NDIA – PARCA Discussions

September 18, 2014

PARCA EVM AGENDA

▶ Update on CAPE Initiative

▶ Stop Work Order Update

▶ Technical Performance Measures into EVM Initiative.

▶ AUW with NTEs

▶ EVMS Waiver Process

▶ EVMS subcontractor flow down

Update on CAPE Initiative

▸ Please provide an update on your initiative with CAPE to reduce/moderate the level of data/detail sought by CAPE so as to not drive the "chart of accounts" to very low levels and therefore drive the cost of EVMS. We are interested in the status of CSDR changing DIDs.

▸ Response: The disparity of the reporting elements between the CCDR Plan (DD Form 2794) and the CPR/IPMR Format 1 can, and does, drive additional Control Accounts which in turn obviously drives additional scope. It's generally accepted knowledge that all CAs, regardless of breadth or depth, have an unspecified fixed amount of both NRE and recurring effort. To be fair, additional CAs are not always required to fulfill the CCDR Plan, but most certainly will always drive additional lower level detail within a CA whether it be additional Work Packages or additional charge numbers.

▸ RMS offers the following 3 examples

- Sample #1 Develop.   25 additional lower level WBS elements for CCDR (1921) reporting
- Sample #2 Prod   42 additional lower level WBS elements for CCDR (1921) reporting
- Sample #3 Subcontract   114 additional lower level WBS elements for CCDR (1921) reporting

PARCA / CAPE Flow Chart
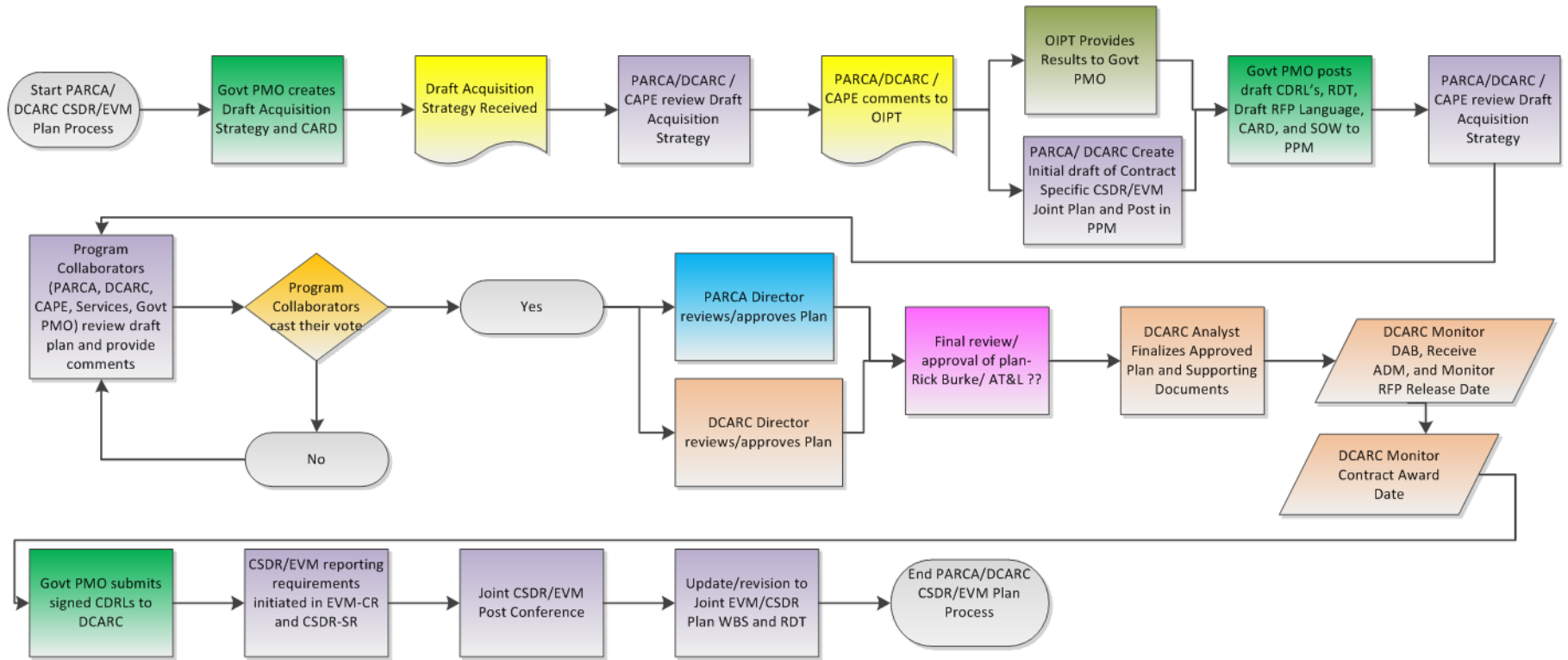
Joint Plan Example

JOINT EVM/CSDR REPORTING PLAN	Form Approved OMB No. 0704-0188

The public reporting burden for this collection of information is estimated to average 8 hours 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 the burden, to Department of Defense, Executive Services Directorate (0704-0188). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.
PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE ABOVE ORGANIZATION.

1. MAJOR PROGRAM a. NAME: Air Force Combat Rescue Helicopter (CRH)

b. PHASE/MILESTONE				c. PRIME MISSION PRODUCT	**2. WBS SYSTEM TYPE**	**3. SUBMISSION TYPE**	**4. CURRENT SUBMISSION DATE** (YYYYMMDD)	**5. LAST APPROVED PLAN DATE** (YYYYMMDD)
Pre-A	X B	C-FRP		System	Aircraft System	INITIAL		
A		C-LRIP	O&S			X CHANGE	20100124	20100124

6a. POINT OF CONTACT (POC) NAME AND ADDRESS (Include ZIP Code)	6b. TELEPHONE NUMBER (Include Area Code)	6c. FAX NUMBER (Include Area Code)	6d. E-MAIL ADDRESS
Person	123.456.7890		here@there.net

7. PLAN TYPE		8. PREPARING ORGANIZATION	9a. CONTRACTOR NAME/ADDRESS		9b. CONTRACT NUMBER	9c. APPROPRIATION	10. APPROVED PLAN NUMBER
PROGRAM	X CONTRACT (PRIME)		i. PERFORMING ORGANIZATION	ii. DIVISION		X RDT&E	
	CONTRACT (SUB)				TBD	PROCUREMENT	1-2-3-4
		PMO	Company X			O&M	

11. WBS ELEMENT CODE		12. WBS REPORTING ELEMENTS	13. REPORTS REQUIRED (X if applicable)				DD 1921-3 (CBDR): X	
a. PROGRAM/ CONTRACT/ SUBCONTRACT	b. CONTRACT/ SUBCONTRACT		a. IPMR Format 1	b. DD 1921 (CDSR)	c. DD 1921-1 (FCHR)	d. DD 1921-2 (PCR)	e. DD 1921-4 (CSR)	f. SRDR FORMATS
1.0	1.0	Program	X	X	X			X
1.1	1.1	Air Vehicle	X	X	X	X		X
1.1.1	1.1.1	Airframe	X	X	X			X
1.1.1.1	1.1.1.1	Airframe Integration, Assembly, Test and Checkout	X	X	X			
1.1.1.2	1.1.1.2	Fuselage	X	X	X			
1.1.1.3	1.1.1.3	Wing	N/A	N/A				
1.1.1.4	1.1.1.4	Empennange (Tailcone)	X	X	X			
1.1.1.5	1.1.1.5	Nacelle/Engine Inlet	N/A	N/A				
1.1.1.6	1.1.1.6	Interior Furnishings	X	X	X			
1.1.1.7	1.1.1.7	Sponson	X	X	X			
1.1.2	1.1.2	Propulsion	X	X	X			X
1.1.3	1.1.3	Vehicle Subsystems	X	X	X	X		X
1.1.3.1	1.1.3.1	Vehicle Subsystem Integration, Assembly, Test, and Checkout	X	X	X			
1.1.3.2	1.1.3.2	Flight Control Subsystem	X	X	X			
1.1.3.3	1.1.3.3	Auxiliary Power Subsystem	X	X	X			
1.1.3.4	1.1.3.4	Hydraulic Subsystem	X	X	X			
1.1.3.5	1.1.3.5	Electrical Subsystem	X	X	X			
1.1.3.6	1.1.3.6	Crew Station Subsystem	X	X	X			

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Stop Work Order Update

▸ What is the status on the issue of "stop work" or credit proposals? This is the issue of EAC values greater than budgets and the drive to reduce contract value by amounts greater than originally put on contract. This issue also potentially leads to the use of "negative UB" when certain contractual requirements cause a timing issue in a reporting cycle.

Stop Work Order Update
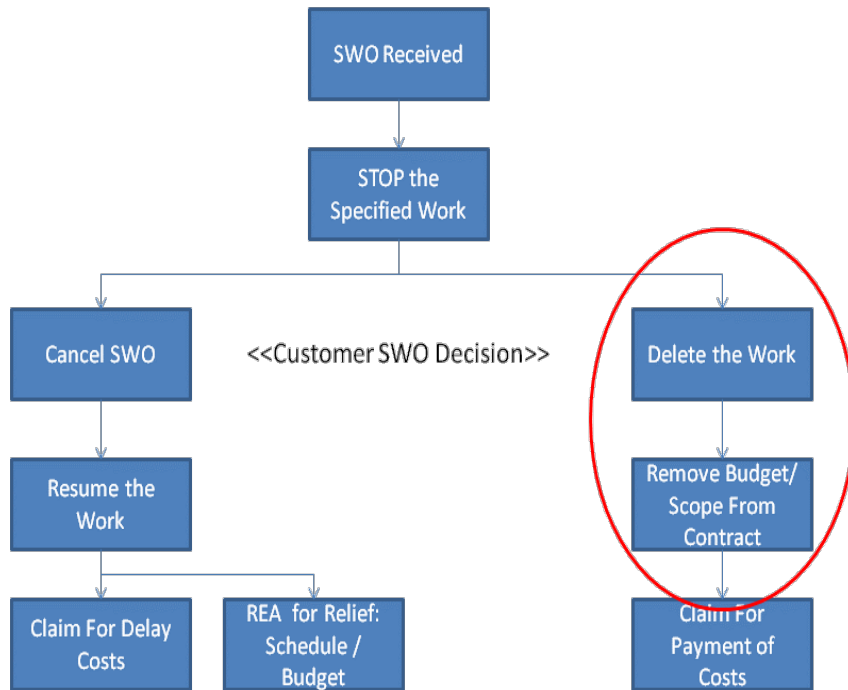
Industry Info

▶ Problem Statement

- Cost Type Contracts Not Always Properly Reflecting the Impact of a SWO on the Contract Target Cost (CTC) and resultant basis for Fee calculations
- Tendency Is To Remove Actual Costs (or even Remaining Estimate) From the Contract Value Instead of Budgeted Values

▶ Background

- Genesis: We Contract for Original Budget Units (e.g.: "A $50M Program for Five $10M Aircraft")
  - Problems Occur - the First 2 Aircraft cost $62M with a forecast for the total 5 Aircraft buy estimated at $140M
- Stop Work/ Delete Work Should ALSO be at the Original Budget Units (Each Original Budget Unit [Aircraft]Budgeted at $10M)
  - Should Remove $30M: 3 Remaining Aircraft at $10M each
  - Attempting to Remove Actuals ($62M) or Remaining Estimate ($78M) would make the Calculation Go Negative

Stop Work Order Update

▸ Industry Info Continued

– Focus on the Delete Work Decision

– Delete Remaining <u>Original Budget Units</u>

– Program Actual Costs and SWO Costs Handled Via Claims Process

▪ No Issue on Claims (This Is Covered In FAR)

Stop Work Order Update

▶ Industry Info Continued

- Keep <u>Apples With Apples</u> and <u>Oranges with Oranges</u>

  1. When Adjusting the <u>Contract Value</u>, Use the Original <u>Budgeted</u> Units

  2. When Processing Claims For <u>Payments</u>, Use The <u>Actual Costs</u> Incurred (includes Termination Costs)

PARCA EVM

▸ Please comment on the initiative and status to integrate Technical Performance Measures into EVM.

- Relating TPMs to EVM performance claims

  - Side by Side comparison?

  - Limit of progress claims based on status of TPMs?

- Relating progress and quality of CDRL deliveries to EV performance claims.

  - Performance claims tied to Government acceptance?

  - Performance claims tied to internal customer acceptance?

- Relating design maturity status to EV performance claims

  - Quality of design documentation

  - Defects in design documentation

- Relating agile progress to EV performance claims

  - Baseline Mgt

  - Re plan of work not accomplished

Technical Performance Measures into EVM Initiative

▸ Industry Info: As discussed in the Defense Acquisition Guidebook, Technical Performance Measures (TPMs) are a subset of metrics and measures that evaluate technical progress (i.e., product maturity).

- TPM data support evidence-based decisions at key knowledge points such as technical reviews and audits or milestone decisions.

- TPMs compare the actual versus planned technical development and design.

- They report progress in the degree to which system performance requirements are met.

- Systems engineering (SE) uses TPMs to balance cost, schedule, and performance throughout the life cycle when integrated with other management methods such as the Work Breakdown Structure (WBS) and Earned Value Management System (EVMS).

Technical Performance Measures into EVM Initiative

▸ Industry Info Continued:

- ▪ Representative TPMs are: hardware (weight; speed; cross-section; power; cooling; bandwidth; reliability, maintainability), software (throughput; lines of code; reliability; maintainability), verification (test set deliveries, test points, completed with valid data). These are simply representative of TPMs used in systems development by system engineering independent of Earned Value. While there can be a correspondence of TPMs to EV, trying to fit some TPMs to EV measures may be akin to "if all you have is a hammer, everything looks like a nail." (Maslow's Hammer) It can be done and in many cases it provides an objective measure of performance completion.

- ▪ Aligning TPM status with EVM status is one area where PMs and System Engineers must communicate/coordinate to ensure that the status as measured using TPMs is in agreement with status measured by EVM and vice versa. But in a product oriented WBS environment, it is sometimes challenging to isolate work associated with a TPM - e.g. what one WBS element would be associated with weight or power of an aircraft? On the other hand, one should only take earned value "credit" for work once an associated TPM is met.

▸ What value should be placed in the PMB for Authorized Unpriced Work (AUW) with NTEs. We believe it should be the estimate for the AUW—not the funding constraint---just like at the start of any project. The IPMR implementation guide states the proposed amount should be used (industry's position) but the DID says the NTE amount.

▸ The IPMR implementation guide is the policy that needs to be followed. PARCA considers the guide as policy, we are working on getting it as a formal appendix to the DID.

AUW with NTEs – Policy Language

- ▶ **IPMR DID Language:**

  - 3.2.1.3. Estimated Cost of Authorized, Unpriced Work (AUW). Authorized, Unpriced Work is approved work scope that has not been definitized. The total dollar value (excluding fee or profit) of AUW shall be entered in Block 5.c.

  - 3.2.1.3.1. AUW value shall represent the Procuring Contracting Officer's (PCO) best estimate of the authorized scope for inclusion in the baseline..

  - 3.2.1.3.2. AUW can never be a negative value. For effort de-scoped and not yet reflected in the Contract Budget Base (CBB), report the estimated value in Format 5 (see 3.6.11.3).

- ▶ **IPMR Guide: 4.4.2 Intent Regarding Contractual Changes and AUW/UB.**

  - Contractual scope may be added or removed from the contract. The type of authorization does not change the approach to updating the PMB. The negotiated cost plus authorized unpriced work total must always equal the contract cumulative authorization.

    EVM budgets are goals or metrics for work performance. *The EVM budgets must be sufficient to represent a realistic plan to capture all scope on contract. EVM budgets are applied without the constraint of funding or not-to-exceed (NTE) limitations. Just as incrementally funded contracts should establish an EVM baseline for the entire scope of work, AUW baselines should represent all authorized scope*. AUW is determined by the PCO in the scope provided in the authorization. It may reference a contractor provided rough-order-magnitude or certified pricing. The contractor responds to the AUW authorization by placing the near term budget into the applicable control accounts and the remainder in undistributed budget until negotiation and incorporation into the contract (and removal from AUW).

EVMS Waiver Process

▸ What are the conditions where OSD and PARCA is granting waivers around EVMS requirements? **Total of 48 requests to date**

▸ Conversion of FFP to FPIF contracts

- Contracts did not include EVM in original RFPs
- Formal EVM/EVMS requirements and IPMR do not apply
- Must include enough cost and IMS reporting to support incentive review

■ Service / Sustainment Contracts EVM Application

- Service type work does not lend itself to use of EVM
- EVM does apply for any included development or "planned maintenance" tasks
- IMS would still apply

■ Government to Government contracting

- Government should impose EVM reporting and EIA 748 standards
- Full DFARS should not be imposed due to limitations of Government systems

■ IDIQ / BOA / Task Order Based

- Work scope, by task order or group of task orders, determines EVM application
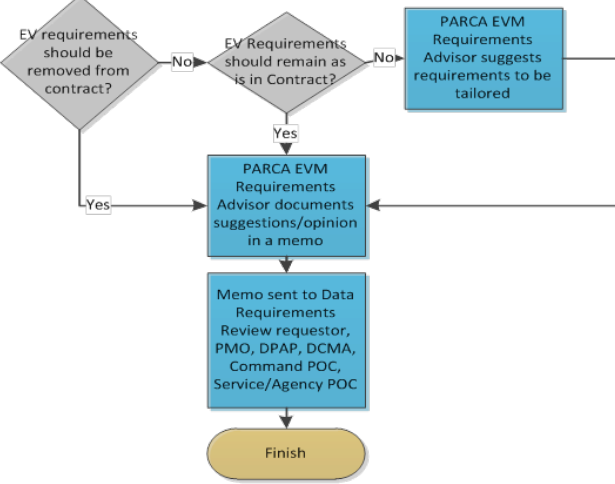- Apply DFARS to total IDIQ but only implement on EVM related TOs

Deviation Flow Chart
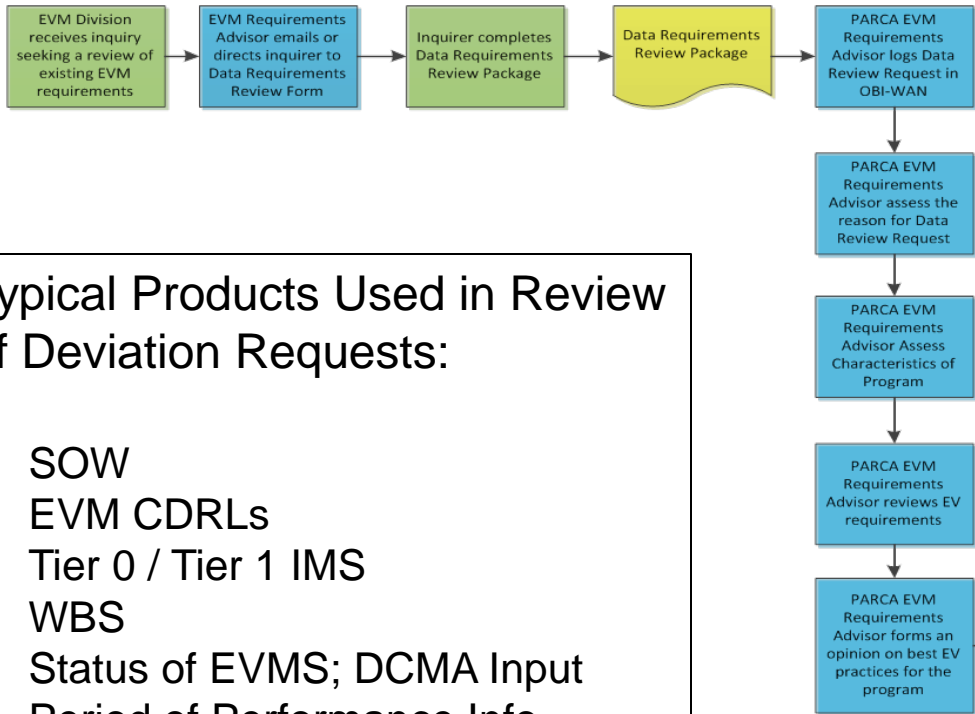
Typical Products Used in Review of Deviation Requests:

- SOW
- EVM CDRLs
- Tier 0 / Tier 1 IMS
- WBS
- Status of EVMS; DCMA Input
- Period of Performance Info
- Dollar value / Contract Type Info
- Other pertinent memos/documents

PARCA EVM

▸ Can a prime tailor CPR/IMS/IPMR reporting requirements to a subcontractor or are they obligated to flow down the exact reporting requirements in the prime contract?

▸ Industry Info: A question specific to this issue was placed on the PARCA website. A level 2 CAR was been issued on July 7th against Lockheed Martin for tailoring reporting requirements flowed to a sub and the CAP due date has been extended to October 17 to allow time for a policy decision to be made. Tailoring of reporting requirements flowed to subcontracts is a common practice across industry.

▪ Prime should obtain whatever data they need from the subcontractor to support the Prime CDRL delivery to the Government

▪ Sub-contractor needs to use compliant and or validated EVMS depending on DFARS requirement

Subcontractor EVM/EVMS Flow down

▸ If a prime is not initially required to flow down EVMS to a subcontract but the subcontract eventually exceeds the $20M thresholds, is EVMS flow down always required or is there a waiver process that can be pursued?

- EVMS flow down would be required and if a deviation request was submitted it would run through the deviation process.

- Advice would depend on the specifics of the contract.

  • Dollar value, percent complete, how the data is represented in the prime reports and EVMS, current status of the program, how well the sub has been managed to date, etc.