A Parts Management Connection To Better Buying Power 2.0

Parts Standardization and Management Committee (PSMC)
5 – 7 November 2013, Mesa, AZ

IDA
Institute for Defense Analyses

Better Buying Power (BBP) 2.0

THE UNDER SECRETARY OF DEFENSE
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ACQUISITION, TECHNOLOGY AND LOGISTICS

APR 2 4 2013

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS
DEPUTY CHIEF MANAGEMENT OFFICER
DEPARTMENT OF DEFENSE CHIEF INFORMATION OFFICER
DIRECTORS OF THE DEFENSE AGENCIES
AT&L DIRECT REPORTS

SUBJECT: Implementation Directive for Better Buying Power 2.0 – Achieving Greater Efficiency and Productivity in Defense Spending

As detailed in my November 13, 2012, memorandum to acquisition professionals introducing Better Buying Power (BBP) 2.0, and as listed in Attachment 1, we are continuing our efforts in the following seven areas to achieve greater efficiency and productivity in defense spending:

1. Achieve affordable programs;
2. Control costs throughout the product lifecycle;
3. Incentivize productivity and innovation in industry and Government;
4. Eliminate unproductive processes and bureaucracy;
5. Promote effective competition;
6. Improve tradecraft in acquisition of services; and
7. Improve the professionalism of the total acquisition workforce.

The number of topics covered within these areas reflects the breadth and complexity of acquisition; many are targeted to particular parts of the acquisition community or specific aspects of how we do business. The Component Acquisition Executives (CAEs) and I to would like to emphasize the importance of key enduring acquisition principles, even as we provide guidance on evolving best practices and new approaches toward continuous improvement in the ways we do business across all the many activities associated with both product and services acquisition.

Here are some key overarching principles that underlie BBP and all that we do. Any guidance to the workforce, including BBP 2.0, should be approached with these principles in mind:

1. Think. The first responsibility of the acquisition workforce is to think. We need to be true professionals who apply our education, training, and experience through analysis and creative, informed thought to address our daily decisions. Our workforce should be encouraged by leaders to think and not to automatically default to a perceived "school solution" just because it is expected to be approved more easily. BBP 2.0, like BBP 1.0, is not rigid dogma – it is guidance subject to professional judgment.

2. People. Thinking does not do much good if we do not have the professional preparation to think well. Policies and processes are of little use without acquisition professionals who are experienced, trained and empowered to apply them effectively. At the end of the day, qualified people are essential to successful outcomes and professionalism, particularly in acquisition leaders, drives results more than any policy change.

3. Start with the basics. While they can be improved in practice on the margins, while we can always learn from our experience, and while we can find more creative ways to improve outcomes – the acquisition fundamentals work. We need to apply them effectively. Any list of basics would include these items: (1) effective incentives to industry, especially competitive pressures; (2) thorough understanding and active management of technical risk; (3) insistence on demonstrated progress before major commitments; (4) getting the big early decisions, particularly requirements trade-offs, right; and (5) using the right contract type for the job. Some of these appear directly in BBP 2.0, others are there by implication. These basics should always drive our thought processes and judgments.

4. Streamline decisions. Finally, we must streamline our processes and oversight to provide value added. This includes promptly acquiring relevant data and directing differences of opinion to *appropriate* decision makers. Our managers cannot be effective if process consumes all of their most precious resource – time.

Attachment 2 provides the implementing guidance for BBP 2.0, with specific actions, in each focus area and accompanying initiatives that I expect you to execute in order to implement the November 13, 2012, memorandum. The Business Senior Integration Group will continue to oversee BBP implementation. BBP 2.0 reinforces much of the content from BBP 1.0, but it also includes new initiatives and modifies some of the guidance found in BBP 1.0.

DoD Regulatory System: This directive and guidance are effective immediately. All applicable DoD Directives and other related issuances shall be updated to implement this direction and guidance within 180 days.

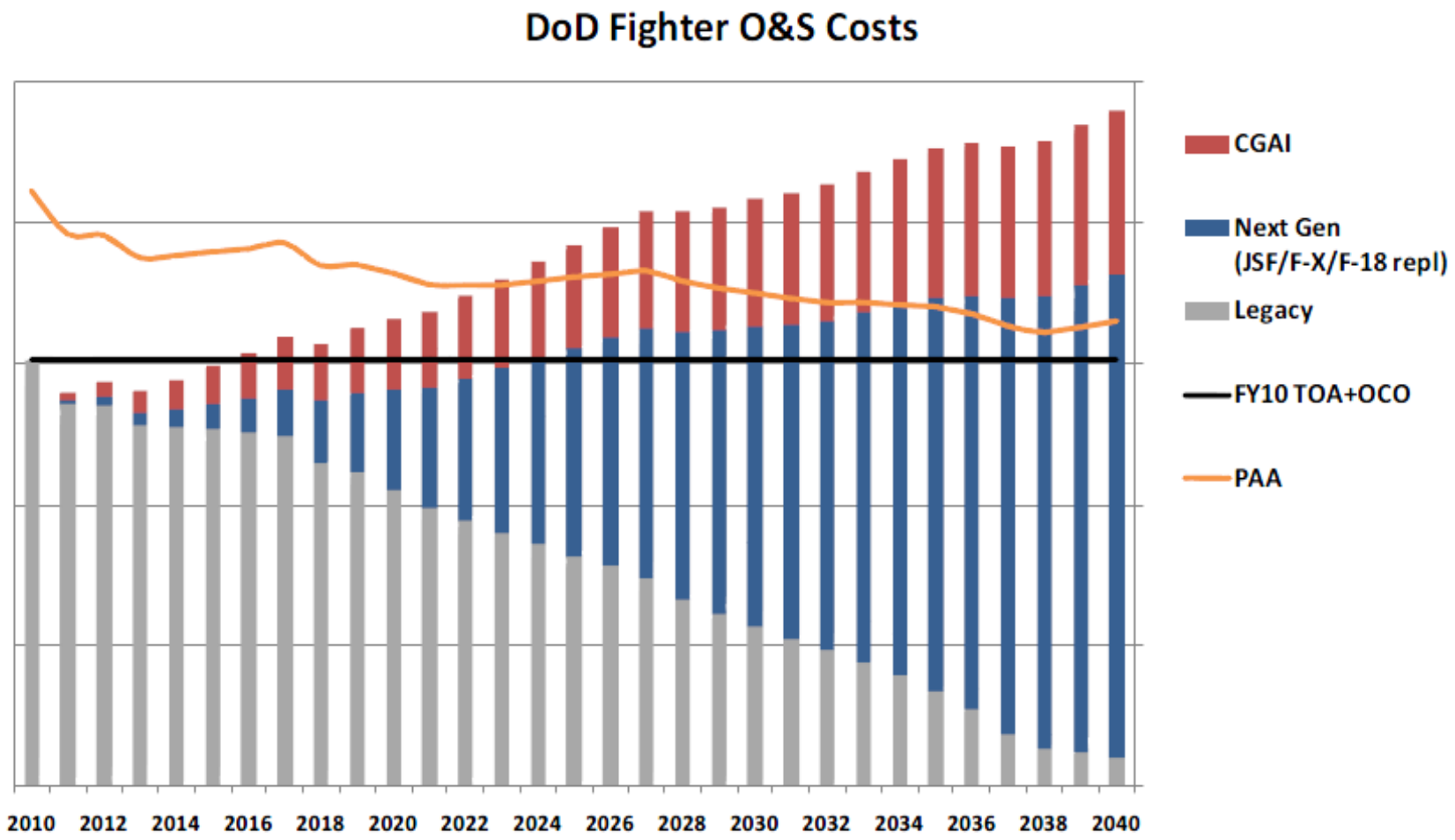
Frank Kendall

Attachments:
As stated.

BBP 2.0: Achieve Affordable Programs

- **Mandate affordability as a requirement**
  - **Establish affordability goals at MDD and MS A**
  - **Establish affordability caps at pre-EMD**
  - **Goals and caps apply to both procurement cost and operating and support (O&S) cost**
- **Institute a system of investment analysis to derive affordability**
  - **Goals and caps based on anticipated level of future budgets within relevant portfolios**
  - **Not a product of cost estimates but rather a constraint on cost**
- **Enforce affordability caps**
  - **If affordability caps are breached, costs must be reduced or expect program cancellation**
  - **Could adjust peacetime optempo or how systems are removed or introduced to the force**

How Will Projected O&S Cost Increases for the Tactical Aviation Forces be Paid for?



From a briefing by X (CAPE) to the DoD Cost Analysis Symposium last year

Déjà Vu
Design to Cost (DTC)

- DTC became DoD policy in DoDD 5000.1 in 1971*
- 1973 DepSecDef memo, "Design to Cost Objectives on DSARC Programs"
- DoDD 5000.28, May, 1975, "Design to Cost"
- DoDD 4245.3, "Design to Cost" (cancelled 5000.28)
  - Joint Design-to-Cost Guide, Oct 1977, signed by Service acquisition/logistics commanders
- DoDD 5000.1, Feb. 1991, cancelled D4245.3, and included no direction regarding DTC

In practice, DTC focused on acquisition cost but there was an O&S cost component

How Did DTC Fare?

- **Two IDA studies (1989 and 1993) evaluated the effectiveness of DTC among several Defense acquisition reform initiatives**
- **Both studies found that DTC was not successful in controlling cost growth**
  - **Among 48 programs, those using DTC experienced total acquisition cost growth of 64% whereas the programs not using DTC experienced cost growth of 38%**
  - **No improvements were found in programs starting in the 1980s versus those starting in the 1970**

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Déjà Vu again
Cost As an Independent Variable (CAIV)

- **The CAIV initiative was launched by USD(A&T) in December 1995 (extracts below); PDUSD was the key advocate**
- **Efforts to implement CAIV seems to have been de-emphasized with the departure of X and arrival of Y as USD(AT&L) (though we are reliably informed that Y was an advocate)**
- **CAIV relates not only to affordability goals/caps but also to the "should cost" initiative of BBP**
- **Evolved into the "Reduction in Total Ownership Costs" (R-TOC) program with X's departure**

Until R-TOC, the life-cycle cost element of CAIV was not emphasized

What Happened to the CAIV Flagship Programs?

- **ATACMS/BAT—cancelled in 2003 by Army**
- **Crusader—cancelled in May 2002 by SecDef**
- **MIDS—Program restructured to include JTRS. Re-designated ACAT 1C and MDA transferred to Navy in Sep. 2012, so difficult to track cost history**
- **AIM-9X—appears to have come in under costs**
- **SBIRS, JASSM, JAST (JSF/F-35), EELV all experienced substantial cost overruns**

While not as extensively used, and while results are not as well documented, it appears that CAIV was no more successful than DTC

Plausible Reasons Why DTC and CAIV Did Not Work as Intended (1 of 3)

- **Goals (in theory both for acquisition and sustainment, but in practice, mostly acquisition)**
  - **Repercussions of missing goals not a priority to OSD or Service leadership**
    - **Don't worry about where the money comes from when you are reviewing programs without a portfolio perspective**
    - **Any individual program is affordable**
  - **No repercussions of missing goals on PM**
    - **Occurs on someone else's watch**
    - **There's always a story**
  - **Basis of goal was "should cost"**
    - **Used aggressive targets, not based on rigorous analysis (i.e., what should this cost if commercial practices were used)**
  - **What's changed**
    - **In theory, everything**

Plausible Reasons Why DTC and CAIV Did Not Work as Intended (2 of 3)

- **O&S cost estimates**
  - **Low fidelity O&S cost estimates**
  - **Estimates made after design decisions have locked in significant portion of future O&S cost**
  - **O&S cost model results could be gamed**
    - **Used to predict something salable**
  - **What's changed**
    - **Estimates made earlier**
    - **Greater scrutiny of methodology**
    - **Better cost estimating relationships**
    - **Improved O&S cost reporting guidance**
    - **More formalized and complete Cost Analysis Requirements Description (CARD) data**

Plausible Reasons Why DTC and CAIV Did Not Work as Intended (3 of 3)

- **Management/Oversight**
  - **Belief that memos change culture**
  - **Senior leadership turnover and change in focus**
  - **Monitoring and follow-up lacking**
  - **Minimal incentives for program office and industry to trade-off performance for reduced O&S cost**
  - **DTC and CAIV goals not formally flowed down to industry**
  - **What's changed**
    - **Required reporting of changes in goals and whether cost estimate will exceed cap**
    - **Reporting of changes in framing assumptions being piloted**
    - **Everything else is to be determined**

Ideas about Improving O&S Cap Management/Oversight (1 of 2)

- **Focus on total O&S cost itself is difficult**
  - **O&S cost estimation methodologies subject to too many assumptions that may be gamed**
    - **Mostly a refined analogy to antecedent system during design**
    - **Key drivers of O&S cost may not be controllable by the program**
    - **Manning and product support strategies subject to change**
    - **Actual reliability and maintainability (R&M) costs are unknown until operational tests**
      - **R&M predictions based on design of individual components are often different than test results in an integrated system in an operational environment**
  - **Inconsistencies across programs**

Ideas about Improving O&S Cap Management/Oversight (2 of 2)

- **Better to also focus on management of O&S cost drivers**
  - **While specifics are dependent on the context, principal O&S cost drivers are**
    - **Maintenance manpower**
    - **Fuel**
    - **Reliability and maintainability (e.g., mean time between removals, part availability)**
    - **Product support strategy**
  - **Key drivers should be known for the new system**
    - **Based on drivers of antecedent system and plans for differences**
  - **OSD can influence industry and government decisions on**
    - **The product support strategy and manning**
    - **The designs through RFPs, contract requirements, and contract incentives**

Relationship to Parts Management

- **Parts management can affect the reliability and maintainability cost drivers**
  - **Baseline goal is to perform at least as well as the antecedent system in terms of peacetime O&S cost**
- **The following discussion questions try to ascertain how government might be able to incentivize industry to focus on O&S cost drivers as a way of effectively implementing affordability caps as a starting point for a potential new parts management thrust**

Discussion Questions (pre MS B)

- During TD, conceptual design decisions are made that have a significant impact on O&S cost
- How can the government ensure that the designs brought to PDR will have favorably considered O&S costs when making trades?
  - How can O&S cost drivers be made a source selection criteria for the MS A TD contract?
  - What verifiable contract requirements can be included to demonstrate success (at PDR) in attacking cost drivers?
  - How can the government let it be known that O&S cost will be a source selection criterion for the EMD contract?
  - How should the government open the solution space to encourage trades?
  - Are there specific parts management elements to any of this?

Discussion Questions (post MS B)

- During EMD, detailed design decisions are made that have some impact on O&S cost
- How can the government ensure that the designs brought to production will have favorably considered O&S costs when making trades?
  - How can O&S cost drivers be made a source selection criteria for the EMD contract?
  - What verifiable contract requirements can be included to demonstrate success in attacking cost drivers?
  - How can contract incentives (e.g., incentive fee or award fee) be used to encourage industry to avoid trades and other decisions to sacrifice O&S cost?
  - How do potential future PBL contracts affect the situation?
  - Are there specific parts management elements to any of this?

Discussion Questions (unambiguously demonstrating intent)

- **What does the government have to do to convince industry that it is serious about reducing O&S cost?**
  - **When should a program start be delayed?**
  - **When should a program be cancelled because of high O&S cost?**