

Headquarters U.S. Air Force

Integrity - Service - Excellence

Defense Overhead Costs



**Capt Joe Barnum, AFCAA
Kim Fuller, SAF/FMCE
16 Sept 2010**

U.S. AIR FORCE



U.S. AIR FORCE

Agenda

- **Introduction**
- **Overhead Study**
 - **Initial Research**
 - **Findings and Results**
- **Process Implementation**
 - **Process Description**
 - **Should-Cost Reviews**
 - **Ongoing Projects**



U.S. AIR FORCE

Agenda

- **Introduction**
- **Overhead Study**
 - Initial Research
 - Findings and Results
- **Process Implementation**
 - Process Description
 - Should-Cost Reviews
 - Ongoing Projects



U.S. AIR FORCE

Service Perceptions

- **Overhead charges account for over half of the total cost to the government on current defense contracts**
- **“There are no meaningful metrics to guide government Program Directors... to determine:**
 - **(a) what costs are reasonable (i.e. allowable and affordable) and under what circumstances; and**
 - **(b) what government actions are best suited to minimize them”**
- **No centralized Air Force corporate level decision support with regard to overhead costs**

Overhead charges are out of control and contributing mightily to DoD affordability issues



U.S. AIR FORCE

Air Force Strategy

Air Force 2008 Strategic Plan

- *Reinvigorate AF Nuclear Enterprise*
- *Win Today's Fight*
- *Develop & Care for Airmen & Families*
- *Modernizing Aging Air & Space Inventories*
- ***Recapture Acquisition Excellence***



- Acquisition Improvement Plan (AIP)
 - Revitalize the Air Force acquisition workforce
 - Improve requirements generation process
 - **Instill budget and financial discipline**
 - Improve Air Force major systems source selections
 - Establish clear lines of authority and accountability within acquisition organizations

Integrity - Service - Excellence



Budget & Financial Discipline

U.S. AIR FORCE

Acquisition

Improvement Plan

- *Revitalize the Air Force acquisition workforce*
- *Improve requirements generation process*
- ***Instill budget and financial discipline***
- *Improve Air Force major systems source selections*
- *Establish clear lines of authority and accountability within acquisition organizations*

- Establish program baselines for cost, schedule and technical performance after Preliminary Design Review
- Identify and implement means to increase cost estimating confidence levels and establish more realistic program budgets
- Stabilize program funding – once funds are committed to a major acquisition program, funding will not be changed without the informed advice of the SAE
- **Establish a formal review of contractor overhead costs for reasonableness**
- Review individual development contract profitability to ensure profits and award fees are comprehensively tied to cost, performance, and schedule
- Place renewed emphasis on ensuring contractor earned value management systems meet minimum requirements to provide confidence that such systems are effective for evaluating program progress and properly used by both contractor and government managers



U.S. AIR FORCE

Agenda

- Introduction
- **Overhead Study**
 - **Initial Research**
 - Findings and Results
- Process Implementation
 - Process Description
 - Should-Cost Reviews
 - Ongoing Projects



U.S. AIR FORCE

Multiple Efforts

- **SAF/AQ, UT Monitor Group**
 - **Blind study validated concerns regarding rising indirect vs. direct costs among major defense contractors, MDAPS**
 - **Study provided 5 years of projection for each cost element**
- **SAF/AQ, SAF/FMC**
 - **Contractor overhead / indirect cost studies**
 - **FPRA/Disclosure statement process review**
 - **Benchmarking attempts**



U.S. AIR FORCE

Multiple Efforts (Cont.)

- **Government FPRA Process Deep Dive/Pilot**
 - **AFCAA/FMA conducted a detailed historical analysis of overhead cost structure, elements, drivers**
 - **DCMA Cost & Pricing Center engaged with AF/AQX and FMC to address rising indirect costs via FPRA negotiation process**
 - **Combined data provided sufficient foundation for development and application of DCMA-led reviews of corporate offices and major business units**
 - **Reviews cover:**
 - **Business base**
 - **Overhead pools (engineering, manufacturing, G&A)**
 - **Estimated factors**
 - **Corporate finances**



U.S. AIR FORCE

Agenda

- Introduction
- **Overhead Study**
 - Initial Research
 - **Findings and Results**
- Process Implementation
 - Process Description
 - Should-Cost Reviews
 - Ongoing Projects



U.S. AIR FORCE

Monitor Group Findings

- **Magnitude of overhead costs**
 - **Composite indirect costs are 90% to 115% of direct costs**
 - **Increases to 190% to 220% when direct fringe is added**
- **Largest components of overhead costs**
 - **Fringe benefits**
 - **Indirect labor**
 - **Independent Research and Development (IR&D)**
 - **Bid and Proposal (B&P)**
 - **Pension related expenses**



Monitor Group Findings (cont)

U.S. AIR FORCE

- **Fastest growing components**
 - **Fringe benefits**
 - **Depreciation**
 - **Home office expenses**

- **Difficult to assess reasonableness of costs**
 - **Reporting varies by company**
 - **Secondary factors**
 - **Business base**
 - **Portfolio**
 - **Lines of business**



U.S. AIR FORCE

General Findings

- **Services interact with DCMA and DCAA at the program level but do not have a presence at the corporate level**
 - **Identified areas for greater service engagement in the FPRA process (e.g. evaluation of business base forecast, IR&D and other areas requiring technical input)**
- **DCMA negotiates and DCAA audits overhead costs but neither judge whether costs are reasonable for the government in terms of affordability or return on investment**
- **Interfaces between the contractor and DCMA and reporting formats vary greatly from company to company**



- IR&D investments are not tracked in a way that enables the government to determine whether they have gained any benefit from the investment
- Health care costs billed to the government through overhead have included charges for ineligible dependents
- FAR constraints on compensation reimbursement are only applied to the top five executives within a corporation
- Significant increases in pension costs, driven by economic crisis, are expected pending legislative impacts
- Costs for environmental remediation of discontinued operations are billed to overhead



U.S. AIR FORCE

FPRA Process

- **Established Joint FPRA Review Process**
 - **Two step process:**
 - **Scoping Review**
 - **Should Cost**
 - **Business Base**
 - **Indirect Costs**
- **MOU between DCMA and HAF regarding use of FPRRs in lieu of successful FPRA negotiations**



U.S. AIR FORCE

Agenda

- Introduction
- Overhead Study
 - Initial Research
 - Findings and Results
- **Process Implementation**
 - **Process Description**
 - Should-Cost Reviews
 - Ongoing Projects



The End is Just the Beginning

U.S. AIR FORCE

- **AIP initiative 3.4 required us to “Establish a formal review of contractor overhead costs for reasonableness”**
- **We did this via:**
 - **an independent blind study to identify trends and opportunities for reducing overhead costs**
 - **a process deep dive to understand how we establish “factors”, “rates”, and negotiate FPRAs with our suppliers**
 - **development and piloting an improved FPRA process across two major defense contractors and warfighting domains: air and space**
- **The improved DCMA/AF process is being used during the 2010 FPRA negotiation cycle.**
- **Key stakeholders, AF/AQ, AF/FM, NAVAIR and DCMA, partnered while conducting the study and process reviews, and are key players in the implementation of process improvements and changed policies**

Integrity - Service - Excellence



FPRRA Process Implementation

U.S. AIR FORCE

- **Chartered a joint team in 2009 with DCMA, OSD, and Services to audit large-dollar rate drivers**
 - **Leveraged combined OSD/Service experience/perspectives and determine common objectives relevant across DoD**
 - **Laid out a repeatable, two-step process**
- **Scoping review**
 - **DCMA leads over-arching review and assesses, with support from services, need for a more detailed review**
 - **Target ~ 5 defense contractors annually, selected w/ insight via service “Industrial Affairs”, upcoming major contracts, etc.**
- **Should-cost review**
 - **DCMA leads detailed business base and indirect cost reviews**
 - **Services provide substantial technical, cost, and other buying-activity support**



U.S. AIR FORCE

Scoping Review

- **Review DCMA actions to date to address audit findings and negotiate FPRA**
- **Develop an understanding of open issues and areas of risk associated with FPRP; determine need for Should-cost follow on**
- **Look for opportunities to increase effectiveness in FPRA process through an expanded service role**
- **Provide basis of process to be validated at follow on FPRA Scoping Reviews**
- **Build joint review concepts to apply at major contractor locations in order to impact future FPRA negotiations**
- **Scope of conduct**
 - **10-15 people**
 - **Duration <1 month with ~1 week on site**



U.S. AIR FORCE

Should-Cost Review

- **Objective**
 - **Accuracy and reasonableness of the estimated current and follow-on work for the core business base**
 - **Assure that indirect costs are prudent, reasonable, and necessary for meeting our requirements and the efficient operation of the company**
 - **Scope of conduct**
 - **Membership 20-30 people**
 - **Duration ~4 months, including 4-5 weeks on-site**
 - **Limitations of 1st review**
 - **Not done by DCMA in ~15 years – working to recap the capability but not there yet**
 - **Want to look beyond projection methods and historical data and really look for efficiencies and better ways to do business**
-

Integrity - Service - Excellence



U.S. AIR FORCE

Agenda

- Introduction
- Overhead Study
 - Initial Research
 - Findings and Results
- **Process Implementation**
 - Process Description
 - **Should-Cost Reviews**
 - Ongoing Projects



FAR 15.407-4 Should-Cost Review

U.S. AIR FORCE

- **15.407-4 Should-cost review. (excerpt)**

- **(a) General.**

- **(1) Should-cost reviews are a specialized form of cost analysis. Should-cost reviews differ from traditional evaluation methods because they do not assume that a contractor's historical costs reflect efficient and economical operation. Instead, these reviews evaluate the economy and efficiency of the contractor's existing work force, methods, materials, equipment, real property, operating systems, and management. These reviews are accomplished by a multi-functional team of Government contracting, contract administration, pricing, audit, and engineering representatives. The objective of should-cost reviews is to promote both short and long-range improvements in the contractor's economy and efficiency in order to reduce the cost of performance of Government contracts. In addition, by providing rationale for any recommendations and quantifying their impact on cost, the Government will be better able to develop realistic objectives for negotiation.**
- **(2) There are two types of should-cost reviews—program should-cost review (see paragraph (b) of this subsection) and overhead should-cost review (see paragraph (c) of this subsection). These should-cost reviews may be performed together or independently. The scope of a should-cost review can range from a large-scale review examining the contractor's entire operation (including plant-wide overhead and selected major subcontractors) to a small-scale tailored review examining specific portions of a contractor's operation.**



FAR 31.201-3 Reasonableness

U.S. AIR FORCE

- **31.201-3 Determining reasonableness.**
 - **(a) A cost is reasonable if, in its nature and amount, it does not exceed that which would be incurred by a prudent person in the conduct of competitive business. Reasonableness of specific costs must be examined with particular care in connection with firms or their separate divisions that may not be subject to effective competitive restraints. No presumption of reasonableness shall be attached to the incurrence of costs by a contractor. If an initial review of the facts results in a challenge of a specific cost by the contracting officer or the contracting officer's representative, the burden of proof shall be upon the contractor to establish that such cost is reasonable.**
 - **(b) What is reasonable depends upon a variety of considerations and circumstances, including—**
 - **(1) Whether it is the type of cost generally recognized as ordinary and necessary for the conduct of the contractor's business or the contract performance;**
 - **(2) Generally accepted sound business practices, arm's-length bargaining, and Federal and State laws and regulations;**
 - **(3) The contractor's responsibilities to the Government, other customers, the owners of the business, employees, and the public at large; and**
 - **(4) Any significant deviations from the contractor's established practices.**



U.S. AIR FORCE

Purpose

- **Conduct an examination of Forward Pricing Rate costs and processes**
- **Business Base Review objective is to complete an independent review of the accuracy and reasonableness of the estimated current and follow-on work for the core business base**
- **Indirect Expense Review objective is to assure that these costs are prudent, reasonable and necessary for meeting our requirements and the efficient operation of the company.**



U.S. AIR FORCE

On-site Teams

- **Direct Factors (EFDs)**
 - DCMA Ft Worth – 3
 - DCMA Marietta – 3
 - Air Force – 2
- **Wage Rates**
 - DCMA – 3
- **Fringe**
 - DCMA – 2
- **Indirect Labor**
 - DCMA – 5
- **Occupancy**
 - DCMA – 3
- **Capital Assets**
 - DCMA – 3
- **Computing**
 - DCMA – 3
- **New Business Funds**
 - DCMA (B&P, MA, M&PE) – 3
 - Air Force (IRAD) – 2
- **AF/Navy/DCMA Corporate Team**

DCMA -28, AF- 4
DCAA provided informal assistance



U.S. AIR FORCE

On-site Teams

- **F-35 Ft Worth**
 - DCMA – 3
 - Air Force – 3
 - Navy – 2
- **F-22 Ft Worth**
 - DCMA – 3
 - Air Force – 2
- **F-16/P-3 Ft Worth**
 - DCMA – 2
- **C-5 Marietta**
 - DCMA – 3
 - Air Force – 3
- **C-130 Marietta**
 - DCMA – 3
 - Air Force – 2
- **U-2/ADP Palmdale**
 - DCMA – 3

DCMA -11, AF-10, Navy-2
Off-site Air Force personnel assisted each team



U.S. AIR FORCE

Lessons Learned

- **Need to Identify Team Leads early**
- **Team Leads should be part of advance group**
- **Advance Group to review contractor briefings and request data**
- **Have most data available for full team prior to arrival**
- **Identify central POC for tracking data requests/receipt**
- **Daily stand ups are productive and enhance cross feed of data**
- **Need to develop the talent to support should cost reviews**
- **Host needs to provide adequate space, supplies and computer connections**
- **Revise/Update the Should Cost Review manual to provide structure, guidance and templates**



U.S. AIR FORCE

Agenda

- Introduction
- Overhead Study
 - Initial Research
 - Findings and Results
- **Process Implementation**
 - Process Description
 - Should-Cost Reviews
 - **Ongoing Projects**



U.S. AIR FORCE

Ongoing Projects

- **SECAF directed a should-cost review of Evolved Expendable Launch Vehicle (EELV)**
- **USD AT&L instructed the Air Force to conduct should-cost review on Global Hawk sensors**
 - **Multi-Platform Radar Technology Insertion Program (MPRTIP)**
 - **Enhanced Integrated Sensor Suites (EISS)**
 - **Airborne Signals Intelligence Payloads (ASIP)**



U.S. AIR FORCE

Contacts

- **Joe Molina, Deputy Director, DCMA Cost and Pricing Center, joseph.molina@dcma.mil, 703-428-1732**
- **David Allen, Director, Data Analysis and Training Division, DCMA Cost and Pricing Center, david.f.allen@dcma.mil, 319-438-1402**
- **Paul Svaren, Director, St. Petersburg Hub-Site, DCMA Cost and Pricing Center, paul.svaren@dcma.mil, 727-579-3133**
- **Kim Fuller, Senior Financial Analyst, Air Force Business and Economics Directorate (SAF/FMCE), kimberly.fuller@pentagon.af.mil, 703-692-6919**
- **Capt Joe Barnum, Cost Analyst, Air Force Cost Analysis Agency (AFCAA), joseph.barnum@pentagon.af.mil, 703-604-0390**