MATERIEL FIELDING

1. Introduction.

a. The United States Army Materiel Command (AMC) and other fielding commands want to provide our soldiers with the best equipment and support structure. There is no time in the acquisition process more important or of greater impact on the reputation of a fielding command than the point at which the fielding command hands off equipment to the soldier.

b. The Army Materiel Command initiated a formal materiel fielding process in the 1970's. AMC initiated materiel fielding long before "continuous process improvement" "re-engineering" "zero defects" and other process improvement programs were implemented. AMC recognized that if the soldier is to have confidence in equipment, the equipment must perform well and be supportable when it is first issued. If it does not, the soldier experiences a loss of confidence that is very difficult to overcome. In addition to the soldier's own personal dissatisfaction, he or she can damage the reputation of the equipment in the minds of other users by "bad mouthing" equipment that fails to do the job. This points out an important aspect of the fielding process. It is a psychological as well as a physical process.

c. Materiel fielding represents the end product of an acquisition program. It is part of the acquisition process.

2. Objectives. Upon completion of this unit of instruction, you should be able to:

a. Define materiel fielding and describe the purpose and objectives of the materiel fielding and release processes.

b. Distinguish between the terms first unit equipped date (FUED) and initial operational capability (IOC) and explain their significance to the fielding process.

c. Describe the documents used to plan and coordinate the materiel fielding process.

d. Explain the responsibilities of the gaining and fielding commands during the materiel fielding process.

e. Describe the concept of Total Package Fielding.

3. What is Materiel Fielding?

a. "Materiel fielding is the process of planning, coordinating, and executing the deployment of a materiel system and its support. It is characterized by advance planning, coordination, and agreement between the materiel developer and the gaining MACOM. The process of materiel fielding is designed to achieve an orderly and satisfactory deployment of a materiel system and

its initial support beginning with the first unit equipped (FUE) and extending until initial deployment to all units is complete."[1]

4. Distinction between FUED and IOC. The success of materiel fielding is evaluated in terms of how quickly and smoothly initial operational capability is achieved and the ability of the user to meet and sustain an acceptable operational readiness rate. What is commonly misunderstood is that materiel fielding and IOC are not the same.

a. Materiel fielding is a big step in attaining IOC. However, the materiel fielding date is more properly called the first unit equipped date. "First unit equipped date (FUED) is the scheduled date a system or end item and its agreed upon support elements are issued to the designated initial operational capability unit and training specified in the new equipment training plan has been accomplished."[2]

b. "Initial Operational Capability (IOC). The first attainment of the capability to employ effectively a weapon, item of equipment, or system of approved specific characteristics with the appropriate number, type, and mix of trained and equipped personnel necessary to operate, maintain, and support the system."[3]

c. The distinction between these two time frames hinges primarily on one support element--training. By definition, the FUED requires the gaining unit to possess the support elements to equip the unit. Therefore, both range and quantity of repair parts, tools, and test equipment are stocked; technical publications are on hand; the personnel structure is present; and training aids, devices, and soldier's manuals are issued. The operative difference distinguishing IOC from FUED is whether the IOC unit is capable of employing the system. The difference between these two dates is at IOC, unit personnel are trained to effectively operate, maintain, support, and sustain the system in the field; in other words, the unit is tactically and logistically combat ready.

5. The Materiel Fielding Process.

a. Materiel fielding starts with initial integrated logistic support (ILS) planning. Beginning with early recognition of fielding requirements, constraints, and resource impact, materiel fielding evolves into detailed planning and coordination in the System Development and Demonstration (SDD) phase. In a more simplistic view, materiel fielding is like a "report card" for our ILS effort. When acquisition schedules are accelerated, provisions must be made to accelerate the materiel fielding process.

b. What are the objectives of materiel fielding?

(1) "Have sufficient time and advance information to plan, program, and budget for the necessary materiel, personnel, skills, and facilities to properly receive, use, maintain, and support new Army systems."

[1] AR 700-142, Materiel Fielding, Release and Transfer.
[2] DA PAM 73-5, Operational Test and Evaluation Guidelines.
[3] Defense Acquisition Desk Book Glossary.

(2) "Have sufficient time and advance information to plan, program, and budget for the transfer and support of replaced and displaced Army systems which will remain in service with the United States or its allies."

(3) "Provide, receive, and deploy materiel systems that are fully operational and supportable in the military environment."[4]

6. Materiel Release.

a. "Policy. Materiel approved for release must be safe (or have an approved waiver), operationally suitable, and logistically supportable. The commander responsible for system support has materiel release authority for all new and modified, or major overhaul equipment and systems."

b. "The objectives of the materiel release for issue process are to

(1) Establish a management control system to ensure that materiel released for issue by the Army is safe, operates as designed, and is logistically supportable.

(2) Provide a system that enables HQDA overall visibility and control of the materiel release process.

(3) Provide a mechanism to monitor, control, and follow through on all conditional releases until full release is obtained.

c. Types of release.

(1) Full release. A full release is authorized when the following criteria are met: (a) The materiel has been tested and evaluated and meets all established requirements of the requirements documents and specifications, or a decision has been made by the CBTDEV or functional proponent to accept the current performance without further improvement required. (b) The gaining MACOM concurs with the final MFP and signs the MFA for Army systems, or the Joint Integrated Logistics Support Plan (JILSP) for joint service materiel system acquisitions. (c) Provisions have been made to accomplish new equipment training (NET) prior to or concurrent with fielding. (d) All other aspects of the logistics support system in the ILSP have been achieved.

(2) Conditional release. A conditional materiel release (MR) may be authorized when one or more of the criteria for full release have not been met. Systems supported by interim contractor support (ICS) must be conditionally released. Upon transition from ICS to organic support, the system proponent must submit a request for a full release. If an urgent need exists for the materiel and interim means of support, controls, and hardware and software modifications are available and acceptable to the user MACOM, a conditional MR may be authorized.

[4] DA PAM 700-142, Instructions for Materiel Release, Fielding and Transfer

(3) Training release. This is the release of materiel for training only. Materiel release for training may include prototype or test items, items manufactured under conditions other than normal production, items that are incomplete (major components missing or defective), or items where one or more of the requirements for full release have not been met."[5]

7. Type classification.

a. "Type Classification (TC) is the process through which the MATDEV [materiel developer] identifies the degree of acceptability of a materiel item for Army use. Type classification provides a guide to authorization, procurement, logistical support, and asset and readiness reporting.

b. Type classification is an integral part of the process leading up to the Milestone III production approval and eventual fielding of the item. Type classification will be executed as part of the WIPT(s) [Working Level Integrated Process or Product Team] under the control of the PM and will not duplicate any of the other functions associated with Milestone III. As with all facets of acquisition, documentation will be held to an absolute minimum. Final approval of TC is the responsibility of the MDA and that approval will be documented in the MS III [Milestone III] Acquisition Decision Memorandum (ADM).

c. Type classification designations are as follows:

(1) *Standard* (STD) is used for materiel items determined to be acceptable for the mission intended, capable of being supported in their intended environment, and acceptable for introduction into the U.S. Army inventory. STD is also for materiel items that are capable of being made acceptable without further development effort prior to fielding. This designation includes items that have been or are being replaced by new STD items but are still acceptable for the intended missions.

(2) *Generic* is used only for commercial and non-developmental items. It is essentially the first step in a two-step process when make and model are not initially known. In this situation, type classification generic, based on performance specifications or a functional purchase description, is used to allow the solicitation to proceed. The second step is type classification STD. Type classification standard must be accomplished prior to fielding when a manufacturer is selected, all testing requirements and acceptance criteria are satisfied, the make and model number are identified with the item, and a standard line item number (LIN) and national stock number (NSN) are assigned. This procedure also applies to additional procurement if a different make or model is involved.

(3) *Limited Procurement* (LP) is used when a materiel item is required for special use for a limited time, and the specified limited quantity will be procured without intent of additional procurement of the item under this classification. It is used to meet urgent operational requirements that cannot be satisfied by an item type classified standard. Items designated for type classification LP are those that do not qualify for adoption as standard. Unless otherwise

[5] AR 700-142

directed by HQDA, a program review must be scheduled within 3 years of type classification LP to determine the continuing need for the item and recommend an extension of the LP expiration date or reclassification to standard."[6]

8. Documents.

a. Memorandum of Notification. "The PEO, PM, or other materiel developer initiates the formal materiel fielding process by providing a Memorandum of Notification to the gaining command (MACOM) at least 240 days before the production contract for a developmental materiel system is awarded. For non-developmental medical systems, the Memorandum of Notification will be forwarded to the gaining command at least 180 days prior to product availability. The Memorandum of Notification will state the intention to field a system, provide specific fielding milestones, and

(1) Briefly describe the system and its intended uses.

(2) Identify the types of units to receive the materiel system and provide the best cost estimate available for the logistic resource impact on the gaining command.

(3) Be accompanied by a draft Materiel Fielding Plan. Gaining command concurrence is required in order to waive the requirement for a Materiel Fielding Plan.

(4) Provide the preliminary distribution plan, if available, to the MACOM and state that a Mission Support Plan is required.

(5) Provide fielding command points of contact, and request gaining command points of contact.

(6) Request gaining command comments on the Memorandum of Notification, Materiel Fielding Plan, schedules, etc. Request information on administrative matters, such as how many copies of the MFP are needed and who the gaining command points of contact are for subsequent coordination actions."[7]

b. Materiel Fielding Plan (MFP). The MFP serves as the single stand-alone document containing the detailed plans and actions the fielding and gaining commands will accomplish to successfully field and deploy the materiel system.

(1) The fielding command, in coordination with ILS program participants, gaining command, and HQDA will prepare a Materiel Fielding Plan for each materiel system having a support impact on the gaining command. The MFP will identify any contractor support services being fielded to include information on the duration of such support.

[6] AR 70-1, Army Acquisition Policy
[7] AR 700-142

(2) A separate MFP will be prepared for each gaining command or a single MFP will be prepared with appendixes tailoring it to each gaining command.

(3) Format of the Materiel Fielding Plan.

(a) Section 1 - Introduction. State the purpose of the MFP and the fielding and logistic support concept. Indicate the concepts upon which the fielding and subsequent logistic support for the fielding is based. Identify any interim contractor support (ICS), contractor logistic support (CLS), or other nonstandard logistic support planned for during or after the fielding.

(b) Section 2 - System Description. Briefly describe the functional and physical configuration. List the associated equipment, operational equipment, transport equipment. Briefly summarize the Operational Requirements Document (ORD). Identify and summarize the basis of issue by dates and quantities for initial and follow-on deployment within the gaining command. Include a deployment schedule by unit and location.

(c.) Section 3 - Fielding and Logistic Support Procedures. List the personnel, telephone numbers, and addresses for coordination and staffing. Identify new equipment training (NET), materiel fielding team(s), staging, deprocessing, inventory, handoff, and fielding evaluation actions that will be needed. Incorporate the Logistic assistance program (LAP) i.e., coordinate the MFP with the Logistics Assistance Officer (LAO). Logistics assistance program contractor interface must be specifically addressed and delineated in field service contracts. Describe the types of logistic assistance to be provided to the gaining command including assistance teams like new materiel introductory briefing teams (NMIBTs), new equipment training teams (NETT), and materiel fielding teams (MFTs). When organic depot level support is planned, identify the depot(s) designated by HQ Industrial Operations Command (IOC) to support the system. When contractor support is used, identify any special procedures necessary to return unserviceable items such as "ship to" and "mark for" instructions. Assure that transportation and training requirements are included. All coordination for maintenance and transportation requirements must be detailed and specific.

(d) Section 4 - System Support Details. Describe any interim contractor support (ICS) that is planned for the system, the condition that necessitates ICS, and the basis of decision for the use of ICS (for example, in-process review). Describe the scope and duration of the support and identify the operational, supply, and maintenance echelons that will be affected. Give the projected date when the transition to organic support will be completed. Describe any contractor logistic support (CLS) planned for the system. Provide information on the provisions for continuation of logistic support in the event of hostilities. Describe the methods to be used for prompt identification, reporting, and correction of material defects and user problems. Identify all warranties in effect at the time of fielding or transfer. Describe how each warranty will be administered, to include the responsibilities of the manufacturer, fielder, warranty coordinator, and user. List support equipment; test, measurement and diagnostic equipment (TMDE); computer resources support; special tools and tool sets; common tools and tool sets; identify all performance monitoring and maintenance indicator devices such as gauges, meters, and built-in-test-equipment (BITE). List all special purpose kits such as communications equipment,

installation kits, winterization kits, and fording kits. Also, list components of end item (COEI); basic issue items (BII), operational readiness float and repair cycle float quantities; petroleum, oils, and lubricants (POL). Identify bulk supplies and ammunition requirements. Describe requirements for evacuation of unserviceable materiel. Describe how initial issue materiel will be obtained and provided. Provide guidance on transportation and transportability. Describe special or unique packing and packaging information to include security-in-transit requirements. Describe special procedures for off-loading, receiving, deprocessing, security, and issue. Identify TMs, to include repair parts and special tool lists (RPSTL) and lubrication orders (LO), for each level of maintenance to be performed by the gaining command. Describe special storage instructions to include security requirements. Identify supply manuals and bulletins. Provide camouflage pattern painting requirements. List and describe all modification work orders (MWO) to be applied by the gaining command. List any applicable Demilitarization (DMIL) and explosive ordnance demolition (EOD) procedures. Describe requirements for maintenance, training, supply, and storage facilities. State when TRADOC will complete the updated Table of Operation and Equipment (TOE) in order to allow the gaining MACOM to prepare a Modified TOE (MTOE). Assure the MTOE is established 340 days prior to the scheduled first unit equipped date (FUED). State annual operator, crew, and direct productive annual maintenance man-hour requirements by military occupational specialty (MOS) for each level of maintenance to be performed by the gaining command. List personnel skill level requirements by MOS and grade for each level of maintenance to be performed by the gaining command. List and describe resident and correspondence operator and maintenance instruction courses in TRADOC and other Service schools. Identify the new equipment training (NET) to be provided.

(d) Section 5 - Readiness Reporting Requirements. State whether or not the system is readiness reportable.

(e) Section 6 - Sample Data Collection. State whether or not the system is to have a sample data collection (SDC) effort.

(f) Section 7 - Support required from the gaining command. Define the administrative and operational support required from the gaining command.

(g) Section 8 – Summary. Summarize the status of logistic support for the system. Highlight major accomplishments, weaknesses, and any significant issues to be resolved. Include any general comments considered necessary and any milestone schedules to resolve open issues. Identify the command POC for each outstanding issue to be resolved.

(h) Section 9 – Appendixes. Include agreements such as materiel fielding agreement (MFA) or materiel transfer agreement (MTA), final scrubbed Materiel Requirements List and warranties.

c. Mission Support Plan (MSP). Mission support plans are prepared by the gaining command and submitted to the fielding command. A separate MSP will be prepared for each end item being fielded. The MSP is intended to define the planned using, maintenance, and supply support structure for the newly deployed end items. The MSP is used by the fielding command to

compute the initial issue distribution quantities at each level of support and to determine initial training requirements. Total package fielding (TPF) will field to the requirements provided in the final MSP.

d. Materiel Fielding Agreement (MFA). A separate MFA is initiated by the fielding command and coordinated with each gaining MACOM as part of the MFP finalization. When signed by both the fielding command and the gaining MACOM, the MFA becomes part of the final MFP as an appendix. The MFA documents the agreed upon plans, policies, responsibilities, procedures, and schedules governing the fielding of a materiel system to the gaining command.

e. Materiel Transfer Plan (MTP). This document will be in the same format as the Materiel Fielding Plan. It is used when equipment is being transferred from one gaining command to another. E.g., transferring helicopters from United States Army in Europe (USAREUR) to the Army National Guard (ARNG).

f. Materiel Transfer Agreements may also be required. These would mirror the content of Materiel Fielding Agreements.

9. People.

a. Materiel Fielding Team (MFT). The issuing command may provide a materiel fielding team or arrange for central staging site personnel to provide assistance as part of the services prior to handoff of a materiel system. The MFP provides details of the support to be provided prior to handoff and is negotiated as part of the Materiel Fielding Plan and Materiel Fielding Agreement process. The MFT composition is determined by the complexity of the system and the logistic support impact on the gaining command. The fielding command will assemble the appropriate skilled personnel for the MFT to support the fielding operation as agreed to in the Materiel Fielding Plan and Materiel Fielding Agreement. The MFT will ensure theater and country clearances are requested and received prior to each overseas fielding. Membership may consist of military, Department of the Army civilians and defense contractors.

b. MFT functions will be dependent upon the complexity of the system and the support provided. The MFT actions can include the following: Deprocessing and assembly to put all equipment into operation and prepare it for handoff to the gaining unit, operational checkout, joint inventory with the gaining unit, and processing customer documentation.

10. Total Package Fielding.

a. Total package fielding is the Army's standard materiel fielding process for new or modified materiel systems that is designed to provide a consolidated support package of equipment and materiel to the using units. This materiel distribution control process has the fielding command, rather than the gaining command, budget for and order the new system and most of its initial issue support. The actions needed to accomplish TPF will vary based on the TPF category and the materiel system/support package complexity.

b. Under TPF, the fielding command assumes additional responsibilities to relieve the gaining commands and their subordinate units of much of the logistics burden associated with the materiel fielding process. The materiel developer develops, plans, and acquires the materiel system. In addition, the fielding command requisitions the system and virtually all its support. A total MRL is coordinated with the gaining command; then the fielding command consolidates and packages the initial issue support items by authorized unit level. The delivery of the packaged support items and the major end items is coordinated, and a joint inventory with the gaining unit(s) is conducted prior to handoff. The fielding command also provides the necessary documentation for all materiel to be posted to gaining unit records.

c. TPF is performed for new or significantly modified equipment that is new to the Army's operational inventory. Current policy links equipment production and its initial fielding together. For these end items, the procurement appropriations fund both production and initial fielding. The program manager is responsible for programming and budgeting the necessary funding. Fielding also includes the acquisition of the initial support packages of materiel, including new equipment training requirements, to successfully operate and maintain the new or modified system when it reaches the using unit.

d. There are three categories of TPF.

(1) Category I TPF is a materiel system fielding. It is comprised of the system and all associated items of equipment (ASIOE) identified in the Basis of Issue Plan (BOIP

(2) Category II TPF is unit activation (TPF-A). In this category, the fielding command of the primary mission equipment for the unit will field all the support items of equipment. I.e., ASIOE, TMDE, special tools and test equipment (STTE), organizational support equipment (OSE), deployable common table of allowances (CTA), all computed initial issue spare and repair parts, and a starter set of technical publications.

(3). Category III TPF is a TPF unit conversion (TPF-C) and is equipment driven. The designated fielding command will field support items of equipment (ASIOE, TMDE, STTE, OSE, and CTA) based on the difference between the old MTOE or TDA and the new MTOE or TDA. The fielding will include the end item, all new or additional ASIOE, TMDE, STTE, OSE, deployable CTA, all computed initial issue spare and repair parts, and a starter set of technical publications for the newly added equipment.

e. Objective of total package fielding. The Army's objective is to field equipment or materiel with 100 percent logistics support, but each fielding assessment must be based on prevailing conditions. A MFA is part of the MFP or MFP that serves as a medium to negotiate the conditions for fielding and acceptance of the materiel by issuing and receiving commands. Accordingly, the fielding conditions are known by the gaining MACOM about 340 days before FUED when the MFA and MSP are returned to the fielding command. Every effort will be made to ensure that all elements of ILS, to include initial supply support, are fully supportable during the materiel fielding process. However, as Headquarters, Department of the Army (HQDA)

establishes fielding priorities and equipment distribution and redistribution strategies, modifications to final materiel fielding plans may be required.

11. Summary.

a. The Army is continuously replacing equipment each year. Successfully fielding equipment is essential to transform the Army into a competitive force against the armies of our potential enemies. The complexity of force modernization is magnified by dynamic changes in the threat, technology, and our own national strategy. Accompanying changes in tactics, doctrine, training, and support concepts further complicate our equipment replacement process. Systems are developed as part of an integrated battlefield concept, so changes or delays in one system may cause adverse impacts upon other systems.

b. A major issue is fielding sustainable new systems without disrupting the field units. Although the process of issuing equipment to the user seems rather straightforward, the process can be very complex, manpower-intensive, and costly if not managed properly.

c. Inadequate logistics planning may cause more problems during materiel fielding than at any other event. Planning and budgeting for integrated logistics support (ILS) elements is critical. The central ILS precept that the entire logistics community must plan and prepare for each fielding is proving to be a key factor in achieving a successful fielding. Early support planning by acquisition managers at all levels can reduce the complexity, logistics burden, and life cycle costs of systems through influencing hardware design and minimizing life cycle logistical (operations and maintenance) support.