## BY ORDER OF THE SECRETARY OF THE AIR FORCE

# AIR FORCE POLICY DIRECTIVE 20-3 1 JUNE 1998



Logistics

## AIR FORCE WEAPON SYSTEM REPARABLE ASSET MANAGEMENT

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OPR: HQ USAF/ILMM Certified by: HQ USAF/CV (Maj Craig Romero)

(Lt Gen D. Vesely)

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- 1. Air Force logistics must focus on improving operational units' capability by integrating and applying state-of-the-art business practices across all logistics functions and processes. The objective of Air Force logistics is to maximize operational capability by using high velocity, time definite processes to manage mission and logistics uncertainty in-lieu of large inventory levels--resulting in shorter cycle times, reduced inventories and cost, and a smaller mobility footprint. These business practices are also critical to achieve Air Force Agile Combat Support goals.
  - 1.1. Air Force logistics policy is consistent with the DoD Logistics System Mission Statement:

"To provide responsive support to ensure readiness and sustainability for the Total Force in both peace and war."

- 1.2. It also is consistent with the DoD Logistics System Vision (it is also consistent with the Air Force Logistics Strategic Plan--currently under revision) which will:
  - 1.2.1. Provide reliable, flexible, cost-effective and prompt logistics support, information, and services to the warfighters.
  - 1.2.2. Achieve a lean infrastructure.
- 2. To improve the operations of the reparable/serviceable pipeline, Air Force logistics operations will employ:
  - 2.1. Time definite transportation from home station or deployed site to and from the depot or other source of repair.
  - 2.2. Expedited DLA processing of reparables to the depot repair shop and serviceables to the bases/ installations.
  - 2.3. Expedited evacuation of reparables by bases and deployed units to the source of repair.
  - 2.4. Improved timeliness and scheduling of shop repair processes, including repair on demand for both organic and contract repair.
  - 2.5. Improved contracting for bit and piece support for both Air Force and DLA-managed items.

- 2.6. Improved visibility of assets throughout the pipeline.
- 2.7. Effective automated monitoring/measurement tools to provide feedback on pipeline operations.
- 2.8. Integrated bandwidth efficient logistics information systems to ensure a seamless flow of logistics management and business data.
- **3.** It is Air Force policy to institutionalize continuous process improvement in logistics operations.
- **4.** The following responsibilities and authorities are established:
  - 4.1. Headquarters United States Air Force (HQ USAF/IL) is responsible for developing policy guidance and monitoring implementation of Air Force logistics principles and instructions.
  - 4.2. This policy applies to all major commands (MAJCOMs), field operating agencies (FOAs), and direct reporting units (DRUs).
  - 4.3. Each operating MAJCOM, FOA, and DRU will implement processes and operate command, control, communications, and computer (C-4) systems to rapidly move reparable and serviceable items through organizational/intermediate repair and supply and transportation processing.
  - 4.4. Transportation and supporting activities will use time-definite delivery capabilities, provided by commercial and organic carriers, to reduce repair pipeline cycle time and variability.
  - 4.5. Supply activities will manage order quantities, inventory location, order processes including procurement lead time, and supporting information systems to minimize reparable item inventory levels while meeting order and ship time goals.
  - 4.6. AFMC will repair on demand all reparable items (given priorities established through the DREP process, and shop constraints such as capacity, funding, component parts, and carcasses) required by operating units. Sufficient capacity and control of the release of materials into organic shops will assure stock availability as required. Contractor repaired processes will employ turnaround times similar to organic operations. Visibility over stocks and flow times will be provided for all repair operations organic and contractor.
  - 4.7. Performance monitoring of the operation of the logistics system will be provided on a routine basis to all organizational levels. Standard and consistent data, information, and measurement techniques will be used by all organizations.
  - 4.8. Each MAJCOM will develop their own logistics implementation plan. That plan must include specific actions to be taken and metrics that are to be used to measure implementation progress, and must be submitted to HQ USAF/ILMM for review and approval.
- **5.** The terms used in this policy are as follows:
  - 5.1. **Time definite delivery.** A reliable, consistent delivery service whose performance varies little from an advertised delivery time or standard. An example is commercial overnight express delivery.
  - 5.2. **Repair on demand.** The ability to quickly and individually induct and repair a range of different reparable assets, rather than repairing batches of like assets to achieve efficiencies in workload and bit/piece contracting.

- 5.3. **Continuous process improvement.** Process improvement that results from a continuing cycle of process measurement, evaluation, adjustment, and feedback. The Shewhart "Plan, Do, Check, Act (PDCA)" model is an example of an approach to continuous process improvement.
- 5.4. **Logistics implementation plan.** A strategy to assign resources and develop policies and processes in support of logistics strategic plan goals and this AFPD.
- 5.5. **Reparable/serviceable item pipeline.** The chain of processes, activities, and services that begins when a weapon system reparable asset is removed from an end item, repaired or declared as Not Reparable This Station and concludes when that item has been returned to the serviceable inventory. That pipeline includes base-level maintenance, evacuation through Supply and Transportation, retrograde movement to a depot or other repair facility, repair actions at that facility, and movement and induction back into a Consolidated Serviceable Inventory.
- **6.** See **Attachment 2** for metrics used to comply with this policy.
- **7.** This policy implements DoD policy. Major related documents include Series 4.0 Joint Publications, DOD and USAF Logistics Strategic Plans, AFDD 2-4, *A Concept for Agile Combat Support*. Additionally, functional Air Force Instructions will be developed to support this AFPD.

F. WHITTEN PETERS
Acting Secretary of the Air Force

AFPD20-3 1 JUNE 1998

#### **Attachment 1**

#### GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

## Abbreviations and Acronyms

**AFI**—Air Force Instruction

AF/IL—Air Force Deputy Chief of Staff/Installations & Logistics

**AFMC**—Air Force Materiel Command

AMC—Air Mobility Command

APOD—Aerial Port of Debarkation

**APOE**—Aerial Port of Embarkation

**AWP**—Awaiting Parts

**CANN**—Cannibalization

**CONOPS**—Concept of Operations

**CSI**—Consolidated Serviceable Inventory

**CRI**—Consolidated Reparable Inventory

C4—Command, Control, Communications and Computers

**DLA**—Defense Logistics Agency

**DoD**—Department of Defense

**MAJCOM**—Major Command

**MRO**—Materiel Release Order

**NMCS**—Not Mission Capable - Supply

**NRTS**—Not reparable This Station

**RSP**—Readiness Spares Package

**SOS**—Source of Supply

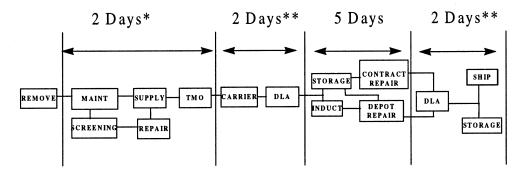
**TMO**—Traffic Management Office

#### **Attachment 2**

#### METRICS USED TO COMPLY WITH THIS POLICY

- **A2.1.** Compliance with Air Force logistics policy will be measured at the Air Staff and tasked organizational levels. *NOTE:* As logistics policy and processes mature, measures and methods of measurement will also mature.
- **A2.2.** Defining the proper metrics that support measurement of the logistics process is a key issue. Metrics are divided into several groups, including:
  - A2.2.1. Pipeline segment flow times.
  - A2.2.2. Stock measure by condition code, etc.
  - A2.2.3. Costs -- handling, transportation, etc.
  - A2.2.4. Rate measures RSP fill, issue effectiveness, etc.
- **A2.3.** Figure A2.1. shows the goals for average pipeline times.

Figure A2.1. Sample Metric of Baseline Repair Cycle Time Goals.



- \* 2 days base evacuation for 2LM items after removal. 2 days base evacuation for 3LM items after NRTS declaration
- \*\* 4-5 days for OCONUS locations

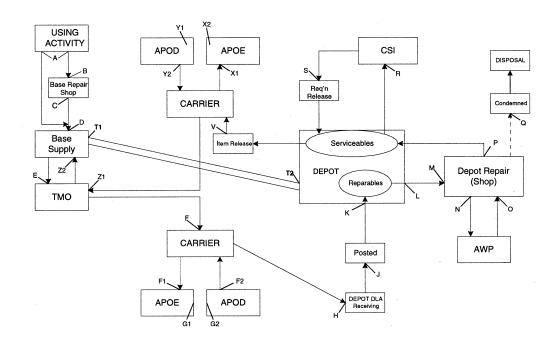
**A2.4.** Figure A2.2. shows a generic flow of assets through the reparable/serviceable pipeline and an example of metrics that may be useful at each segment of the process. The repair process focuses on organic depot repair but the process for contractor repaired items is similar. **Figure A2.3.** provides additional detail to the pipeline segment flow times portion of the process. For those items repaired by contractors, shipments of reparables directly from the base or from the depot (SOS) and direct shipment from the contractor back to base supply occur.

Consolidated Reparable **Inventory** AWP/AWM Failed **Part Depot Express** Repair Base **Base Supply TMO** Handling Time/Cost Carrier Repair Tailgate to Stow/Delivery t **AWP** Issue Effectiveness Transport Cost Repair to Ship Reparable Evac hipment Processing Tim Reparable Transit Negotiated vs. Actual Time CANN Rate Time Stockage Effectiveness Time Bit & Piece MDR/PQDR Serviceable MICAP Shipment from Depo Repair Cost Customer Wait Time Number Carrier Delivery SSC Issue Effectiveness Time SSC Stockage Effectiveness Time Receipt of MRO to Shipment CSI to Base Shipment from Depot to Pack to Ship **AWP** Delivery by the carrier Received from repair shop to stow **CSI** Receipt of MRO to shipment Number Inventory levels/cost NMCS hours/incidents Issue Effectiveness Code 4, H/K CSI Stockage RSP fill rate/issue Effectiveness Request to fill time Depot Response Time

Figure A2.2. Sample Metric of Pipeline Flow Measures.

**A2.5.** Figure **A2.3.** shows the detail of the pipeline flow segments that will be monitored throughout the logistics system:

Figure A2.3. Sample Metric of Pipeline Flow Time Segments.



**A2.6.** The nodes of the pipeline flow time chart are defined as follows:

## Retrograde

A	Part Failed
В	Into Base Repair Shop
C	Out of Base Repair Shop
D	Received at Base Supply
E	Received By TMO
F	Released to Carrier
F1	APOE Receipt
G1	APOE Departure
G2	APOD Receipt
F2	APOD Departure
Н	Received at Depot by DLA
J	Posted by DLA

## **Depot Repair**

L Date Issued From DLAM Shop Receipt of Reparable

N Into AWP O Out of AWP

P Shop Return of Serviceable

Q Date Condition Code "H" or condemned

R CSI Receipt of Serviceable

## **Order and Ship Time**

T1 Requisition Prepared at Unit T2 Requisition Received at Depot Direct Release of Requisition S V Item Released for shipment W Item Released to Carrier Item Received at the APOE X1 X2 Item Released for shipment from APOE Item Received at the APOD **Y**1 Y2 Item Released from the APOD Z1Item Received at Base TMO Item placed in Base Supply System Z2