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The State Of Practice In DoD Acquisitions, And Some Proposed Alternatives

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Report Documentation Page

*Form Approved
OMB No. 0704-0188*

Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

1. REPORT DATE JAN 2003	2. REPORT TYPE	3. DATES COVERED 00-00-2003 to 00-00-2003			
4. TITLE AND SUBTITLE The State of Practice in DoD Acquisitions, And Some Proposed Alternatives		5a. CONTRACT NUMBER			
		5b. GRANT NUMBER			
		5c. PROGRAM ELEMENT NUMBER			
6. AUTHOR(S)		5d. PROJECT NUMBER			
		5e. TASK NUMBER			
		5f. WORK UNIT NUMBER			
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Carnegie Mellon University, Software Engineering Institute, Pittsburgh, PA, 15213		8. PERFORMING ORGANIZATION REPORT NUMBER			
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)		10. SPONSOR/MONITOR'S ACRONYM(S)			
		11. SPONSOR/MONITOR'S REPORT NUMBER(S)			
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 15	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			



Overview

This presentation is based on some insights gained through several recent “new start” acquisitions. While the focus is primarily on the pre-award phase of the acquisition, a few post-award issues are also discussed, and a few remedies are described in a “Modest Proposal” (with apologies to Johnathan Swift).



Pre-Award Activities

Request for Proposal (RFP) development

- “Do it faster”

Source Selection / Proposal Evaluation

- Integrated process evaluation



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RFP Development₁

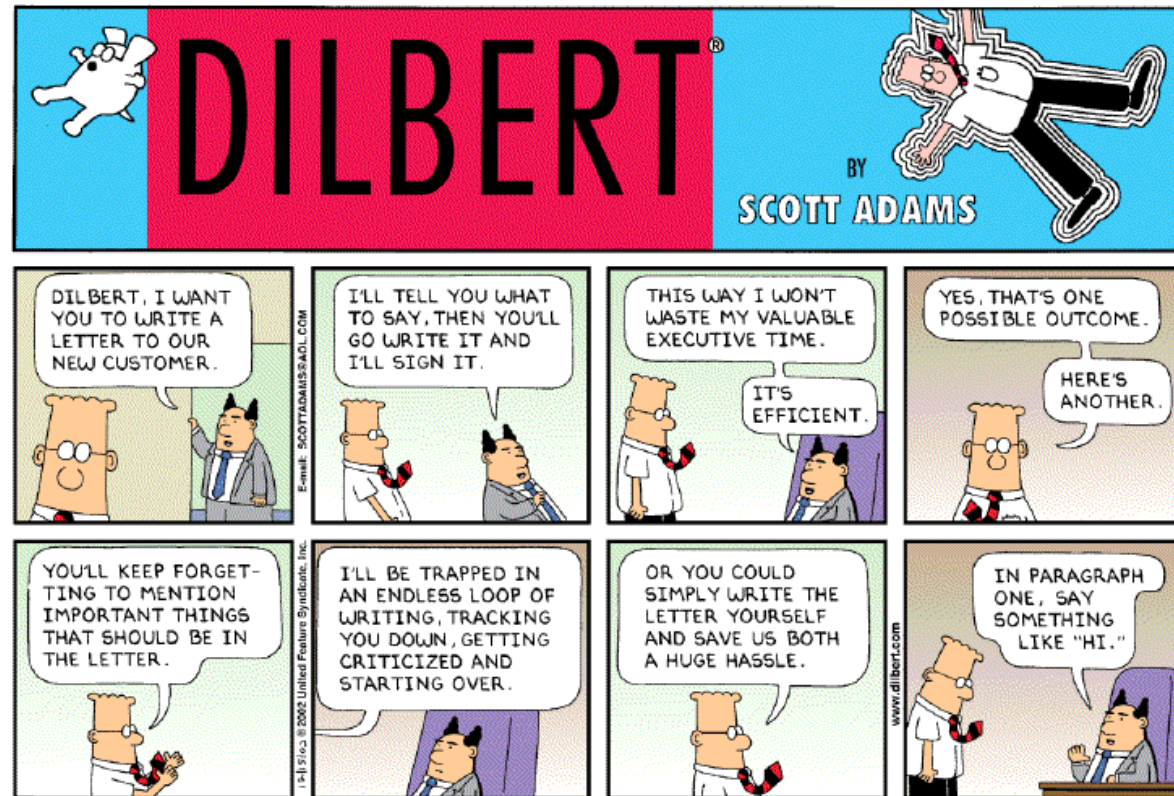
Does this look familiar?





RFP Development₂

How 'bout this?



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Do It Faster

This usually gets interpreted as “Make it Smaller”.

- Asking for less detail
- “Intuiting” processes from products
- Draconian page limits

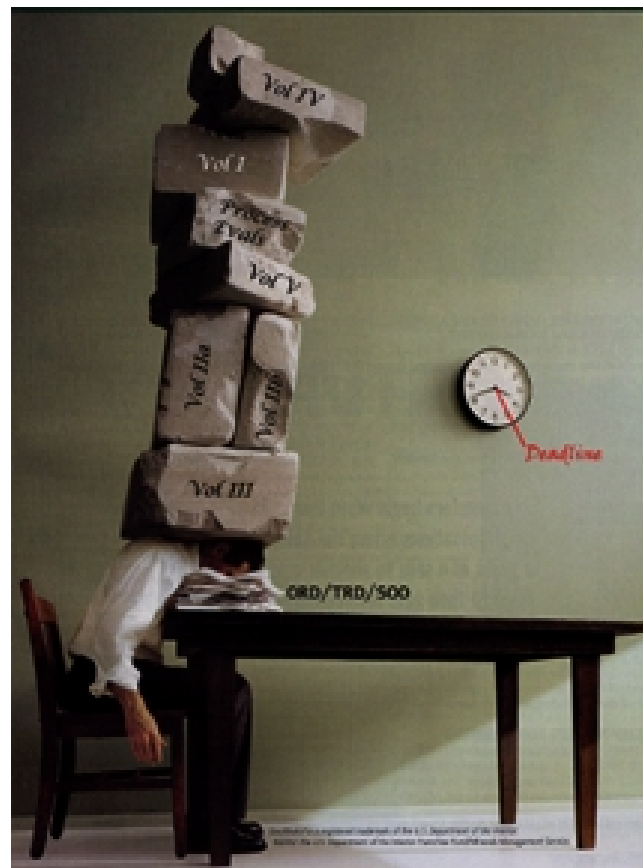
This usually doesn’t work too well...

- Limits the ability to make a fully informed decision
- Generates more (and more rounds of) ENs
- May actually increase the effort required to produce and evaluate proposals.

I would have written a shorter letter, but I didn’t have the time.



Current Source Selection/ Proposal Evaluation Practice





Commonly Used “Integrated Processes” Evaluation Guidance

Impose the SW-CMM[®] Version 1.1 “Level 3 Policy”

- Ask for copies of the certificates
- Reduced emphasis on SCESM / SDCE with on-site verification.

“You can’t put process on contract, so don’t waste proposal space by asking about it directly.”

- Ask for the **OUTPUTS** of their processes in a correctly formatted, detailed Integrated Management Plan (IMP)
- Investigate their processes during an “Executive In-Plant Review”



So, What's Wrong With This?₁

“Impose the SW-CMM ‘Level 3 Policy’”

- The SW-CMM[®] does not examine all of the process areas necessary for program success (e.g., systems engineering)
- The SW-CMM[®] evaluation process can be “gamed” ...and we have provided incentive to do so
- Not all evaluation methods are equal (i.e., SCESM vs. CBA-IPISM)
- Not all evaluators are equal (e.g., John Vu (Boeing) and the “evaluator credibility” list)
- Evaluations don't expire... but process compliance both evolves and devolves

*Level 3 is a good start, but hardly sufficient. We need to have a more sophisticated understanding of a contractor's capabilities, which a certificate does **not** provide.*



So, What's Wrong With This?₂

“You can't put process on contract...”

- It's hard to both write and evaluate the IMP
 - Many ways to reach the same state, some more efficient and effective than others
 - Entry, exit and success criteria definition necessary, but not usually performed
 - Linkages frequently not identified
 - “Can't see the forest for the trees” syndrome
- “Executive reviews” ineffective at determining capability
 - Reviewers lack background
 - Reviewers lack access at appropriate levels
 - Reviews are too short for proper evaluation

Don't eliminate process descriptions or capability evaluations



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Post Award Activities

- Risk Management
- Integration and Testing management practices



Risk Management

Most organizations we come in contact with have defined Risk Management Processes.

- However, their cultures vary widely on their ability to facilitate the identification, evaluation, and management of risk in their activities.

You need to evaluate the organizations in context to determine this. Things to look for:

- Large number of risk statements = a lot of risk?
- How are risks expressed?
- Who (really) identifies and qualifies risks
- Other names for risk items (watch items, issues, etc.)
- Are P_0 and Impact assessments reasonable, re-evaluated?

Distinguish between “risk management” and “risk avoidance/denial.”



Integration and Test – PR Management

This is where we see most programs really going wrong. Mostly, it is because this is where problems caused by previous activities “come home to roost”.

Because of how Problem Reports are managed, there is no way of telling when you are done.

- Level of Effort activity
- “Capacity” based estimation
- Usually no estimate of effort required on a per-PR basis
- Usually no detailed tracking of effort actuals
- Expected effort based on past history with only informal / insufficient data
- Confusion between “Severity” and “Priority”
- Scheduling not based on objective data

Start defining and gathering meaningful metrics



Recent Guidance

Bottom line: Current acquisition practices/ trends appear to be at odds with recent guidance from Dr. Sambur (Assistant Secretary of the Air Force for Acquisition), whose Jan 6 2003 memo states:

“...Programs must elevate these (Systems Engineering) disciplines to a level commensurate with other programmatic considerations such as cost and schedule. ...

“...I am further directing (PMs and the ACE) to ensure that disciplined SE practices receive adequate consideration in all future acquisitions, whether competitive or sole-source. ...

“...SAF/AQ and all other MDAs will not sign out any future ASPs that lack the necessary and sufficient attention to SE.”



Alternatives – A Modest Proposal

Question assumptions & find work-arounds

- You can't put process on contract
 - You can put *process compliance* and *quality* on contract
 - Objective and subjective measures exist
 - Incentives based on award fee plan
 - Lack of compliance grounds for Termination for Default

Perform your own software capability evaluation as part of source selection

- Details of the method do not matter (SCE vs. SDCE)
- In person, in-plant evaluations are critical
- Evaluate all software development locations