat capabilities and re-evaluate its heavy rescue and marine operations capabilities. In addition, we believe that the city or state should create an inter-agency planning process that ensures all local, state and federal agencies likely to be involved in hazmat incidents respond cohesively and effectively.

7.1) FDNY initiative

The FDNY's Operational Planning Unit [31] should lead the Department's effort to expand hazmat and re-evaluate heavy rescue and marine operations. It should analyze the costs and benefits of different hazmat expansion alternatives and develop a specific expansion proposal, including new funding requirements. Possible expansion alternatives include: increasing training and equipment of FDNY Squads, deploying a second hazmat unit similar to the current one, replacing the current unit with several smaller ones that could be stationed in different boroughs, or a combination of the above.

7.2) Inter-agency initiative

The FDNY should participate in an inter-agency initiative with other city, state and federal agencies. The initiative should include all agencies likely to be involved in the prevention of, and the response to, incidents that require hazmat

[31] The Planning and Management section of this report includes a series of additional recommendations for expansion of the Operational Planning Unit.

and special operations capabilities, such as the NYPD, the FBI, the Federal Emergency Management Agency, the U.S. Departments of Defense, Justice, and Energy, the Environmental Protection Agency, and the Coast Guard. The initiative should have these goals:

- Clearly define the processes, capabilities and responsibilities of all agencies that are likely to respond to incidents involving hazardous materials, heavy rescue or marine operations.
- Ensure that all such agencies understand each other's processes, capabilities and responsibilities, and that they possess the information and resources required to perform those responsibilities.

In order for the initiative to be truly effective and comprehensive, it must include a number of steps:

- Assessing different threats, their likely impact on the city and its citizens, and the effect of different prevention and response measures.
- Understanding the city's maximum level of tolerable risk for different types of hazmat attacks and incidents, or other attacks requiring a special operations response.
- Determining the right balance between investing in measures to prevent these attacks and to responding to them after the fact.
- Evaluating how well different city, state, and federal agencies could complement and/or extend the FDNY's special operations capabilities in responding to these attacks.
- Defining investments, processes, plans and policies to ensure that the city is adequately protected.

This initiative, if and when it is undertaken, would help determine FDNY's special operations capabilities. For example, it would define the type and scale of events the Department should be able to respond to. It would also define how long the Department would need to respond to such events alone before the deployment of additional special operations resources from other agencies.

Improve planning and management

Better planning will enhance FDNY's preparedness by identifying and implementing the most effective methods of responding to events of all kinds, before those events occur. Senior staff chiefs and administrators will be able to establish Department-wide priorities and ensure that individuals are working together toward common goals. Better planning and management will also help the Department efficiently address necessary changes in its response systems, procedures, policies and skill sets. As a result, we recommend that the FDNY:

1) Enhance its planning and management processes.

2) Expand and reorganize its Operational Planning Unit.

1) ENHANCE PLANNING AND MANAGEMENT PROCESSES

The key to effective planning is the creation of a formal Annual Plan, consisting of clear objectives, along with initiatives designed to meet those objectives. FDNY should enhance its planning by instituting a formal process to track the performance of the Department and its bureaus, create initiatives, revise them when necessary, track their execution and incorporate them into the Annual Plan. This process of continuous planning will:

- Enhance the ability of the Department's senior leaders to shape and manage the Department's readiness and efficiency.
- Improve coordination among FDNY bureaus.
- Increase the transparency of the objectives, roles, and responsibilities associated with each initiative to all parties involved.

We recommend that the Department form a Planning Oversight Committee (POC) to lead the planning process, supported by the existing Management Analysis and Planning (MAP) group. The POC should be comprised of the Fire Commissioner, Chief of Department, Chiefs of Fire and EMS Operations, and Deputy Commissioners of Administration, Management & Planning, Legal, and Intergovernmental Affairs.

The Planning Oversight Committee should be responsible for approving and overseeing the execution of FDNY's Annual Plan and evaluating, prioritizing and assigning funding for all new initiatives within that plan. It should also review the

status of the Plan throughout the year and discuss and approve amendments, including new or modified initiatives within individual FDNY bureaus, or across multiple bureaus. The POC should meet monthly to discuss the progress of ongoing initiatives, address any roadblocks in the way of major initiatives, and assess the overall performance of the Department and its bureaus. In addition, the POC should hold quarterly meetings to discuss funding for new Department initiatives, and to conduct a comprehensive progress review of all major initiatives and overall Department performance.

The MAP group, which currently prepares reports (e.g., Mayor's Management Report), analyzes statistics and coordinates initiatives, should support this new planning and management process. The MAP group will probably have to be expanded with additional personnel to perform its new responsibilities. Below, we describe our recommendations for how the POC and the MAP group should work together to: 1) prepare the Annual Plan, 2) track the progress of all FDNY initiatives and 3) approve new initiatives throughout the year.

1.1) Preparing the Annual Plan

The job of coordinating the creation of the Annual Plan should fall to the MAP Group. At the start of each planning cycle, each FDNY bureau should submit the following to MAP:

- **The bureau's year-end objectives**, such as specific, measurable improvements in day-to-day operations, enhancement of preparedness to respond to specific types of emergencies, completion of ongoing initiatives and change programs. Each bureau should also submit in writing specific, measurable performance objectives (including a budget) for the next year, whether or not they require approval of any initiative by the POC.
- **A comprehensive list of internal bureau initiatives** (new and ongoing) in support of achieving these objectives. Each initiative should include a written discussion of how it supports the objectives of the bureau and the Department, how the bureau and/or the Department would benefit from the initiative, and how the impact of each initiative would be evaluated. Each initiative should have a budget and a timeline (past and future) with specific milestones.
- **A list of ongoing cross-bureau initiatives** in which the particular bureau is involved. This list should describe the commitment the bureau has made to support each initiative and how each initiative would help the bureau achieve its objectives.

- **A discussion of the bureau's overall performance** over the preceding 12 months. This should include how well the bureau has performed against specific metrics and milestones agreed on during the previous planning cycle, as well as a comparison between the budget for each initiative undertaken by the bureau and actual expenditures.
- **A set of quarterly milestones** over the next calendar year for each internal bureau initiative (ongoing and new). These milestones should be expressed in unambiguous metrics (e.g., overtime, accidents, response time) or in terms of clear achievements for each initiative (e.g., complete testing/certification of equipment, a pilot program in progress, a training program designed and ready to be deployed). The MAP group should track the progress of each bureau to meet these milestones.

The MAP group should compile and synthesize the information received from each bureau, along with its own information on the status of cross-bureau initiatives. In addition, the MAP Group should develop an independent perspective on the performance of different bureaus across multiple dimensions, based on pre-defined metrics it should track throughout the year. It should also develop a list of improvement needs and potential future initiatives for discussion by the POC.

The MAP group should consolidate these pieces into a single document that would be presented to the POC. This document should discuss the "State of the Department" and the progress made on an initiative-by-initiative, bureau-by-bureau basis since the last planning cycle. For large multi-year initiatives, the document should review that portion of the initiative that was to be implemented during that particular year. Finally, the document should list all new initiatives the MAP group believes should be launched over the coming year.

The Planning Oversight Committee should use this document to perform a number of tasks:

- Create and prioritize new initiatives.
- Resolve conflicts.
- Ensure that those working on initiatives are accountable to meet their key milestones.
- Agree upon key performance targets for each bureau in the Department.
- Develop a proposed Annual Plan for approval by the Chief of Department and the Commissioner.

Once approved, a summary of the plan should be made accessible to all relevant parties. Bureau initiatives should be prioritized and approved (or disapproved) by the POC based on an evaluation of risks, costs and benefits, and priority status vis-à-vis other initiatives in the Department.

1.2) Tracking progress of ongoing FDNY initiatives

Once each quarter, every bureau should provide the MAP group with a status report on all ongoing internal bureau initiatives, and the performance of the bureau according to pre-determined metrics. The MAP group should keep similar metrics for all cross-bureau initiatives. The MAP group should then create a quarterly report for the Planning Oversight Committee on the progress of every major initiative underway.

The POC should consider the issues in the MAP group's report at a quarterly meeting. The MAP group should document all decisions taken by the POC at this meeting, and work to ensure that those decisions are carried out. Also, following the quarterly meeting, each member of the POC should meet with subordinates to review the status (e.g., performance metrics, timing, issues) of key initiatives under his/her supervision.

1.3) Approving new initiatives throughout the year

In addition to the annual and quarterly planning processes, both the Planning Oversight Committee and the MAP group should be involved in an ongoing process to evaluate and approve new initiatives. This process would have five major steps:

- **Articulate problems or needs.** Each bureau head wishing to undertake an initiative articulates the problem or need to be addressed, in a preliminary initiative form. If the implementation or impact of the initiative has substantial dependencies on other bureaus, or if funding is needed from outside the primary bureau, the initiative continues in this process, otherwise it is handled by the bureau internally.
- **Define proposed initiatives.** The MAP group works with bureaus to appoint working committees for each proposed initiative (including a working committee leader) with appropriate representation from all

bureaus involved.[32] It is the MAP group's responsibility to prioritize the formation of these working committees. The committees define the proposed initiative in more detail (e.g., people involved, benefits, metrics, cost estimate, implementation plan, timing, deliverables, and resource needs and commitments from different bureaus).

- **Prepare proposals to the POC.** The MAP Group should have the ability and discretion to ensure that appropriately detailed information on proposed initiatives is provided in writing before they are brought to the POC (e.g., a clear and concrete articulation of their benefits, costs, resource requirements, discussion of their urgency, and a detailed implementation plan).

- **Obtain approvals from the POC.** The MAP group schedules a discussion of completed proposals at the next available monthly Planning Oversight Committee meeting. There the POC makes the final go, no-go decision and funding is assigned. Decisions that require an increase in FDNY funding should be made quarterly to coincide with the New York City budget process

- **Add initiatives to the Annual Plan.** The new initiatives approved by the POC are added to the Annual Plan and the MAP group tracks their progress. The working committee is responsible for implementing the initiatives and the Planning Oversight Committee reviews the status of each initiative and ensures it is completed.

2) EXPAND AND REORGANIZE OPERATIONAL PLANNING UNIT

The FDNY Operational Planning Unit currently creates and maintains the Department's standard operating procedures, schedules resources for specific tasks, coordinates special events, and maintains the FDNY relationship with the city Office of Emergency Management (OEM). We recommend that its roles be expanded to include risk assessment, bureau strategy, and management of technical information for Fire and EMS Operations.

To accomplish this, the Operational Planning Unit should be expanded and re-organized into five Sections: Risk Assessment & Operational Strategy, Policies & Plans, Technical, Resources, and Special Events & Major Operations. The unit should be managed by a Chief of Planning and an Assistant Chief of Planning,

[32] In the case of technology related initiatives, the working committee will be a new Technology Steering Committee, discussed in the Communications and Technology section of this report.

who should also be responsible for maintaining inter-agency relationships at the operational level, overseeing the planning staff at the Fire Department Operations Center and participating in after-incident critiques.

The Operational Planning Unit's new responsibilities should include:
1) conducting a comprehensive risk assessment of potential hazards to various city locations; 2) developing and maintaining an FDNY All-Hazards Emergency Response Plan; 3) expanding technical capabilities; and 4) improving inter-agency coordination. It should also continue to perform existing operational support functions.

2.1) Conduct a comprehensive risk assessment

The Risk Assessment & Operational Strategy Section of the Operational Planning Unit should assist Fire and EMS Operations in developing their quarterly status reports and their portion of the Annual Plan. It should also conduct a comprehensive, citywide risk assessment to find and prioritize potential hazards to various city locations.

Part of the risk assessment includes developing an FDNY risk database. This database should include information on hazards that are unique to specific locations, such as the presence of chemicals or radioactive materials. It should also include threats and vulnerabilities such as an increased risk of explosion, a large daytime population, or an increased threat of attack. The Risk Assessment & Operational Strategy Section should define the database fields and collect, document, and update data for the risk database. It should also disseminate it to all relevant and authorized parties within the Department.

The risk database will provide crucial input to the Risk Assessment & Operational Strategy Section as it prioritizes the hazard or threat levels at different locations. In turn, this prioritization effort will support the Department in developing location-specific pre-plans and event-specific annexes that will support FDNY responders at particularly high-risk locations. These pre-plans may include pre-defined staging areas and information on the best means of egress from the locations. In addition, the prioritization effort will help the Department define the type, frequency, and location of training exercises.

Other government agencies may also possess or create a broader, citywide risk database. However, this database may not immediately be made available to the Department. Until it is made available, the Risk Assessment & Operational Strategy Section should seek information on risks and hazards from other local, state and federal agencies for inclusion in the FDNY risk database. These

agencies might include the NYPD, the State Office for Public Security, and the U.S. Department of Energy.

In addition, it should work with the FDNY field divisions to ensure that the information in the CIDS system on hazards present at each location (e.g., vulnerabilities in building design) and standard operating procedures are up to date.

Ideally, the FDNY risk and hazard assessment and analyses should be conducted in close coordination with any citywide risk assessment to ensure that response plans, resources and priorities are aligned and consistent.

2.2) Develop and maintain an FDNY All-Hazards Emergency Response Plan

The Policies & Plans Section should continue to update FDNY Standard Operating Procedures and policies, but its immediate focus should be developing an FDNY All-Hazards Emergency Response Plan, including emergency-specific annexes on matters such as terrorism and chemical and biological attacks.

This plan should be based on existing emergency response plan templates from the Federal Emergency Management Agency and other emergency management organizations. It should include large-incident responsibilities organized by ICS functions, instructions for activation of the Fire Department Operations Center, instructions for use of all communication channels, contingency plans for FDNY Headquarters and firehouses, and detailed steps for making any changes or updates to the plan. The plan should be updated regularly based on feedback gained from tabletop exercises, full-scale drills, and actual events.

The Operational Planning Unit should ensure that other parts of the Department (e.g., Special Operations, Communications) have input into the creation of the All-Hazards plan.

2.3) Expand technical capabilities

A technical specialist should be designated to create a new Technical Section. This person should be dedicated to managing information to create maps, organizational charts, and databases to support the Operational Planning Unit.

2.4) Lead inter-agency coordination at the operational level

The Chief of Planning and the Assistant Chief of Planning should focus much of their time on representing FDNY in inter-agency coordination matters. They should establish ties with federal, state and local emergency management agencies to promote exchange of critical information, and ensure common command and control structures and terminology are used in plans and procedures.

They should represent the FDNY on emergency response or terrorism-related committees and establish ties with other fire departments and emergency services across the country to exchange information. In addition, they should seek to coordinate the development of plans and procedures (e.g., the FDNY All-Hazards Plan and its annexes) with other agencies such as the city's OEM and the NYPD.

2.5) Continue to perform existing operational support functions

The Resources Section and the Special Events &Major Operations Section of the Operational Planning Unit should continue to operate much as they do today. The Resources Section should continue to manage response capabilities (e.g., determining which units are out of service) and ambulance deployment, with the assistance of the MAP group. The Special Events & Major Operations Section should continue to develop plans for special events and work with other agencies to coordinate activities (e.g., drills and exercises).

Improve communications and technology capabilities

Firefighters and EMS personnel were hindered in their response on September 11 by multiple failures of communications systems and processes and technology limitations. We recommend that the FDNY proceed simultaneously on two tracks to answer these challenges:

1) Revamp the management process it uses to evaluate, acquire and deploy communications systems and protocols and technology.

2) Immediately address urgent needs in its technology infrastructure, processes and protocols.

1) REVAMP THE COMMUNICATIONS AND TECHNOLOGY MANAGEMENT PROCESS

Currently, the FDNY lacks an effective, well-established process to manage the progress of technology initiatives involving multiple Department bureaus. It also lacks the ability to ensure that these bureaus exchange information effectively. These shortcomings pose perhaps the largest hindrance to the Department's ability to effectively address some long-standing communications and technology problems.

The key to facilitating good working relationships across bureaus and establishing effective management controls is the creation of a cross-functional, standing Technology Steering Committee (TSC) responsible for managing all technology and communications initiatives within the Department. The TSC should also provide to the MAP group, and the Planning Oversight Committee,[33] on a quarterly basis, up-to-date information on the initiatives' progress, impact and major obstacles.

The TSC should be comprised of one senior representative from each of the following bureaus and groups: Fire Operations, EMS Operations, Technology, Communications, and Administration. It should be led by an appointee of the

[33] The TSC will be the working committee for all technology related initiatives within the Department. (See planning recommendations section).

Commissioner and the Chief of Department. In addition, a technology-specific, project management group of three people should be created to support the TSC in managing these multiple initiatives.

The TSC's responsibilities can be broken down into two broad areas:

- Leading development of a long-term FDNY Technology Plan that includes technology initiatives.
- Managing the implementation of these initiatives using a standardized process.

1.1) Lead the development of a long-term Technology Plan

The TSC should be responsible for leading development of the Department's forward-looking Technology Plan and ensuring that all specific technology initiatives included in that plan support the operational requirements of the Department. The plan should cover a 5-year period and should be submitted via the MAP Group to the Planning Oversight Committee for incorporation into the Department's overall Plan. Specific steps in developing this plan include:

- **Assess and document the needs** of the Fire Department – primarily those of Fire and EMS Operations – that would be addressed by technology initiatives. Those defining these needs and initiatives should not feel constrained by what they perceive as technologically possible. They should let the needs drive the solutions. Once this is done, the needs can be compared to current technology capabilities to determine any gaps that must be addressed.
- **Act as a centralized clearinghouse** for internally generated ideas for technology initiatives, aggregating these ideas and including appropriate ones in the Technology Plan. This should be done by proactively seeking out Department members to get their needs and suggestions.
- **Define the Department's technology strategy**, which should be aligned with the operational needs and financial constraints of the Department, and prioritize the identified technology initiatives in accordance with that strategy. Document the strategy in the formal 5-year Technology Plan.
- **Annually develop and describe in detail** those portions of the Technology Plan that should be undertaken in the coming 12 months. Determine the key milestones, deliverables, responsibilities, and budget for that one-year period.

1.2) Manage implementation of initiatives using a standardized process

The TSC will be responsible for coordinating staffing of teams, along with managing and tracking the progress of all technology initiatives in the Department. Bureaus that are involved in evaluation, acquisition and deployment of initiatives will use TSC as a mechanism to help them agree upon their specific responsibilities, milestones, deliverables and resource commitments. TSC will ensure that the responsibilities and commitments of individuals and bureaus are documented for all parties, explained to them and understood by them.

TSC should standardize the process for managing technology initiatives in the Department. This will help ensure the initiatives can be successfully developed, tracked and pushed toward completion in an efficient and thorough manner. We recommend the following process that can be used for any initiative:

- **Describe needs to be addressed in detail.** The first step in developing an initiative is identifying the specific needs it will address. TSC should ensure that those undertaking a technology initiative perform this task.
- **Evaluate potential solutions.** Once these details are developed, TSC should work with appropriate bureaus to evaluate potential technology solutions through the issuance of RFIs and RFPs. As part of this process, TSC should ensure that input from all relevant bureaus is collected, documented and unambiguously articulated in the RFIs and RFPs. For instance, TSC could have bureaus fill out structured survey forms that allow them to easily offer this input. As RFIs and RFPs are developed, TSC should make sure that appropriate criteria are developed to evaluate the proposals resulting from them, with input from all relevant bureaus.
- **Choose and test solutions.** After all responses to RFIs/RFPs are fully evaluated, TSC should be closely involved in the process of deciding which solutions should be acquired or evaluated further. TSC should also put in place a structured process for conducting tests and pilots, including test/pilot planning, development of testing protocols, documentation and rollout.
- **Train personnel.** TSC should coordinate the design and implementation of training programs and procedures to support the deployment of new technology issued to FDNY personnel. TSC should ensure that bureaus commit adequate resources for training, that they create training timetables, materials, and a quality control process for all training programs.
- **Deploy solutions.** TSC should establish and document deployment plans for newly acquired solutions after testing and training has been completed. Deployment plans should include guidelines, checklists and

feedback forms. TSC should manage the deployment and provide a mechanism for collecting feedback and refining the use of the technology.

Throughout the implementation process, the TSC should provide periodic (e.g., monthly) updates to the MAP group, the Operational Planning Unit and the Planning Oversight Committee describing technology milestones achieved, the progress of ongoing initiatives (including deliverables by each bureau and individual) and any specific roadblocks that need resolution.

In addition, the TSC should develop and maintain relationships with external parties connected to technology initiatives (e.g., National Institute of Standards and Technology and the NYC Department of Information Technology and Telecommunications). It should participate in externally sponsored technology events such as symposiums and conferences, and should reach out to other fire departments and emergency services agencies to exchange information.

2) IMMEDIATELY ADDRESS URGENT NEEDS

At the same time the Department revamps the process for deploying and managing new technologies, we believe it must address a number of current needs right away. These fall into four broad areas:

1) Improve communications capabilities.

2) Improve the Department's ability to receive and disseminate critical incident information.

3) Give chief officers at incident scenes better ways to manage information and track personnel.

4) Improve EMS Operations' ability to track patients during incidents.

2.1) Improve communications capabilities

Fire and EMS personnel have experienced a variety of significant communications problems: the portable radios used in the World Trade Center response lacked more advanced features available in the marketplace; FDNY personnel often cannot communicate reliably in high-rise buildings, subways and tunnels; and EMS personnel face excess radio traffic due, in part, to the fact that two communications channels operate on the same frequency and personnel do not adhere strictly to communications protocols. The following recommendations address these issues.

2.1.1) Complete testing of UHF portable radios. The Department purchased new UHF portable radios in 1999, but has not deployed them. An unsuccessful deployment attempt occurred in early 2001.

While the Department still must evaluate important aspects of the performance of these new radios, they do have several features that could give them significant advantages over the currently deployed VHF portable radios. They support a larger number of channels, providing an opportunity to fit Fire, EMS and interagency channels, including NYPD channels, on the same radio. Their signals usually reach further inside structures, and they can be used in conjunction with the new Police Radio System now being deployed for the subways. All these features suggest that deployment of these radios could improve the communications capabilities of the FDNY, but only if they pass rigorous testing and evaluation.

We recommend that the Department continue to accelerate the testing and evaluation of the new radios. If the radios provide improved quality and reliability, the Department should deploy them. This will require the following six steps:

- Finalize the codification of FDNY operational communications needs and the related technology features of these radios. For example, decide which of the following two features is more important: increasing the power output of transmissions over the command channel vs. the corresponding decrease in the radio's battery life.
- Establish a detailed testing procedure and a comprehensive testing plan to determine if the radios meet FDNY's operational needs better than the current radios, without compromising personnel safety. The testing plan should ensure proper, rigorous documentation of the results of the tests.
- Based on the test results, decide whether to deploy the radios.
- If the radios fail the tests, seek alternative solutions, including issuing a new RFP. If they pass, update communications protocols and procedures as necessary to effectively deploy them.
- If the radios are deployed, develop and implement a comprehensive training plan that ensures FDNY personnel are fully aware of the features of the radios and know how to use them effectively.
- Deploy the radios into the field with appropriate performance tracking and feedback mechanisms.

We estimate that the accelerated testing and (potential) deployment of the new UHF radios throughout FDNY should not require additional external funding and could be completed within four months.

2.1.2) Improve communication capabilities in high-rises There are approximately 2,000 high-rise buildings[34] in New York City today. Field experience suggests that FDNY personnel can communicate reliably in just a fraction of these buildings.[35] To address this shortcoming, the FDNY should immediately evaluate, acquire and deploy equipment, together with the associated procedures and personnel training.

High-rise communications gaps can be addressed with the deployment of repeating infrastructure that receives, amplifies and retransmits radio communication signals to improve coverage. Repeaters that are portable, mobile (e.g., truck-mounted), or air-based (e.g., on a deployable balloon) may help mitigate in-building communications difficulties, but do not provide full coverage for high-rises. Stationary repeating infrastructure can support reliable communications in most cases if it is designed, installed and maintained properly. This kind of infrastructure can be installed inside or outside a building. We propose the Department pursue all of these options, but do it along two parallel and complementary paths.

- **Test and deploy portable, mobile and air-based repeaters.** FDNY should complete rigorous tests with portable, mobile, and air-based repeaters to develop and document guidelines for optimal use of this equipment (e.g., where to place the equipment for best coverage, which combinations of equipment types are most effective). FDNY should also develop an understanding of the limitations of this equipment. Once guidelines for optimal use of it are established, the Department should acquire appropriate equipment, train personnel to use it, and deploy it. We believe that deployment of portable or mobile repeaters by FDNY would cost approximately $1 million to $2 million[36] and could be completed within six months.
- **Pursue stationary communications infrastructure.** In addition to accelerating deployment of portable, mobile and/or air-based repeaters,

[34] High-rise buildings are defined here as all buildings seven stories and higher. Our recommendations for high-rise buildings should also be applied to other types of buildings such as large malls, hospitals, and jails. Shorter buildings with substantial underground areas should be treated similarly to high rises since FDNY communications in underground environments are also inadequate.

[35] Reliable in-building communications means clear point-to-point communications in nearly 100 percent of the building, even in the case of building power loss, fire, or partial destruction. The Department does not have a comprehensive view of how its radios perform in different kinds of buildings and, hence, does not have an exact estimate of the number of buildings where its personnel can communicate reliably. There is some anecdotal evidence suggesting that firefighters and officers would not be able to communicate effectively and reliably in most high-rises in the city.

[36] Estimate based on this formula: three repeaters (two portable and one mobile) for each of the Department's nine divisions

the Department must foster the deployment of stationary repeaters that will ensure that FDNY personnel and NYC's other first responders can communicate reliably in high-rise and other large buildings. Therefore, as the second path to effective high-rise communications, we recommend that the FDNY take three simultaneous steps.

- **Step 1: Require high-rises to support first-responder communications.** FDNY should develop and seek adoption of changes in the city building code requiring that all NYC high-rise and other large buildings, existing and new, support first-responder communications needs. The code should not mandate a specific technology or solution, but should require that minimum performance standards for communications are met. One possible solution could be installation of fixed, building-specific repeaters. The city should consider establishing a subsidy system to give incentives to owners of existing buildings to expedite compliance with the new building code. Such subsidies should be structured to reward speed of deploying equipment and cost-effectiveness. We estimate that deployment of this infrastructure for all high-rises in the city would cost approximately $150 million to $250 million[37] and could be implemented within three years.

- **Step 2: Evaluate the deployment of additional city-owned infrastructure.** It is possible that the most cost-effective way to ensure in-building high-rise radio coverage requires a mix of solutions. An alternative or complementary solution to building-specific solutions might be a citywide radio infrastructure that would be installed, owned and operated by the city or one of its agencies. Therefore, we recommend that FDNY develop and issue an RFI/RFP for building such an infrastructure. The RFI/RFP should be written so that the city may determine the capabilities and performance of this infrastructure, along with the costs to deploy and operate it, and the likely time necessary for deployment. The RFI/RFP should also allow for the possibility of purchasing new end-user radios,[38] including radios using different technologies and

[37] Estimate based on solution for NYC high-rise buildings above seven stories at the cost of $0.30-$0.60 per square foot.

[38] It could be the case that deploying citywide infrastructure and replacing all FDNY portable radios is more effective than retaining the current radios (or the UHF radios currently under testing). The Department should seek to understand the costs and benefits of both alternatives: deploying infrastructure compatible with its VHF or UHF radios and deploying infrastructure that would require replacement of all portable radios.

standards than the VHF and UHF radios currently owned by the FDNY.

- **Step 3: Seek ways to leverage the NYPD's infrastructure to meet FDNY's needs**. The FDNY should work together with the NYPD to explore whether and how the citywide communications networking infrastructure of the Police Department can be leveraged to support all or some of FDNY's communications needs. For example, the RFI/RFP mentioned above should determine whether a common NYPD and FDNY communications infrastructure would be more effective for the city, rather than two separate police and fire networks.[39] The FDNY should work with the NYPD to understand which facilities and assets (e.g., sites, towers, transport capacity, and power equipment) currently owned or operated by the NYPD can be easily shared with the FDNY in ways that would benefit both Departments – should the FDNY or the city decide to deploy additional network capacity.

2.1.3) Improve communications in the subways. Department personnel also have difficulty communicating via radio in subways. Portable repeaters could provide a limited, interim solution. However, firefighter and EMS communications in the system could be greatly improved with the completion of the Police Radio System (PRS) project, which is managed and funded by the Metropolitan Transportation Authority. This project enables two-way voice radio communication throughout the subway via UHF radios. The project has already covered a small portion of the subway, but important portions of the system will not be finished for at least 12 months and the entire project is not scheduled for completion until December 2004. FDNY preparedness would clearly benefit from earlier completion.

In order for FDNY to use the PRS system, it would have to replace its current VHF portable radios with UHF radios such as those that are now being tested. If this replacement takes place and if the Department elects to use the PRS system, it should have a deployment plan in place. As certain subway areas become operational, this deployment plan should provide for testing the new infrastructure to ensure its adequacy for FDNY use. The plan should also provide for development of procedures to communicate in upgraded subway areas and training of personnel to communicate effectively in the subway.

[39] While total cost of ownership is, of course, an important element to evaluate whether or not one or two networks are more effective, redundancy, reliability, and the ability of a common network to meet the different operational needs of both Departments are also important. It is possible that the optimal solution is neither two separate networks nor a single one, but two networks that share multiple elements.

2.1.4) Improve communication in tunnels. The tunnels pose a different problem. FDNY units currently cannot communicate with the Dispatch center by voice or by Mobile Data Terminal as they pass through many of them. FDNY should expeditiously implement a satisfactory communication solution for voice and data communications in tunnels. Such a solution should provide virtually ubiquitous coverage throughout the tunnel – both between units and Dispatch and point-to-point (handie talkie) communications within the tunnels. This solution should also be redundant in case of a major impact on the tunnel (e.g., partial destruction, power loss).

For the four major auto tunnels (Battery, Holland, Lincoln and Midtown), the Department should approach the MTA and the Port Authority of New York and New Jersey to coordinate the evaluation, acquisition, deployment, and maintenance of communications options available to ensure reliable communications in the tunnels. If a tunnel's oversight agency lacks resources to implement such solutions, FDNY should seek to facilitate the technology acquisition and implementation processes, while closely coordinating all steps with that agency.

Before solutions are implemented, FDNY should develop a deployment plan that involves testing, updating relevant protocols and procedures, and personnel training.

The Department estimates that installing stationary solutions in the four major tunnels would cost about $6 million[40] and could be implemented within 12 months.

2.1.5) Determine the most effective EMS radio channel deployment. One of the issues highlighted on September 11 was the potential for congestion on the EMS command channel, which hindered the EMS leadership's ability to conduct effective radio communication. This situation was due to three factors: 1) the overlapping frequencies between the command and citywide channels that result in all citywide traffic also being heard on the command channel; 2) a breakdown in radio communications protocols; and 3) the increased radio traffic due to the size and complexity of the response.

The Technology Steering Committee should establish the criteria and conduct a detailed evaluation with EMS Operations to determine EMS radio channel needs. One major question for this evaluation is whether to deploy a separate, dedicated command channel and/or an additional citywide channel to support multiple casualty incidents. Deployment of additional radio channels would require a

[40] Estimate based on proprietary solution for FDNY in four major tunnels, including dedicated radiax cable, necessary radio/electronic and connectivity equipment, and construction of equipment rooms.

comprehensive implementation program, including a new radio configuration (e.g., adding the additional channel), an update of protocols and procedures, testing, training, and a field deployment plan.

In addition to re-evaluating its radio channel needs, EMS should place a major emphasis on enforcing radio discipline and should also explore alternatives for leveraging its existing Mobile Data Terminals (MDTs) to minimize radio traffic congestion.

2.2) Improve the Department's ability to receive and disseminate critical incident information

The second set of FDNY's urgent communications needs involves how it receives critical information about an emergency incident and then disseminates that information to the appropriate personnel. The events of September 11 highlighted the importance of this information sharing within FDNY and among the city's other public safety agencies. The FDNY has already taken an important step by working with the NYPD on protocols to put an FDNY chief officer in a police helicopter when the FDNY feels it would be helpful to manage incidents. The two departments are also exchanging liaison officers and conducting regular meetings of senior NYPD and FDNY personnel. However, more needs to be done. The FDNY should focus its immediate attention on improving information flows in three key areas: 1) receiving aerial surveillance information such as video and audio feeds, from NYPD and media helicopters, 2) streamlining information flows within EMS Dispatch; and 3) ensuring that the FDOC can reliably communicate with other responding agencies.

(While these steps would bring substantial benefits to the FDNY, resolution of the fundamental issues related to information flow among agencies requires an enhanced approach to inter-agency coordination. Part III of this report discusses these coordination issues in greater detail.)

2.2.1) Receiving aerial surveillance. FDNY should seek the ability to receive audio and video feeds from NYPD and media helicopters. These would be made available to the Incident Commander (in the Mobile Command Center, Field Communication Units or elsewhere) and the Fire Department Operations Center (FDOC). This would require formal agreements with the NYPD and local media companies. These agreements should include voice and data communications links between the helicopters and the FDNY. For instance, the helicopter radios might be equipped with channels that allow the FDNY incident commander to request that the pilot offer a specific aerial perspective.

Once such agreements are finalized, FDNY should acquire necessary receiving equipment, update relevant protocols and procedures, and develop a

comprehensive joint training plan that ensures all parties involved know how to work together effectively and that FDNY's chiefs are fully aware of new information flow capabilities available to them, and know how and when to use them effectively. Throughout this process, FDNY should seek input from other fire departments that have already deployed such capabilities in coordination with other agencies.

2.2.2) Streamlining information flows in the EMS Dispatch center. Another issue highlighted by September 11 was the fact that the current organization of EMS Dispatch impedes operators from effectively handling unusually large amounts of information that are likely to emerge from large incidents. Currently, operators have multiple responsibilities, so that when an incident reaches a certain size, the massive flow of information overwhelms them. Therefore, they are not able to synthesize and disseminate information effectively. In addition, operators work in separate areas of the EMS Dispatch Center with little or no ability to integrate information they receive from different sources.

The FDNY is nowre-evaluating the organization of EMS Dispatch. It is working on a pilot program that will test a new configuration for EMS Dispatch, similar to the model used by Fire Dispatch. This will help resolve the question of whether EMS operators should continue to perform multiple tasks or should focus on specific, functionally defined tasks.

2.2.3) Communicating with other agencies. The FDNY needs to ensure that it can effectively and rapidly communicate with other agencies, such as the NYPD, over the radio and over existing data networks. For instance, the FDNY should ensure that SPRINT data messages sent between NYPD and EMS are instantaneously copied to the Fire Department Operations Center as a backstop. The FDOC should also monitor NYPD radio communications on key channels.

2.3) Give chief officers at incident scenes better ways to manage information and track personnel

The FDNY's third group of urgent technology need involves giving chief officers the ability to quickly and reliably locate personnel at any point in time, and improving the functionality and flexibility of the Department's command boards.

It is important for FDNY leadership to know whether an FDNY member is on duty and whether he/she is deployed to a certain incident. Ideally senior FDNY chiefs should also be able to know where this member is located throughout the incident area. There are two steps that, if taken immediately, could allow the Department to materially improve its personnel tracking capabilities.

2.3.1) Ensure discipline on the company level. Beyond addressing discipline issues related to staging and recall, FDNY should take steps immediately to ensure that officers enter reliable information into on-duty databases and riding lists, and that names on riding lists always correspond to the people riding the apparatus. In addition, the Department should explore alternatives to make this entry process more efficient and simple by setting up easy-to-use software in firehouse PCs. The Technology Steering Committee should also evaluate adding new capabilities to Mobile Data Terminals (MDTs) that would allow Fire personnel to log in and log off from their apparatus.

2.3.2) Evaluate and, if appropriate, deploy electronic command boards. The events of September 11 highlighted the need for FDNY to replicate and store up-to-date deployment information. This might be done by replacing the Department's magnetic command boards with electronic boards equipped with wireless transmission equipment. However, it is unclear whether currently available wireless technology and infrastructure is reliable and robust enough for use by the Department. For instance, it is unknown if the infrastructure would continue to operate properly during most major incidents and how well it would operate from inside high-rise buildings and other structures.

Nonetheless, portable PC-based electronic command boards have much greater functionality than magnetic boards. These boards could help communications coordinators and operations chiefs with their tracking, communications and tactical coordination tasks. For example, PC-based boards can store and display maps and multiple building plans. This could enable chiefs to look at structural and electrical characteristics of high-rises and zoom into specific floors or building areas. PC-based boards could also store detailed hazard lists and FDNY procedures.

The TSC should coordinate development of an RFP for electronic command boards. It should evaluate the boards' functionality separately from the capabilities and costs of backing up and updating deployment information through wireless connections.

As with all other technologies, if the Department decides to acquire electronic command boards, it should update relevant protocols and procedures and develop a comprehensive training plan that ensures that the chiefs are fully aware of the features of the boards and know how to use them effectively.

Our estimates show that implementation of electronic command boards throughout FDNY would cost approximately $500,000 to $1 million.[41]

2.4) Improve EMS's capability to track patients during large-scale incidents

This is the fourth area of urgent communications and technology needs. The events of September 11 highlighted the need for EMS Operations to have a flexible patient-tracking process that can aggregate, verify, and disseminate patient-tracking information during large-scale incidents. There are several technology solutions that could help automate the process of tracking patients and accurately capture patient information. EMS Operations should work with the Technology Steering Committee to evaluate the deployment of such a technology and the associated processes and infrastructure.

If the Department decides to change its patient tracking process, it should coordinate this work with other medical care providers in the region, such as hospitals and private ambulance services. This new tracking system should be formalized and become part of an official agreement among the relevant entities, including voluntary and community-based ambulance operators and hospitals, with each having clear functions and responsibilities. Once such an agreement is established, the TSC and EMS Operations should develop detailed internal protocols and procedures for patient tracking.

We estimate the total cost of enabling EMS to track patients more accurately is $2 million to $4 million.

[41] Estimate based on one command board per battalion (including cost of software installation and provisioning of initial wireless connectivity).

Enhance the system to provide support services to families and members

FDNY's support services to families and members include notifying specified emergency contacts of a Department member who is injured, killed or missing on duty, and providing counseling services to affected families and other Department members. These are important priorities for the Department. Traditionally, the FDNY support infrastructure was established to function in incidents with few casualties. This system was sufficient before September 11. The events of that day created a need for family and member support services vastly greater than the capabilities of the existing system. As a result, we recommend that the Department establish a flexible infrastructure and process that enables it to provide these services efficiently and reliably should such a large-scale need ever arise again.

The foundation of this new system will be a Support Services Committee that will create and manage the new system. The committee should be a permanent, cross-functional group. It should be comprised of one senior representative from each of the following FDNY bureaus and groups: Fire Operations, EMS Operations, Bureau of Health Services (Counseling), Family Assistance, Personnel, the MAP Group, and Technology. An appointee of the Commissioner and the Chief of Department should lead it.

The committee would be responsible for creating and maintaining the necessary infrastructure, including up-to-date emergency contact names for all FDNY personnel, lists of peer counselors, and information on specialized service providers that could be activated by the Department in different scenarios. It should also ensure that the necessary communications infrastructure is put in place to carry out support services in case of large incidents.

The committee would also define and supervise the process used to provide family and member support services, including deployment plans for FDNY personnel and external personnel resources. It would act as a central point of contact for internal and external inquiries related to support services and it would mobilize quickly to manage family and member support services during a large-scale incident.

Over the last two months, an internal FDNY taskforce has started to develop guidelines for the emergency activation of the Support Services Committee, family notification, external communications (e.g., answering phone calls during

and immediately after large-scale incidents), peer counseling and family counseling.

We recommend that the Support Services Committee complete these guidelines and immediately develop and deploy detailed, well documented procedures. We believe these procedures could be completed and deployed within four months. As it further develops the guidelines, the committee should seek input from the Family Advisory Board and the unions.

PART III

ADDITIONAL ISSUES TO BE ADDRESSED

Additional issues to be addressed

The recommendations in this report focus on changing internal FDNY procedures, technology, management processes and organization to better prepare for major incidents. However, we believe the Department cannot do the critical job of enhancing preparedness alone.

To truly improve New York City's preparedness, the city or state must establish an enhanced coordination process that encourages government agencies to plan and execute their response to major incidents together.

This coordination would give decision makers a comprehensive view of the capabilities and responsibilities of *all* relevant agencies. It would give them a common perspective on the types of threats, the level of threats, the potential consequences, and the ability of responding agencies to mitigate those threats and their consequences.

The coordination would also offer a number of specific benefits, including establishment of compatible incident response procedures, and the deployment of improved, citywide emergency response plans. It would also help the FDNY expand its hazmat capabilities and re-evaluate its marine and heavy rescue capabilities, a recommendation discussed in the Operational Preparedness section of this report.

ESTABLISHMENT OF COMPATIBLE PROCEDURES

An enhanced inter-agency planning process would give agencies a greater ability to identify, discuss and resolve important tactical issues, establish compatible procedures, and improve communication. Ideally, all agencies that might take part in the response to emergencies in the city would participate in and be committed to this process and its results. It will probably take time to create the process given the potentially large number of agencies involved, including the FDNY, NYPD, city Office of Emergency Management, the Port Authority of New York and New Jersey, the FBI, the Federal Emergency Management Agency, the U.S. Departments of Justice, Defense and Energy, the Environmental Protection Agency and the Homeland Security Agency.

It is particularly crucial and urgent to improve the coordination between the FDNY and the NYPD. Commissioners Scoppetta and Kelly have taken positive first steps to improve the coordination and cooperation between the two departments. But more needs to be done. For instance, the FDNY, NYPD and other agencies should seek to:

- Create common command and control structures and terminology, and agree on the roles and responsibilities of each agency for managing the response to any incident, in accordance with ICS principles.
- Deploy interoperable communications infrastructures and protocols to improve response coordination and the exchange of information among agencies.
- Improve the flow of vital information among agencies to ensure it is clear and unambiguous, appropriately prioritized, and reaches the appropriate parties in a timely fashion during incidents and in day-to-day operations.
- Plan and execute joint training exercises and evaluate these exercises together to ensure that agencies can and will cooperate effectively during incidents, e.g., by operating under a unified command and control structure.
- Ensure that agencies exchange information on traffic to minimize gridlock and facilitate access to incident areas by emergency services vehicles and personnel.
- Establish processes to enforce security at incident sites quickly and efficiently, including a credentialing system adequate for first responders in incident areas.

DEPLOYMENT OF IMPROVED EMERGENCY RESPONSE PLANS

In addition, an enhanced inter-agency planning process would help agencies develop and deploy more detailed, consistent and complete citywide emergency response plans for different types of threats and hazards. These plans would:

- Clearly define the roles and responsibilities of different local, state and federal agencies, including the level and type of response they would be expected to deploy under different scenarios.
- Ensure that an appropriate agency is assigned responsibility for every important element of the emergency response plan, and ensure that each agency receives ample resources to meet its responsibilities.
- Serve as a blueprint for joint training exercises.

EXPANSION OF HAZMAT CAPABILITIES

As mentioned earlier in this report, there are a number of plausible scenarios for attacks involving radiological, chemical, and biological agents, and/or multiple,

simultaneous incidents, either on land or over water. Many of these could require hazmat and other special operations resources well beyond the FDNY's current capabilities.

An enhanced inter-agency coordination process would help ensure that the FDNY and all agencies likely to be involved in hazmat incidents understand each other's responsibilities, have the resources necessary to meet those responsibilities and respond to incidents cohesively and effectively.

* * *

The attack on the World Trade Center has created a new urgency for the Department to make improvements in its preparedness. We believe that, if the recommendations in this report are implemented, they will help protect civilians and firefighters from injury and loss of life, and will minimize property damage, if the city ever again has to face a crisis like it did on September 11.

Exhibit 1

FDNY PARTICIPATION ON COMMITTEES AND TASKS FORCES

Steering Committee
- Nicholas Scoppetta
- Salvatore Cassano
- Thomas Fitzpatrick
- Raymond Goldbach
- Jerry Gombo
- Peter Hayden
- Susan Magazine
- Robert McCracken
- Daniel Nigro
- Joseph Pfeifer
- Stephen Rush
- Don Shacknai
- Douglas White
- Michael Vecchi

CWTC Review Group
- Nicholas Scoppetta
- Joe Callan
- Salvatore Cassano
- Frank Cruthers
- Stanley Dawe
- Louis Garcia
- Raymond Goldbach
- Jerry Gombo
- Frank Gribbon
- Allen Hay
- Peter Hayden
- Edward Kalleta
- Robert McCracken
- Daniel Nigro
- Joseph Pfeifer
- Don Shacknai
- Ronald Spadafora
- Michael Weinlein

Planning Task Force
- Andrea Allocca
- Thomas Fitzpatrick
- Peter Hayden
- John Peruggia
- Joseph Pfeifer
- Michael Vecchi
- Nicholas Scoppetta*

Resource Management Task Forces
- James Basile
- Zach Goldfarb
- Ulysses Grant
- Peter Hayden
- Lynn Lee
- Tom McDonald
- Fred Novello
- Joseph Pfeifer
- Joe Ramos
- Richard Rotanz
- Robin Sutton
- Michael Vecchi
- Nicholas Scoppetta*

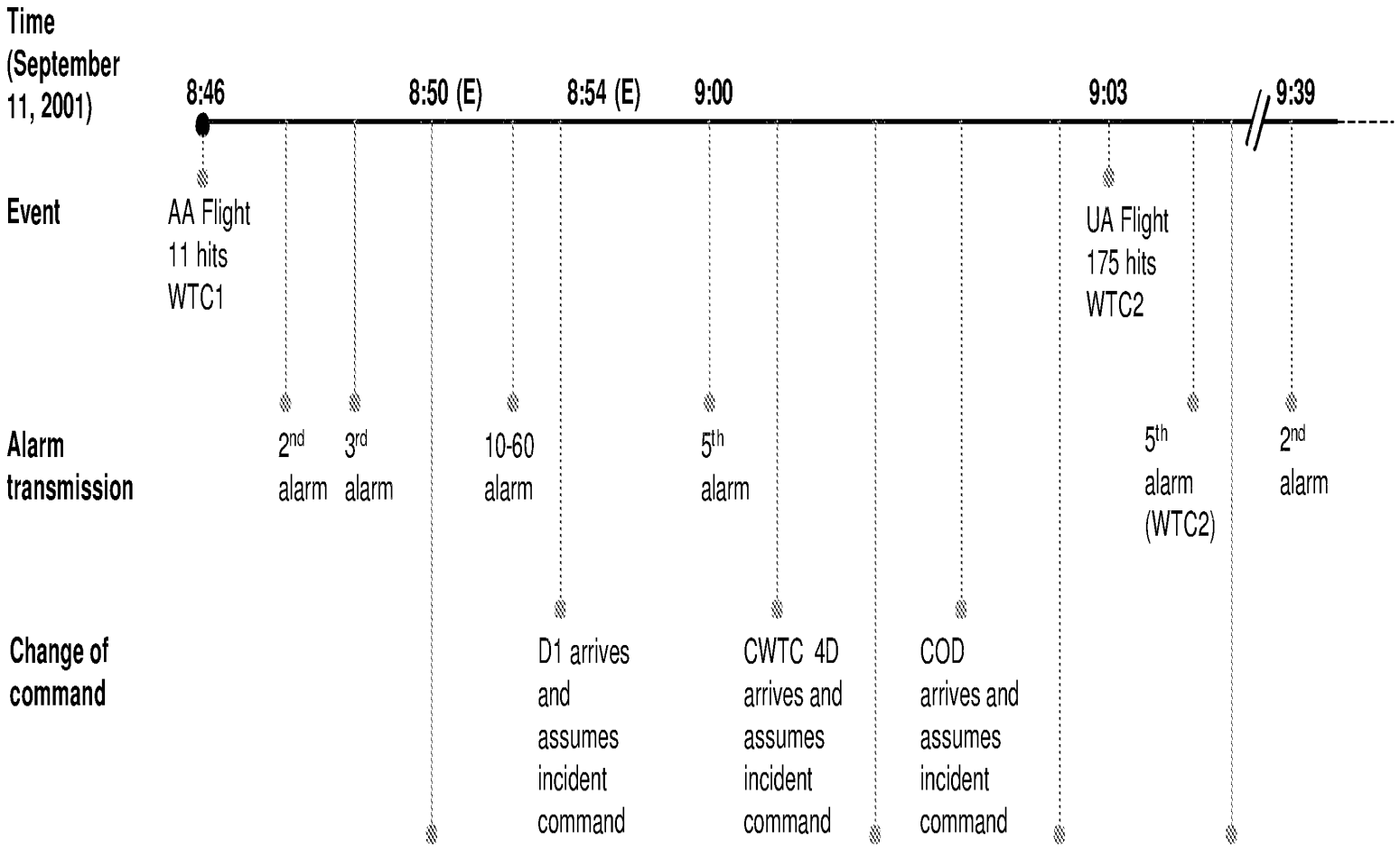
ICS Task Force
- Zach Goldfarb
- Peter Hayden
- Walter Kowalczyk
- George Maier
- John Peruggia
- Joseph Pfeifer
- Richard Rotanz
- Michael Weinlein
- Nicholas Scoppetta*

Support Functions Task Force
- Salvatore Cassano
- Malachy Corrigan
- John DeLendick
- Raymond Goldbach
- Sherry Kavaler
- Kerry Kelly
- Susan Magazine
- Robert McCracken
- Edward Moriarty
- Stephen Rush
- Nicholas Scoppetta*

Technology Task Force
- James Basile
- John Coloe
- Frank Cruthers
- Stan Dawe
- Tom Galvin
- Steve Gregory
- Pete Hart
- Pete Hayden
- Jim Hodgens
- George Hough
- Harold Meyers
- Joe Nardone
- Joseph Pfeifer
- Patrick Savage
- Don Stanton
- Mike Stein
- Jim Wendling
- Harry Werner
- Justin Werner
- Nicholas Scoppetta*

* Particiapnt ex-officio

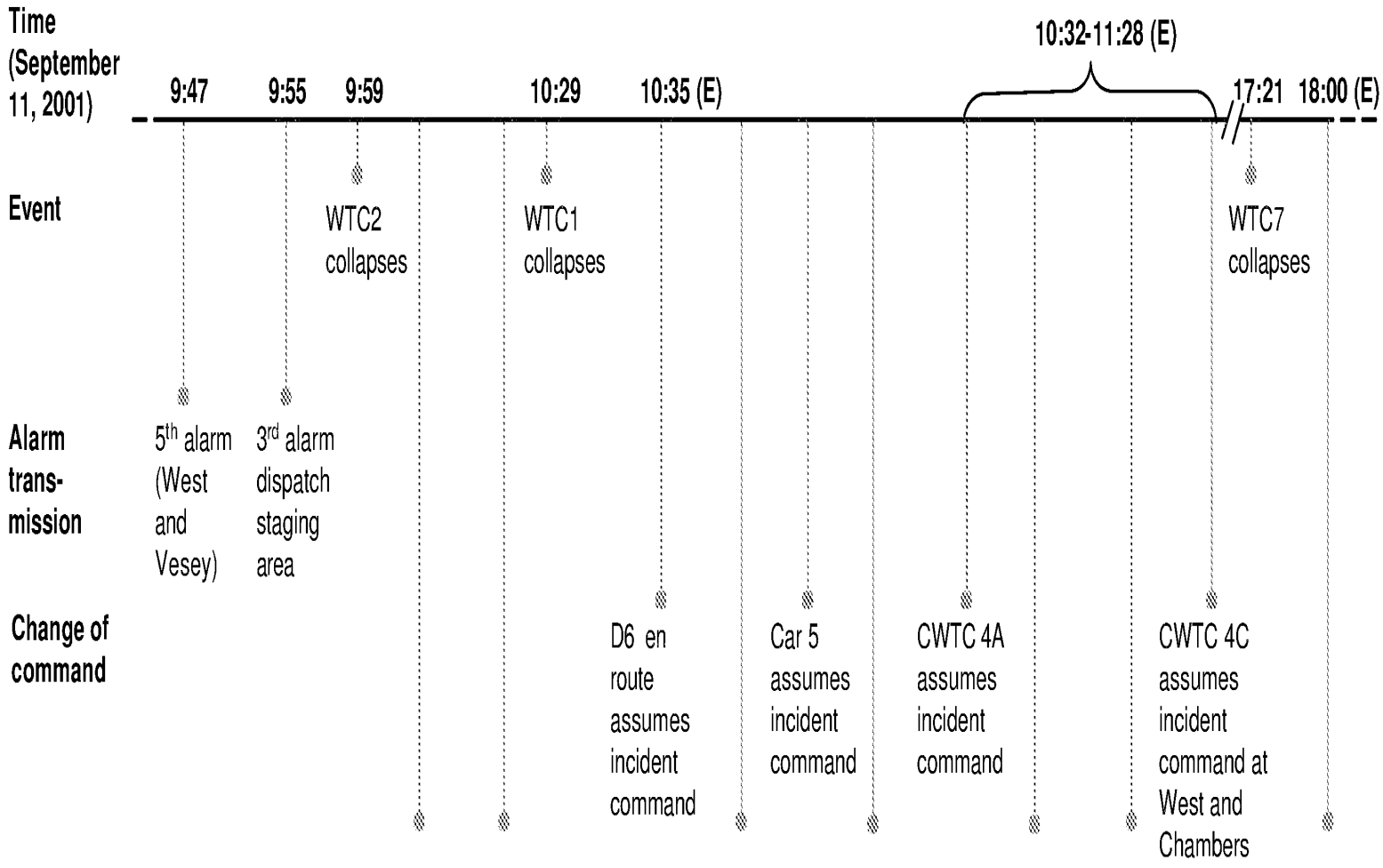
Exhibit 2
FIRE OPERATIONS COMMAND AND CONTROL TIMELINE



Command post status	Established in WTC1 lobby by B1	D1 recommends remote command post operation	Established on West St opposite WTC1 by COD	CWTC 4B establishes operating post in WTC2	

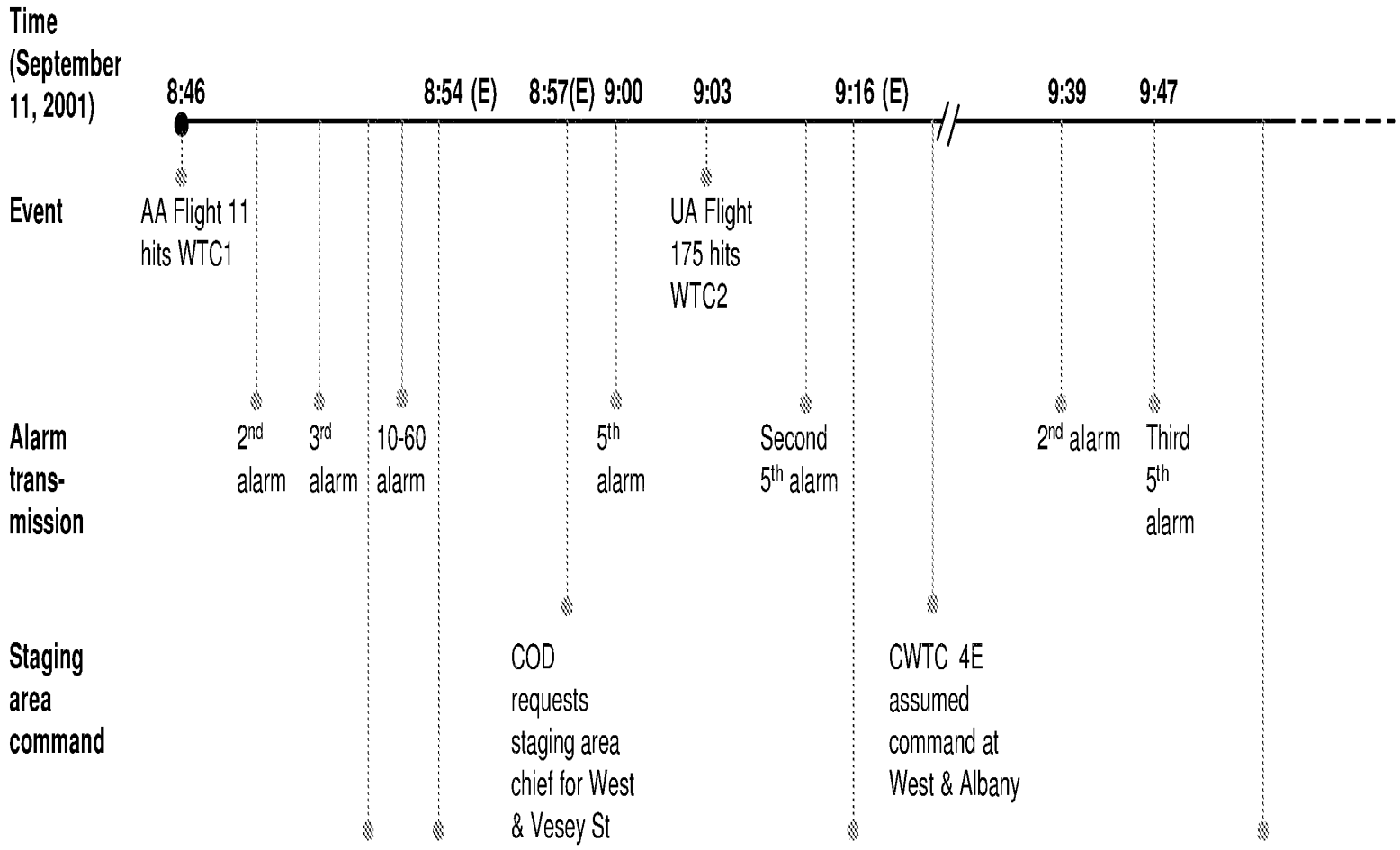
Note: E= Estimated, B = Battalion Chief, D = Division Chief, CWTC = City Wide Tour Commander, COD = Chief of Department
Source: Dispatch tapes and transcripts, interviews

Exhibit 2
FIRE OPERATIONS COMMAND AND CONTROL TIMELINE (CONTINUED)



Note: E = Estimated, D = Division Chief, Car 5 = Executive staff designation, CWTC = Citywide Tour Commander
Source: Dispatch tapes and transcripts; interviews

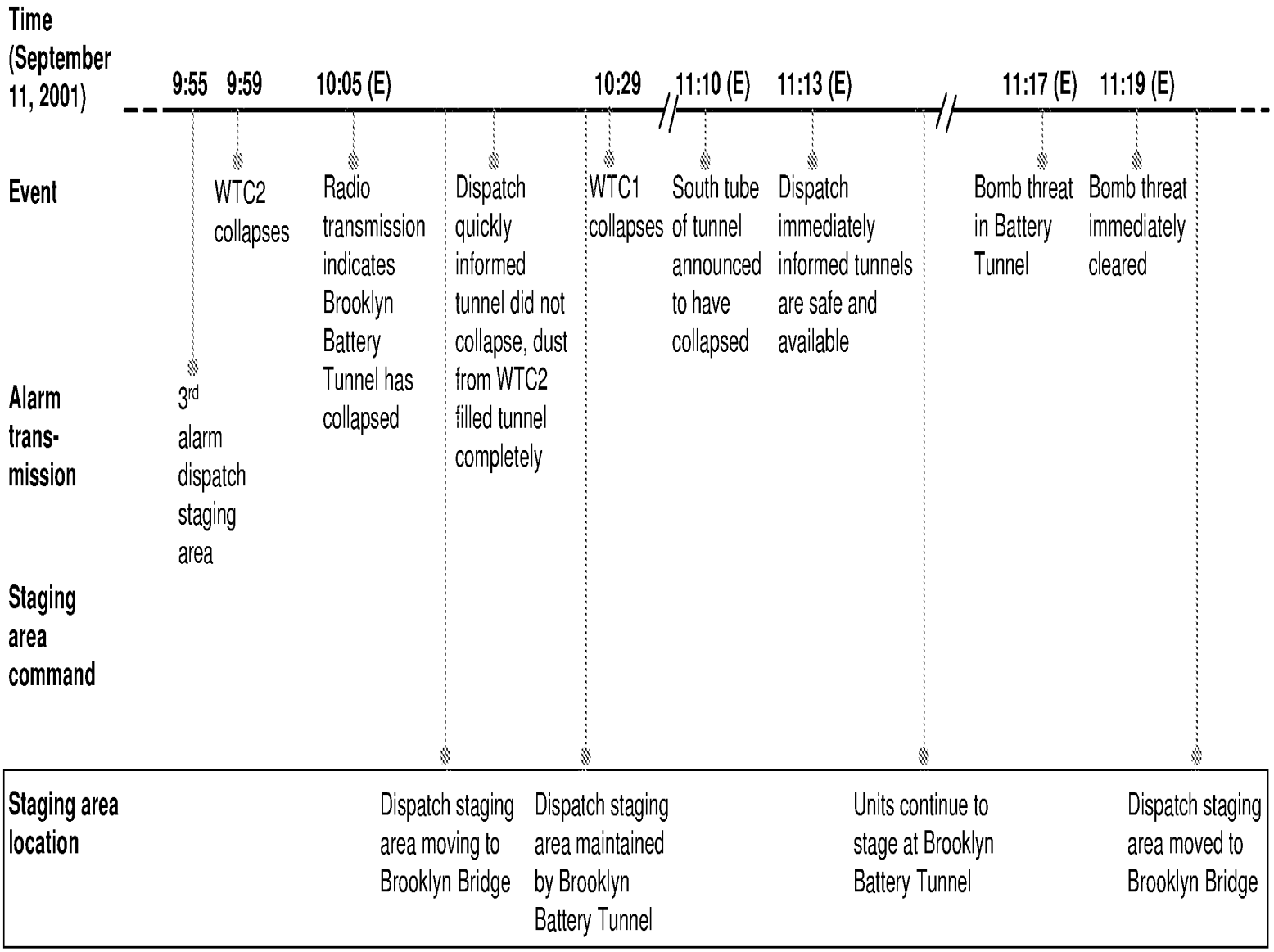
Exhibit 3
FIRE OPERATIONS STAGING TIMELINE



Note: E= Estimated, CWTC = City Wide Tour Commander; COD = Chief of Department

Source: Dispatch tapes and transcripts; interviews

Exhibit 3
FIRE OPERATIONS STAGING TIMELINE (CONTINUED)



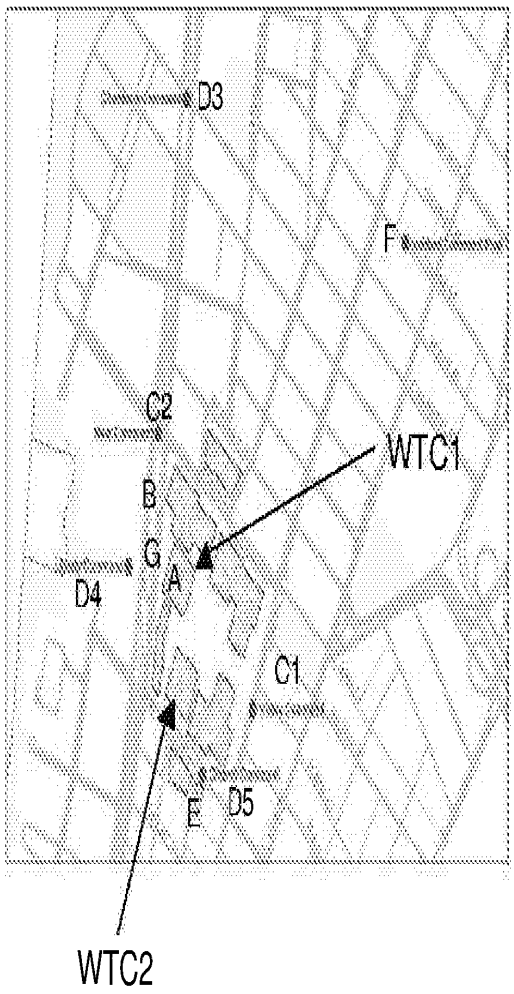
Note: E = Estimated

Source: Dispatch tapes and transcripts, interviews

Exhibit 4

FIRE AND EMS COMMAND POST LOCATIONS

Time	Incident command post location	Code
8:50 a.m.	WTC1 Lobby	A
9:03 a.m.	West St	B
10:35 a.m.	Park Row & Vesey	C1
	West & Vesey	C2
11:10 a.m.	Park Row & Vesey	C1
	West & Vesey	C2
	West & Chambers	D3
	Liberty	D4
	Church	D5
11:28 a.m.	West & Chambers	D3
6:00 p.m.	West & Vesey	C2
9/14	E10/L10	E
9/15	Duane St	F



Time	EMS command post location	Code
8:53 a.m.	Outside WTC1	G
9:08 a.m.	WTC1 Lobby	A
9:23 a.m.	West St.	B
11:00 a.m.	West & Chambers	D3

Source: Dispatch tapes; Interviews; FDNY Phoenix Unit Geographic Information Systems

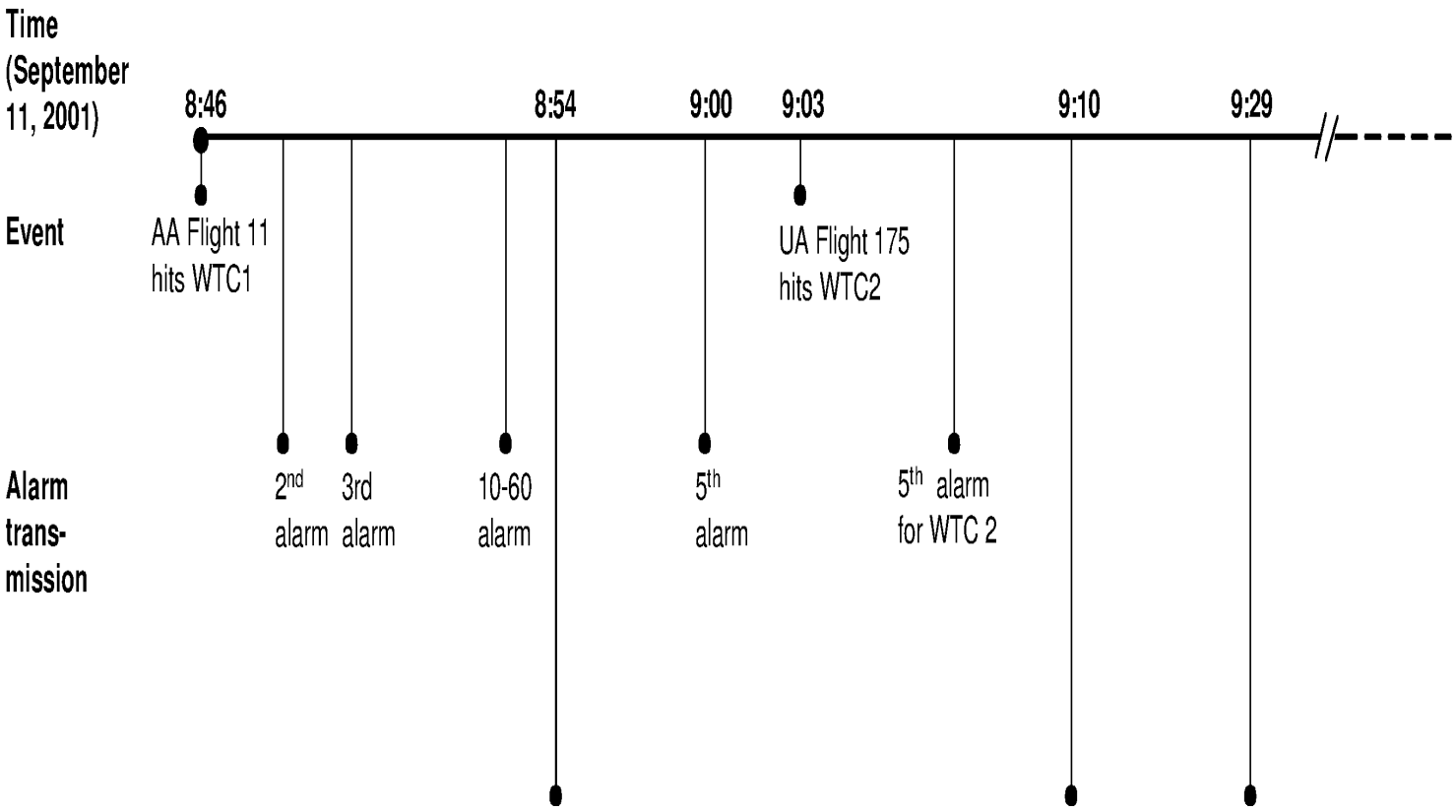
Exhibit 5

EXAMPLES OF POST-COLLAPSE COMMUNICATIONS INVOLVING FIRE OPERATIONS COMMAND AND CONTROL

Source	Example
Dispatch tapes	**Car 5:** "Dispatch – we are trying to re-establish a command post at West and Vesey. Notify any department officials." **Dispatch:** "Car 5 be advised Division Chief is establishing a new command post at Park Row and Vesey." **Car 5:** "Dispatch see if you can get Division Chief over here." *– Exchange between Car 5 and dispatch (10:43)*
	Chief: "Dispatch – we have a command post at Liberty with Division Chief X, command post at Church St. with Battalion Y. Have units stage at Park Row and Vesey" *– Chief to Dispatch (11:17)*
	Fieldcom: "Dispatch – by orders of car 4C the command post is West and Chambers. All units to report to West and Chambers." **Dispatch:** "Field Com, I already have 4 command posts, I need one overall post to send resources to. Which is it?" **FieldCom:** "By order of Car 4C this is the primary command post." *– Exchange between Dispatch and Field Com (11:25)*
Interview quotes	**Division Chief:** "We just set up a command post to try to manage what we could physically see in front of us."
	Battalion Chief: "We were not sure what was going on, we tried to establish command where we were."
	Division Chief: "I knew if I wandered up West St. I would eventually run into the command post."
	Division Chief: "After the collapse, there was a natural flow towards chiefs, but we didn't know where the command post was supposed to be."

Source: Dispatch tapes; interviews

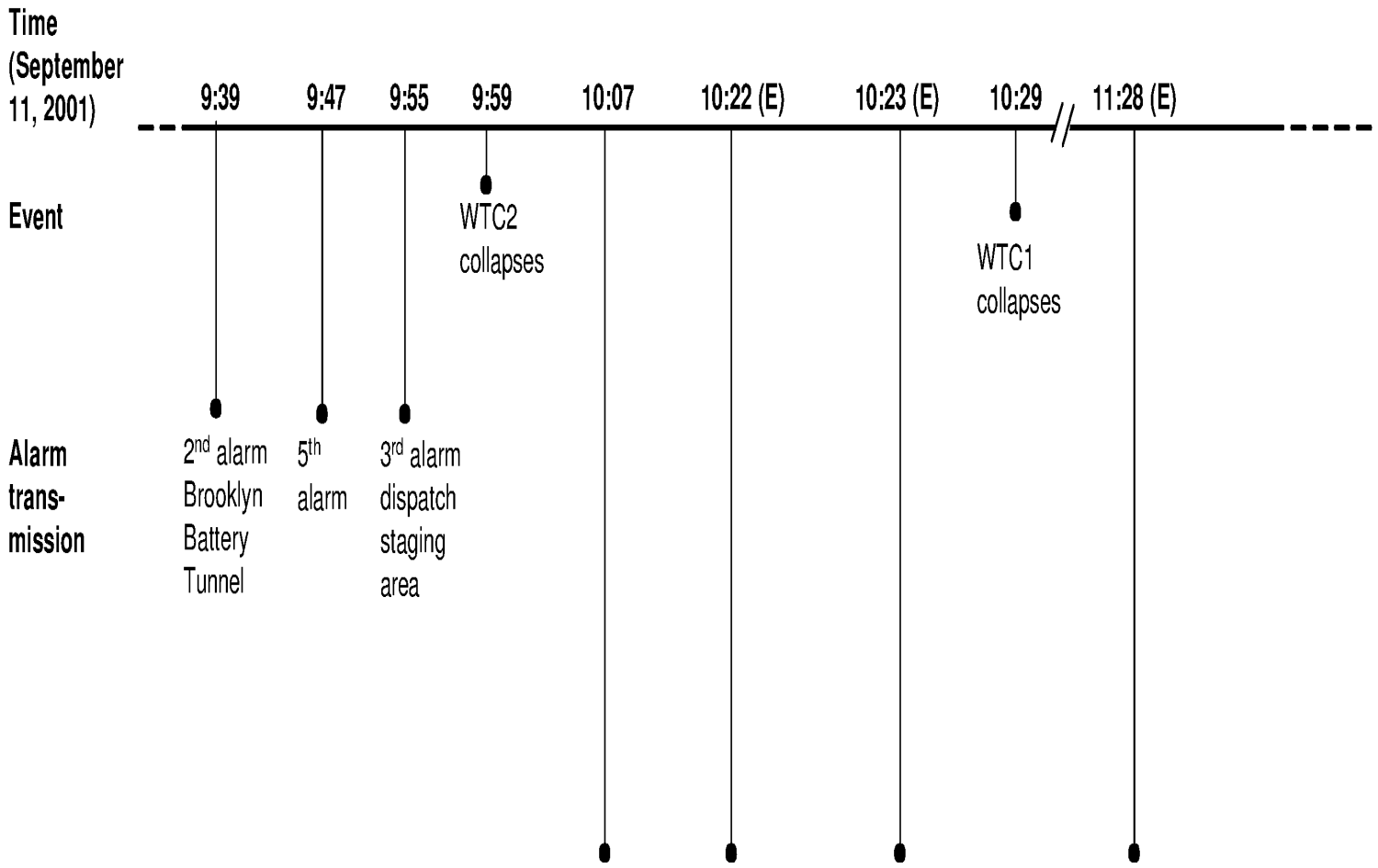
Exhibit 6
FIRE OPERATIONS RESOURCE DEPLOYMENT TIMELINE



* Special operations units include Hazmat, rescue, high rise, field com, tactical support, squads

Source: Dispatch tapes and transcripts; interviews

Exhibit 6
FIRE OPERATIONS RESOURCE DEPLOYMENT TIMELINE (CONTINUED)

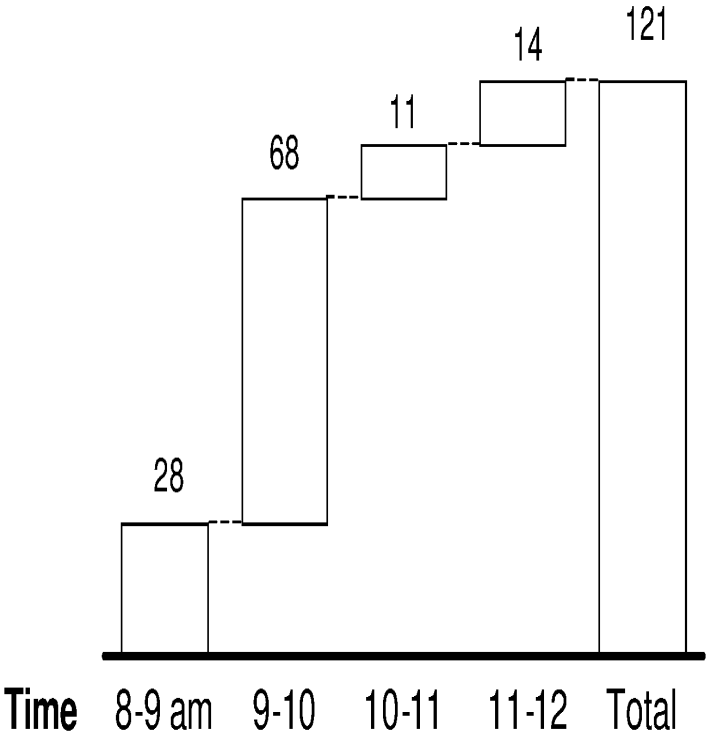


Source: Dispatch tapes and transcripts; interviews

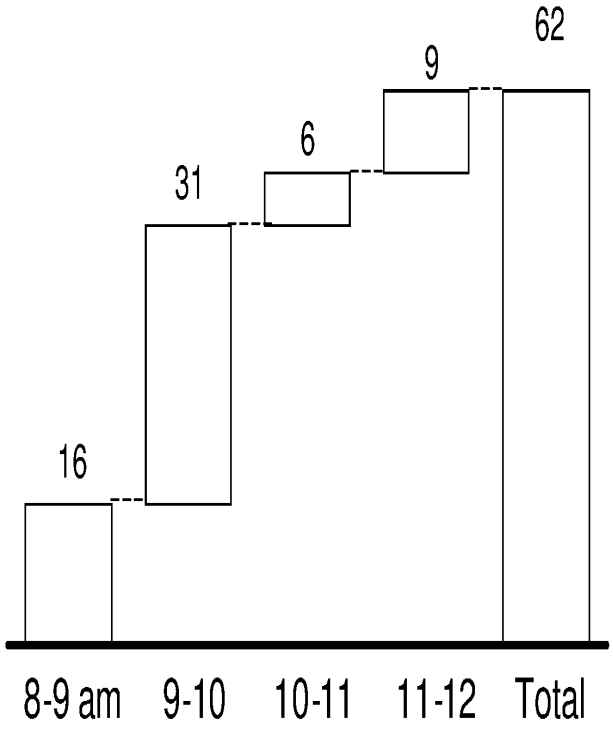
Exhibit 7

FIRE APPARATUS DEPLOYMENT ON SEPTEMBER 11

Number of engine companies deployed*



Number of ladder companies deployed



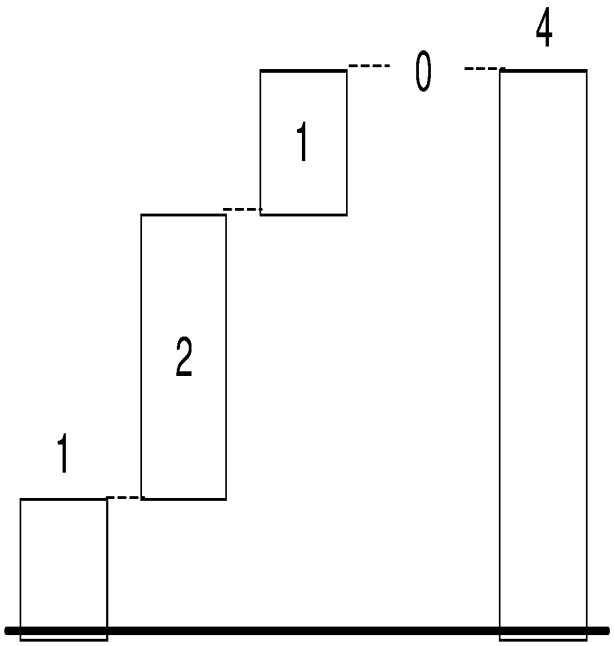
* Includes squad companies

Source: Dispatch transcripts

Exhibit 8

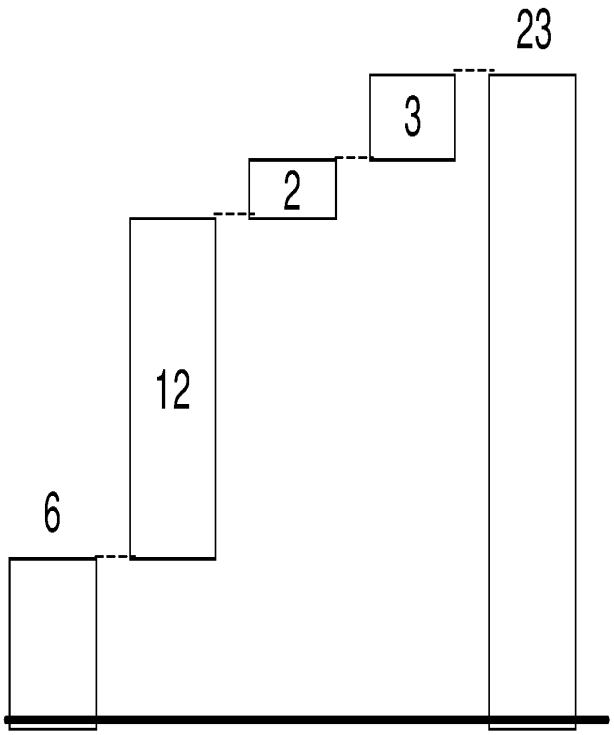
FIRE CHIEF DEPLOYMENT ON SEPTEMBER 11

Number of Division Chiefs deployed



Time	8-9 am	9-10	10-11	11-12	Total
Chiefs available for city wide coverage	8	6	5	5	

Number of Battalion Chiefs deployed



8-9 am	9-10	10-11	11-12	Total
43	31	29	26	

* The total number of Division and Battalion Chiefs on duty at any one time is 9 and 49 respectively

Source: Dispatch transcripts

Exhibit 9

EXAMPLES OF INITIAL RESPONSE OF OFF-DUTY FIRE OPERATIONS PERSONNEL

Engine companies	Dispatch time	Number of assigned members	Actual number of members responding
E 6	8:47	5	7
E 33	8:48	6	7
E 229	9:10	5	7
E 5	9:14	6	8
E 233	9:23	5	7

Ladder companies	Dispatch time	Number of assigned members	Actual number of members responding
L 15	8:47	6	7
L 3	8:53	6	10
L 18	9:00	6	7
L 2	9:08	6	8
L 102	9:10	6	10

Source: CD-15s, SOPs

Exhibit 10

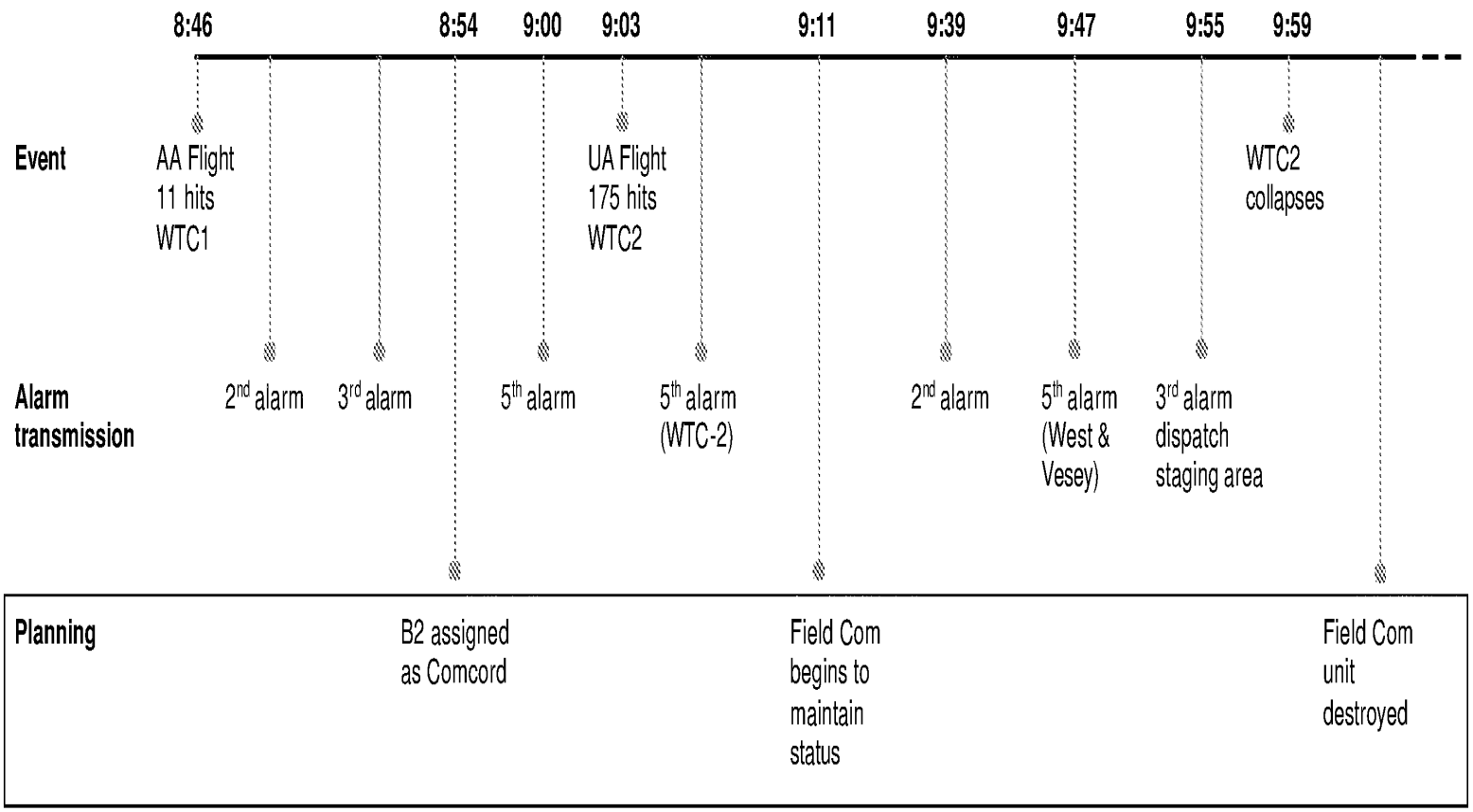
DEPLOYMENT OF FIRE SPECIAL OPERATIONS UNITS

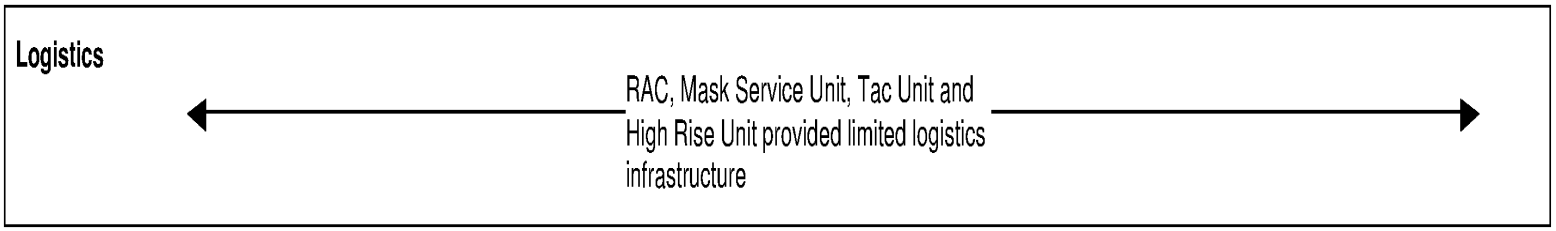
Unit types	Number of units available	Number of units deployed to WTC
Hazmat	1	1
Rescue	5	5
High rise	2	2
Mobile command center (MCC)	1	1
Squads	7	6
Tactical support	2	1
Satellite	5	3
Field communications	1	1

Source: Dispatch tapes and transcript; unit location chart; SOPs

Exhibit 11

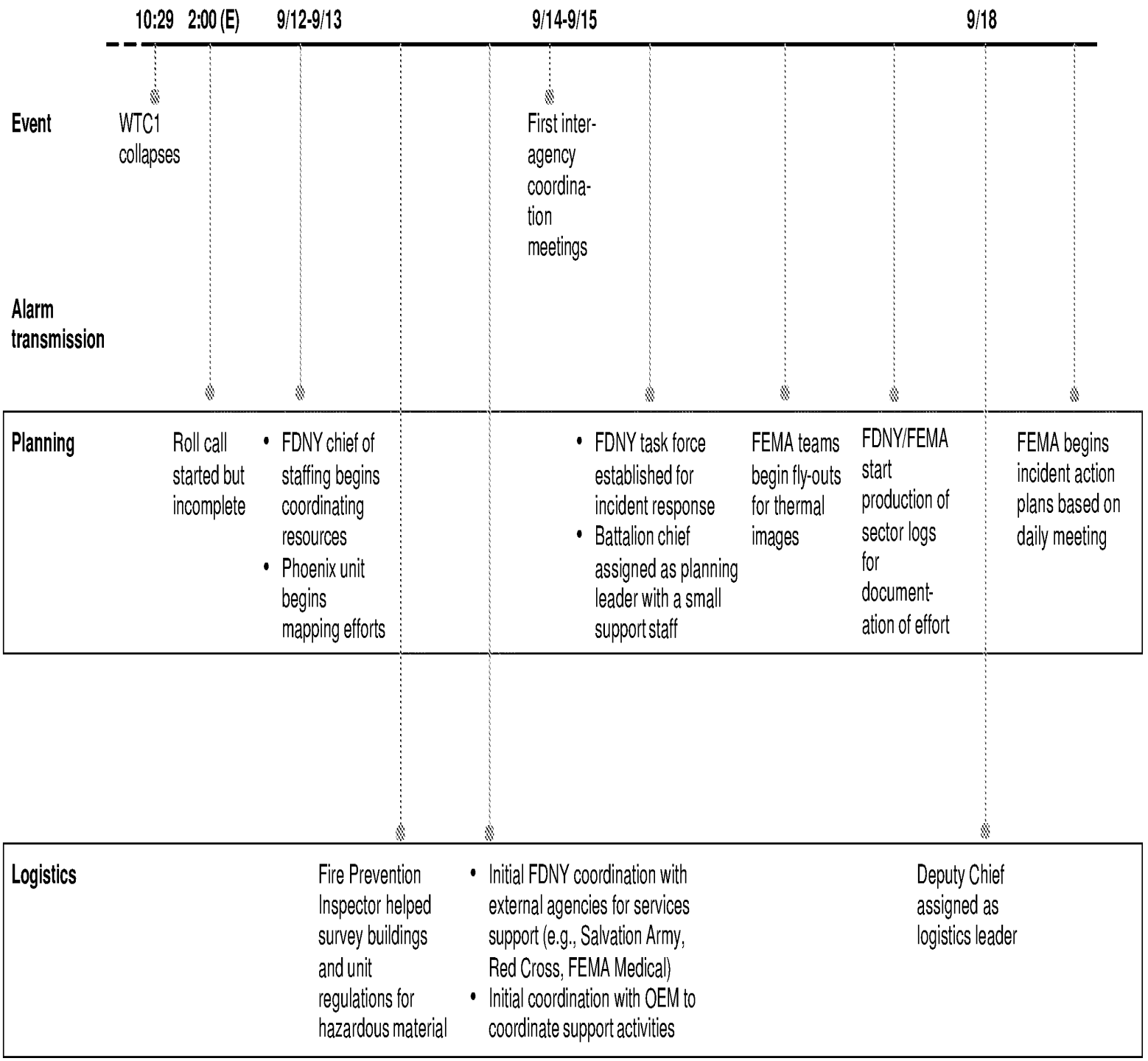
FIRE OPERATIONS PLANNING AND LOGISTICS TIMELINE





Source: Dispatch tapes and transcripts; interviews

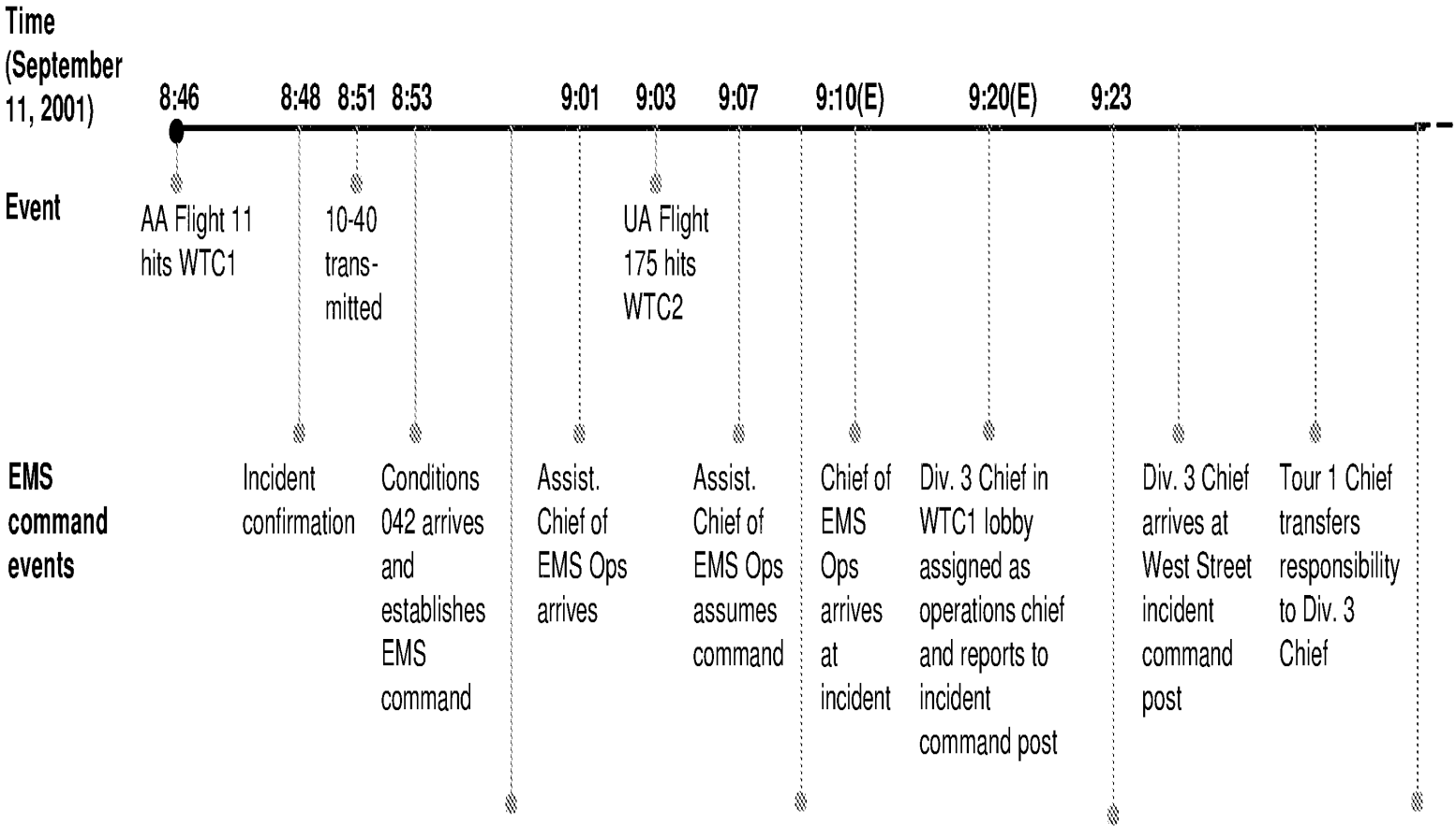
Exhibit 11
FIRE OPERATIONS PLANNING AND LOGISTICS TIMELINE (CONTINUED)



Source: Dispatch tapes and transcripts; interviews

Exhibit 12

EMS COMMAND AND CONTROL TIMELINE

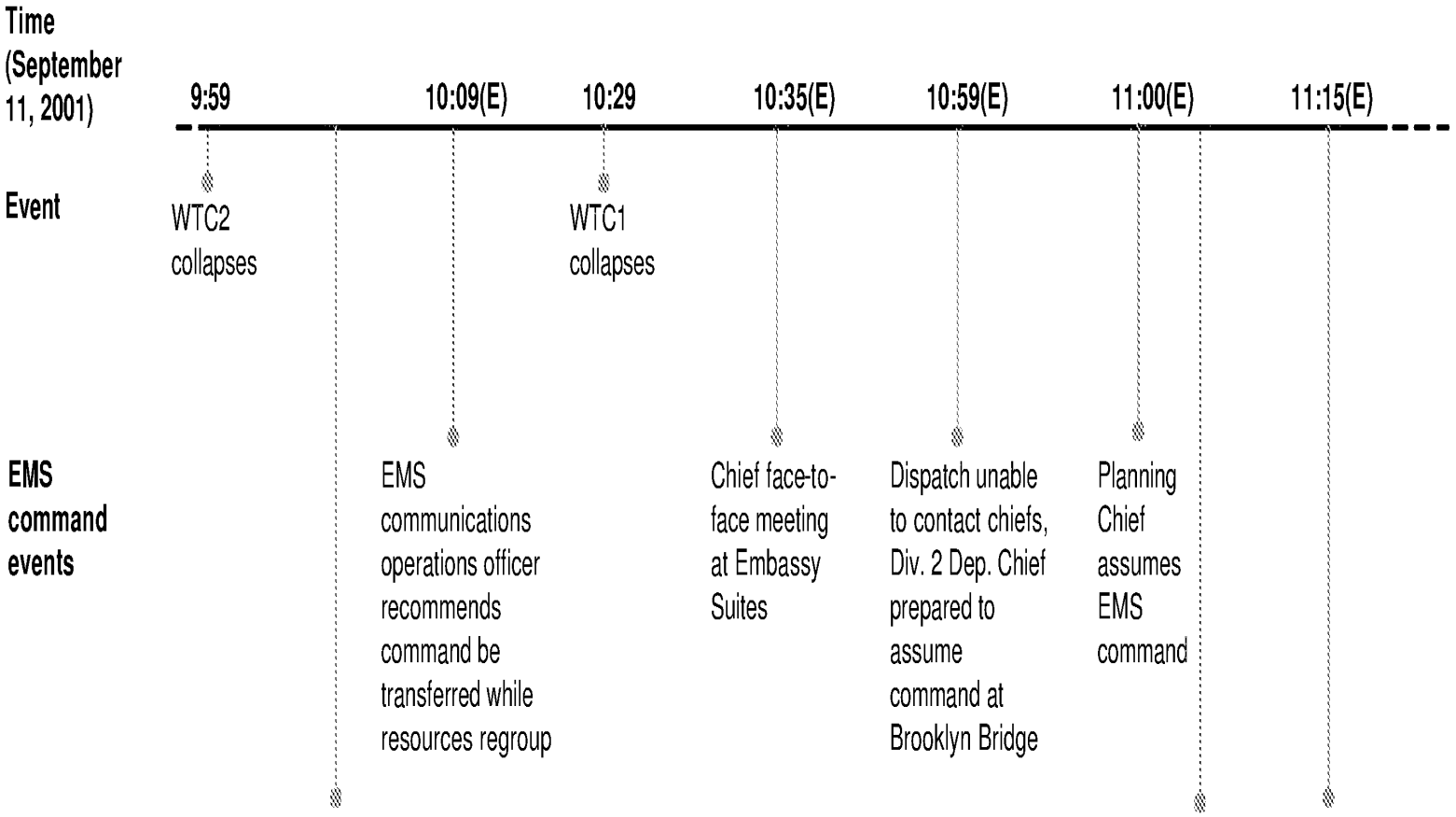


EMS Command post status	Located outside WTC1	Assist. Chief of EMS Ops moves into lobby; coordinates with Fire	Tour 1 Chief arrives and establishes EMS liaison position at incident command post on West Street	Assist. Chief of EMS Ops moves to incident command post at West Street	

Note: E = Estimated, AA = American Airlines, UA = United Airlines

Source: EMS interviews, dispatch tapes and transcripts

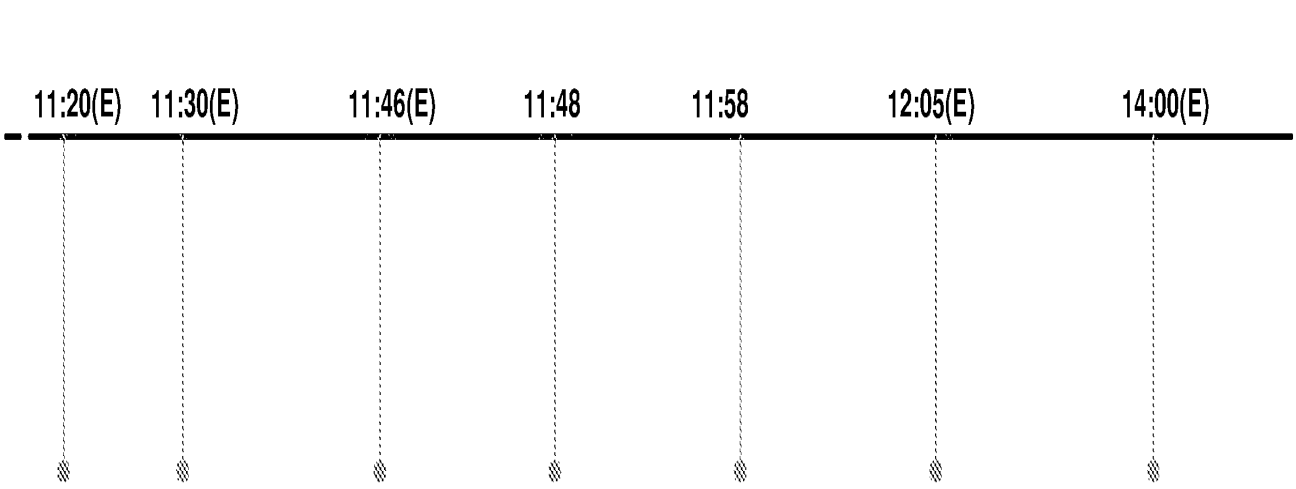
Exhibit 12
EMS COMMAND AND CONTROL TIMELINE (CONTINUED)



Note: E = Estimated

Source: EMS interviews, dispatch tapes and transcripts

Exhibit 12
EMS COMMAND AND CONTROL TIMELINE (CONTINUED)

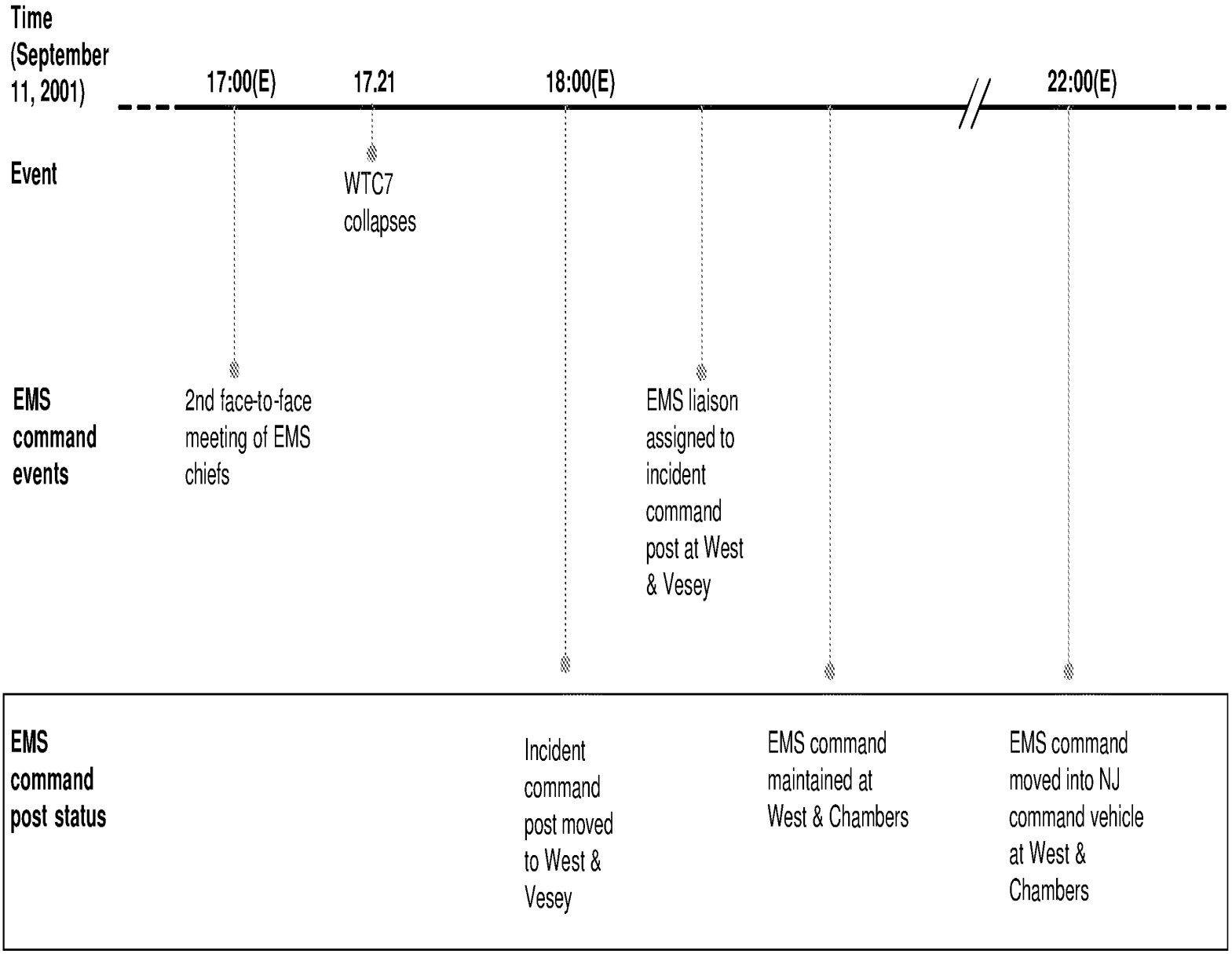


EMS command events	EMS command requested face-to-face meeting but not acknowledged	EMS presence established at One Police Plaza	Div. 2 Dep. Chief assigned as communications officer, 3 additional officers assigned safety responsibility	Contact between One Police Plaza and dispatch established	EMS command conducts roll call for chief location and sector operation	EMS command, FOC and RCC informed of chiefs activities at One Police Plaza	Div. 3 Chief assumes EMS command at West & Chambers
EMS command post status							

Note: E = Estimated

Source: EMS interviews, dispatch tapes and transcripts

Exhibit 12
EMS COMMAND AND CONTROL TIMELINE (CONTINUED)

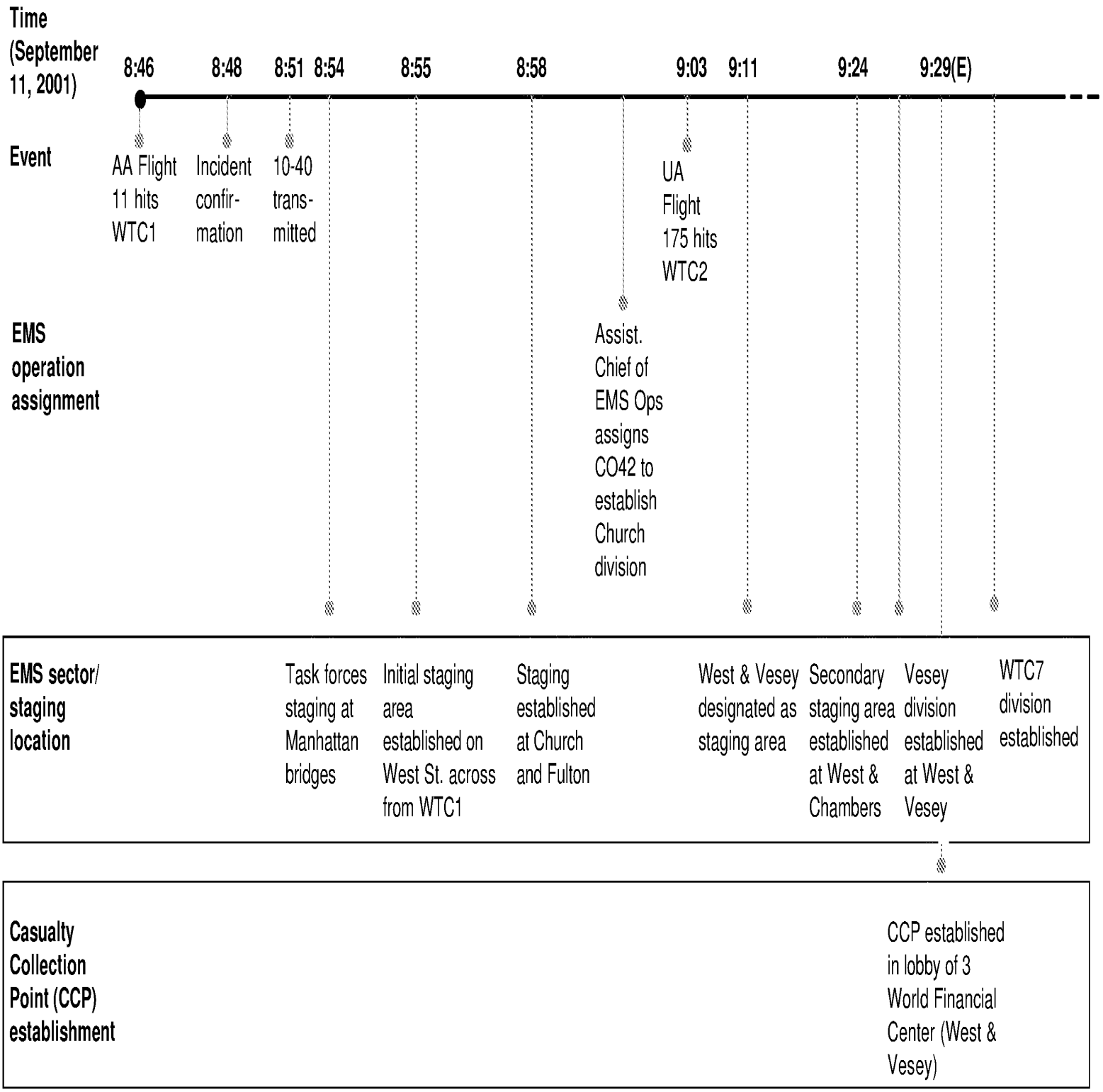


Note: E = Estimated

Source: EMS interviews, dispatch tapes and transcripts

Exhibit 13

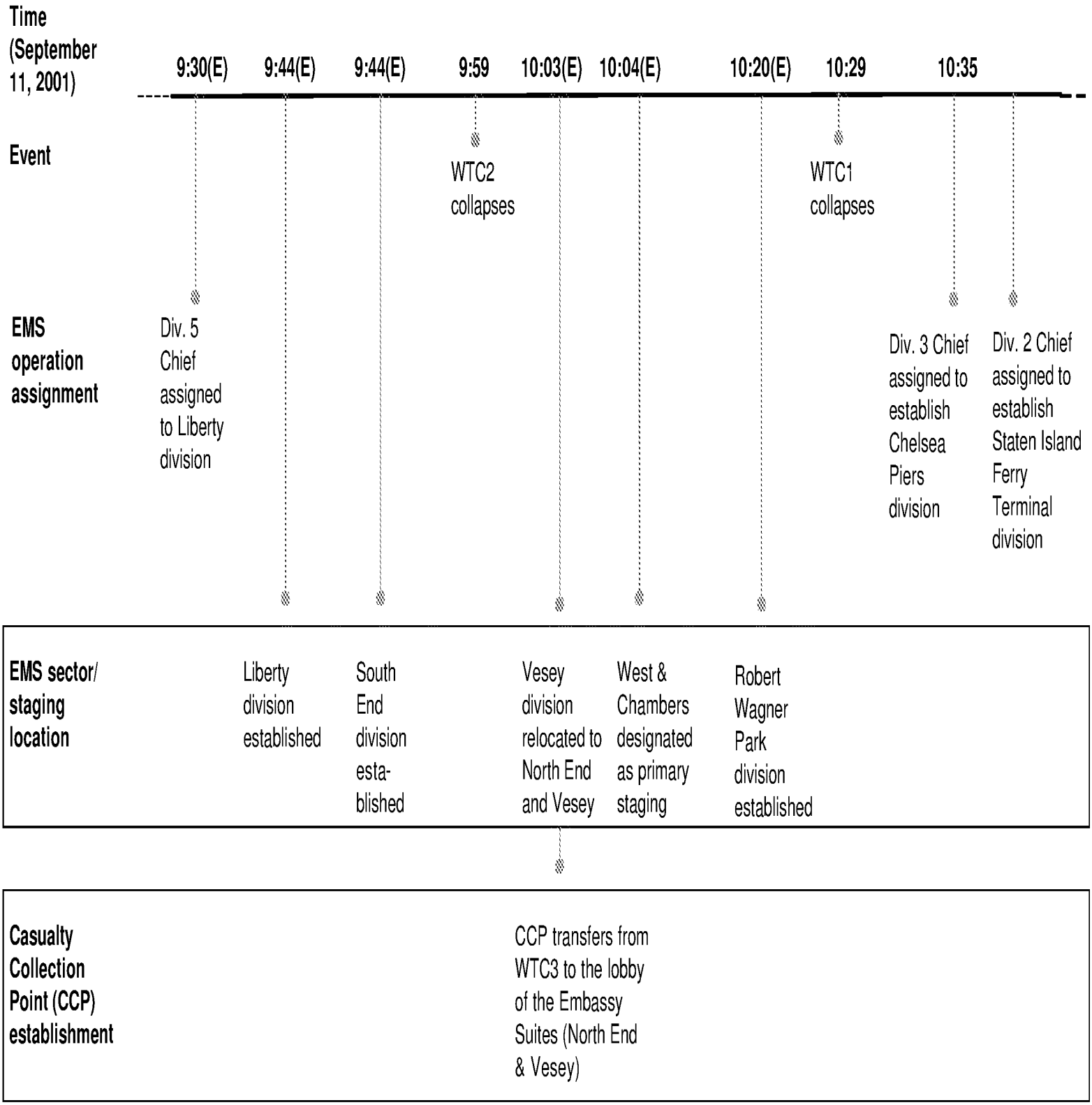
EMS INCIDENT ORGANIZATION TIMELINE



Note: E = Estimated; CCP = Casualty Collection Point

Source: Interviews and dispatch tapes

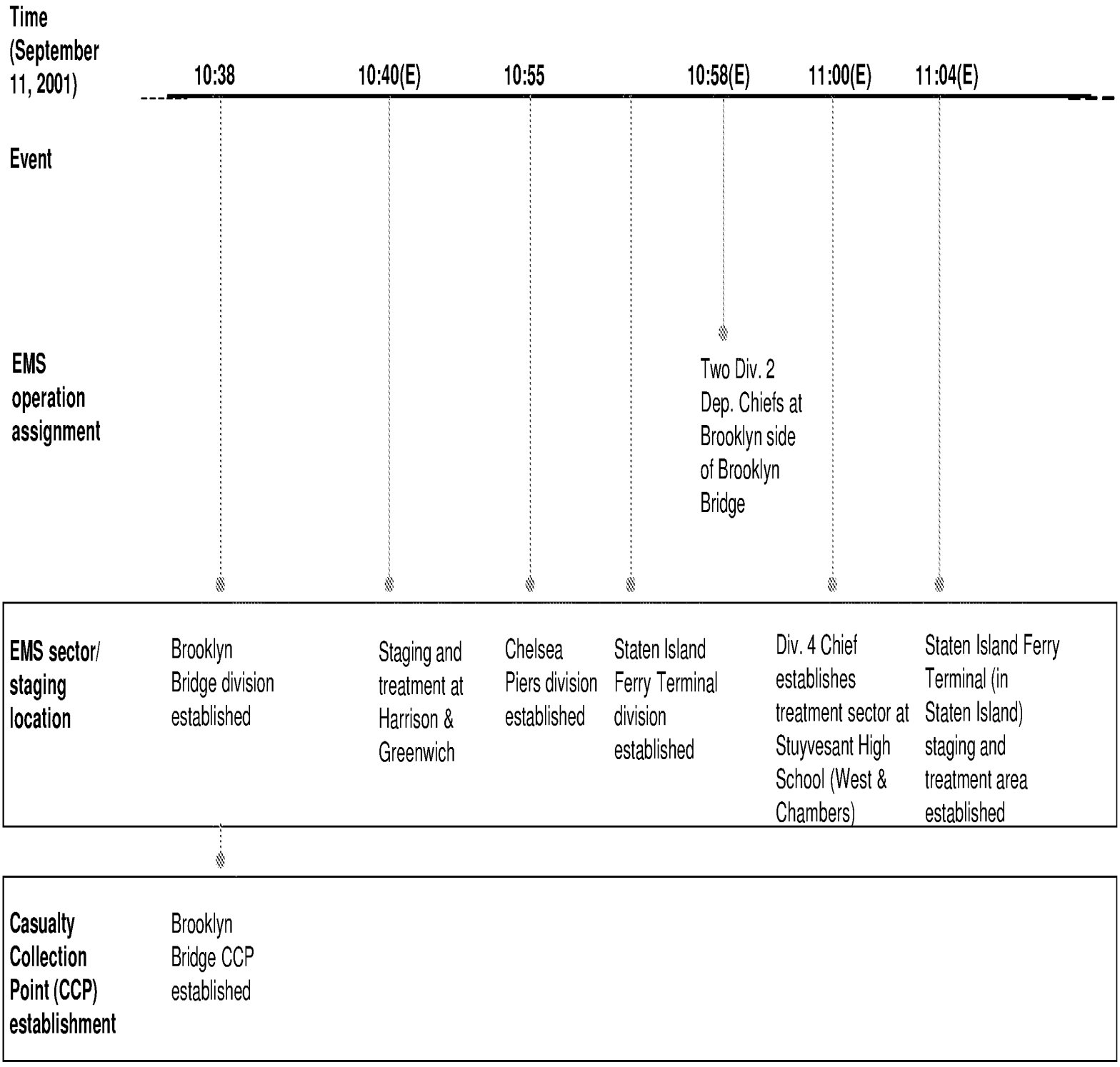
Exhibit 13
EMS INCIDENT ORGANIZATION TIMELINE (CONTINUED)



Note: E = Estimated; CCP = Casualty Collection Point

Source: Interviews and dispatch tapes

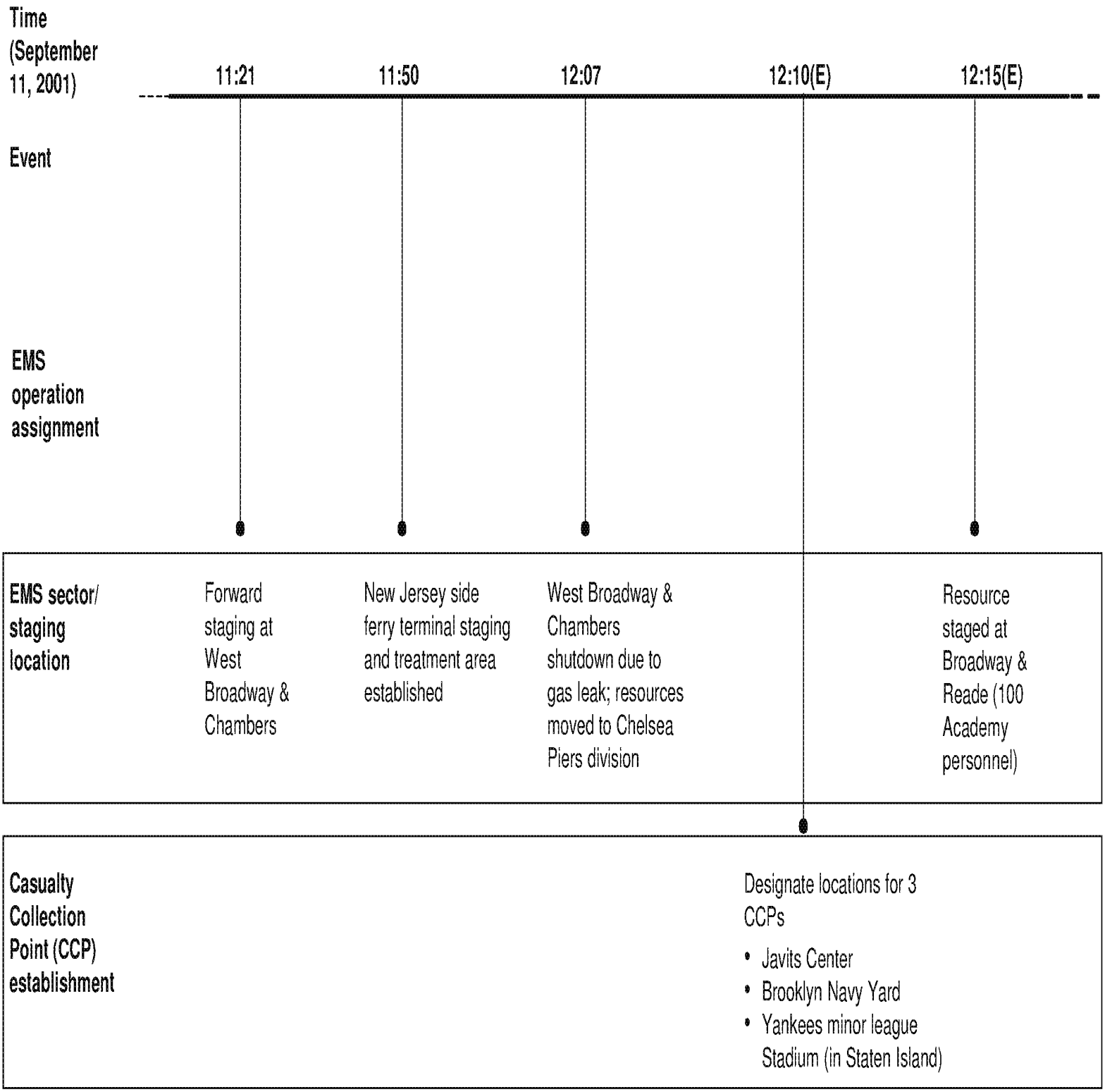
Exhibit 13
EMS INCIDENT ORGANIZATION TIMELINE (CONTINUED)



Note: E = Estimated; CCP = Casualty Collection Point

Source: Interviews and dispatch tapes

Exhibit 13
EMS INCIDENT ORGANIZATION TIMELINE (CONTINUED)

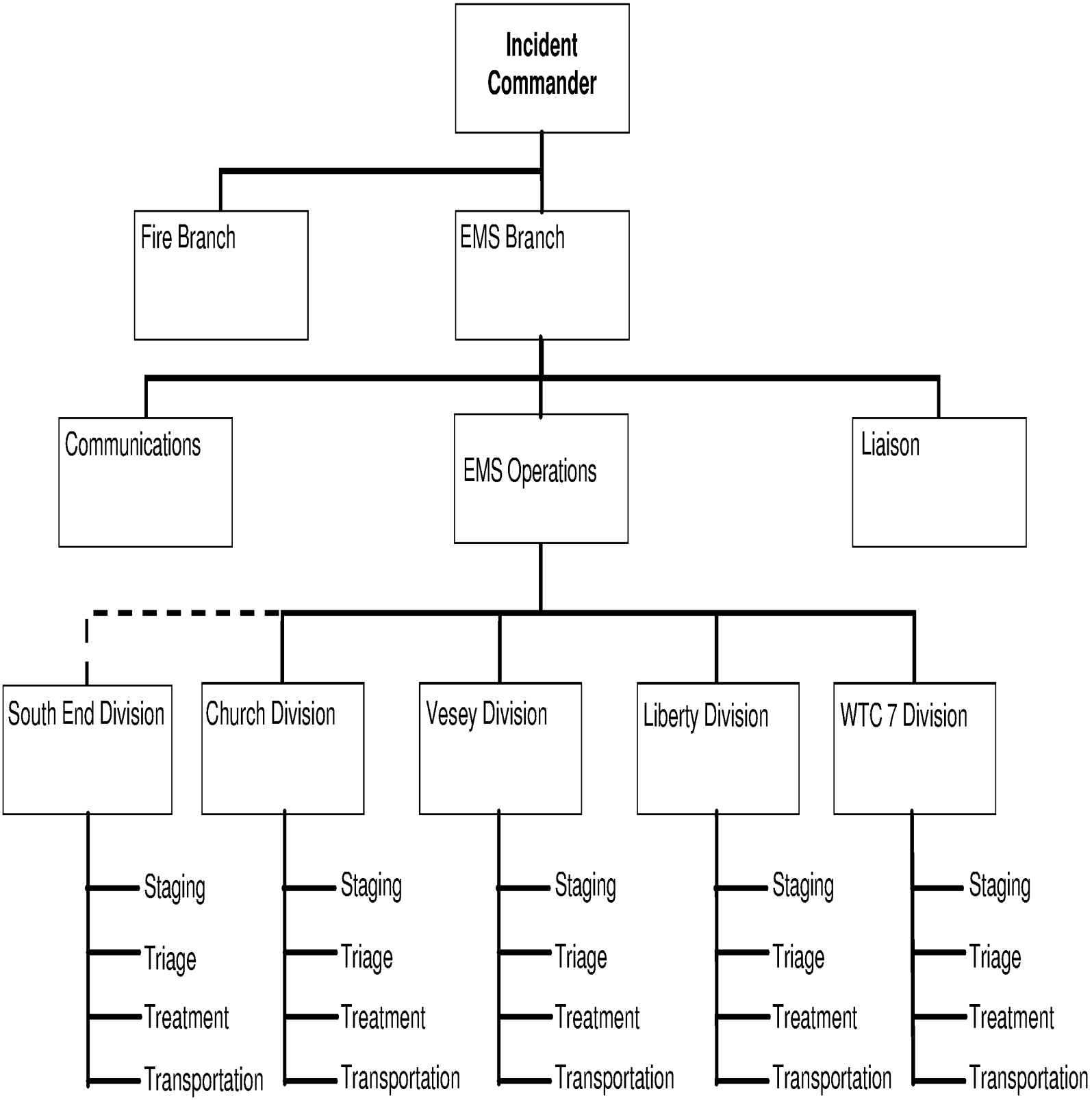


Note: E = Estimated; CCP = Casualty Collection Point

Source: Interviews and dispatch tapes

Exhibit 14

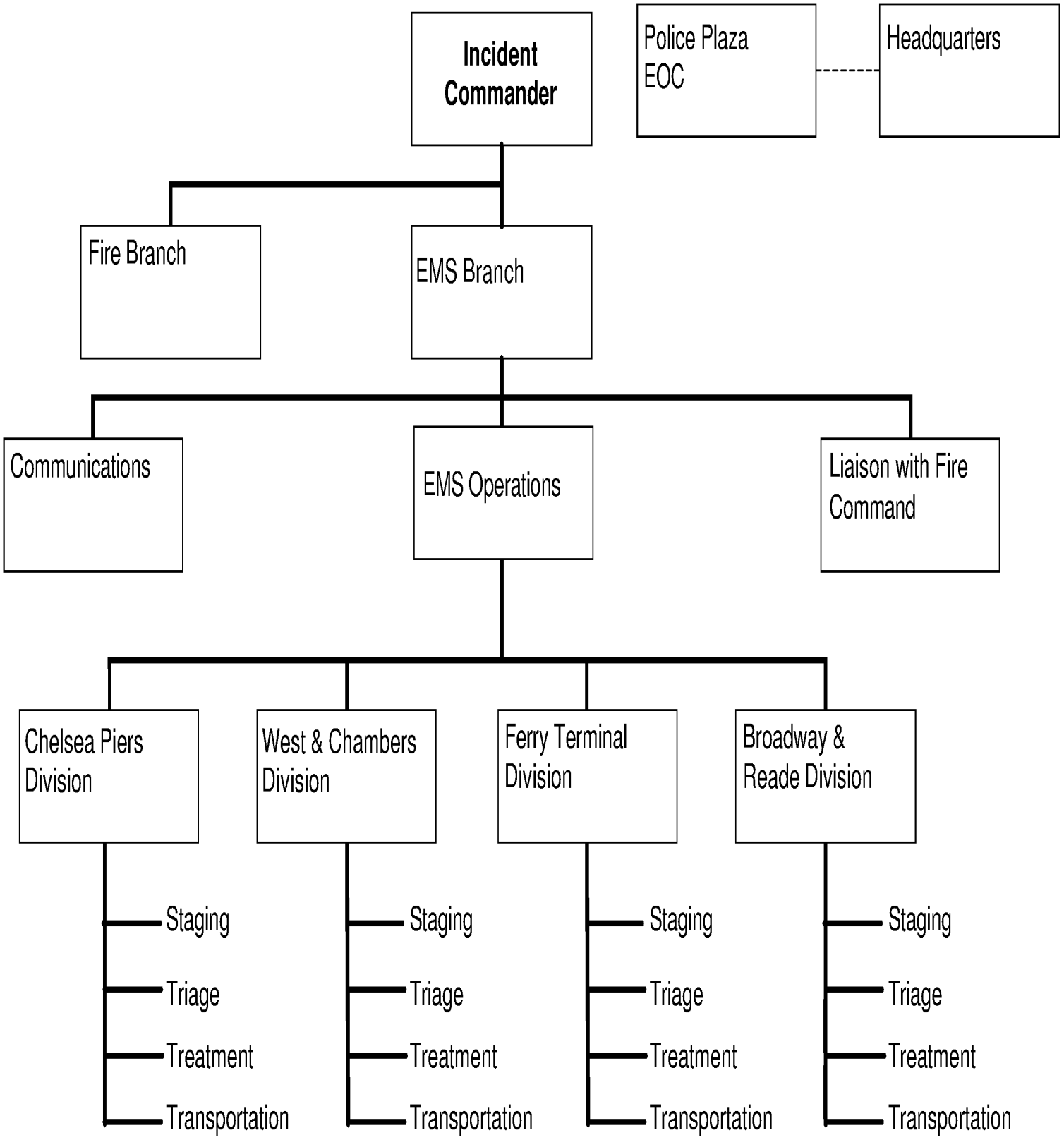
INITIAL EMS ORGANIZATION – PRE-COLLAPSE, 9:59 AM



Source: EMS presentation

Exhibit 15

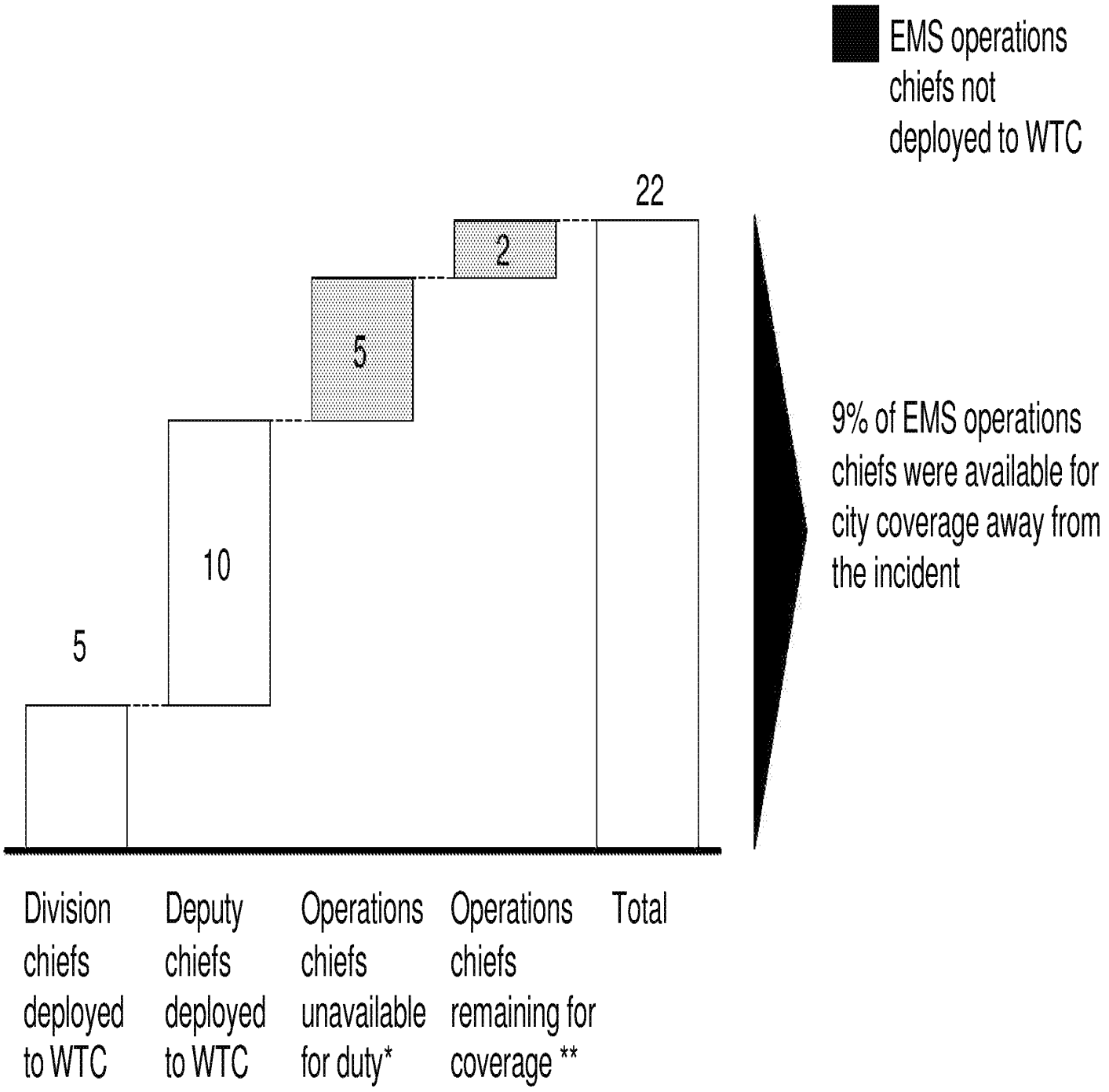
EMS ORGANIZATION – POST-COLLAPSE, 2:30 PM



Source: EMS presentation

Exhibit 16

EMS OPERATIONS CHIEF DEPLOYMENT TO THE WORLD TRADE CENTER ON SEPTEMBER 11



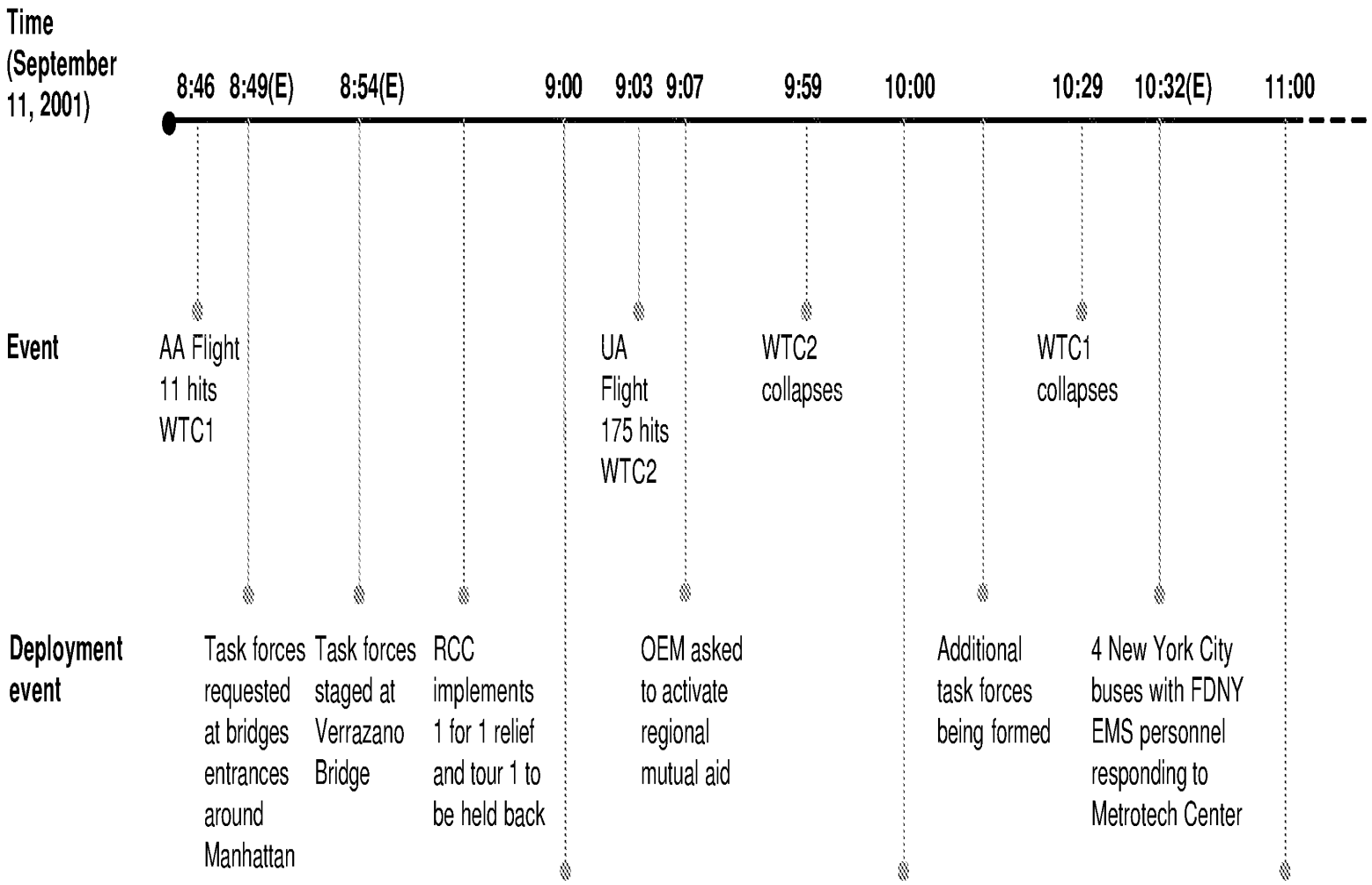
* On vacation, leave, sick, at training, deployed in another capacity

** EMS operations chiefs calculations do not include Chief of EMS Ops, Assist. Chief of EMS Ops, Dir. of EMS Training, Communications Chief or Planning Chief

Source: EMS operations staffing chart

Exhibit 17

EMS RESOURCE DEPLOYMENT TIMELINE

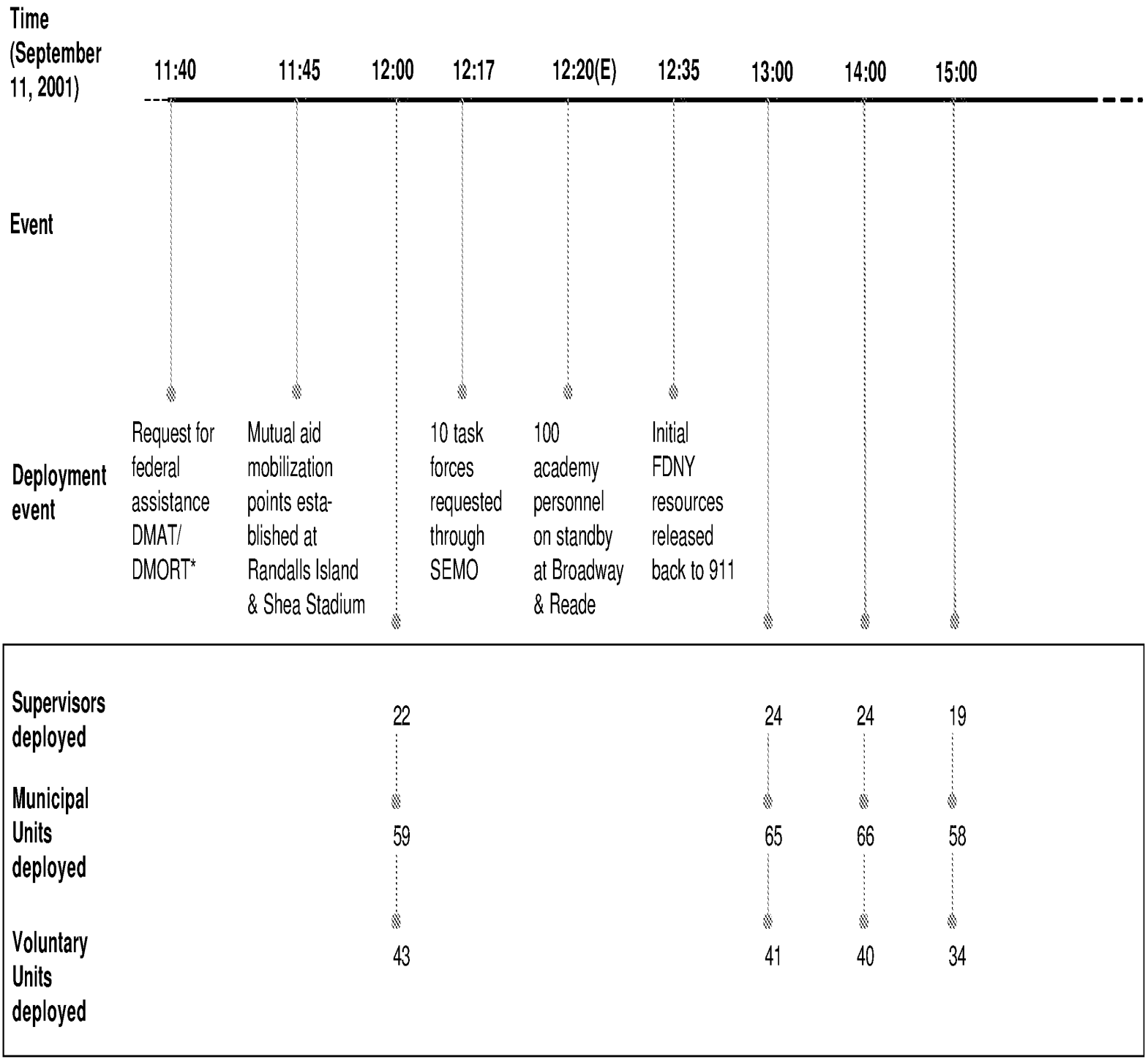


	9:00	10:00	11:00
Supervisors deployed	6	18	22
Municipal Units deployed	19	53	55
Voluntary Units deployed	17	36	42

Note: E = Estimated

Source: EMS interviews, dispatch tapes

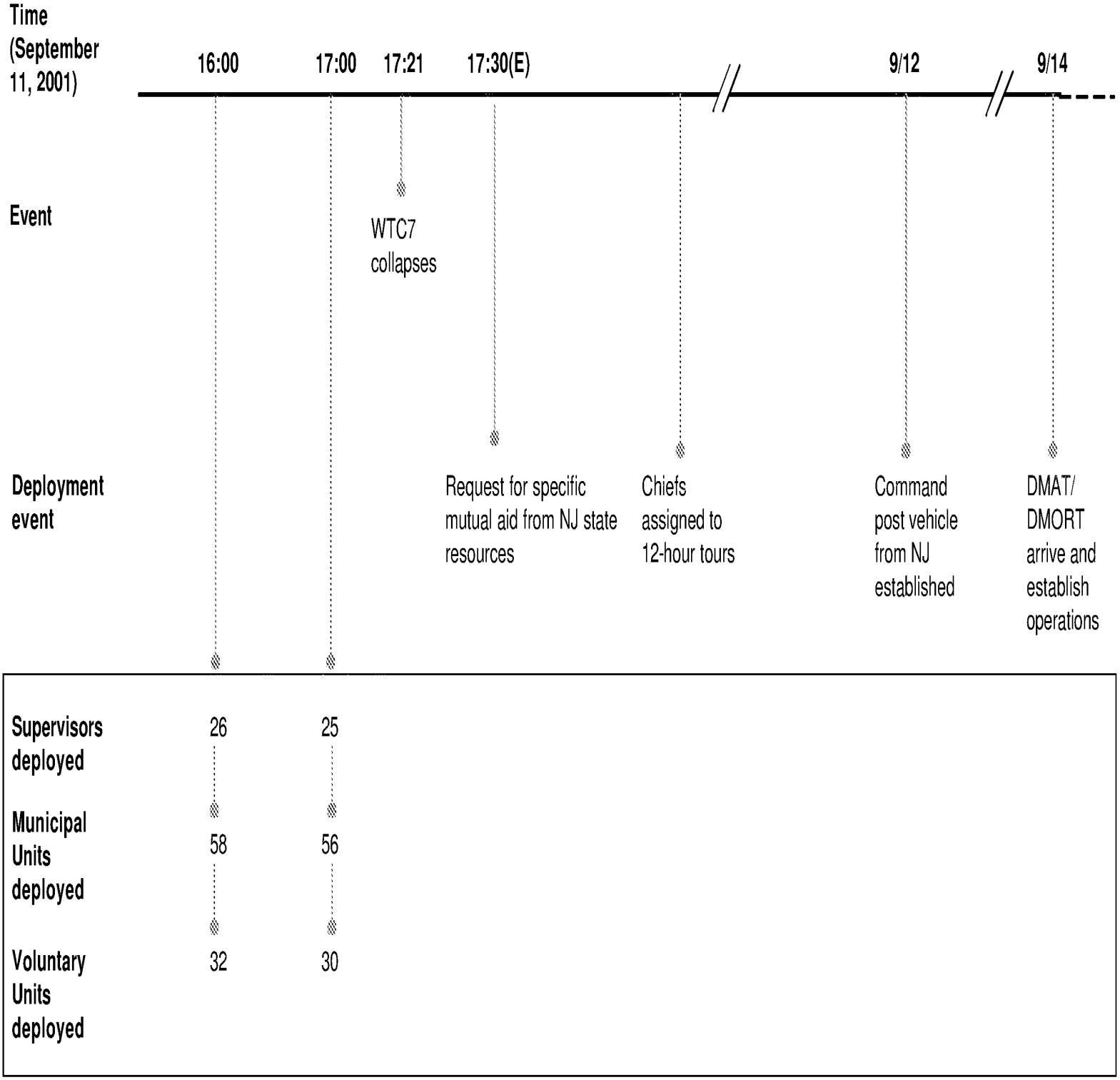
Exhibit 17
EMS RESOURCE DEPLOYMENT TIMELINE (CONTINUED)



* DMAT = Disaster Medical Assistance Team; DMORT = Disaster Mortuary Operations Response Team

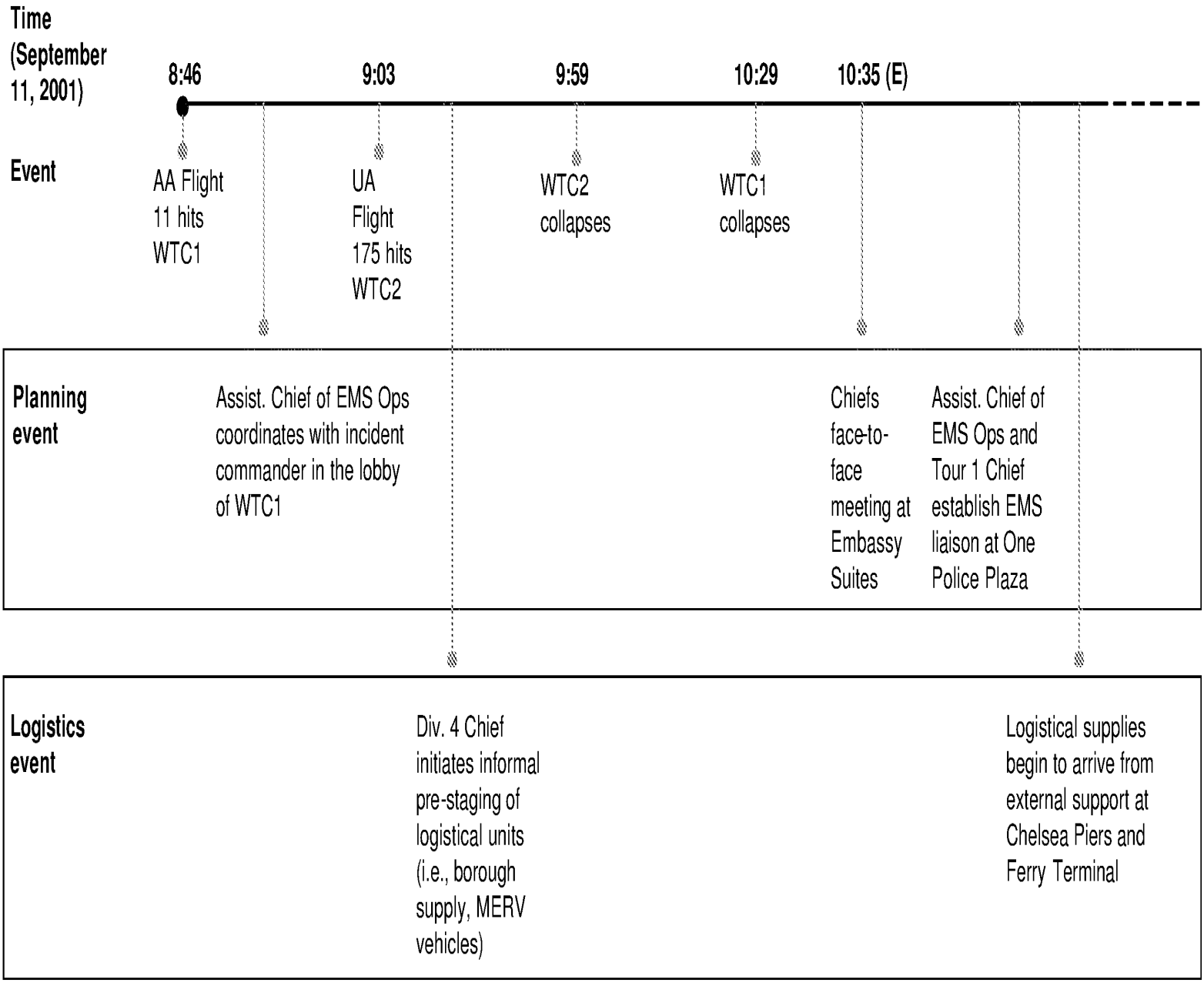
Source: EMS interviews and dispatch tapes

Exhibit 17
EMS RESOURCE DEPLOYMENT TIMELINE (CONTINUED)



Source: EMS interviews, dispatch tapes

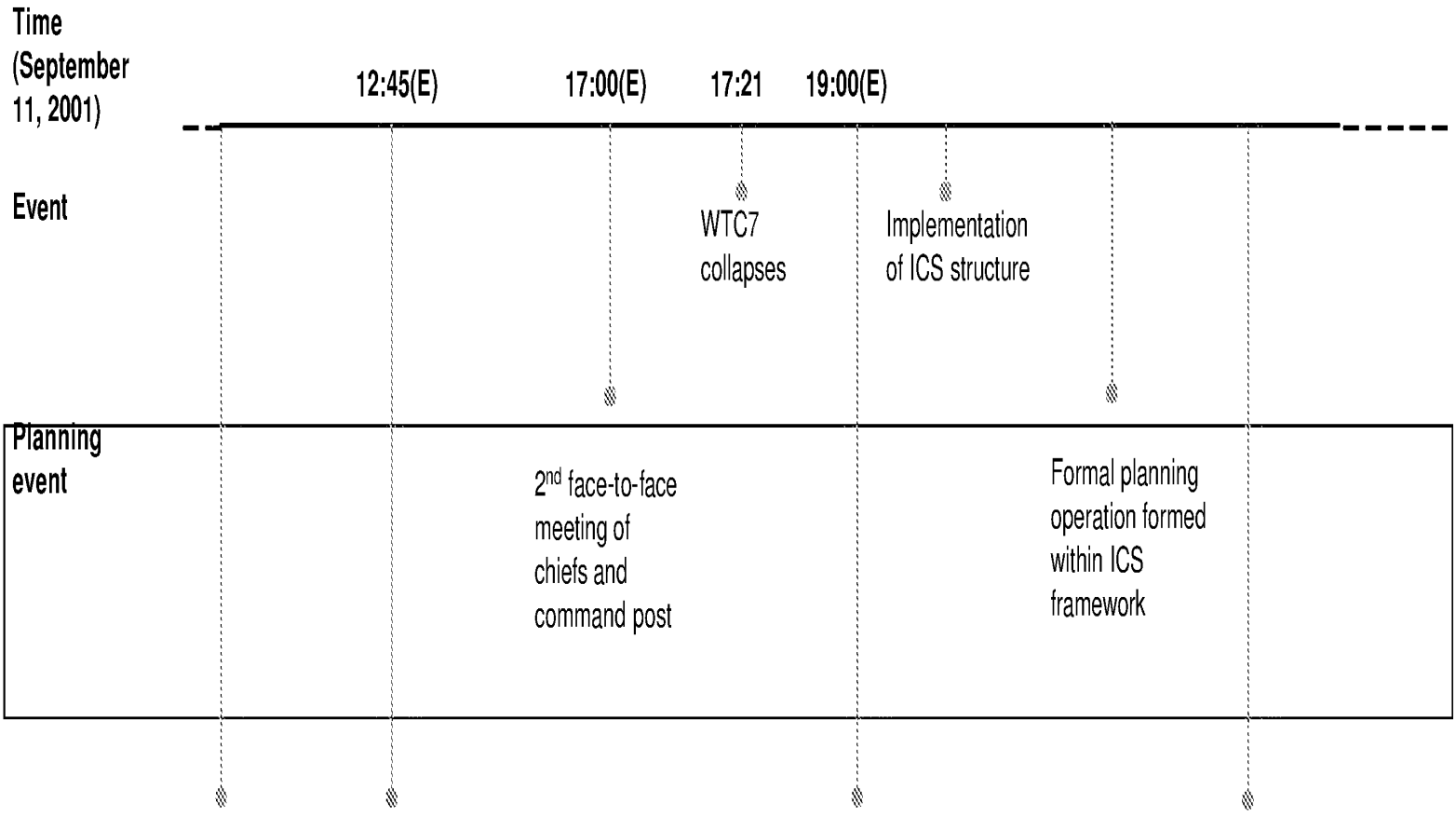
Exhibit 18
EMS PLANNING AND LOGISTICS TIMELINE



Note: E = Estimated

Source: Interviews, dispatch tapes

Exhibit 18
EMS PLANNING AND LOGISTICS TIMELINE (CONTINUED)



* ESF8 EOC is Emergency Support Function 8 (health and medical to Federal Responds Plan) Emergency Operation Center

Note: E = Estimated

Source: Interviews, dispatch tapes

Exhibit 1015

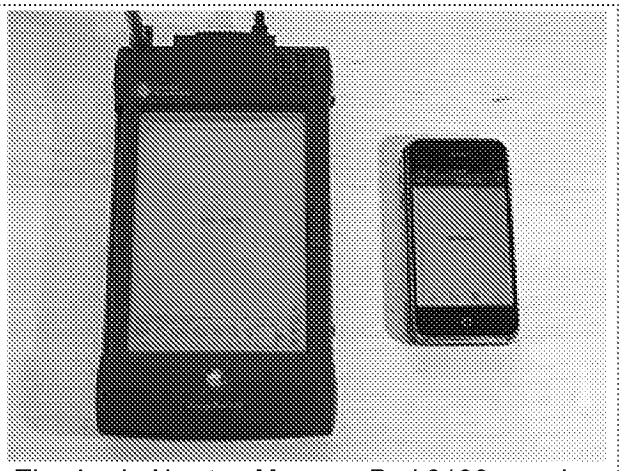
WIKIPEDIA

Apple Newton

The **Newton** is a series of personal digital assistants (PDA) developed and marketed by Apple Computer, Inc. An early device in the PDA category – the Newton originated the term "personal digital assistant" – it was the first to feature handwriting recognition. Apple started developing the platform in 1987 and shipped the first devices in 1993. Production officially ended on February 27, 1998. Newton devices run on a proprietary operating system, Newton OS; examples include Apple's MessagePad series and the eMate 300, and other companies also released devices running on Newton OS. Most Newton devices were based on the ARM 610 RISC processor and all featured handwriting-based input.

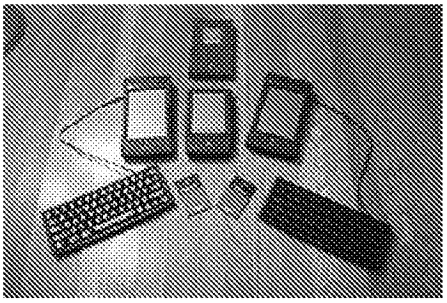
The Newton was considered technologically innovative at its debut, but a combination of factors, some of which included its high price and early problems with its handwriting recognition feature, limited its sales. Apple cancelled the platform at the direction of Steve Jobs, after his return to Apple, in 1998.

Newton



The Apple Newton MessagePad 2100, running Newton OS, alongside the original iPhone running iOS

Developer	Apple Computer, Inc.
Type	Bar PDA
Release date	1993
Discontinued	February 27, 1998
Operating system	Newton OS
Input	Touch screen



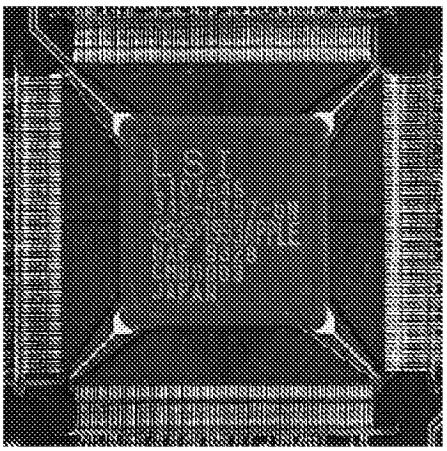
Three Newton MessagePad devices with keyboard and LinearFlash PCMCIA memory card accessories

Contents

General historical information on pen computing

Development

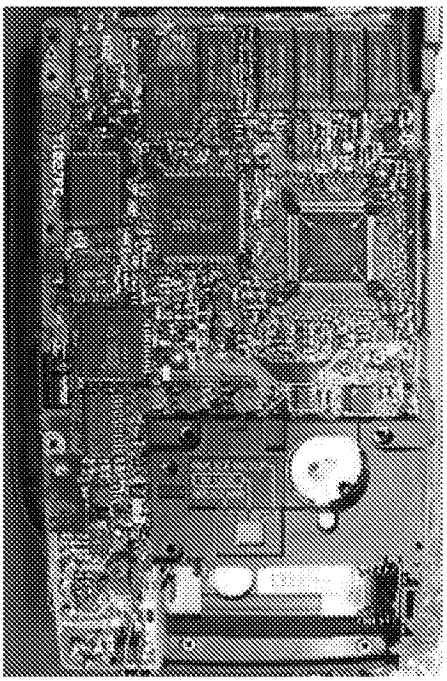
The Newton project was a personal digital assistant platform. The PDA category did not exist for most of Newton's genesis, and the phrase "personal digital assistant" was coined relatively late in the development cycle by Apple's CEO John Sculley,[1] the driving force behind the project. Larry Tesler determined that an advanced, low-power processor was needed for sophisticated graphics manipulation. He found Hermann Hauser, with the Acorn RISC Machine (ARM) processor, and put together Advanced RISC Machines (now ARM Holdings).[2] Newton was intended to be a complete reinvention of personal computing. For most of its design lifecycle Newton had a large-format screen, more internal memory, and an object-oriented graphics kernel. One of the original motivating use cases for the design was known as the "Architect Scenario", in which Newton's designers imagined a residential architect working quickly with a client to sketch, clean up, and interactively modify a simple two-dimensional home plan.



The custom ASIC chip inside the original Apple Newton H1000

There is, however, an extensive history of pen computing that predates the Newton, though not generally in the form of what would now be called a PDA.

For a portion of the Newton's development cycle (roughly the middle third), the project's intended programming language was Dylan, a language Apple created for this platform, though in fact the language and environment never matured enough for any applications to be successfully written. Dylan never lived up to its developers' performance expectations. When the move was made to a smaller design (designed by Jonathan Ive),[3][4] Dylan was relegated to experimental status in the "Bauhaus Project" and eventually canceled outright. Its replacement, NewtonScript, had garbage collection and tight integration with the "soup" storage and user-interface toolkit, and was specifically designed to run in small RAM/large ROM environments. It was mostly developed by Walter Smith from 1992 to 1993.



Inside the Apple Newton Messagepad H1000, with back cover removed

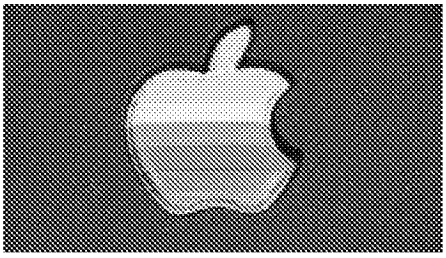
The project missed its original goals to reinvent personal computing, and then to rewrite contemporary application programming. The Newton project fell victim to project slippage, scope creep, and a growing fear that it would interfere with Macintosh sales. It was reinvented as a PDA platform which would be a complementary Macintosh peripheral instead of a stand-alone computer which might compete with the Macintosh.

Although PDAs had been developing since the original Psion Organiser in 1984,[5][6] the Newton has left one particular lasting impression: the term *personal digital assistant* was first coined to refer to the Newton.[6]

According to former Apple CEO John Sculley, the corporation invested approximately US$100M to develop Newton.[7]

Later history and cancellation

The Newton was considered innovative at its debut, but it suffered from its high price and problems with the handwriting recognition element, its most anticipated feature. The handwriting software was barely ready by 1993 and its tendency to misread characters was widely derided in the media. In particular, Garry Trudeau mocked the Newton in a weeklong arc of his comic strip *Doonesbury*, portraying it as a costly toy that served the same function as a cheap notepad, and using its accuracy problems to humorous effect. In one panel, Michael Doonesbury's Newton misreads the words "Catching on?" as "Egg Freckles", a phrase that became widely repeated as an emblem of the Newton's problems. Although the software improved substantially in Newton OS 2.0, it was not enough to inspire strong sales.[8]



The original color Apple logo on the Newton

The Newton became popular in some industries, notably the medical field. However, the debut of the competing Palm Pilot substantially reduced its market share. Apple struggled to find a new direction for the Newton, and when Steve Jobs returned to the company in 1997, he killed the project. He was critical of the device's weak performance, the management of the development team, and the stylus, which he disliked as it prevented the use of the fingers. He was likely also motivated by the fact that the Newton was the pet project of his old adversary John Sculley. However, Jobs saw potential in the technology and concept, if not the execution, and eventually led Apple to create its multi-touch devices, the iPhone and iPad.[8][9]

Product details

Hardware models

From Apple:

- MessagePad (also known as the H1000, OMP or Original MessagePad)
- MessagePad 100 (same hardware as OMP, but newer system version)[10]
- MessagePad 110
- MessagePad 120
- MessagePad 130
- eMate 300
- MessagePad 2000
- MessagePad 2100

From Motorola:

- Motorola Marco

From Sharp:[11]

- Sharp ExpertPad PI-7000 (equivalent to OMP)
- Sharp ExpertPad PI-7100 (equivalent to MP 100)

From Digital Ocean:

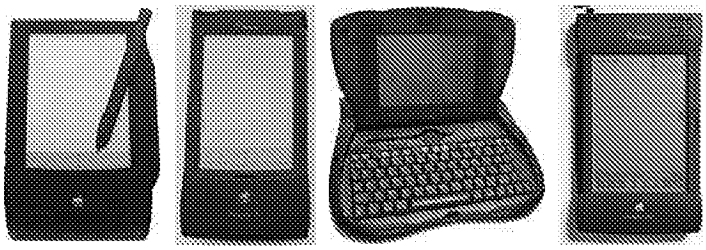
- Tarpon[12]
- Seahorse[13]

From Siemens:

- Siemens Note Phone[14]

From Harris:

- Harris SuperTech 2000[15]



MP100 MP120 eMate 300 MP2000

Application software

Most Newton devices were pre-loaded with a variety of software to help in personal data organization and management. This included such applications as Notes, Names, and Dates, as well as a variety of productivity tools such as a calculator, conversion calculators (metric conversions, currency conversions, etc.), time-zone maps, etc. In later/2.x versions of the Newton OS these applications were refined, and new ones were added, such as the Works word processor and the Newton Internet Enabler, as well as the inclusion of bundled 3rd party applications, such as the QuickFigure Works spreadsheet (a "lite" version of Pelicanware's QuickFigure Pro), Pocket Quicken, the NetHopper web browser, and the EnRoute email client. Various Newton applications had full import/export capabilities with popular desktop office suite and PIM (Personal Information Manager) application file formats, primarily by making use of Apple's bundled Newton Connection Utilities (or the older Newton Connection Kit, which had been sold separately for Newton devices that used the 1.x versions of the OS).

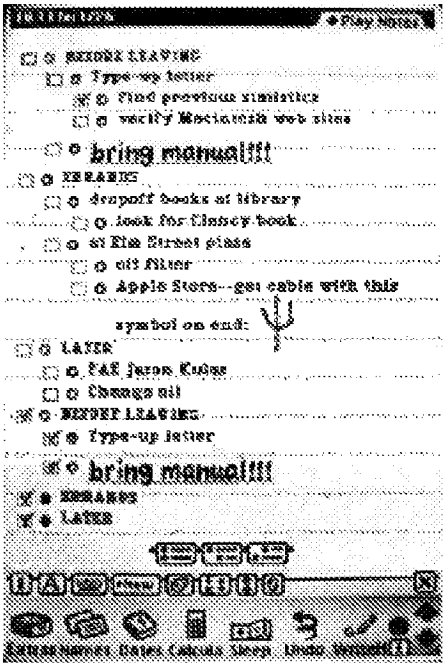
Notes

The Notes application allowed users to create small documents that could contain text that had been typed, or that had been recognized from handwriting, as well as free-hand sketches, "Shapes", and "ink text".

In version 2.0 of the Newton OS, the Notes application (as well as Names) could accept what Apple termed "stationery", 3rd-party created plug-in modules that could extend the functionality of the basic applications.

One of the new types of Notes stationery added to Newton OS 2.0 was a hierarchical, bullet-ed, collapsible, multi-line "Checklist", an implementation of outliner software. This could be used for organizing thoughts, priorities, "to do" lists, planning steps and sub-tasks, etc. Each bullet point could contain as many lines of text as desired. A bullet point could be dragged and placed underneath another bullet point, thus forming a hierarchical outline/tree. When a bullet point was dragged, the entire sub-tree of child bullet points underneath it (if any) would be dragged along as well. If a bullet point had child bullet points, tapping the hollow parent bullet point once would "roll up" or collapse all the children ("windowshade" effect). The parent bullet point would become a solid black circle and all the children would disappear. Tapping the parent bullet point again would make the children re-appear. Because this functionality arrived in Newton OS 2.0, several third parties made similar software before for OS 1.x Newton machines, the most notable of which was Dyno Notepad, released in 1993.

Names



Photograph of screen displaying Checklist, some bullet points checked and/or "collapsed"

The Names application was used for storing contacts. Contacts created either on the Newton device or on a Windows or Macintosh desktop PIM could be synchronized to each other.[16][17] Entering a date in Names for fields such as birthday or anniversary automatically created corresponding repeating events in the Dates application. Each contact had an attached free-form notes field available to it, that could contain any mix of interleaved text, ink text, Shapes, or Sketches. Like Notes, Names could be extended by developers, to create special new categories of contacts with specialized pre-defined fields. Names shipped with 3 types of contacts, "people", "companies", and "groups", but a developer could define new types, for instance "client", "patient", etc. Stand Alone Software, Inc. also created a Newton software package called the Stationery Construction Kit, which allowed users to make stationery themselves without aid of any other tools.

Dates

Dates supplied calendar, events, meeting, and alarms functions, including an integrated "to do" list manager. It offered many different display and navigation styles, including a list view, graphical day "time blocking" view, or a week, month, or year grid. As with Names and Notes, Dates items created either on the Newton or on a Windows or Macintosh desktop PIM could be synchronized to each other.

Operating system and programming environment

The Newton OS consists of three layers. At the lowest level, a microkernel handles resources like tasks and memory. On top of the microkernel, the bulk of the operating system is implemented in C++, including the communications layer, handwriting recognition, and the NewtonScript environment. The top layer consists of built-in and user installed applications written in NewtonScript.

NewtonScript is an advanced object-oriented programming language, developed by Apple employee Walter Smith.[18] Some programmers complained at the $1000 cost of the Toolbox programming environment. Additionally, it required learning a new way of programming.

The Newton Toolkit (NTK), an integrated environment tailored to the graphical nature of the Newton platform, was developed specifically for developing applications for the Newton platform and included a graphical view editor, a template browser, and an interactive inspector window for debugging. Initially, it was only available for Macintosh computers, and later a Microsoft Windows version was developed. The Technical Lead for the Newton Toolkit was Norberto Menendez; other engineers on the team were Ben Sharpe and Peter Potrebic.

Data storage

Data in Newton is stored in object-oriented databases known as soups. One of the innovative aspects of Newton is that soups are available to all programs; and programs can operate cross-soup; meaning that the calendar can refer to names in the address book; a note in the notepad can be converted to an appointment, and so forth; and the soups can be programmer-extended—a new address book enhancement can be built on the data from the existing address book. The

soup system also made it easy to synchronize data, and the Newton Connection tools could be used for importing and exporting data. Among many file formats are the Rich Text Format, Microsoft Word, Microsoft Excel, Microsoft Works, and many more.

Another consequence of the data-object soup is that objects can extend built-in applications such as the address book so seamlessly that Newton users can sometimes not distinguish which program or add-on object is responsible for the various features on their own system, because the advanced nature of Newton devices makes it easy to accept such add-ons. A user rebuilding their system after extended usage might find themselves unable to manually restore their system to the same functionality because some long-forgotten downloaded extension was missing. Data owned and used by applications and extensions themselves is tossed in the "Storage" area of the "Extras" drawer in 2.x Newton devices; on 1.x systems, they can only be found or removed in the Memory section of the built-in Prefs application, in the Card slip (also built-in), or with third-party tools such as NewtCase. There is no built-in distinction between types of data in that area. For example, an installed application's icon could be sitting right next to a database of addresses used by another installed extension further down the list.

Finally, the data soup concept works well for data like addresses, which benefit from being shared cross-functionally, but it works poorly for discrete data sets like files and documents. Later, the 2.0 release of the Newton OS introduced Virtual Binary Objects to alleviate the problem of handling large data objects.

Package installation, capacity planning, and disaster recovery

Several software utilities which accommodate data transfer to and from a host system exist for the following platforms:

- Mac OS
- OS X
- UNIX
- Linux
- Microsoft Windows

Newton technology after cancellation

Before the Newton project was canceled, it was "spun off" into an Apple wholly owned subsidiary company, *Newton Inc.*, but was reabsorbed several months later when Apple CEO Gil Amelio was fired by the board and Steve Jobs took over as then interim CEO. Two ex-Apple Newton developers founded Pixo, the company that created the operating system for the original iPod.

Speculation continued for several years that Apple might release a new PDA with some Newton technology or collaborate with Palm. Feeding a bit of speculation, Apple put the "Print Recognizer" part of the Newton 2.1 handwriting recognition system into Mac OS X v10.2 (known as "Jaguar"). It can be used with graphics tablets to seamlessly input handwritten printed text anywhere there was an insertion point on the screen. This technology, known as "Inkwell", appears in the System Preferences whenever a tablet input device is plugged in. An Easter egg in Print Recognizer on the Newton (write "ROSETTA! ROSETTA! ROSETTA!", and the Newton will insert "ROSETTA! ROSETTA! Hey, that's me!" instead) was present in Inkwell in Mac OS 10.2 and 10.3, but seems to have been removed in 10.4. Larry Yaeger was the author of the original Rosetta recognizer on the Newton, and was also responsible for porting it to Mac OS X.[19] The Rosetta name was later used for Apple's PowerPC software translation layer for Intel-based Macs.

Some of the handwriting recognition technology from the Newton later found its way into Windows CE. The letter preferences menus showing the different ways that people write cursive characters were pixel identical on Windows CE to those previously used on the MessagePad..

At an *All Things Digital* conference in 2004, Steve Jobs made reference to a new "Apple PDA" (perhaps a successor to the Newton) which the company had developed but had decided not to bring to market.[20] The tablet likely eventually evolved into the iPhone or iPad..

Newton emulation

Since 2004, the Einstein Project[21] has been working on emulating the Newton for use as an alternate OS on other platforms. It is currently available for the Sharp Zaurus, Apple's Mac OS X, Nokia Maemo, Microsoft Windows, and the Pepper Pad 3. The emulator is an open source project, but requires an original Newton ROM to be installed in order to function. Since September 2010, Einstein also runs on iPhones, iPads, and the Android operating system since March 2011.[22]

Future

A possible Newton revival was at one time a common source of speculation among the Macintosh user base; when patents for a tablet based Macintosh were applied for,[23] rumor sites jumped at the possibility of a new tablet PC-style Macintosh. This later turned out to be the iPad, which currently runs Apple's proprietary iOS System Software.

In September 2009, Michael Tchao, who pitched the original Newton concept to John Sculley[24], returned to Apple.[25] Michael Tchao is now the VP of iPad Product Marketing.

Development

Programs have been written for the Newton since its cancellation,[26] including an RSS reader.[27]

In popular culture

The MessagePad was featured in an August 1993 installment of Garry Trudeau's popular political cartoon *Doonesbury*, where its handwriting recognition was mocked. The fifth of six panels of the strip[28] showed the Newton producing the text "egg freckles" in response to input. This phrase was subsequently included as a trigger for an easter egg in later editions of the MessagePad, producing a panel from the strip when it was entered on the device. Apple subsequently donated a MessagePad to Trudeau.[29]

During the *Simpsons* episode "Lisa on Ice", first broadcast in 1994, a scene also makes fun of the Newton's handwriting recognition. Bully Kearney has Dolph take a memo on an Apple Newton to beat up class nerd Martin Prince. When Dolph writes "Beat up Martin" on the screen, the handwriting recognition turns it into "Eat up Martha". Kearney then just throws the Newton at the back of Martin's head. This scene is referred to in the 2015 movie *Steve Jobs*.

In *Serial Experiments Lain*, a common portable computing device, known as a HandiNavi (named after the Apple product concept, The Knowledge Navigator), is heavily influenced by the Newton.

During Apple's March 21, 2016 keynote conference, a celebration video called "40 Years in 40 Seconds" was unveiled. The video featured flashing text of names from Apple's most notable products and taglines in their forty-year history, including Newton. However, in Newton's case, it was the only name depicted in the video being explicitly scratched out, referencing the full cancellation of the product line.[30]

See also

- iPhone
- Pocket-sized computer
- iPad

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External links

Newton technical documents for programmers

NewtonScript Programming: NewtonScript is the native programming language for all MessagePads

- The Newton Application Architecture (https://web.archive.org/web/20080724074742/http://newton.vyx.net/documentation/COMPCON-Arch.pdf)
- Newton Tool Kit (NTK) Integrated Development Environment Manual (https://web.archive.org/web/20080528081216/http://newton.tek-ed.com/NewtonToolKit_win/NTK/Winntk16.pdf)
- The Newton Application Architecture (http://beepdf.com/doc/122155/newton_archi.html)
- A quick introduction to programming in NewtonScript using NTK (https://web.archive.org/web/20081014160506/http://home.satx.rr.com/dumbstart/tutorial/tutorial1.htm)
- The NewtonScript Programming Language (Apple Manual). (http://www.newted.org/download/manuals/NewtonScriptProgramLanguage.pdf)
- Newton Programmer's Guide, OS 2.0 (http://www.newted.org/download/manuals/NewtonProgrammerGuide20.pdf)
- Newton Programmer's Guide, OS 2.1 Addendum (http://www.newted.org/download/manuals/NewtonProgrammerGuide21Add.pdf)
- Newton Programmer's Reference, OS 2.0 (http://www.newted.org/download/manuals/NewtonProgrammerRef20.pdf)
- Newton OS 2.1 Engineering Documents (http://www.newted.org/download/manuals/NewtonOS21EngDoc.pdf)
- Explanation of NewtonScript Prototyping (http://waltersmith.us/wp-content/uploads/2005/12/OOPSLA95.pdf)
- Newton User Interface Specification Guide (http://www.newted.org/download/manuals/Newton20UIGuide.pdf)

General historical information on pen computing

- Notes on the (relatively unknown) History of Pen-based Computing (http://ruetersward.com/pens/penhist.html)
- Notes on the History of Pen-based Computing (https://www.youtube.com/watch?v=4xnqKdWMa_8) on YouTube
- Annotated Bibliography in Pen Computing (http://ruetersward.com/biblio.html)

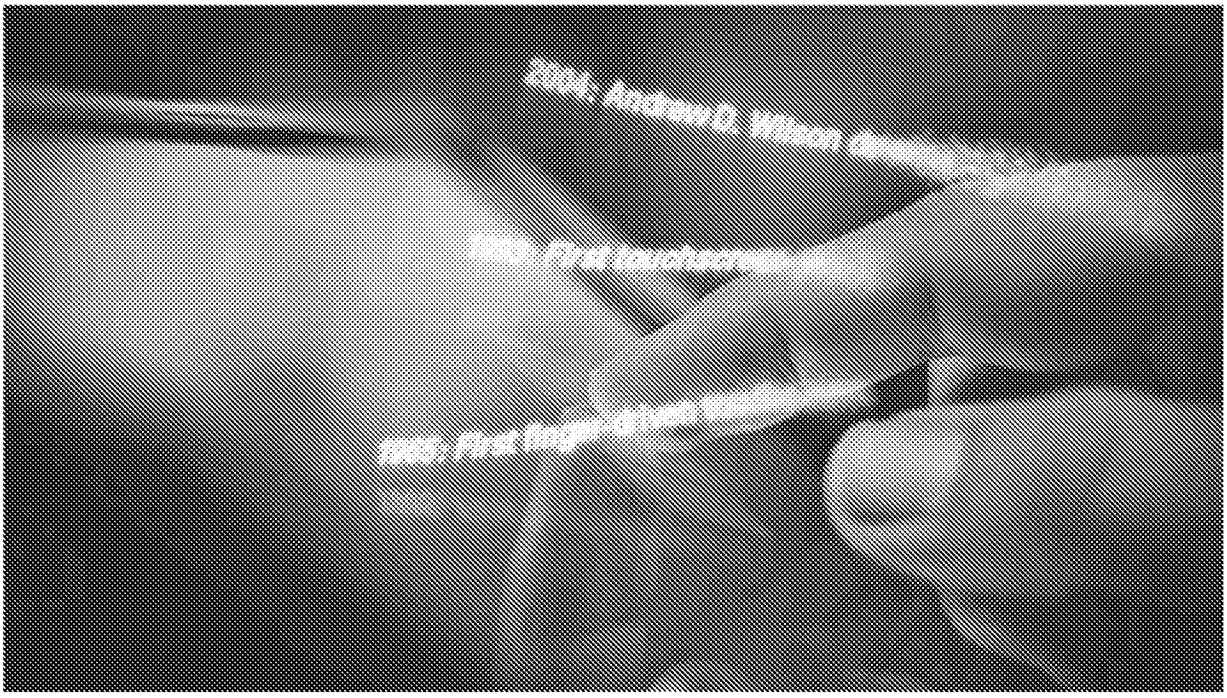
Exhibit 1016

THE PAST, PRESENT, AND FUTURE OF TOUCH —

From touch displays to the Surface: A brief history of touchscreen technology

The beginnings of capacitive, resisitive, and multitouch screens.

FLORENCE ION - 4/4/2013, 9:00 AM



Aurich Lawson / Thinkstock

It's hard to believe that just a few decades ago, touchscreen technology could only be found in science fiction books and film. These days, it's almost unfathomable how we once got through our daily tasks without a trusty tablet or smartphone nearby, but it doesn't stop there. Touchscreens really are *everywhere*. Homes, cars, restaurants, stores, planes, wherever—they fill our lives in spaces public and private.

The Past, Present, and Future of Touch

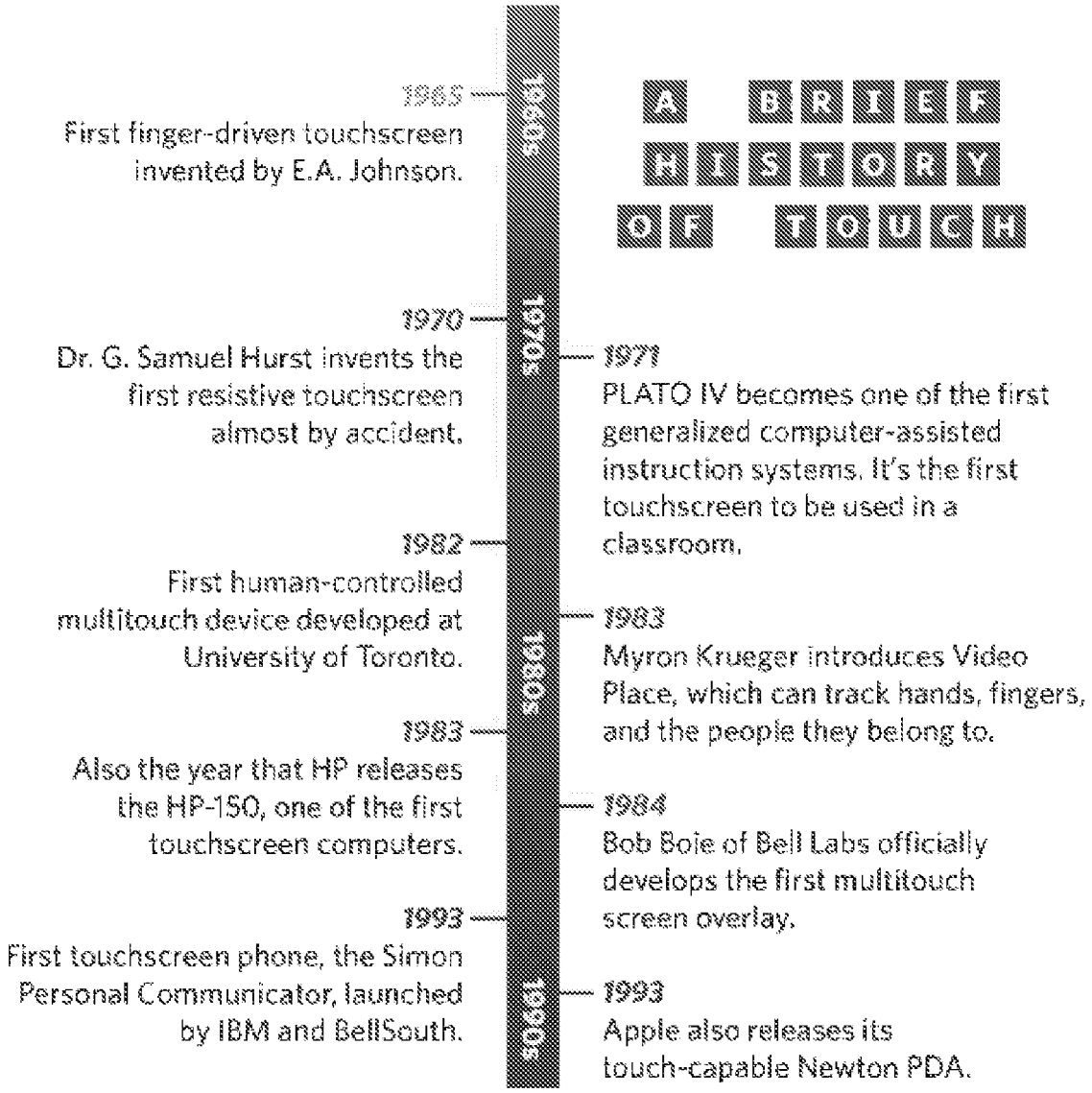
Finger-free phones, full body gesturing, and our "touchscreen" future

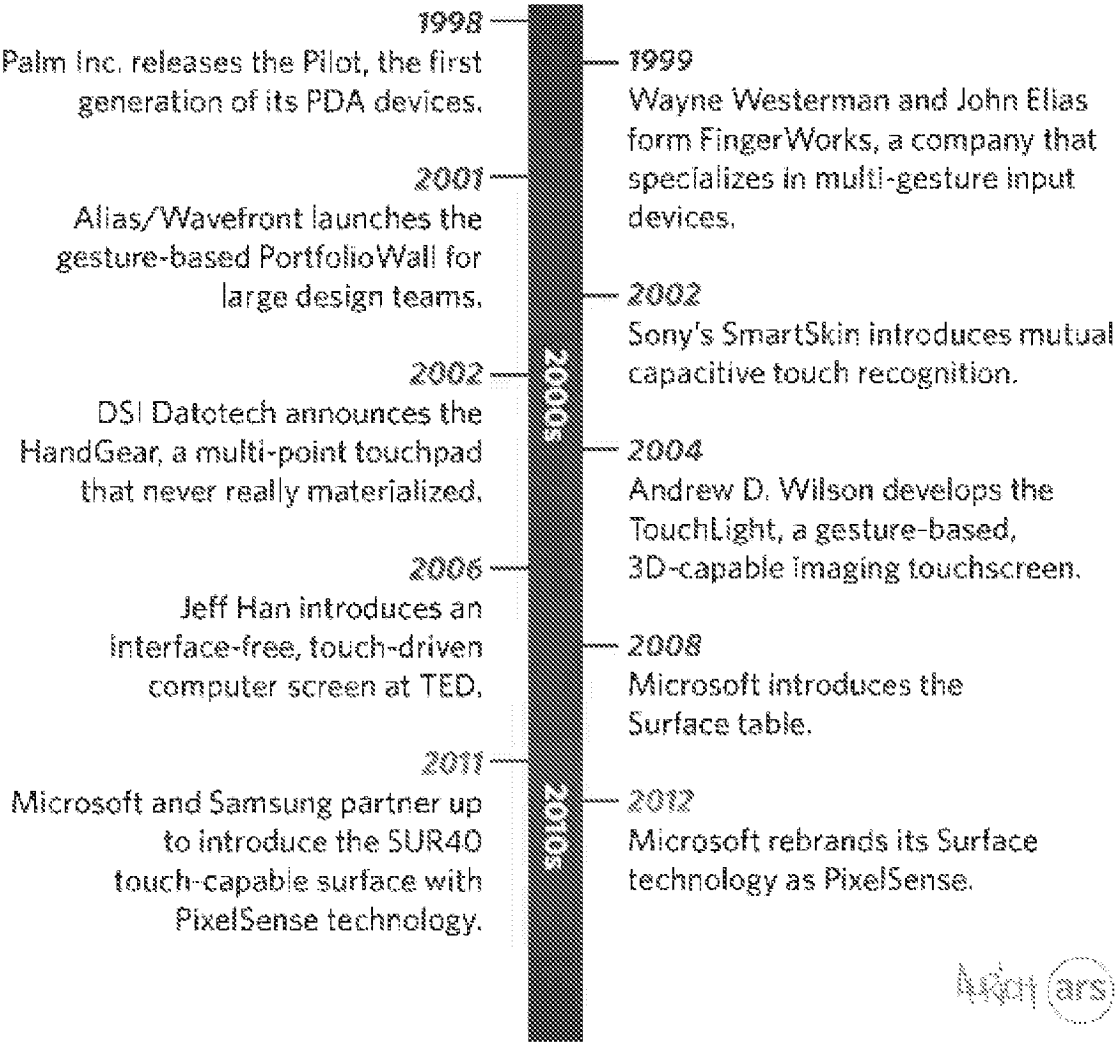
How today's touchscreen tech put the world at our fingertips

> View more stories

It took generations and several major technological advancements for touchscreens to achieve this kind of presence. Although the underlying technology behind touchscreens can be traced back to the 1940s, there's plenty of evidence that suggests touchscreens weren't feasible until at least 1965. Popular science fiction television shows like *Star Trek* didn't even refer to the technology until *Star Trek: The Next Generation* debuted in 1987, almost two decades after touchscreen technology was even deemed possible. But their inclusion in the series paralleled the advancements in the technology world, and by the late 1980s, touchscreens finally appeared to be realistic enough that consumers could actually employ the technology into their own homes.

This article is the first of a three-part series on touchscreen technology's journey to fact from fiction. The first three decades of touch are important to reflect upon in order to really appreciate the multitouch technology we're so used to having today. Today, we'll look at when these technologies first arose and who introduced them, plus we'll discuss several other pioneers who played a big role in advancing touch. Future entries in this series will study how the changes in touch displays led to essential devices for our lives today and where the technology might take us in the future. But first, let's put finger to screen and travel to the 1960s.





1960s: The first touchscreen