THE UNDER SECRETARY OF DEFENSE
3010 DEFENSE PENTAGON
WASHINGTON, D.C. 20301-3010

ACQUISITION,
TECHNOLOGY
AND LOGISTICS

SEP 3 2004

MEMORANDUM FOR: SEE DISTRIBUTION

SUBJECT: Update to Policy for Unique Identification (UID) of Tangible Items

Applying UID to existing items in inventory and operational use is based on the value proposition that UID provides a joint data capability that enables achievement of focused logistics and performance-base logistics strategies, strategic acquisition, and asset visibility to support combat operations. This policy update approves the use of the Electronic Serial Number (ESN) as a UID equivalent, announces the approved Issuing Agency Codes to be used for the Commercial and Government Entity (CAGE) code and the Department of Defense Activity Address Code (DoDAAC), and addresses other specific UID implementation issues detailed in Attachment A. This policy update also forecasts the requirement to apply UID to existing items in inventory and operational use in Attachment B.

I understand there are physical and time/resource issues relating to the implementation of the UID policy to some tangible items. Therefore, I am encouraging an evolutionary approach that will allow resolution of these issues. To begin this evolutionary implementation, I request that the Component Acquisition Executives (CAEs) direct preparation of model program plans on a number of mission critical warfighting and combat support systems for submission to the DoD, UID Program Manager by November 2004. Development of these plans should take an evolutionary approach and assume use of trigger events to mark items in quantity. I also request that the CAEs direct all program and item managers to begin planning for the application of the UID to the Department's existing legacy items in inventory or in operational use.

All plans should target FY2007 as the point by which: (a) all existing serialized assets should be entered in the UID registry, and (b) UID marking capabilities have been established for all existing items and embedded assets such that marking can commence as applicable equipment are returned for maintenance. Program offices that have already initiated UID planning include the AH-64 Apache, UH-60 Blackhawk, CH-47 Chinook, C-17 Globemaster III, B-1B Lancer, V-22 Osprey, and the Program Executive Officer, Ammunition. I request that all program and item managers plan and establish a goal to complete UID marking of items and all embedded assets within existing items by December 31, 2010 using the planning guidelines included in Attachment B. It is recognized that programs will have

different levels of completion by 2010 because fielded items will not be removed from service for the sole purpose of UID marking.

To support this objective, I also request that the Army, Navy, Air Force and Defense Logistics Agency CAEs develop and present to me by January 2005, plans to develop infrastructure, modify Automated Information Systems (AIS) and propose exempted systems that will be phased out of inventory prior to UID implementation. My expected outcomes for FY 2005 are as follows:

- Plans for programs will be developed and required resources identified.
- OSD UID budget guidance issued by April 2005.
- AIS and depot roadmaps for key data systems developed and necessary infrastructure identified, in coordination with the Joint Forces Command and the Transportation Command, as required. The Deputy Under Secretary of Defense (Logistics, Materiel and Readiness) and the Director, Defense Procurement and Acquisition Policy will provide staff assistance to the CAEs in this effort.
- Army, Navy, Air Force and Defense Logistics Agency UID Acquisition Manager appointed.

I have requested that the Director, Defense Contract Management Agency (DCMA) lead the development of facility-wide or corporate Single Process Initiative strategies with DoD's top 30 suppliers of supplies and equipment, and collectively with aircraft engines and avionics sector suppliers. DCMA will use block changes to expedite UID implementation working with the Components. As part of this process, the DCMA Director will have the authority to grant near term extensions on UID implementation if such extensions are consistent with the implementation schedules of the negotiated corporate/facility strategies. I have asked the Director, DCMA to lay out the specifics of this approach for discussion with the CAEs by November 2004. I have also asked DCMA to take the lead in developing a UID Quality Assurance plan for implementation across DoD.

The DoD UID Program Management Office will accomplish the following:

- Develop guidance for trigger events (i.e. a change in an items' ownership, status, location, identity or program alignment).
- Develop guidance for the use of "virtual" UIDs for items in operational use and inventory (e.g. establishing UIDs in DoD information systems but deferring the physical item marking until a "trigger event", such as, maintenance or overhaul, occurs).
- Develop a refinement to the Department's unique identification registry concept of operations working with the Office of the Under Secretary for Personnel and Readiness, Office of the Assistant Secretary of Defense (Networks & Information

Integration), Office of the Joint Chiefs of Staff (J-4 Logistics), and Office of the Joint Chiefs of Staff (J-8 Force Structure, Resources and Assessment).

- Develop a standard approach to capture legacy item UID data elements.
- Explore the feasibility of a paperless Government Furnished Property management approach working in partnership with the Defense Contract Management Agency and the AT&L Director, Property, Plant and Equipment.
- Finalize milestone criteria for program reviews working with the Director, Defense Systems.
- Engage the Joint Aeronautical Commanders Group and the Joint Ordnance Commanders Group to help refine the ultimate UID policy for legacy items currently in inventory and operational use.
- Continue to partner with the General Services Administration to develop a UID roadmap for federal-wide application.
- Ensure RFID and UID data and process integration.
- Work with the Assistant Deputy Under Secretary of Defense (Maintenance Policy, Programs & Resources) to integrate and implement UID requirements in depot-level maintenance functions involving the major repair, overhaul, or complete rebuilding of weapon systems, end items, parts, assemblies, and subassemblies; and manufacture of parts.
- Integrate with the Office of the Deputy Under Secretary of Defense (Installations & Environment) to develop a data policy that integrates the data structure for tangible assets with the data structure for real property assets.
- Write a Management Initiative Decision to integrate Department-wide unique identification efforts.
- Finalize the Government Furnished Property UID policy by October 2004 and legacy policy no later than December 2004.
- Provide templates for companies to use.
- Ensure that tangible property acquired using the Government Purchase Card is entered into the UID registry.

Current UID information and the latest version of the DoD Guide to Uniquely Identifying Items are available at http://www.acq.osd.mil/uid. Policy questions or comments may be addressed to Mr. Robert Leibrandt by telephone at (703) 695-1099 or by email at robert.leibrandt@osd.mil.

Michael W. Wynne
Acting

Attachments:
As Stated

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Update to Policy for Unique Identification (UID) of Tangible Items – New Equipment, Major Modifications, and Reprocurements of Equipment and Spares

UID Equivalents

The Telecommunications Industry Association Electronic Serial Number (ESN) is approved as a UID equivalent for mobile telecommunications stations (cellular telephones). Cellular telephone manufacturers must comply with the Electronic Serial Number Manufacturer's Code Assignment Guidelines and Procedures as prepared and maintained by the Telecommunications Industry Association. The other approved UID equivalents were listed in the policy update memorandum of November 26, 2003. For DoD, the item marking must also include the data matrix symbol encoded with the syntax of ISO/IEC 15434.

Issuing Agency Codes

The approved Issuing Agency Code (IAC) for Commercial and Government Entity (CAGE) code is "D". The approved IAC for the DoD Activity Address Code (DoDAAC) is "LD". Enterprises identifying themselves by either the CAGE code or DoDAAC should use their respective IACs of "D" or "LD" as prescribed in the Department of Defense Guide to Uniquely Identifying Items. Previously, DoD activities were directed to use the IAC of "D2" for the DoDAAC. Because of potential duplication in UID marking when using "D2" for the DoDAAC IAC and when using the CAGE IAC of "D", any UIDs already assigned with an IAC of "D2" may have to be retired and reassigned using the IAC of "LD" when and if any duplications should occur.

UID Determination and Findings

Situations may arise where vendors of products are not prepared to comply with DoD UID requirements within the cost constraints and/or time frames required for product deliveries. Should this occur, DoD requiring activities may consider implementing a strategy under which the requiring activity would either:

- Coordinate and fund the furnishing of product UID data plates, labels or other marking media that meets MIL-STD-130 requirements, including durability, to the vendors for application to products before shipment, or
- Contract with third parties to furnish and apply the UID markings after product delivery from the vendors, or
- Have the receiving activities mark the product with the UID marking upon receipt.

Attachment A

This strategy should only be implemented if a determination and findings has been executed that it is more cost effective for the Government to assign, mark, and register the UID upon delivery of an item acquired from a small business concern or acquired under Federal Acquisition Regulations Part 12. The determination and findings must be approved by the CAEs for acquisition category (ACAT) I programs and by the Heads of Contracting Activity for ACAT II, III and non-ACAT programs. Copies of these determinations and findings must be provided to the OSD UID Program Office. The UID Program Office will evaluate the continuing need for this exemption and report its findings to me by October 30, 2005.

UID Standards

There is only one authorized standard, to be used in DoD solicitations and requirements issued through other agencies, to specify the encoding of UID syntax in high-density automatic identification technology media. The standard is defined in International Organization for Standardization /International Electrotechnical Commission (ISO/IEC) 15434 – Information Technology – Syntax for High Capacity Automatic Data Capture Media. Because ISO/IEC 15434 does not provide a format code for Text Element Identifiers (TEIs), which is one DoD approved semantic, DoD will accept a format code of "DD" for use until ISO Joint Technical Committee 1, Subcommittee 31, approves a format code for TEIs. In addition, the Air Transport Association (ATA) has agreed to accept the use of the ISO/IEC 15434 message headers, group separators and message trailers in ATA Specification 2000. Also, several airlines and key industry leadership have requested that ATA add additional TEIs to their Common Support Data Dictionary to enable use of TEIs in UID Construct #2, serialization within the original part number.

Choice of UID Construct and Data Qualifiers

DoD solicitations shall not specify the UID construct or the type of data qualifiers to be used by a contractor. Contractors have the responsibility to determine which construct they will use based on their prevailing method of product serialization. The selection of the type of data qualifier (i.e., Data Identifiers, Application Identifiers or Text Element Identifiers) will depend on their current business practice for use of machine-readable information marking on items. This will assure that contractors are not compelled to maintain more than one method of product serialization or deviate from their business practice.

UID Data on Embedded Items

Parent-child relationships between the end item UID and its embedded item UIDs will be reported upon the item's delivery. The parent-child relationship will always be hierarchical to one level. Each item UID that is delivered will have its parent UID identified in the UID pedigree data that accompanies delivery.

UID Strategy for Legacy Class V Items

- UID Construct 2 will be modified to include lot or batch number in the UID. This will enable unique marking of an ammunition item that requires a UID without negative impact on current business practices.

- Virtual marking of legacy stock will be permitted by utilizing current automated information systems and only apply the physical mark during normal maintenance cycles when economically feasible. This strategy supports immediate policy compliance with minimal impact on resources, and precludes intrusion of specialized legacy item packaging or impact on warranties.

UID Policy Forecast for Existing Items in Inventory or Operational Use

The following planning guidelines should be used:

- Immediate UID application must be on items that are serialized today or already have data plates. These items may be assigned "virtual" UIDs in DoD information systems, deferring the physical item marking until a "trigger event", such as maintenance or overhaul, occurs. Migration strategies will be used to resource and accomplish the technical analysis, as required, to provide instructions for labeling or directly marking items that are not currently serialized or have data plates.
- All programs must plan to complete UID marking of items and all embedded assets within existing items by December 31, 2010. It is recognized that programs will have different levels of completion by 2010. Budget planning should provide for the resources necessary to achieve this deadline. An embedded asset is any serially managed subassembly, component, or part embedded within an item.
- Overall Service implementation planning must include modification of on-going production contracts for major programs in effect before January 1, 2004. These contracts should be modified at phased events or exercise of options. Exemptions to this requirement must be approved by the Component Acquisition Executive and may only be based on a finding that exempted items will be physically phased out of operational use and inventory by December 31, 2010.
- In-service items shall be assessed for retrofit for UID and plans prepared for implementation. Categories may be used by the program manager to distinguish implementation approaches for items based on specific criteria (e.g., items in use, items in stock, items under contract but not yet delivered, items containing embedded items). Chosen approaches and/or candidate approaches for each category shall address consistency with weapon system support and asset management objectives and processes. Relevant factors shall be identified and considered (e.g. weapon system/item life limitations, attrition rates, automated information systems updates, stock turnover, overhaul schedules, planned modifications, future production, and organic capabilities).
- Planning should include the identification of Automatic Information Technology (AIT) infrastructure requirements for organic manufacturing, for maintenance and supply support, and for deployable assets.
- Planning should include the identification of processes requiring reengineering and Automated Information Systems (AIS) to exploit the capabilities of UID markings to enhance acquisition and logistics processes.

Attachment B

Guidance for UID Program Plans (including model plans)

To be considered complete for unique identification purposes and at a milestone review, a legacy program should:

- Have marking instructions (process, location, and method), orders or business process modifications for organic operations and contractual language in place to support every attrition-based opportunity to mark sub-assemblies, components and parts not yet marked.
- Where applicable, use existing legacy serial number tracking programs to provide virtual UIDs within parent assembly.
- Describe supporting automated information systems with UID capability, and data linkages established.
- Include a business strategy to use UID marking in internal DoD business and operations processes, leverage contractor provided capability, and where feasible, enable greater contractor collaboration.

UID Program Plan Requirements

Program plans must be complete by March 2005 for submission to the UID Program Manager, and should include the following:

- Plan to identify and mark with the UID mission-essential items first.
- Identity of existing (e.g. equipment, spare and material) items serialized, tracked and marked uniquely. For this population of items discuss the approach to using virtual UIDs.
- Criteria for and identification of embedded assets requiring UID (e.g. necessary to support maintenance strategy and inventory management).
- Identify expected technology for marking and reading required at identified marking/reading locations (e.g. depots, inventory control points, contractors) and associated business strategy.
- Establish target dates for updating all sub-assemblies and end items with existing data plates.
- Identify items that cannot be part marked until engineering assessment is complete and a plan to address these shortfalls.
- Establish target dates for program plan updates to address business processes and data integration.
- Describe the strategy and process for capturing product data for database entry ensuring integrating with planned/key automated information systems.

Attachment B

- Identification of UID opportunities to improve or enhance business processes (e.g. beneficial suggestions).
- Forecast target level of completion by fiscal year through 2010 including projected trigger events for applying UID to existing items and planned program reviews.

Draft program plans, DoD program management migration strategies, company migration strategies and engineering/drawings guidance are available at the UID website.

Forecast of UID Registry Elements

The UID Program Manager will add the following data elements to the UID registry to support overseas procurements, identification of legacy items, use of virtual UIDs, and tracking of Government Furnished Property (GFP):

- Action Code (e.g. Add, Update)
- Currency Code
- Current Part Number with Effective Date
- Government Furnished Property (GFP) (End Items and Embedded Items)
    - GFP Flag (Y/N)
    - GFP Effective Date
- Current Marking
    - Type (None, 2D, Contact Button, RFID, etc)
    - Type Effective Date

Future policy updates will address ownership, location, and additional descriptive information as the Department's approach to uniquely identifying other entities, such as real property and organizations, continues to mature.

Attachment B