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(54) **VEHICLE OPERATOR AND/OR OCCUPANT INFORMATION APPARATUS AND METHOD**

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(56) **References Cited**

U.S. PATENT DOCUMENTS

2,674,352	A	4/1954	Braun, Sr.
3,482,037	A	12/1969	Brown, et al.
3,656,111	A	4/1972	Royster, Sr.
3,669,288	A	6/1972	Young
4,003,045	A	1/1977	Stockdale
4,030,088	A	6/1977	McCullough
4,050,301	A	9/1977	Cushing
4,064,509	A	12/1977	Stockdale
4,067,411	A	1/1978	Conley et al.
4,074,248	A	2/1978	Stockdale
4,100,543	A	7/1978	Stockdale et al.
4,137,429	A	1/1979	Stockdale

(Continued)

FOREIGN PATENT DOCUMENTS

CA	1277400	12/1990
DE	4423328	1/1996

(Continued)

OTHER PUBLICATIONS

"Onstar" at http://onstar.internetpressroom.com, pp. 1-37, Oct. 24, 2001.*
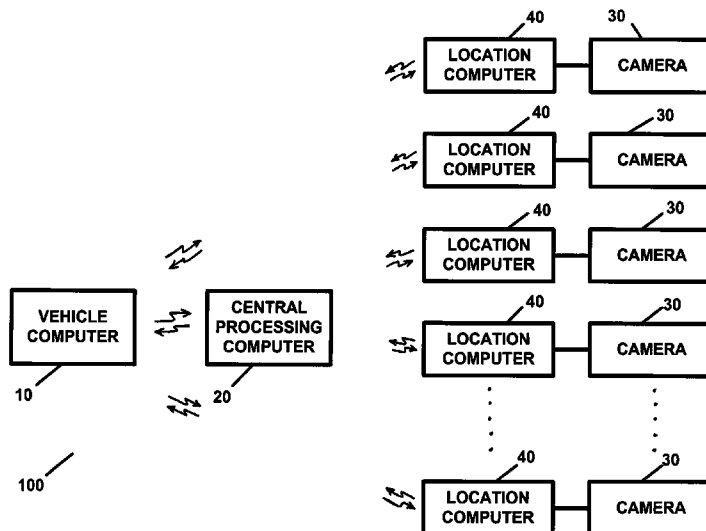
(Continued)

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(57) **ABSTRACT**

An apparatus including a processing device which identifies a first travel route, on which first travel route a vehicle can travel to a destination, and which generates a first message containing information regarding the first travel route, and a transmitter which transmits the first message to a communication device located at the vehicle. The apparatus automatically detects a departure of the vehicle from the first travel route, identifies a second travel route in response to the detected departure of the vehicle from the first travel route, generates a second message containing information regarding the second travel route, and transmits the second message to the communication device.

98 Claims, 6 Drawing Sheets

(56)　　　　**References Cited**

U.S. PATENT DOCUMENTS

4,137,553 A	1/1979	Tokitsu et al.
4,138,657 A	2/1979	Shave
4,145,581 A	3/1979	Stockdale
4,156,235 A	5/1979	Stockdale
4,156,286 A	5/1979	Connors et al.
4,177,466 A	12/1979	Reagan
4,191,948 A	3/1980	Stockdale
4,201,908 A	5/1980	Johnson et al.
4,206,449 A	6/1980	Galvin et al.
4,216,375 A	8/1980	Ulch et al.
4,227,588 A	10/1980	Biancardi
4,236,215 A	11/1980	Callahan et al.
4,257,063 A	3/1981	Loughry et al.
4,258,421 A	3/1981	Juhasz et al.
4,263,945 A	4/1981	Van Ness
4,325,079 A	4/1982	Little
4,326,221 A	4/1982	Mallos et al.
4,333,093 A	6/1982	Raber et al.
4,337,651 A	7/1982	Yoshino et al.
4,347,590 A	8/1982	Heger et al.
4,378,574 A	3/1983	Stephenson
4,402,050 A	8/1983	Tagami et al.
4,409,670 A	10/1983	Herndon et al.
4,420,238 A	12/1983	Felix
4,442,319 A	4/1984	Treidl
4,454,583 A	6/1984	Schneiderhan et al.
4,455,550 A	6/1984	Iguchi
4,470,116 A	9/1984	Ratchford
4,489,387 A	12/1984	Lamb et al.
4,491,690 A	1/1985	Daley
4,498,075 A	2/1985	Gaudio
4,511,886 A	4/1985	Rodriguez
4,517,565 A	5/1985	Nakamura et al.
4,521,777 A	6/1985	Nakamura et al.
4,522,146 A	6/1985	Carlson
4,524,243 A	6/1985	Shapiro
4,550,317 A	10/1985	Moriyama et al.
4,554,584 A	11/1985	Elam et al.
4,574,305 A	3/1986	Campbell et al.
4,591,823 A	5/1986	Horvat
4,596,988 A	6/1986	Wanka
4,602,127 A	7/1986	Neely et al.
4,604,711 A	8/1986	Benn et al.
4,619,231 A	10/1986	Stolar et al.
4,622,541 A	11/1986	Stockdale
4,623,320 A	11/1986	Kakizaki et al.
4,630,065 A	12/1986	Ichikawa
4,638,289 A	1/1987	Zottnik
4,644,478 A	2/1987	Stephens et al.
4,644,494 A	2/1987	Muller
4,645,872 A	2/1987	Pressman et al.
4,651,143 A	3/1987	Yamanaka
4,656,475 A	4/1987	Miller et al.
4,656,585 A	4/1987	Stephenson
4,660,037 A	4/1987	Nakamura
4,660,145 A	4/1987	Hansen
4,671,111 A	6/1987	Lemelson
4,673,937 A	6/1987	Davis
4,677,429 A	6/1987	Glotzbach
4,682,292 A	7/1987	Bue et al.
4,709,265 A	11/1987	Silverman et al.
4,710,917 A	12/1987	Tompkins et al.
4,721,954 A	1/1988	Mauch
4,729,102 A	3/1988	Miller, Jr. et al.
4,733,215 A	3/1988	Memmola
4,749,992 A	6/1988	Fitzemeyer et al.
4,760,547 A	7/1988	Duxbury
4,768,087 A	8/1988	Taub et al.
4,768,740 A	9/1988	Corrie
4,772,875 A	9/1988	Maddox et al.
4,775,028 A	10/1988	De Heering
4,785,404 A	11/1988	Sims et al.
4,785,472 A	11/1988	Shapiro
4,812,843 A	3/1989	Champion, III et al.
4,818,998 A	4/1989	Apsell et al.
4,821,118 A	4/1989	Lafreniere
4,831,438 A	5/1989	Bellman, Jr. et al.
4,831,539 A	5/1989	Hagenbuch
4,833,450 A	5/1989	Buccola et al.
4,835,546 A	5/1989	Keller
4,837,798 A	6/1989	Cohen et al.
4,838,275 A	6/1989	Lee
4,841,815 A	6/1989	Takahashi
4,847,781 A	7/1989	Brown, III et al.
4,853,850 A	8/1989	Krass, Jr. et al.
4,857,912 A	8/1989	Everett, Jr. et al.
4,860,112 A	8/1989	Nichols et al.
4,876,597 A	10/1989	Roy et al.
4,878,175 A	10/1989	Norden-Paul et al.
4,882,579 A	11/1989	Siwiak
4,882,743 A	11/1989	Mahmoud
4,882,746 A	11/1989	Shimada
4,891,650 A	1/1990	Sheffer
4,893,240 A	1/1990	Karkouti
4,896,580 A	1/1990	Rudnicki
4,897,630 A	1/1990	Nykerk
4,908,629 A	3/1990	Apsell et al.
4,918,615 A	4/1990	Suzuki et al.
4,931,793 A	6/1990	Fuhrmann et al.
4,937,569 A	6/1990	Trask et al.
4,939,522 A	7/1990	Newstead et al.
4,940,964 A	7/1990	Dao
4,945,410 A	7/1990	Walling
4,949,372 A	8/1990	Steele
4,951,147 A	8/1990	Aknar et al.
4,954,886 A	9/1990	Elberbaum
4,958,454 A	9/1990	Chan et al.
4,959,713 A	9/1990	Morotomi et al.
4,962,522 A	10/1990	Marian
4,963,995 A	10/1990	Lang
4,967,195 A	10/1990	Shipley
4,968,978 A	11/1990	Stolarczyk
4,986,384 A	1/1991	Okamoto et al.
4,988,992 A	1/1991	Heitschel et al.
4,989,146 A	1/1991	Imajo
4,991,123 A	2/1991	Casamassima
5,000,139 A	3/1991	Wong
5,002,491 A	3/1991	Abrahamson et al.
5,003,317 A	3/1991	Gray et al.
5,005,126 A	4/1991	Haskin
5,006,840 A	4/1991	Hamada et al.
5,008,840 A	4/1991	DePierro
5,014,206 A	5/1991	Scribner et al.
5,025,253 A	6/1991	DiLullo et al.
5,027,104 A	6/1991	Reid
5,031,103 A	7/1991	Kamimura et al.
5,032,845 A	7/1991	Velasco
5,054,569 A	10/1991	Scott et al.
5,055,851 A	10/1991	Sheffer
5,056,056 A	10/1991	Gustin
5,056,136 A	10/1991	Smith
5,057,932 A	10/1991	Lang
5,058,423 A	10/1991	Ozaki et al.
5,061,916 A	10/1991	French et al.
5,065,321 A	11/1991	Bezos et al.
5,068,656 A	11/1991	Sutherland
5,075,527 A	12/1991	Ikuma
5,079,538 A	1/1992	DeFino et al.
5,081,667 A	1/1992	Drori et al.
5,083,106 A	1/1992	Kostusiak et al.
5,084,828 A	1/1992	Kaufman et al.
5,086,385 A	2/1992	Launey et al.
5,097,253 A	3/1992	Eschbach et al.
5,099,245 A	3/1992	Sagey
5,113,185 A	5/1992	Ichikawa
5,113,427 A	5/1992	Ryoichi et al.
5,115,678 A	5/1992	Ozaki et al.
5,119,102 A	6/1992	Barnard
5,119,412 A	6/1992	Attallah
5,128,874 A	7/1992	Bhanu et al.

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,133,079	A	7/1992	Ballantyne et al.
5,133,081	A	7/1992	Mayo
5,138,649	A	8/1992	Krisbergh et al.
5,144,661	A	9/1992	Shamosh et al.
5,155,683	A	10/1992	Rahim
5,155,689	A	10/1992	Wortham
5,157,491	A	10/1992	Kassatly
5,164,839	A	11/1992	Lang
5,168,170	A	12/1992	Hartig
5,173,855	A	12/1992	Nielsen et al.
5,173,932	A	12/1992	Johansson et al.
5,177,604	A	1/1993	Martinez
5,189,396	A	2/1993	Stobbe
5,192,999	A	3/1993	Graczyk et al.
5,195,126	A	3/1993	Carrier et al.
5,202,759	A	4/1993	Laycock
5,206,934	A	4/1993	Naef, III
5,208,756	A	5/1993	Song
5,210,873	A	5/1993	Gay et al.
5,216,596	A	6/1993	Weinstein
5,218,367	A	6/1993	Sheffer et al.
5,223,816	A	6/1993	Levinson et al.
5,223,844	A	6/1993	Mansell et al.
5,224,211	A	6/1993	Roe
5,225,842	A	7/1993	Brown et al.
5,229,850	A	7/1993	Toyoshima
5,229,941	A	7/1993	Hattori
5,239,468	A	8/1993	Sewersky et al.
5,239,674	A	8/1993	Comroe et al.
5,247,439	A	9/1993	Gurmu et al.
5,247,564	A	9/1993	Zicker
5,253,275	A	10/1993	Yurt et al.
5,260,874	A	11/1993	Berner et al.
5,262,875	A	11/1993	Mincer et al.
5,263,396	A	11/1993	Ladan et al.
5,272,465	A	12/1993	Meares, Jr.
5,276,728	A	1/1994	Pagliaroli et al.
5,278,539	A	1/1994	Lauterbach et al.
5,278,547	A	1/1994	Suman et al.
5,281,367	A	1/1994	Schleck et al.
5,283,643	A	2/1994	Fujimoto
5,287,398	A	2/1994	Briault
5,291,414	A	3/1994	Tamai et al.
5,295,551	A	3/1994	Sukonick
5,299,132	A	3/1994	Wortham
5,303,042	A	4/1994	Lewis et al.
5,307,058	A	4/1994	Tokizane et al.
5,310,349	A	5/1994	Daniels et al.
5,311,434	A	5/1994	Tamai
5,313,201	A	5/1994	Ryan
5,315,515	A	5/1994	Schmitz
5,315,711	A	5/1994	Barone et al.
5,317,323	A	5/1994	Kennedy et al.
5,318,450	A	6/1994	Carver
5,319,355	A	6/1994	Russek
5,321,396	A	6/1994	Lamming et al.
5,321,615	A	6/1994	Frisbie et al.
5,331,577	A	7/1994	Grimes
5,334,974	A	8/1994	Simms et al.
5,347,306	A	9/1994	Nitta
5,353,034	A	10/1994	Sato et al.
5,366,896	A	11/1994	Margrey et al.
5,370,201	A	12/1994	Inubushi
5,373,282	A	12/1994	Carter
5,381,412	A	1/1995	Otani
5,382,943	A	1/1995	Tanaka
5,382,948	A	1/1995	Richmond
5,388,101	A	2/1995	Dinkins
5,389,935	A	2/1995	Drouault et al.
5,392,052	A	2/1995	Eberwine
5,396,216	A	3/1995	Morgan
5,400,018	A	3/1995	Scholl et al.
5,406,491	A	4/1995	Lima
5,412,708	A	5/1995	Katz
5,418,537	A	5/1995	Bird
5,424,940	A	6/1995	Ousborne
5,428,546	A	6/1995	Shah et al.
5,430,432	A	7/1995	Camhi et al.
5,430,656	A	7/1995	Dekel et al.
5,432,495	A	7/1995	Tompkins
5,432,841	A	7/1995	Rimer
5,434,973	A	7/1995	Lu
5,436,960	A	7/1995	Campana, Jr. et al.
5,438,517	A	8/1995	Sennott et al.
5,440,334	A	8/1995	Walters et al.
5,441,047	A	8/1995	David et al.
5,442,553	A	8/1995	Parrillo
5,445,347	A	8/1995	Ng
5,446,445	A	8/1995	Bloomfield et al.
5,446,659	A	8/1995	Yamawaki
5,448,218	A	9/1995	Espinosa
5,453,730	A	9/1995	De-Grinis et al.
5,457,597	A	10/1995	Rothschild
5,457,630	A	10/1995	Palmer
5,458,494	A	10/1995	Krohn et al.
5,461,372	A	10/1995	Busak et al.
5,463,554	A	10/1995	Araki et al.
5,465,115	A	11/1995	Conrad et al.
5,475,597	A	12/1995	Buck
5,479,206	A	12/1995	Ueno et al.
5,490,247	A	2/1996	Tung et al.
5,497,419	A	3/1996	Hill
5,508,733	A	4/1996	Kassatly
5,508,736	A	4/1996	Cooper
5,508,917	A	4/1996	Siegle et al.
5,509,009	A	4/1996	Laycock et al.
5,510,828	A	4/1996	Lutterbach et al.
5,510,832	A	4/1996	Garcia
5,512,902	A	4/1996	Guthrie et al.
5,513,107	A	4/1996	Gormley
5,513,244	A	4/1996	Joao et al.
5,515,043	A	5/1996	Berard et al.
5,515,285	A	5/1996	Garrett, Sr. et al.
5,519,669	A	5/1996	Ross et al.
5,523,765	A *	6/1996	Ichikawa 342/451
5,523,816	A	6/1996	Sherman, Jr. et al.
5,523,950	A	6/1996	Peterson
5,526,269	A	6/1996	Ishibashi et al.
5,528,281	A	6/1996	Grady et al.
5,533,589	A	7/1996	Critzer
5,535,278	A	7/1996	Cahn et al.
5,537,141	A	7/1996	Harper et al.
5,537,143	A	7/1996	Steingold et al.
5,541,585	A	7/1996	Duhame et al.
5,543,778	A	8/1996	Stouffer
5,544,036	A	8/1996	Brown, Jr. et al.
5,544,649	A	8/1996	David et al.
5,547,149	A	8/1996	Kalberer et al.
5,548,753	A	8/1996	Linstead et al.
5,550,738	A	8/1996	Bailey et al.
5,550,863	A	8/1996	Yurt et al.
5,553,589	A	9/1996	Middleton et al.
5,553,609	A	9/1996	Chen et al.
5,557,254	A	9/1996	Johnson et al.
5,557,522	A	9/1996	Nakayama et al.
5,559,511	A	9/1996	Ito et al.
5,559,707	A	9/1996	DeLorme et al.
5,563,453	A	10/1996	Nyfelt
5,566,084	A	10/1996	Cmar
5,568,535	A	10/1996	Sheffer et al.
5,572,438	A	11/1996	Ehlers et al.
5,577,689	A	11/1996	Haro
5,581,297	A	12/1996	Koz et al.
5,586,130	A	12/1996	Doyle
5,587,715	A	12/1996	Lewis
5,588,038	A	12/1996	Snyder
5,592,491	A	1/1997	Dinkins
5,594,425	A	1/1997	Ladner et al.
5,594,740	A	1/1997	LaDue
5,594,953	A	1/1997	Ross et al.

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,600,368	A	2/1997	Matthews, III
5,602,450	A	2/1997	Cowan et al.
5,606,361	A	2/1997	Davidsohn et al.
5,613,055	A	3/1997	Shimoura et al.
5,619,183	A	4/1997	Ziegra et al.
5,625,670	A	4/1997	Campana, Jr. et al.
5,627,529	A	5/1997	Duckworth et al.
5,627,753	A	5/1997	Brankin et al.
5,629,980	A	5/1997	Stefik et al.
5,633,872	A	5/1997	Dinkins
5,636,211	A	6/1997	Newlin et al.
5,638,280	A *	6/1997	Nishimura et al. 701/209
5,640,442	A	6/1997	Fitzgerald et al.
5,648,769	A	7/1997	Sato et al.
5,650,774	A	7/1997	Drori
5,652,564	A	7/1997	Winbush
5,660,246	A	8/1997	Kaman
5,661,651	A	8/1997	Geschke et al.
5,668,537	A	9/1997	Chansky et al.
5,671,158	A	9/1997	Fournier et al.
5,680,123	A	10/1997	Lee
5,682,133	A	10/1997	Johnson et al.
5,689,442	A	11/1997	Swanson et al.
5,694,335	A	12/1997	Hollenberg
5,699,276	A	12/1997	Roos
5,708,417	A	1/1998	Tallman et al.
5,710,970	A	1/1998	Walters et al.
5,712,789	A	1/1998	Radican
5,715,905	A	2/1998	Kaman
5,717,379	A	2/1998	Peters
5,717,392	A	2/1998	Eldridge
5,719,771	A	2/1998	Buck et al.
5,721,550	A	2/1998	Lopez
5,721,829	A	2/1998	Dunn et al.
5,724,092	A	3/1998	Davidsohn et al.
5,724,475	A	3/1998	Kirsten
5,727,950	A	3/1998	Cook et al.
5,729,217	A	3/1998	Ito et al.
5,729,452	A	3/1998	Smith et al.
5,731,785	A	3/1998	Lemelson et al.
5,732,074	A	3/1998	Spaur et al.
5,734,413	A	3/1998	Lappington et al.
5,734,963	A	3/1998	Fitzgerald et al.
5,736,927	A	4/1998	Stebbins et al.
5,737,222	A	4/1998	Palmer
5,742,924	A	4/1998	Nakayama
5,745,161	A	4/1998	Ito
5,751,245	A	5/1998	Janky et al.
5,752,217	A *	5/1998	Ishizaki et al. 701/201
5,754,430	A	5/1998	Sawada
5,756,934	A	5/1998	Purdom
5,757,640	A	5/1998	Monson
5,758,300	A	5/1998	Abe
5,758,313	A	5/1998	Shah et al.
5,760,742	A	6/1998	Branch et al.
5,761,625	A	6/1998	Honcik et al.
5,765,152	A	6/1998	Erickson
5,769,643	A	6/1998	Stevens, III
5,772,446	A	6/1998	Rosen
5,774,064	A	6/1998	Lambropoulos et al.
5,774,876	A	6/1998	Woolley et al.
5,786,746	A	7/1998	Lombardo et al.
5,788,508	A	8/1998	Lee et al.
5,790,019	A	8/1998	Edwin
5,791,441	A	8/1998	Matos et al.
5,793,300	A	8/1998	Suman et al.
5,793,980	A	8/1998	Glaser et al.
5,796,365	A	8/1998	Lewis
5,796,612	A	8/1998	Palmer
5,796,728	A	8/1998	Rondeau et al.
5,798,647	A	8/1998	Martin et al.
5,801,618	A	9/1998	Jenkins
5,801,943	A *	9/1998	Nasburg 701/117
5,809,161	A	9/1998	Auty et al.
5,811,886	A	9/1998	Majmudar
5,812,931	A	9/1998	Yuen
5,812,959	A	9/1998	Froeburg et al.
5,815,093	A	9/1998	Kikinis
5,815,557	A	9/1998	Larson
5,816,918	A	10/1998	Kelly et al.
5,818,439	A	10/1998	Nagasaka et al.
5,819,172	A	10/1998	Campana, Jr. et al.
5,819,201	A	10/1998	DeGraaf
5,821,718	A	10/1998	Shaffer et al.
5,821,880	A	10/1998	Morimoto et al.
5,823,948	A	10/1998	Ross, Jr. et al.
5,825,283	A	10/1998	Camhi
5,826,827	A	10/1998	Coyaso et al.
5,835,376	A	11/1998	Smith et al.
5,835,871	A	11/1998	Smith et al.
5,838,250	A	11/1998	Maekawa
5,838,255	A	11/1998	Di Croce
5,838,683	A	11/1998	Corley et al.
5,841,638	A	11/1998	Purdom et al.
5,842,199	A	11/1998	Miller et al.
5,842,978	A	12/1998	Levy
5,844,473	A	12/1998	Kaman
5,844,601	A	12/1998	McPheely et al.
5,845,203	A	12/1998	LaDue
5,845,227	A	12/1998	Peterson
5,845,240	A	12/1998	Fielder
5,845,283	A	12/1998	Williams et al.
5,848,373	A	12/1998	DeLorme et al.
5,850,250	A	12/1998	Konopka et al.
5,854,969	A	12/1998	Gullner
5,861,799	A	1/1999	Szwed
5,862,330	A	1/1999	Anupam et al.
5,862,500	A	1/1999	Goodwin
5,862,511	A	1/1999	Croyle et al.
5,867,208	A	2/1999	McLaren
5,867,821	A	2/1999	Ballantyne et al.
5,877,707	A	3/1999	Kowalick
5,878,368	A	3/1999	DeGraaf
5,880,720	A	3/1999	Iwafune et al.
5,884,032	A	3/1999	Bateman et al.
5,884,202	A	3/1999	Arjomand
5,890,079	A	3/1999	Levine
5,892,437	A	4/1999	Scheibe et al.
5,895,440	A	4/1999	Proctor et al.
5,896,020	A	4/1999	Pyo
5,897,602	A	4/1999	Mizuta
5,897,623	A	4/1999	Fein et al.
5,898,392	A	4/1999	Bambini et al.
5,899,956	A	5/1999	Chan
5,900,905	A	5/1999	Shoff et al.
5,903,226	A	5/1999	Suman et al.
5,903,816	A	5/1999	Broadwin et al.
5,908,465	A	6/1999	Ito et al.
5,910,882	A	6/1999	Burrell
5,911,582	A	6/1999	Redford et al.
5,911,776	A	6/1999	Guck
5,913,917	A	6/1999	Murphy
5,914,685	A	6/1999	Kozlov et al.
5,917,405	A	6/1999	Joao
5,917,406	A	6/1999	Postel
5,917,434	A	6/1999	Murphy
5,919,244	A	7/1999	Danz et al.
5,922,037	A	7/1999	Potts
5,922,041	A	7/1999	Anderson
5,925,103	A	7/1999	Magallanes et al.
5,929,850	A	7/1999	Broadwin et al.
5,931,878	A	8/1999	Chapin, Jr.
5,936,553	A	8/1999	Kabel
5,938,721	A	8/1999	Dussell et al.
5,944,768	A	8/1999	Ito et al.
5,945,919	A	8/1999	Trask
5,948,026	A	9/1999	Beemer, II. et al.
5,948,040	A	9/1999	DeLorme et al.
5,949,345	A	9/1999	Beckert et al.
5,950,543	A	9/1999	Oster

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,959,577 A	9/1999	Fan et al.
5,960,337 A	9/1999	Brewster et al.
5,961,571 A	10/1999	Gorr et al.
5,963,202 A	10/1999	Polish
5,969,595 A	10/1999	Schipper et al.
5,969,714 A	10/1999	Butcher
5,969,953 A	10/1999	Purdom et al.
5,973,619 A	10/1999	Paredes
5,974,349 A	10/1999	Levine
5,974,446 A	10/1999	Sonnenreich et al.
5,976,567 A	11/1999	Wheeler et al.
5,976,648 A	11/1999	Li et al.
5,978,567 A	11/1999	Rebane et al.
5,978,648 A	11/1999	George et al.
5,978,799 A	11/1999	Hirsch
5,982,048 A	11/1999	Fendt et al.
5,982,418 A	11/1999	Ely
5,983,161 A	11/1999	Lemelson et al.
5,988,645 A	11/1999	Downing
5,991,690 A	11/1999	Murphy
5,991,692 A	11/1999	Spencer, II et al.
5,995,705 A	11/1999	Lang
5,999,808 A	12/1999	LaDue
6,001,065 A	12/1999	DeVito
6,001,066 A	12/1999	Canfield et al.
6,002,326 A	12/1999	Turner
6,002,720 A	12/1999	Yurt et al.
6,002,972 A	12/1999	Palmer
6,003,007 A	12/1999	DiRienzo
6,006,159 A	12/1999	Schmier et al.
6,007,095 A	12/1999	Stanley
6,007,426 A	12/1999	Kelly et al.
6,009,355 A	12/1999	Obradovich et al.
6,009,356 A	12/1999	Monroe
6,009,363 A	12/1999	Beckert et al.
6,009,370 A	12/1999	Minowa et al.
6,014,447 A	1/2000	Kohnen et al.
6,014,569 A	1/2000	Bottum
6,016,475 A	1/2000	Miller et al.
6,018,710 A	1/2000	Wynblatt et al.
6,020,825 A	2/2000	Chansky et al.
6,020,826 A	2/2000	Rein
6,021,371 A	2/2000	Fultz
6,023,708 A	2/2000	Mendez et al.
6,028,505 A	2/2000	Drori
6,028,537 A	2/2000	Suman et al.
6,028,550 A	2/2000	Froeberg et al.
6,029,111 A	2/2000	Croyle
6,037,942 A	3/2000	Millington
6,037,977 A	3/2000	Peterson
6,038,509 A	3/2000	Poppen et al.
6,044,990 A	4/2000	Palmeri
6,046,678 A	4/2000	Wilk
6,047,264 A	4/2000	Fisher et al.
6,049,711 A	4/2000	Ben-Yehezkel et al.
6,049,755 A	4/2000	Lou et al.
6,052,646 A	4/2000	Kirkhart et al.
6,055,314 A	4/2000	Spies et al.
6,055,479 A	4/2000	Kirkhart et al.
6,058,339 A	5/2000	Takiguchi et al.
6,059,843 A	5/2000	Kirkhart
6,061,570 A	5/2000	Janow
6,064,322 A	5/2000	Ohira
6,064,335 A	5/2000	Eschenbach
6,067,451 A	5/2000	Campana, Jr. et al.
6,067,571 A	5/2000	Igarashi et al.
6,070,932 A	6/2000	Lopez-Baquero et al.
6,072,402 A	6/2000	Kniffin et al.
6,073,106 A	6/2000	Rozen et al.
6,075,527 A	6/2000	Ichihashi et al.
6,076,039 A	6/2000	Kabel et al.
6,076,066 A	6/2000	DiRienzo et al.
6,078,800 A	6/2000	Kasser

6,091,956 A *	7/2000	Hollenberg 455/456
6,102,487 A	8/2000	.O slashed.vreb.o slashed.
6,104,815 A	8/2000	Alcorn et al.
6,108,493 A	8/2000	Miller et al.
6,108,591 A	8/2000	Segal et al.
6,108,603 A	8/2000	Karunanidhi
6,112,141 A	8/2000	Briffe et al.
6,113,493 A	9/2000	Walker et al.
6,124,825 A	9/2000	Eschenbach
6,131,060 A	10/2000	Obradovich et al.
6,131,096 A	10/2000	Ng et al.
6,131,116 A	10/2000	Riggins et al.
6,137,485 A	10/2000	Kawai et al.
6,138,241 A	10/2000	Eckel et al.
6,141,608 A	10/2000	Rother
6,141,620 A	10/2000	Zyburt et al.
6,141,621 A	10/2000	Piwowarski et al.
6,144,318 A	11/2000	Hayashi et al.
6,144,702 A	11/2000	Yurt et al.
6,148,081 A	11/2000	Szymanski et al.
6,148,291 A	11/2000	Radican
6,151,539 A	11/2000	Bergholz et al.
6,151,606 A	11/2000	Mendez
6,151,626 A	11/2000	Tims et al.
6,161,005 A	12/2000	Pinzon
6,163,269 A	12/2000	Millington et al.
6,163,753 A	12/2000	Beckmann et al.
6,167,432 A	12/2000	Jiang
6,169,955 B1	1/2001	Fultz
6,172,641 B1	1/2001	Millington
6,173,232 B1	1/2001	Nanba et al.
6,178,380 B1	1/2001	Millington
6,181,994 B1	1/2001	Colson et al.
6,188,325 B1	2/2001	Vogel
6,188,956 B1	2/2001	Walters
6,191,825 B1	2/2001	Sprogis et al.
6,192,314 B1	2/2001	Khavakh et al.
6,202,026 B1	3/2001	Nimura et al.
6,208,379 B1	3/2001	Oya et al.
6,208,386 B1	3/2001	Wilf et al.
6,208,973 B1	3/2001	Boyer et al.
6,211,798 B1	4/2001	Albrecht et al.
6,216,104 B1	4/2001	Moshfeghi et al.
6,222,583 B1	4/2001	Matsumura et al.
6,226,389 B1	5/2001	Lemelson et al.
6,229,479 B1	5/2001	Kozlov et al.
6,233,341 B1	5/2001	Riggins
6,233,506 B1	5/2001	Obradovich et al.
6,233,517 B1	5/2001	Froeberg
6,236,330 B1	5/2001	Cohen
6,243,691 B1	6/2001	Fisher et al.
6,244,758 B1	6/2001	Solymar et al.
6,249,241 B1 *	6/2001	Jordan et al. 342/41
6,252,522 B1	6/2001	Hampton et al.
6,256,029 B1	7/2001	Millington
6,263,322 B1	7/2001	Kirkevold et al.
6,266,612 B1	7/2001	Dussell et al.
6,269,392 B1	7/2001	Cotichini et al.
6,273,856 B1	8/2001	Sun et al.
6,275,231 B1	8/2001	Obradovich
6,278,396 B1	8/2001	Tran
6,281,797 B1	8/2001	Forster et al.
6,282,490 B1	8/2001	Nimura et al.
6,282,495 B1	8/2001	Kirkhart et al.
6,283,761 B1	9/2001	Joao
6,292,227 B1	9/2001	Wilf et al.
6,292,828 B1	9/2001	Williams
6,295,492 B1	9/2001	Lang et al.
6,296,544 B1	10/2001	Hochfeld
6,297,853 B1	10/2001	Sharir et al.
6,298,303 B1	10/2001	Khavakh et al.
6,307,948 B1	10/2001	Kawasaki et al.
6,308,134 B1	10/2001	Croyle et al.
6,317,592 B1	11/2001	Campana, Jr. et al.
6,318,536 B1	11/2001	Korman et al.
6,321,158 B1	11/2001	DeLorme et al.
6,321,221 B1	11/2001	Bieganski

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