

NORTHROP GRUMMAN

DEFINING THE FUTURE

JSCC

Joint Space Cost Council



Executive Briefing

JSCC
Steering Committee
October 23, 2008

Agenda

- Background
- Government/Industry Partners
- Back to Basics
- Initiatives
- Next Steps

Background

- Cost estimating issues raised at AIA Executive Space Industry Roundtable – Nov 05
 - No clear interface points/opportunities for dialogue between industry and government leadership
 - Not exploiting opportunity to engage and potential for substantive mutual areas for improvement
- Undersecretary of Defense for AT&L and Undersecretary of the Air Force endorsed establishment of working group to study issue
 - Improved collaboration with both oversight and service/agency levels needed
- AIA Executive Space Board of Governors approved formation of Joint Space Cost Council to work issues – Nov 07
 - JSCC is actively working four cost estimating areas to improve cost credibility and realism in our estimates, budgets, schedules, data, proposals and program execution

JSCC Working to Bring Back Credibility to Space Community

Partners

Industry Leads

- Boeing
 - Lockheed Martin
 - Northrop Grumman
 - P&W Rocketdyne
 - Raytheon
- Jerry Hewitt
George Barbic
Steve Hansen
Stuart Swalgen
David Padineant

Government Leads

- DNI
 - NASA Tom Coonce
 - NRO
 - OSD CAIG
 - DCARC
 - SMC
 - USAF
- Jim Fiume
Keith Robertson
Steve Miller,
John Thurman,
Dr. Lile
Col. Delane Aguilar,
Paul Killingsworth
Bill Seeman

JSCC Executive Secretary – Rich Hartley USAF

Broad Participation Across Both Industry & Government

Back to Basics—Government & Industry

- Earlier engagement in business acquisition process (BAP)
 - Develop program baselines up front (pre-acq)
 - Establish realistic budgets and matching requirements
 - Keep cost and technical baseline in sync throughout the acquisition lifecycle
- Base Source Selection on Consistent & Verifiable Data & Processes
 - Standardize and normalize cost estimating data, methods and tools
 - Improve mutual understanding of parametric & cost estimating data,
 - Score and evaluate proposals based on objective criteria
 - Understand and calibrate cost modeling tools (COTS)
- Coordinated baseline, budget, funding, cost and schedule estimates increases Contractor's ability to execute successfully
 - Better, fairer evaluations and source selections, win on best value
 - Reduce protests which stall programs/funding and harm credibility
 - Minimize large overruns in major program execution (Nunn-McCurdy)

Industry & Government Working Towards The Same Goal

Current Initiatives

Four of the original 18 identified:

- **Standard WBS and CDRL**
- **Data Driven Basis of Estimate**
- **Identify & Quantify Cost and Schedule Risk**
- **Realistic Technical and Schedule Baseline**

Regular Steering & Working Groups Addressing Issues

Current Initiatives (cont)

Standard WBS and CDRL:

- Emphasis on Standard WBS elements, mapping and data collection
 - Pilot efforts include AEHF and GPS III; attempting to minimize impact to programs
 - A Standard WBS and Dictionary is in process
 - Elements and structure of Standard CDRL to be developed in concert with Standard WBS
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Opportunities / Benefits:

- Provides the basis for common cost elements, product costs, definitions, and models
- Results in a cost database normalized to a widely accepted standard
- Ties to other initiatives

Current Initiatives (cont)

Data Driven Basis of Estimate:

- Emphasis on:
 - Fact based data
 - Reducing BOE preparation and evaluation efforts
 - Common BOE format across programs and contractors
 - Encouraging use in language of RFP's
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Opportunities / Benefits:

- Reduces contractor effort associated with proposal development and review
- Improves the quality and credibility of BOEs

Current Initiatives (cont)

Identify and Quantify Risk and Uncertainty:

- Risk and realistic program elements need to be considered together
 - Top level risk briefing to be developed to understand the process and identify limitations
 - Common risk data sheets developed and are being evaluated
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Opportunities / Benefits:

- Develop common, accepted, contractor / customer risk process
- Develop policy or guidance on the level at which programs should be funded

Current Initiatives (cont)

Realistic technical and schedule baseline:

- Understanding the customer internal RFP and program review and approval process
 - Metrics will continue to be developed and assessed to:
 - Critical review criteria at major milestones
 - identify successful versus unsuccessful program evolutions
 - Establish a government office to review RFPs and proposals for technical and schedule realism
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Opportunities / Benefits:

- Initiate proposal with a realistic, agreed to, program baseline
- Improve the basis for program evaluation

Next Steps and Milestones

- STD WBS Implementation
 - GPS III at IBR
 - DRFP Advanced EHF SV4
- Proposal Process Improvement (BOEs)
 - Guidelines and STD RFP language
 - Include in Adv. EHF SV4 DRFP
- AIA Board of Governor's Meeting
 - Recommendations and Policy Changes
 - Future Initiatives & Approval

Dec 2009

Jun 2009

Feb 2009

Jun 2009

May 2009

Q & A

Back-up

Current Initiatives

- STD WBS and CDRL
 - Provides the basis for common cost elements, product costs, definitions, and models
 - Pilot programs in 2008 are GPS III and Advanced EHF
 - Mandate STD WBS as part of all NSS RFPs

- Data Driven Basis of Estimate
 - Reduces effort associated with proposal development and review
 - Utilize historical, analogous, CER based estimating methodologies in BOEs
 - Define evaluation criteria for cost volume in source selection process

- Identify & Quantify Cost and Schedule Risk
 - Develops common, accepted, contractor / customer risk process
 - Identify potential risks, provide mitigation plan
 - Capture risks in IBR

- Improve Technical and Schedule Baseline
 - Provide coordinated system requirements, budgets and funding profiles
 - Provide guidelines and checklists
 - Establish a baseline assessment review and approval process

Regular Steering & Working Groups Addressing Issues

Standard WBS

- Implement a Standardized Program Work Breakdown Structure (SWBS)
 - Links Program Planning and Execution to Cost Reporting
 - Standardize SPO, BAAR, NAB, ADM, EVM, QPR, PMP, PART and Financial Statement cost reporting content
- Define linkages among these documents and with the CBJB
- Work with SMC, OSD, NGST, and LM to highlight issues associated with implementing the SWBS on AEHF pilot program
- Work with SMC, LM to implement the SWBS on GPS III pilot program

Basis of Estimate

- Implement a Standard RFP Language and Guidelines on Basis of Estimate for Industry Contractors
 - Draft RFP language is under review by participants and will be ready by 10/23?
 - Draft RFP Guidelines are under review by participants and will be ready by 10/23?

Risk Assessment

- Risk Data Identification Sheet
 - Beta test with different risk methods
 - Solicit feedback from SCAGG, 10/8
- Boilerplate RFP Language Requiring Risk Analysis in Proposals draft Completed
 - Present the “draft” version to the SSCAG Risk Group in October 08 to receive comments and suggestions to improve the template
 - Decide on an implementation strategy or decide on a program RFP to “beta-test” the language in
- Further Define and Quantify Scope of the Estimates
 - NRO CAIG ECO study updated in 2005 for the AFCAA
 - Completed SMC study: Collected ECO data from AF Space Program Offices, mapped data into categories. Data now available for possible joint NRO/SMC/AFCAA review

Technical & Baseline Realism

- Independent Assessment Capability – Complete pilot implementation at NRO
 - Linkages to WBS, CDRL, & Risk sub-teams to ensure that the data needed is standardized and captured
 - Mature recommendations with lessons learned from NRO implementation into an operating model for future broader application
- Guidance for Baseline Development – Selected to work initial development through SSCAG
 - Desired output provides a validated baseline with risk identified and input for budget planning
- STD WBS enables the Air Force cost groups to more readily assemble program databases and provide tools (i.e., CERs, models) back out to the estimating teams. Currently, the cost groups spend excessive time and money collected and normalizing cost data. Although a STD WBS would not eliminate the need for all normalization, it would (if implemented correctly), permit more focus on providing tools to the SPO's. Call this one estimating improvements