

Leveraging Maintenance Within Life Cycle Management Framework

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Materiel Readiness**

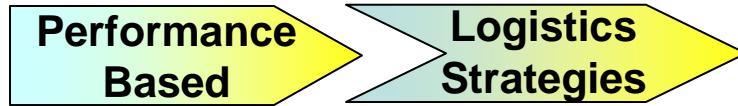


Denver, Colorado, USA

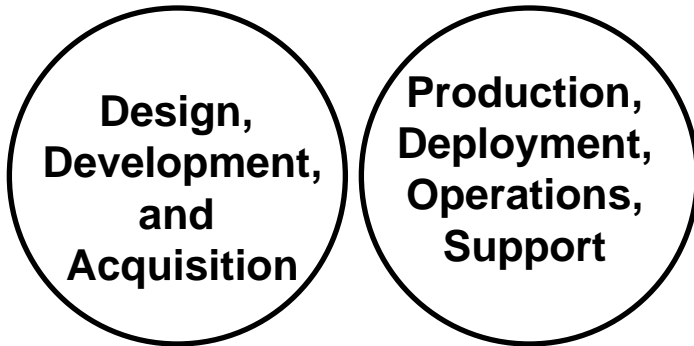
October 28, 2008



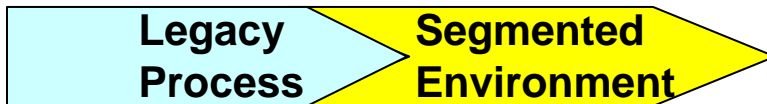
Evolving From Acquisition Silos to Life Cycle Management Integration



Where we've been.



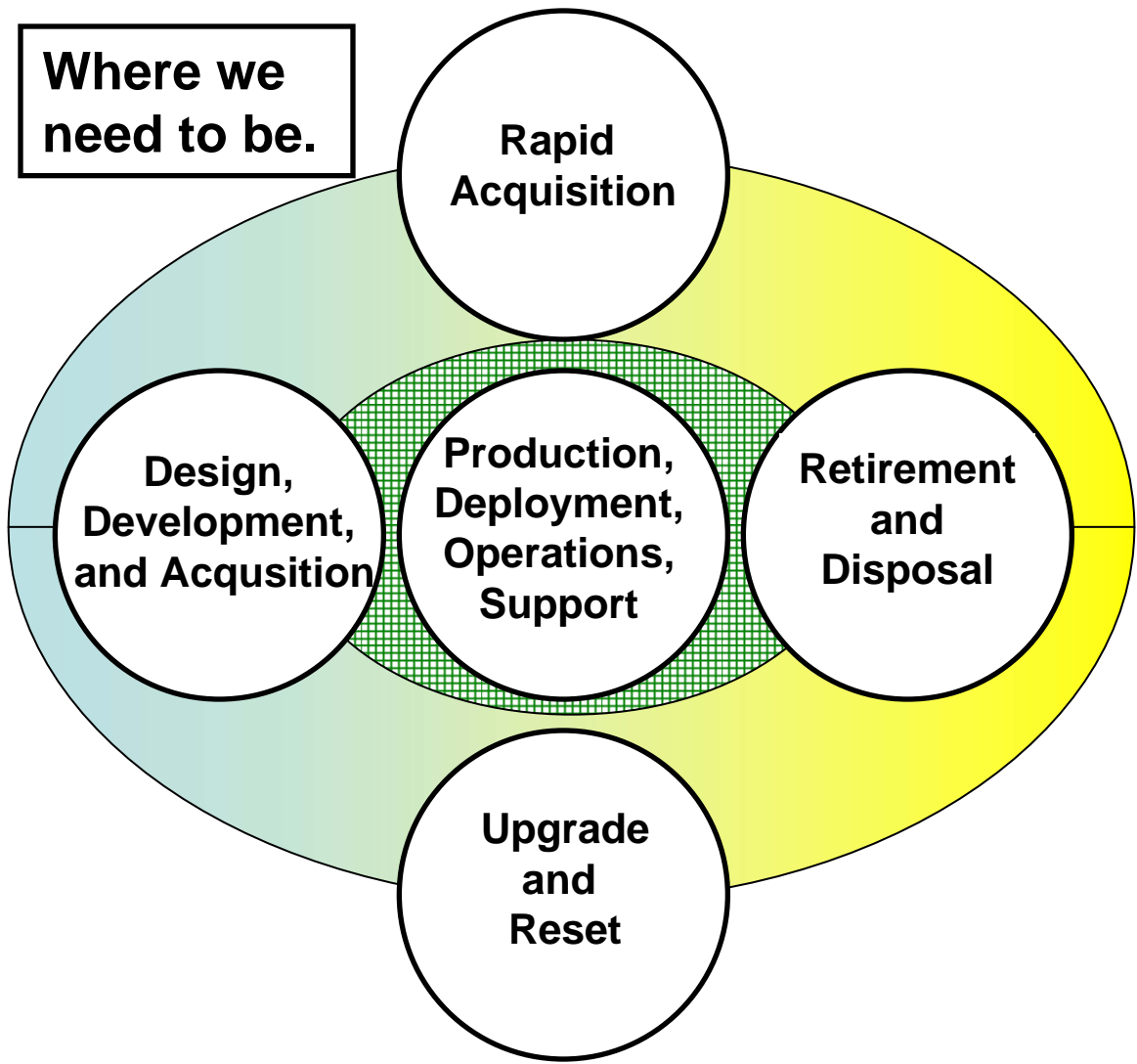
Where we started . . .





Evolving From Acquisition Silos to Life Cycle Management Integration

Where we need to be.



Life Cycle Management Tenets

- Integration of Acquisition and Sustainment into LCM
- Focus on Materiel Readiness
- One set of metrics throughout the System Life Cycle
- Next Generation Performance Based Life Cycle Product Support (PBL)

A life cycle approach has the Warfighter at the center



Seeing Next Generation PBL

- **Exactly what are we trying to deliver?**
 - *Who is our customer?*
 - *What does the customer want?*
- **Is readiness our ‘product?’ If so, exactly where is our focus?**
 - *Commodity availability*
 - *Subsystem readiness*
 - *System readiness*
 - *Fleet readiness*
- **If readiness is our ‘product,’ how do we deliver it?**
 - *Who plays what role?*
 - *Who is responsible for what part of the process?*



PBL balances required availability with value over the life of a system



Leveraging Maintenance to Deliver Performance Outcomes

The future of effective maintenance capabilities is directly linked to how well we integrate technology, organizations, processes and people to deliver operational capability to the Warfighter.

- **Technology**: Health Monitoring, CBM +, Integral part of Supply Chain (decision-making information)
- **Organizations**: Next Generation PBL associated with Next Generation Partnering
- **Processes**: Synchronized MRO processes tied to enterprise objectives
- **People**: Expanded life cycle management competencies for the “Big L” workforce



PBL Good for Depots: Workload

High Performance Organization

Overhaul & Maintenance Magazine, October 2008

The MRO center here [Fleet Readiness Center Southwest, aka North Island] also actively seeks public-private partnerships, which boost revenue, stabilize the workforce, increase material availability and improve deliverables to the Warfighter . . .

Performance-based logistics contracts this year represent 22% of the FRCSW's cumulative workload, and Kelly [Capt. Mike Kelly, the Center's Commander] hopes that will grow to 30% in 2009, which is quite impressive considering the figure was 0.002% in 2003.



PBL creates opportunity



Good for Warfighter: Performance Up!

Program	Availability Benefits
F/A-18	+ 23%; 98% RFT
F/A-18 SMS	+ 32%
H-60 Avionics	+ 14%
Tires	+ 17%
AEGIS	+ 30%
F-404 Engine	+ 46%
T-700	+ 35%
CIWS	+ 9%
Mk41 VLS	+ 8%
Sea Sparrow	+ 14%
Navy Spt Equip	+ 32%
Nimrod (UK)	+ 40%
AN/ALQ-126B	+ 50%
AN/USM-638	+ 40%
LANTRIN	+ 17%
EA-6B Flt Cont	+ 47%
F-22	+ 15% MC

Program	Availability Benefits
B-2	47.2% MC (Record Level)
E-8	99.5% Lch Rt; 97.6% ME
ALR-67(v)3	97% Avail
Sentinel	95% Avail
Shadow	96%+ OR
TAIS	98%+ Avail
Javelin	99%+ OR
ITAS	99% Avail
CGS	99% Avail
HIMARS	98.7% Avail
C-17	93.5% Dpt Rel ; 85.4%MC
C-17 Engines	70% TOW incr
T56-15 Engines	+ 35% TOW
APS-137	+ 40% TOW
AN/PSS-14	95% Eff Rate
F414 Engine	97% Avail

RFT - Ready for Tasking
 MC - Mission Capable
 OR - Operational Readiness
 ME - Mission Effectiveness
 TOW - Time-on-Wing
 B/O's - Backorders
 LRT - Logistics Response Time
 RTAT - Repair Turnaround Time

Program	Cycle Time Benefits
F/A-18	-74% LRT; -33% RTAT
F/A-18 SMS	- 84% LRT
H-60 Avionics	- 85% LRT
Tires	-92% LRT; -100% B/O's
APUs	- 82%LRT
LANTRIN	- 90% LRT
F-404 Engine	- 25% RTAT
T-700	-74% RTAT; -100% B/O's
AH-64 Apache	- 35% RTAT
Pegasus Engine	- 59% RTAT
CH-47 (UK)	- 44% RTAT
F-22	- 20% RTAT
B-2	- 20% RTAT (Depot)
CIWS	- 99% B/O's
Sea Sparrow	- 90% B/O's
F-404	- 66%B/O's
Patriot	- 99% B/O's
RFTLTS	- 96% LRT



Good for Taxpayer: Costs Down!

Program	Total Cost Benefit (\$M)
F-22	\$14,000
ALR-67(v)3	\$62.7 (40%)
TOW-ITAS	\$350
F/A-18	\$688
CGS	\$10.3 (65%)
MIDs-LVT	\$62 (54%)
AN/AAS-44	\$31 (25.2%)
APUs	\$4 (20.9%)
AEGIS FCS	\$8 (19.3%)
F405 Engine	\$61 (17.2%)
Cockpit Disp	\$71 (16.5%)
F100	\$2 (16.3%)
LANTIRN	\$9.6 (14.6%)
F-404 Engine	\$79 (13.4%)
F-414 Engine	\$6.4
Patriot	\$1 (13.1%)

Program	Total Cost Benefit (\$M)
ARC-210	\$5.4 (8.6%)
TH-57	\$15.3 (7.9%)
H-60	\$41 (6.5%)
Sea Sparrow	\$2.2 (6.3%)
AN/WSN-7	\$0.88 (1.3%)
AN-PSS14	\$17
Sentinel	\$301.7
T-45	\$85
C-17	\$477
Navy Spt Equip	\$1
AN/ALQ-126B	\$2.1
AN/USM-638	\$0.5
AH-64 & CCAD	\$100
CH-47(UK)	\$250
Javelin	10%
RFTLTS	\$0.5

Program	Annual Cost Benefit (\$M)
F-22	\$500 (39%)
CASS CSP	\$30 (54%)
TOW-ITAS	\$6.3 (34.5%)
ARCI	\$4 (24.7%)
MK 41 VLS	\$1.1 (16.4%)
F-117	\$124 (14.5%)
Navy Tires	\$46 (15%)
GBMD	\$1.6
TAIS	\$0.01
H-46	\$0.35
Program	Flying Hour Cost Reduction
C-17	59%
Tornado (UK)	51%
Harrier (UK)	44%
Nimrod (UK)	8%

Source of Data: OSD information obtained PBL Award nominations, briefings, and periodical/internet articles.



Strategic Implications

- **LCM perspective prospers in today's environment**
 - Current AT&L Strategic Goals and Priorities
 - Joint Logistics Strategic Compass (JS/J4)
- **LCM is likely part of the DoD Transition dialogue**
- **Product Support Assessment Team (PSAT) Shaping Next Gen PBL**

Maintenance Critical to Enterprise Integration and Capabilities