



**Delivering Life Cycle Excellence**



**in Today's Environment**



Monday, March 24, 2014

9:35 a.m.

# Panel

## Life Cycle Management: Clarifying the Enabling Functions Kenney Hall



**Maj Gen Thomas  
Masiello, USAF**  
Commander  
AFRL



**Randy Brown**  
Dir. Intelligence,  
Surveillance &  
Requirements  
AFMC



**Brig Gen Duke  
Richardson, USAF**  
Dir. Logistics and Sustainment  
AFMC



**Michael "Bo"  
Gourley**  
Logistics Engineering  
Principal, Lockheed Martin



**Delivering Life Cycle Excellence**



**in Today's Environment**



**Maj Gen Thomas Masiello, USAF**  
**COMMANDER, AIR FORCE RESEARCH**  
**LABORATORY**



# S&T across the Lifecycle



**Basic Research**  
10-30 year lead

**Technology Base**  
5-20 year lead

**Advanced Demonstrations**  
1-10 year lead

**Manufacturing Technology**  
1-10 year lead

**Sustainment S&T**  
1-5 year lead

**Directly Fielded**  
>1 year lead

# Air Force Materiel Command

---



## Intelligence, Surveillance, Reconnaissance and Requirements

Mr. Randy Brown  
Director  
HQ AFMC/A2/5



# ***Enabling Functions***

- ***Agile Combat Support (ACS)  
Core Function Lead  
Integrator (CFLI)***
- ***Acquisition Intel Support to  
Programs***
- ***Acquisition Incident Report  
(AIR)***
- ***ILCM Policy***
- ***CYBER***

- ***Command Rep on AF  
Requirements Oversight  
Council***
- ***Champion-- Program  
Management Acquisition  
Workforce***
- ***Stand up Requirements  
“Engine Room”***
- ***Manage Special Access  
Programs***



# ***EXCELLENCE IN ILCM***

---

- ***Understand the cost drivers and military utility- through cost capability curves -finding the affordable approach***
- ***Systems are becoming more interdependent - be aware of the health of the enablers for your program***
- ***Most of our product support costs are in CLS - how to bring them down?***
- ***Agility and Resiliency***
- ***Digital thread and intellectual property***



# Air Force Materiel Command

---



## Product Support *Unity of Purpose*

Brig Gen Duke Richardson  
HQ AFMC/A4  
24 March 14



# New AFMC Centers

**Nuclear**



Continue to Strengthen AFMC's Role in the Nuclear Enterprise

**Technology**



Advance Today's & Tomorrow's Combat Capabilities through Leading-Edge Technology

**Life Cycle Management**



Acquire and Support War-Winning Capabilities "Cradle-to-Grave"

**Test & Evaluation**



Perform World-Class Test and Evaluation

**Sustainment**



Sustain Air Force Capabilities through World-Class Depot Maintenance & Supply



# Product Support

- **Definition:** "...the package of support functions required to deploy and maintain the readiness and operational capability of major weapon systems, subsystems, and components..." PSM Guidebook - April 2011
- **12 Integrated Product Support Elements:**
  - Product Support Management
  - Design Interface
  - Sustaining Engineering
  - Supply Support
  - Maintenance Planning and Mgmt.
  - Packaging, Handling, Storage, & Transportation (PHS&T)
  - Technical Data
  - Support Equipment
  - Training and Training Support
  - Manpower/Personnel
  - Facilities and Infrastructure
  - Computer Resources

**No single organization, entity, or staff "owns" all aspects or elements of Product Support**



# Enterprise Logistics Strategy (ELS)

## MISSION

Air Force logistics fields, generates, and sustains power in air, space, and cyberspace

## STRATEGIC PRIORITIES (10-yr)

Evolve logistics core competencies to fully support Joint Doctrine

Posture logistics resources for the next fight

Deliver cost effective readiness through product support & operational logistics

## VISION

2022

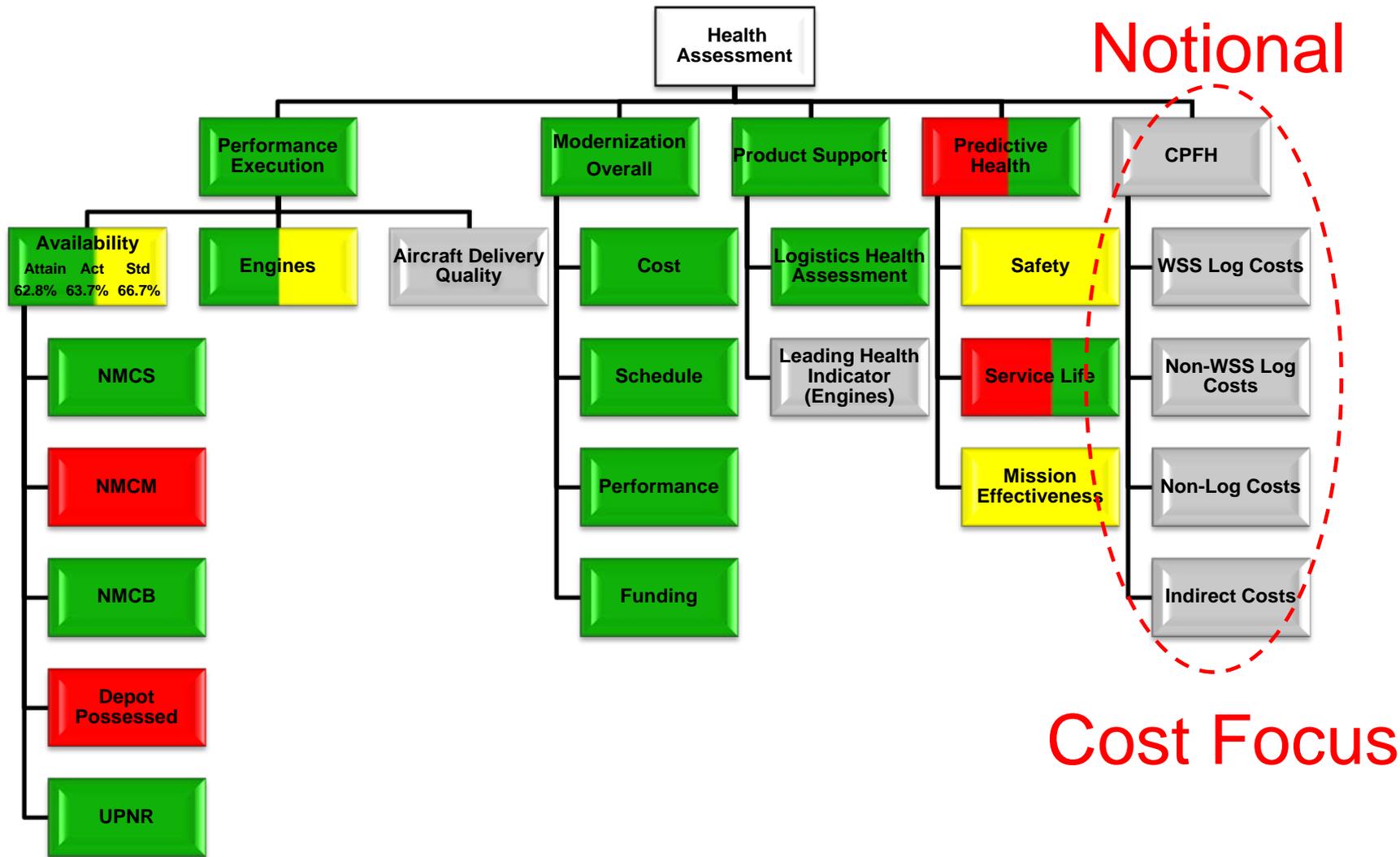
Leading ready, affordable logistics in a Joint world

One Logistics Team -- One Shared Vision



# Weapon System Enterprise Review

## Cost Module





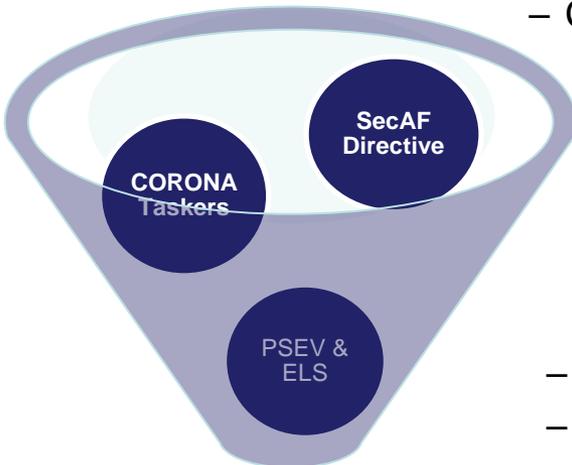
# Unity of Purpose: One Management Framework Linked to ELS Priority 3

- Develop contracting tools for securing better business deals
- Build and execute strategy for completing in-house Product Support BCAs
- Improve data management strategies

**Establish a governance structure and understand costs**

- ILCM-Executive Forum (ILCM-EF)
- Product Support Steering Board (PSSB)
- Centralized Asset Management (CAM)
- Complete Logistics Cost Model (LCM)
- Complete WSER cost metrics/targets

**Achieve cost effective industry-provided Product Support**



**Understand and set executable and stable requirements**

- Reduce FH execution variance
- Re-assess materiel availability targets
- Re-assess War Readiness Engines (WRE) and Readiness Spares Package (RSP) targets

**Need Clear Lines of Effort**

**Achieve cost effective organic Product Support and operational logistics**

**Implement risk-based method for allocating resources to the requirements**

- Mature risk-based CAM resource allocation model
- Compare CAM predicted results to WSER actuals



# Unity of Purpose

- **Definition:** The state of being one with a result or effect that is intended or desired

*"We must indeed all hang together, or, most assuredly, we shall all hang separately"  
[Benjamin Franklin]*

- **Methods:**
  - Enterprise Logistics Governance (ELG)
  - Integrated Life Cycle Management – Executive Forum (ILCM-EF)
  - Product Support Steering Board (PSSB)
  - ***SME communications across all levels***

**Successful Product Support requires  
Unity of Purpose across HAF, HQ AFMC, Centers, industry**

# The Industry Perspective

## Supporting Life Cycle Management: Clarifying the Enabling Functions

DAU - AFLCMC

Acquisition Insight Focus Week

*“Delivering Life Cycle Excellence in Today’s Environment”*



**Michael D. “Bo” Gourley**

Principal, Project Engineering

Corporate Engineering & Technology

# Agenda



- **BBPi 2.0**
- **DoD 5000.02**
- **GAO “Setting Requirements” report**
- **PBL**
- **DUSD(LM&R) “Enablers”**

# BBPi 2.0



- **Achieve Affordable Programs**
  - Mandate affordability as a requirement
- **Control Costs Throughout the Product Lifecycle**
  - Build stronger partnerships with the requirements community to control costs
- **Incentivize Productivity & Innovation in Industry and Government**
  - Increase effective use of Performance-Based Logistics

# GAO Report GAO-03-57



United States General Accounting Office

GAO

Report to the Subcommittee on  
Readiness and Management Support,  
Committee on Armed Services,  
U.S. Senate

February 2003

## BEST PRACTICES

Setting Requirements  
Differently Could  
Reduce Weapon  
Systems' Total  
Ownership Costs



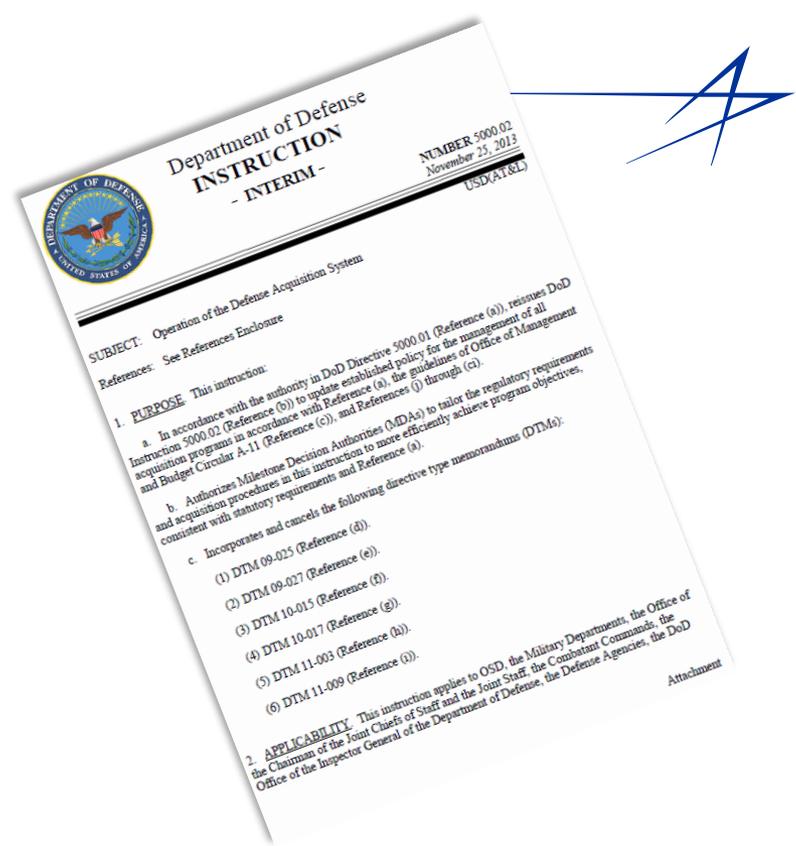
GAO-03-57

- First, DOD based requirements for weapon systems in product development almost exclusively on technical performance, with little attention to operating and support costs and readiness at the beginning of development when there is the greatest chance of affecting those costs positively.
- In contrast, commercial companies that we visited considered operating and support costs to be integral to their new product development decisions.

# DoDI 5000.02

... focus on identification and analysis of alternatives; measures of effectiveness; key trades between cost and capability; **total life cycle cost, including sustainment**; schedule; concepts of operations; and overall risk.

The Program Manager will employ effective **Performance-Based Logistics** planning, development, implementation, and management in developing a system's product support arrangements.



# PBL Comprehensive Guidance

22 November 2013



- CAEs, PEOs, and PMs will emphasize through appropriate communication vehicles **the importance of pursuing performance based product support strategies and the beneficial role of PBL arrangements.**

- ODASD (Materiel Readiness)

# DoD Lifecycle Sustainment Outcome Metrics Enablers



DEPUTY UNDER SECRETARY OF DEFENSE FOR  
LOGISTICS AND MATERIAL READINESS  
3600 DEFENSE PENTAGON  
WASHINGTON, DC 20301-3500  
MAR 10 2007

MEMORANDUM FOR UNDER SECRETARIES OF THE MILITARY  
DEPARTMENTS

**SUBJECT: Life Cycle Sustainment Outcome Metrics**

In July 2006, the Joint Requirements Oversight Council (JROC) established a mandatory warfighter Material Readiness/Sustainment Key Performance Parameter (KPP) (Material Availability) and identified Key Reliability and Overmeter (KPP) (Material Availability) and identified Key revised acquisitions. Specific definitions of these metrics, as they will appear in the scheduled for issuance in 1 Oct CY2007, are contained in Attachment 1. Working with your acquisition and logistics offices we have established these KPP/KSA definitions along with a Mean Down Time we have established in the Attachments. Goals for these four material readiness outcomes should be established early in the concept decision process, refined throughout the design system retirement process, and then carried through as program baseline goals until system retirement. Status towards these goals should be reported at Program Reviews (DAB, DAES, MRU's, etc).

Additionally, we have at least 14 Life Cycle Sustainment (LCS) "Enablers" (Attachment 2) that tend to be key leverage considerations throughout a program's life cycle. These enablers are important technical and management processes that, when appropriately addressed, positively impact the Material Readiness LCS outcomes. We encourage continuing emphasis on these LCS enablers throughout the weapon system life cycle.

Reporting and use of these outcomes and enablers should begin as soon as practical for all ACAT 1 Acquisition Programs, as well as all major legacy programs currently included in the Defense Readiness Reporting System (DRRS). I request your individual Service Management Information System offices work directly with the Defense Acquisition Management Information Retrieval (DAMIR) office to ensure access to this data with minimal additional workload for the programs. The next revision to DoD 5000.2 and the Defense Acquisition Guidebook will incorporate the four Material Readiness outcome goals and LCS enablers and detailed process for the collection and reporting of these sustainment data items.

- PBL
- Corrosion Prevention
- IUID
- RFID
- IETM
- CBM+
- CPI
- Partnering
- DMSMS
- Training
- Integrated SCM
- M&S
- PBAs (now called PSAs)

DUSD/L&MR 10 Mar 2007 Memo  
"Life Cycle Sustainment Outcome Metrics"

# Clarifying the Enabling Functions



- **Industry will respond to requirements**
- **DoD policy emphasizes that lifecycle sustainment planning, and PBL specifically, enables desired outcomes**
- **Industry is willing to expend its resources to be postured to produce effective and efficient sustainment outcomes**

