



What Makes a Good DMSMS Management Program? The 782 CBSSS/ENB F-15 Avionics Hardware Engineering Approach

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Overview

- Problem Statement
- DMSMS Management Process
- Conclusion

Problem Statement

- The F-15 Sustaining Engineering and Supply Chain Management efforts is being seriously impacted by continuing platform service life extensions and necessitate a proactive engineering response to DMSMS management.

The Process: The First Steps.

- Admit that you have a problem.
- Assess your current state
 - Complete, accurate Design Engineering Data?
 - Bill Of Material
 - Accurate Derivative Documents (e.g. IPB's)
 - Complete, accurate Supply Chain Data?
 - Total Ownership Costs?
 - Complete, Accurate Repair Histories?
 - Funding Sources
 - Monitoring
 - Resolution

The Process: The Next Steps.

- Correct your deficiencies.
 - Bill of Materials
 - Supply Chain Data
- Identify the tools necessary to automate the monitoring, analysis and resolution efforts
 - Advanced Component Obsolescence Management (AVCOM)
 - Logistics Sustainment Analysis Module (LSAM)
 - Lean Depot Management System (LDMS)

The Process: The Next Steps.

- Monitor Your Approved Vendor Base For Continued Product Availability
 - Alerts
 - GIDEP
 - System OEMs
 - AVCOM
 - Requisitions/Back-orders
 - LDMS
 - DLA Inventory

The Process: The Next Steps.

➤ Act

- Identify your most urgent problem(s).
- Determine the best approach for resolution.
 - Circuit Card Assembly redesign.
 - Target the component.

The Process: The Next Steps.

- Communicate
- Form Partnerships and Alliances
 - Inside DoD
 - Outside DoD
- Identify commonality
 - DLA
 - Intraservice (e.g. B-2, C-130, F-16, U-2)
 - Interservice (e.g. USAF, Navy, Army, FMS)

DRARST: An Example of a Working Alliance.

- **DRARST** (DoD Raytheon Airborne Radar Sustainment Team)
 - Many of the electronic components and microcircuits used in one radar system are common to at least one other platform.
 - DRARST members feel that sharing assets and costs among the services to resolve obsolescence issues is the best solution for the individual Program Managers and Defense Service Centers providing engineering, and logistics and supply support for legacy radar systems.

DRARST: An Example of a Working Alliance.

- **DRARST** (DoD Raytheon Airborne Radar Sustainment Team)
 - The inaugural meeting was conducted August 2002 with representatives from F-15 System Program Office and F-15 Avionics Hardware Engineering office, the Aging Aircraft Integrated Product Team (AAIPT), Defense Service Center Columbus, NAVAIR F14 & F-18 Program Offices, NAVICP Program Offices, USAF B-2, AC-130U Gunship Program Offices and the Raytheon B-2, F-15, F-18 Program Offices, their Microcircuit Producibility Facility, and Raytheon Systems Limited UK in attendance.

DRARST: An Example of a Working Alliance.

➤ DRARST (DoD Raytheon Airborne Radar Sustainment Team)

- Savings realized through shared projects coordinated or managed by DRARST:
 - Savings to the USAF customer realized through identification of life-of-type purchases of existing vs. costly redesign of components: Excess of \$49 million.
 - Savings to each program office (DoD (F-15 and B-2) and Raytheon (F-15, F-18, and B-2)) through shared costs to redesign and qualify a manufacturing source for needed components: Excess of \$3.5 million.

DRARST: An Example of a Working Alliance.

- **DRARST** (DoD Raytheon Airborne Radar Sustainment Team)
 - Savings realized through shared projects coordinated or managed by DRARST:
 - NAVAIR/F-18/PMA-265 recently has submitted funds in a cooperative cost sharing effort with 782 CBSSS/ENB to redesign the ASIC common to both the 655879 & 655874 hybrids resulting in a 50% reduction in the outlay of funds by each program to resolve obsolescence issues in both hybrids.

Conclusion

- Engineering And Logistic Support Is Seriously Impacted As The Service Life Is Extended Beyond Original Predictions.
- Proactive Management is the best approach.
- Strategic alliances are a must.
- DRARST works.

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**F-15 Avionics Hardware R & M Engineering
WR-ALC/782 CBSSS/ENB and RAYTHEON**

An F-15 fighter jet is shown in a steep climb against a black background, with the Earth's horizon visible at the bottom. A bright light source on the left creates a lens flare effect. The jet is white with dark markings on the nose and wings.

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