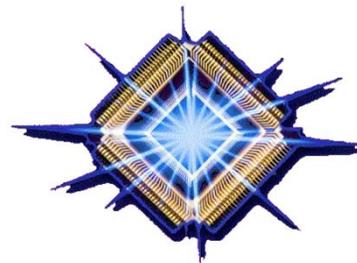




Defense Microelectronics Activity (DMEA)
Advanced Technology Support Program IV (ATSP4)
Organizational Perspective and Technical Requirements



DMEA/MED
5 March 2015





DMEA ATSP4 Requirements Agenda



- **Industry Partnership**
- **DMEA Overview**
- **ATSP4 Background**
- **ATSP4 Scope**
- **ATSP4 Government Benefits**
- **Characteristics of High Performing ATSP Prime Contractors**

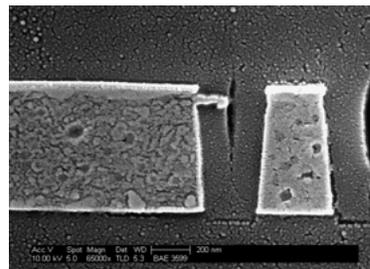




Microelectronics Challenges for Defense Systems

Key Enabling technology for traditional & irregular warfare

- **Extended weapon system life cycles (20 – 40 years)**
 - Rapidly evolving, expanding missions
 - Performance degradation
 - Obsolescence
- **Commercial requirements dictate the technology & market**
 - Very high volumes for short terms
 - Lower environmental temperature ranges & quality thresholds
 - Unsecure manufacturing / distribution
- **Unpredictable Supply**
 - Counterfeits
 - Malicious Changes
 - Engineering Talent Squeeze
 - Foreign Investment in US
 - Business Closures





DMEA Mission

- **DoD Mission - Provide microelectronics technology solutions**
 - Leverage advanced microelectronics technologies
 - Enhance / adapt capability and performance
 - Improve system reliability and maintainability
 - Address effects of rapid obsolescence
 - Serve as joint resource for DoD / government / industry / foreign allies
- **Established by Secretary of Defense**





DMEA Mission Statement



The mission of the Defense Microelectronics Activity is to research current and emerging microelectronics issues, with a focus on warfighters needs, and to leverage advanced technologies to extend the life of weapon systems by improving their reliability, maintainability and performance, while addressing the problem of diminishing manufacturing sources.



DMEA Resources



- **In-house Facilities and Capabilities**

- Integrated Circuit Reverse Engineering and Design
- Advanced Reconfigurable Manufacturing for Semiconductors (ARMS) Foundry
- Integrated Circuit Testing
- Gamma Irradiation Testing





DMEA / Industry Partnerships



- **More than one “industry”**

- Aftermarket
- Defense
- Semiconductor

- **Each deals with microelectronics issues, but ...**

- Different issues for each industry
- Different motivations
- Different business models

- **Different partnerships for different industries**

- DMEA created specific partnerships for specific industries
- Each partnership combines unique technical approach with unique business models





Industry Partnership - ATSP

- **ATSP is an advanced microelectronics engineering services contracting vehicle**
 - Indefinite Delivery / Indefinite Quantity (ID/IQ) Multiple Award Contract
 - Issued and administered by the DMEA in Sacramento, CA
 - Contract management & responsibility centralized at DMEA
- **Genesis of the ATSP contract series**
 - Rapidly augment the DMEA mission and capabilities to respond to the warfighter needs
 - Leverage the capabilities and payoffs of advanced technologies
 - Improves the operational readiness and capabilities of DoD weapons systems
- **DMEA is a DoD field activity**
 - Engineering
 - Contracting with unlimited warrants
 - Finance
 - Legal





The DMEA Team

- **DMEA and ATSP**
 - 24+ years of IDIQ experience
 - ATSP business model and practices are very mature
 - We know what works and what doesn't work from the DMEA and client perspective
 - Regular IPTs to foster continuous improvement
- **DMEA can effectively leverage past solutions and avoid pitfalls**
 - Technical team is very experienced – adds value to each task
 - Nearly 1000 tasks on ATSP3
 - Wide range of programs, technologies, problems, and solutions
 - Strong mission focus
- **DMEA works across all government agencies to provide engineering development solutions to government's needs**
 - DMEA is "Purple-suit"



Historical Perspective

- **Microelectronics Technology Support Program (MTSP)**
 - \$650M Aggregate Ceiling
 - 4 IDIQ contracts
 - Awarded in December 1989

- **ATSP**
 - \$480M Aggregate Ceiling
 - 5 ID/IQ Contracts
 - Awarded in March 1995

- **ATSP2**
 - \$875M Aggregate Ceiling
 - 7 ID/IQ Contracts
 - Awarded in September 1999

- **ATSP3**
 - \$6.047B Aggregate Ceiling (with \$4.7B in orders to date)
 - 8 ID/IQ Contracts
 - Awarded in September 2004



ATSP4 Scope



- **Performance Work Statement (PWS) defines the overall technical scope for the ATSP4**
 - Engineering Services
 - Performance Oriented
 - Advanced or Evolutionary Technologies
 - Supports DoD, federal agencies, and properly approved foreign military sales
- **Insertions and applications of *advanced technology* hardware and software**
- **Direct engineering activities**
 - Studies, analysis, design, code, simulation, fabrication, prototyping, testing, etc.
 - Limited production, logistics support, training, warranties, documentation of ATSP4-developed solutions
- **Indirect Technical, Functional, and Management activities**
 - Program management, systems engineering, Program Management Reviews, etc.
 - Cannot be performed in the absence of direct engineering activities



ATSP4 Task Examples

- **Specific contractual engineering tasks (CETs) define the task order engineering services requirements.**
 - CET is the task order PWS
 - Each CET is unique to the task order requirements
- **Feasibility studies, trade studies, analyses**
- **Hardware design, fabrication, prototyping, testing, and training on improved system**
- **Software design, analysis, coding, testing and verification**
- **Limited production for ATSP4 (or ATSP3) developed items and systems**



ATSP4 Government Benefits



- **Alternative to conventional acquisitions to meet the needs of the warfighter**
 - Quick access to advanced microelectronics engineering technical expertise
 - Quick access to Government contracting expertise
 - Targeted technical solutions
- **Fast = Acquisition efficiencies for the Government and taxpayer**
 - Eliminates FBO, RFI, and Bidders Briefings cycles on each task order
 - Reduces procurement time and cost
 - Up to 18 month reduction in cycle
 - Limits protest risks
 - Speed helps Government with funds execution rates



ATSP4 Government Benefits (cont.)



- **Lowers technical, schedule, and cost risks**
 - Seamless and rapid access to pool of highly qualified contractors
 - Excellent way to improve technology readiness
 - Leverages lessons learned from previous tasks
 - Consistency across programs
- **Low cost to DoD program managers**
 - Client covers both costs, contractor and DMEA
 - Lower procurement time
 - Reduces customer acquisition personnel required



Characteristics of High Performing ATSP Prime Contractors



Maximizing benefits of ATSP requires corporate paradigm shift

- **Answer challenges to make ATSP4 – and all IDIQs – successful in the Company**
 - Find incentives for using the contract - Share sales credit - Share profit
 - Streamline and promote efficiency of task awards
 - As well as...
- **High level and wide corporate visibility of the contract**
 - Requires high-level leadership advocacy
 - Business practices and organizational tailoring
 - Recognizes the ATSP4 contract is an effective business vehicle



Characteristics of High Performing ATSP Prime Contractors (cont.)



- **Contractor Program Office is a key to success**
 - Experienced and complete multi-disciplinary staff
 - Higher in the organization is better
 - Intentionally low material handling and subcontract rates (low risk, lean org.)
 - Fast track proposals
 - Reduced proposal processes, approval levels, and time required
 - Start proposals prior to formal RFP
 - Avoid using “bid” rates

- **Develop repeat customers and grow a series of tasks**
 - ATSP4 contractors are expected to market their services
 - ATSP4 contractors are expected to market the ATSP4 contract vehicle



Accessibility



ATSP4 related information, slides presented, and Q&A will be posted to the ATSP4 source selection download page:

<http://www.dmea.osd.mil/atsp4ss/>