RNI
Integrating Repair Into Supply

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Background

- Largest source of supply is REPAIR…not buying new!
- Resource intensive
  - $14 Billion Budget / 46,000 maintainers / 3 levels of maintenance
  - No single process owner
- AF repair needs to be more agile and responsive to warfighter
  - Average of 1.4M flight hours per year on aging fleets
  - Maintainer end strength reduction balanced with constant aircraft inventory
Direction

- CORONA Fall (Oct 08) CSAF tasking to AFMC/CC
  - Remains 1 of 7 initiatives in FY15 Enterprise Logistics Strategy

- Team composition:
  - AF/A4L for HAF-level support
  - AFMC/A4L for program management
  - MAJCOM Core Team representation
  - AFSC and AFLCMC representation

- What we do:
  - Focus on processes that establish enterprise level management of repair
  - Reduce inefficiencies in the Air Force Repair Network
Mission Generation Network and the Repair Network

Global Repair Networks fully integrated into the end-to-end Supply Chain to effectively and efficiently support Mission Generation.
Phase I Consolidation by MAJCOM and Weapon System: Identify specific efficiency initiatives and implement

Phase II Integrating OCONUS and CONUS repair networks: Merge supply chain management with repair facilities - CONUS and OCONUS.

FY22 Integrated Repair Network: Incorporate depot and field repair into an enterprise wide Repair Network

Consolidation alone will not yield necessary supply chain efficiency and performance
Supply Chain Integration

Supply Chain Optimization includes Network Design and Supply Chain Integration, each with distinct outcomes.

----------------------------------------------- Network Design -----------------------------------------------

**As-Is Network Profile, Supply Chain Performance Requirements, & Organizational Goals**

Analyzes supply chain attributes such as inventory locations, transportation hubs, and sources of demand to assess current state and recommend future state locations for centralized repair nodes.

**Recommended Site Locations**

**Supply Chain Integration**

**SME Input, Current Initiatives, & Best Practices**

Reviews process, organizational, and technology intersections to remove disconnects and identify opportunities for improvement in operations.

**Supply Chain Efficiencies**

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**Current State**

- Flight line maintenance has two sources of supply – inventory and backshops.
- After Consolidation, flight line maintenance has one source: Inventory

**Future State**
Current vs Future State

**Current State**

- Collaboration between nodes is informal, inconsistent, and personality driven

**Future State**

- Collaboration is formal, enterprise-wide, and integrated with the supply chain

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**RNM Role**

The supply chain as a whole should be able to answer these questions: What to repair? When to repair? Who will repair? Where do repaired items go?

The RNM will assist in answering “Who will repair?” to maximize efficiency for the Air Force enterprise
**RNM Exception Management Process**

RNM identifies potential issues

Team collaborates for enterprise solutions

Node executes decision

Enterprise MG priorities are met

Additionall stakeholders may inform RNM of issues and/or be informed based on collaborative decisions (e.g., System Program Managers, Product Support Managers, supply chain forums, etc.)

- RNM oversees and manages a repair network within a specific product group
- Chain of Command does not change, but policy does grant direct liaison authority
- RNMs do NOT have authority to direct repair node activities without MAJCOM coordination and approval IAW AFMAN 20-118
**RNI Management Construct**

**Product Repair Group (PRG)**
A collection of repair networks required to support specific groups of weapons systems, engines, sets of commodities, and/or OMEI.

**Repair Network (RN)**
A collection of repair nodes within a product repair group that support the repair enterprise.

**Product Repair Manager (PRM)**
Oversees and manages the entire collection of networks within a specific product repair group.

**Repair Network Manager (RNM)**
Oversees and manages a repair network within a specific product group.

**Repair Node Manager (NM)**
Manages shop activities to meet production goals.

**T-56**

**BASE X**
Key Enablers to RNI

- **Policy**
  - AFI 20-117, (Strategic-level guidance) published in Dec 2014
  - AFMAN 20-118 (key business rules) in final coord
  - Materiel Management Policy changes in coordination

- **Metrics**
  - LB approved performance measures to monitor progress
  - ELG invested in enterprise results

- **IT Solutions**
  - LIMS-EV/RNV (Repair Network View) for capability and capacity (CAP2)
  - EXPRESS (Execution of Repair Support System) CRF for prioritization of commodity repair
RNI CAP2 and LIMS-EV/RNV

- **RNI CAP2: Capability and Capacity**
  - Capability – The number of direct-touch man-hours available to complete repairs
  - Capacity – Equipment, physical infrastructure, or facilities available to complete repairs

- **LIMS-EV/Repair Network View (RNV)**
  - Management tool for Capability and Capacity (CAP2) data
  - Provides a dashboard view of Network and Node data
  - Enables Enterprise awareness of potential throughput
  - Inputs from SBSS, AFEMS, CEMS, and REMIS
Assessing Performance

Tracking and assessing network performance is key to optimizing support to the Mission Generation Network.

- Repair Network Manager (RNM) assesses network for Effectiveness and Efficiency
- RNM Makes Recommendations to Product Repair Manager (PRM)
- PRM Reviews Recommendations for opportunities to improve the repair enterprise

Enterprise Repair Capability / Capacity

Reliable – Responsive – Agile

The repair enterprise structure must balance the right amount of capability and capacity to meet mission needs.
Why does it matter?

- **2014 Highlights from Propulsion Product Group:**
  - T56 & F110 production consistently above WRE – redesign opportunity
  - F-100-220 now repairing engines on demand, cap established at 125% of WRE down from 150%
  - F-100-229 collaboration yielded lowest ENMCS & MICAP rates in program history
  - TF-34-100A RNM optimized production by assisting with distribution of constrained parts in response to TCTO

Enterprise Management delivers effective and efficient support to Mission Generation!
So...Where is RNI going?

- E&E BCA results in Nov – will determine network design
- Avionics backshop analysis underway for F-16 and B-1
- Field Maintenance Capability Initiative
  - Standardizing business processes for planning, scheduling, and execution of maintenance in MGN and RN operations
  - RNI PMO co-sponsor with HAF/A4L
  - Developing the future state
- Hydraulics Network in Phase 1 of IOC
  - First commodity CRF product group
  - First CRFs created out of RNI (17 bases to 5 CRF locations)
  - First use of prioritization software for I-level mx
AMC, ANG, and AFRC will not send repairs to CRFs but will participate in Hydraulics Network
# Hydro CRF Locations

<table>
<thead>
<tr>
<th>MAJCOM</th>
<th>Network</th>
<th>Weapon Systems</th>
<th>CRF Location</th>
<th>CRF Supported Bases and Implementation Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC</td>
<td>Fighter</td>
<td>A-10, F-15, F-16, HH-60</td>
<td>Seymour Johnson</td>
<td>Seymour Johnson: 1 Oct Shaw: 1 Nov Moody: 1 Dec</td>
</tr>
<tr>
<td>ACC</td>
<td>ISR</td>
<td>RC-135, E-3, E-4</td>
<td>Offutt</td>
<td>Offutt: 1 Oct Tinker: 1 Nov</td>
</tr>
<tr>
<td>AMC</td>
<td>Tactical Airlift</td>
<td>C-130</td>
<td>Little Rock</td>
<td>Little Rock: 1 Oct Davis Monthan: 1 Nov Moody: 1 Dec</td>
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Hydraulic Network Preparation

- **Personnel**
  - PRM and RNM appointed
  - Phase 1 CRF personnel in place

- **Processes**
  - RNI and Materiel Management policy updates being finalized
  - Bench stock/LRU leveling activities initiated at MAJCOMs

- **Technology**
  - EXPRESS IT implemented/CRF personnel trained
  - LIMS-EV/RNV network structure created

- **UTC**
  - Re-posturing backshop hydro personnel to CRF ILM UTCs
  - Total Force Success! Reserve Command plans to provide UTC support to Hydro CRFs
What It Means To You

- **Air Force:** Rational approach to network management of repair
- **MAJCOM:** Involvement vital to network processes and design
- **Warfighter:** Improved aircraft & materiel availability
- **Maintainer:** Focused on enterprise priorities
- **Taxpayer:** Lower total system costs
Discussion/Questions