

How Have Changes in OSD-Level Oversight of Major Defense Acquisition Programs Influenced Cost Growth?

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Research Topic

- This presentation is drawn from research done at IDA over the past four years. The result of that research is scheduled to be released soon as IDA Report R-8396, Acquisition Policy, Cost Growth, and Cancellations of Major Defense Acquisition Programs.
- The presentation is, in particular, concerned with two results from statistical analyses. From the standpoint of the present looking back, these are:
 - The wave of changes in acquisition policy during the 1980s and 1990s
 is not associated with changes in quantity adjusted Program
 Acquisition Unit Cost (PAUC).
 - The Packard reforms of July 1969 are associated with a statistically significant and persistent reduction in PAUC growth.
- The question addressed is whether these two results are creditable in terms of what we know about changes over time in acquisition policy.



Errors in the Conventional Wisdom on the Effects of Acquisition Oversight on PAUC Growth

- There is a consensus among statistical studies done over about the past 25 years that changes in acquisition policy during the 1980s and 1990s are not associated with reductions in PAUC growth.
- On that basis, it seems to have become the conventional wisdom that OSD-level acquisition oversight is ineffectual, at least insofar as PAUC growth is concerned.
- The conventional wisdom is wrong in two respects:
 - It ignores initiatives on contract type and relaxation of acquisition regulations undertaken during (about) 1986–1998 which do not stand out from the clutter because a relatively small number of programs were involved.
 - The studies on which the consensus is based did not consider the effects of the 1969 Packard reforms, and it turns out that is where the action is.

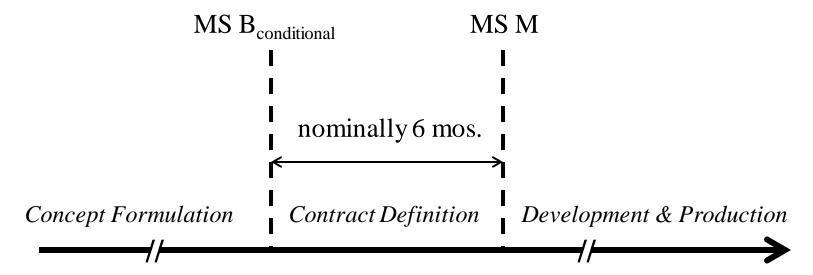


Background – Total Package Procurement (TPP) Contracts

- The defining characteristic of a TPP acquisition is that fixed price production options are included in a contract for Engineering and Manufacturing Development (EMD) awarded under competitive conditions.
- At the upper limit, TPP contracts included a fixed price for EMD, fixed prices for all production lots, and fixed prices for major parts of support (e.g., initial spares, depot maintenance).
- At the other extreme, a TPP contract would have a cost plus incentive fee provision for EMD, "not to exceed" prices for low rate initial production, and priced options for portions of support.



The OSD-Level Milestones under McNamara (DoDD 3200.9, July 1, 1965)*



- MS B_{conditional}: Authority to undertake the development efforts required to support preparation a TPP contract or Fixed Price (FP) development contract.
- MS M: Authority to contract for EMD and production. Effectively, combined MS C and MS D authority.

^{*} The MS names are assigned here for convenience; they were not named in DoDD 3200.9.

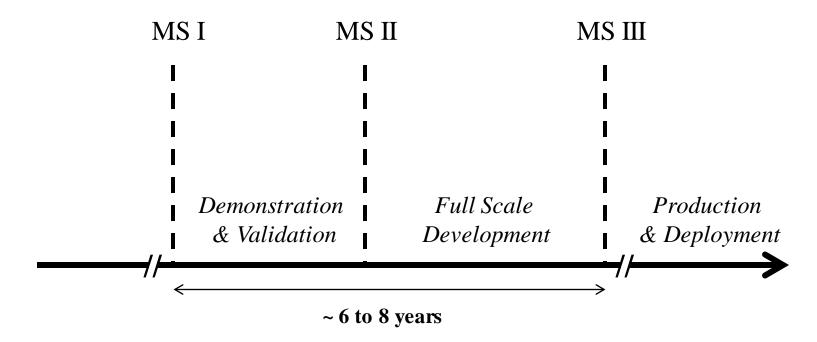


The 1969 Packard Reforms on Milestones and Contract Types

- In July 1969, then Deputy Secretary of Defense David Packard instituted a package of reforms that made fundamental changes to the McNamara process:
 - Contracting for EMD and production in a single step was prohibited and the use of Fixed Price development contracts was discouraged.
 - A robust technology development phase was added.
 - Separate milestones were established for entry into EMD and into production.
 - The milestone oversight process was formalized. The first versions of DoDD 5000.01 and DoDI 5000.02 were issued.



The OSD-Level Milestones Post Packard's 1969 Reforms (DoDI 5000.2, 1975)*



- Component spending on 6.4 (Advanced Development) now required OSD approval (MS I), which was regarded as program initiation.
- The EMD and production decisions were separated.

^{*} DoDD 5000.1 (January 18, 1977) was the first to give the milestones numbers.



Effects of the 1969 Packard Reforms on PAUC Growth

- The statistical analyses indicate that:
 - Average PAUC growth during the period FY 1970–FY 2009 remained below that of the McNamara-Clifford period.
 - Average PAUC growth was lower because of a statistically significant reduction in the proportion of very high PAUC growth programs.
 - The significant reduction in the proportion of very high PAUC growth programs persisted.
- The historical puzzle: Why did the effects of the Packard reforms persist over a period of 40+ years?

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Persistence of the Packard Reforms

 There were many changes in acquisition policy and process during the 1980s and 1990s.

BUT

- The 1969 Packard reforms remained in place through the end of the study period (FY 2009) and beyond.
 - None of the elements of the Packard milestone definitions and the review process were eliminated or rendered ineffectual by other changes.
 - Some policy initiatives that affected a small number of MDAPs during the period 1986–2000 rejected Packard's contract policy and/or relaxed acquisition regulations. The results were not promising.
 - Most elements of the 1969 Packard reforms were strengthened after 1969.
- Proof: By inspection. Read the successive versions of DoDD 5000.1 and DoDI 5000.2.

Reduced to a length suitable for printing on a t-shirt, the conclusion is:

Packard lives!



Backup



General Features of the DoDD 3200.9 Process

- The first edition of DoDD 3200.9 (February 1964) provided for a single milestone. The July 1965 edition added a second milestone.
- Reviews were initiated by a Component request to proceed with a major system acquisition.
- Reviews were conducted under the direction of DDR&E; decisions at least nominally were made by SecDef on the recommendation of DDR&E.
- The Component was required to submit a Program Change Proposal (PCP) and a Technical Development Plan (TDP), which was replaced by a Development Concept Paper (DCP) in 1968.
- OSD Comptroller enforced the requirement for milestone authority before a Component could proceed with a major acquisition.



Criteria for Grant of MS B_{conditional} Authority*

- Primarily engineering rather than experimental effort is required, and technology required is sufficiently in hand.
- 2. The mission and performance envelopes are defined.
- 3. The best technical approach has been selected.
- 4. A thorough trade-off analysis has been made.
- 5. The cost effectiveness of the proposed item has been determined to be favorable in relationship to the cost effectiveness of competing items on a DoD-wide basis.
- 6. Cost and schedule estimates are to be creditable and acceptable.
- * DoDD 3200.9 (July 1, 1965), paragraph VI.C, p. 5

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Packard Reforms that Directly Touched Cost Growth

- Prohibited the use of TPP and discouraged the use of FP development contracts.
- Emphasized realistic costing and full funding and established independent costing as part of the milestone review process.
- Abolished MS D_{conditional}; added MS I (to enter a phase for the maturation of key technologies); and separated MS M into MS II and MS III.
- Established the DSARC. Retained the Development Concept Paper (DCP), renamed it the Decision Coordinating Paper.
 Documentation requirements tailored in.
- Eliminated PERT requirements; required Component Heads to annually update DCP and report on cost growth of each MDAP.