

EXHIBIT 4

D24518-003A

13 May 1997

I. SUMMARY OF PROGRAM STATUS

1.1. KEY ACCOMPLISHMENTS

- A. Task Force XXI AWE. Completed all activities at NTC, including the de-install of the Appliqué equipment from the 1-5 Btn.
- B. Program Planning. Provided technical, cost, and schedule estimates for various alternatives and excursions (for example, adding a late 1998 or early 1999 NTC rotation to the program plan, adding a Limited User Test [LUT] to the program plan, moving the FDT&E from 1998 / system Version 2 to 1999 / system Version 3, etc.) to PM Appliqué upon request, for their use in refining the program plan for the next several years in light of the results of the TF XXI AWE, and emerging Army decisions regarding the future of the FBCB2 program.
- C. Lessons-Learned. Completed initial cut at developing “lessons-learned” from system version 1 and the TF XXI AWE. Eighty-five (85) specific technical improvements to the system were identified, and tentatively scheduled into future releases of the FBCB2 system (although these have not yet been finalized with PM Appliqué, and some adjustments and additions may still be made to this list). More than fifty (50) of these are now scheduled to be incorporated into the Version 2 system to be brought to the FBCB2 test milestone (FDT&E or LUT) in 1998; these are over-and-above previously-planned capabilities for FBCB2 Version 2.
- D. Tactical InterNet. Made substantial progress on the design of the “next-generation” Tactical InterNet, including coordination with other “stake-holders” in the Tactical InterNet process. Specific activities include:
 1. Continued video teleconferences on Tactical Internet (TI) implementation topics with participation from PM Appliqué, PM TRCS, PM JTACS, CECOM, ITT, HAC, TRW, and others. These meetings, which are held approximately every two weeks, provide a forum for discussion/resolution of technical issues related to the TI. Examples of topics discussed to date include mini-router concept, approach to network monitoring/management, and emerging results from data analysis.
 2. Reached agreement among the TI “stake-holder” group (PM Appliqué, PM TRCS, CECOM RDEC, PEO C3s, ITT, HAC, TRW, and others) on key elements of the design and functionality of the TI for the 1998 FBCB2 LUT (FBCB2 system Version 2). Functionality and top-level design for the key TI threads (unicast, broadcast, and multicast) have been agreed to, with a small number of topics for further discussion identified, and a process and time-frame for reaching closure agreed to. A concept for the schedule to reach the 1998 test milestone (a LUT in August 1998 at Ft. Hood) has also been agreed to, with topics requiring further coordination identified and a process and time-frame for reaching closure agreed

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3. Prepared original draft of the FBCB2 Performance Description Document (FPDD). This document will be used in place of the Appliqué Performance Description Document for documenting the analysis and results of performance related issues. This document will be released to the government in early May.
4. Prepared and internally coordinated an updated outline for the FBCB2 Interface Control Document (CDRL B005).

D. Communications Studies and Analyses

1. Continued planning process to identify, establish, prioritize and schedule critical systems engineering studies needed to support hardware and software design activities. Studies include expanded Situational Awareness (Friendly, Enemy and Sensor data) dissemination and correlation, Scaleability, Reliable Delivery of C2 messages and server implementation and distribution schemes and security.
2. Initiated decomposition of Technical Performance Measures to support subsystem performance requirement definition.
3. Coordinated Operational Architecture activities with Ed McCarthy (Mitre) to ensure the products of the our analyses can be fed into the Operational Architecture database.
4. Coordinated Plans with the Signal Center to visit the to visit Army Schools in support of the Operational Architecture analyses (FIO). A project coordination meeting will be held in early May to make sure project (software, hardware, ILS, communications) information requirements are identified.
5. Presented the evolving FBCB2 Security concepts and requirements to the project staff

E. Modeling and Simulation

1. Verifying DBCM enhancements to include Situational Awareness and Communications trade studies. Enhancements include support for dynamic server registration and C2 broadcast using EPLRS CSMA.
2. Developing plan to evaluated Mil-3 (OPNET) OSPF module. Plans are to determine feasibility of using this module to support dynamic routing in the DBCM.
3. Documented and distributed for review the SE review, the results of analyses used to determine performance requirements in support of ADOC and S/SDD. These results were incorporated into the FPDD which is scheduled to be delivered to the Government in Early May.

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4. Started M&S coordination activities with Sal Barone (CECOM RDEC) to ensure SPM modeling activities are in sync with FBCB2. Plans are being developed to conduct a Technical Interchange Meeting (TIM) during the week of 12 May to discuss details of algorithm changes needed to support dynamic SA client registration and C2 broadcast over CSMA.

F. Interfaces/Interoperability

1. BCIS European demonstration (T&M). Installed Appliqué Version 1.02 software and map data onto the PND computers. Collected and shipped equipment to Germany in preparation for end of May activity.
2. CBDCOM (T&M). Successfully completed field integration of Appliqué software Version 1.0.2b with CBDCOM patch with the CP LR-BSDS during the week of 7 April. Prior exchange of VMF message bit streams greatly reduced the integration time. A minor problem was discovered and fixed where the serial I/F baud rate was set for 9600 bps instead of 4800 bps specified in the ICD. All 5 DSSU computers were configured with the final release of 1.0.2b with CBDCOM patch and shipped to three different locations (2 to Aberdeen, MA 2 to Orlando, FL and 1 to MICAD contractor in Glendale, CA). MICAD integration was proposed as a separate task option due to its schedule. Additional funds were received to support this integration effort which is schedule for July/August 1997. This effort will produce a new software Version 1.0.2c that incorporate fixes discovered during the integration process with MICAD.

G. RFPI. Submitted an early (rough) release of RFPI address book assignments to Appliqué URNs. Supported numerous questions following release of this data.

1. Completed update to Appliqué database to include 70 new Tactical Unit Names mapped against existing URNs used during TF XXI. Successfully integrated patch floppies with Appliqué software Version 1.0.2a including all patches up to patch #13. Modified SA server assignments to ensure proper SA dissemination.
2. Began on-site support at Ft. Benning, GA and Huntsville, AL starting 21 April to begin integration of RFPI patch with LDTOC, MODSAF, and DC2 equipment. Patch was fully installed and tested in 2 days. Subsequent efforts focused on inter-site communication using DIS network, the injection of MODSAF VMF position reports for virtual units, and DC2 interface with ABCS. Discovered that MODSAF was changing the source URN of each position report to match the URN of the unit that was being reported. Previous discussions assumed that MODSAF would be injected the same as JANUS data (from a single URN with a role code of 480). MODSAF was changed to act the same as JANUS.

2.1.2. Major difficulties encountered, and plans to overcome those difficulties

None