



BAMS UAV Acquisition Program

Mr. Rich Klesser
PMA-263-3



BAMS UAV Program Description



- Broad Area Maritime Surveillance (BAMS) UAV - Will develop maritime capable UAV systems for operational deployment (IOC FY 08)
 - CNO Transformational Program
 - Provides CVBG/ARG/Commanders with a Persistent ISR Capability
 - Formal DoD Acquisition Program
 - BAMS UAV will Support a Spectrum of Fleet Missions
 - Distributed ISR Node in the overall Naval environment
 - ISR Cuing, Strike Support, SIGINT, and Communications Relay
 - Other Missions As Required
 - Addresses Existing ISR Capabilities Gap



Why We're Here



- Familiarize Industry with Navy's Requirements and Plans
- Develop **TEAMING** Relationships
- **PARTICIPATE** in Development of our Documentation
- Take Advantage of our Ability to Communicate Openly
- We need your **HELP**



KEY WORDS



- Teaming
- Synergy/Collaboration
- Flexibility
- Responsiveness to Fleet Needs
- Requirements Tracking
- Total Ownership Cost
- Big Picture Outlook
 - Connectivity
- Emphasize “ilities”
 - Reliability
 - Maintainability
 - Supportability
- Expertise Sharing
 - ISR
 - C4I



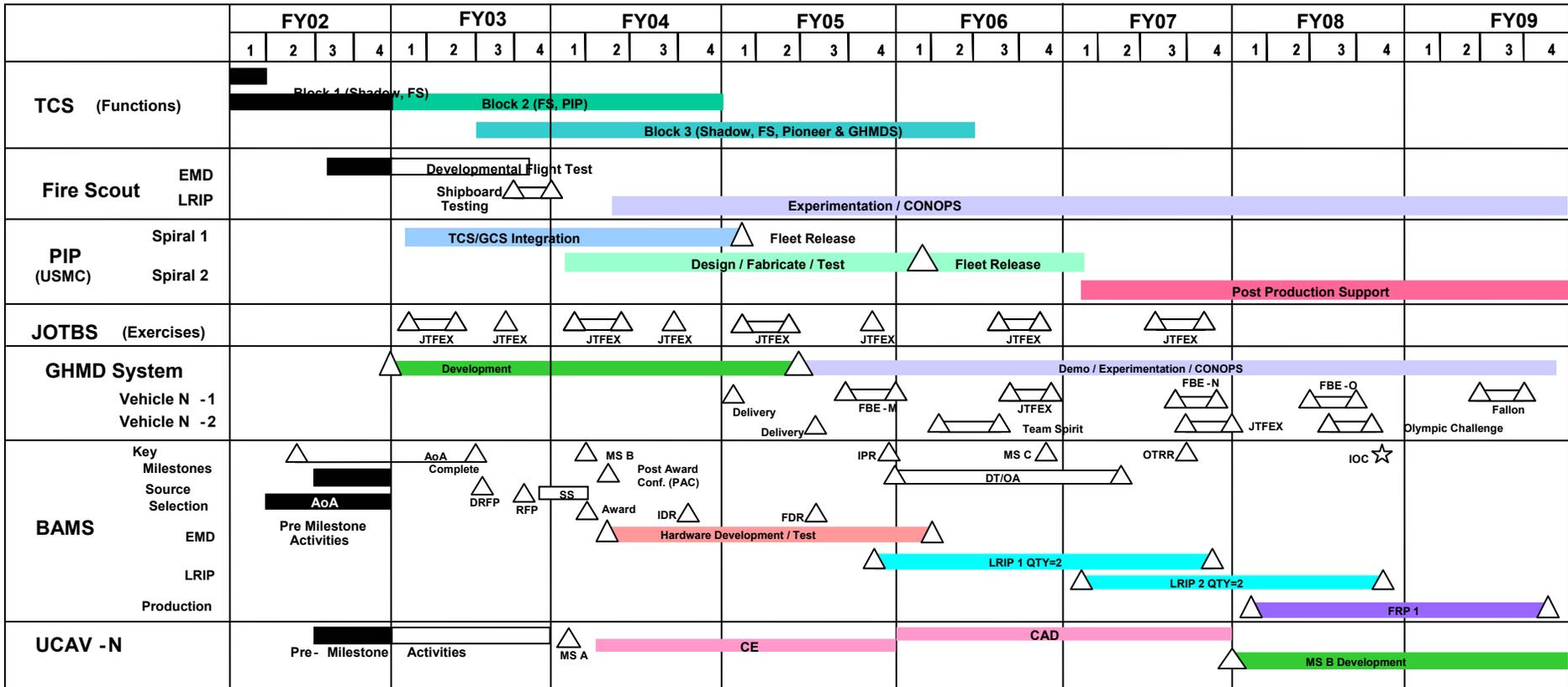
Communications



- Prior To Formal RFP Release
 - E-mail Written Questions/comments (via Contracting Officer: Ms. L. Frattone)
 - Reference Documents and Questions/Answers Posted to PMA-263 Website <http://uav.navair.navy.mil>
- After Formal RFP Release
 - Only Communication Is With Contracting Officer
- Formal RFP Is The Only Official Requirement

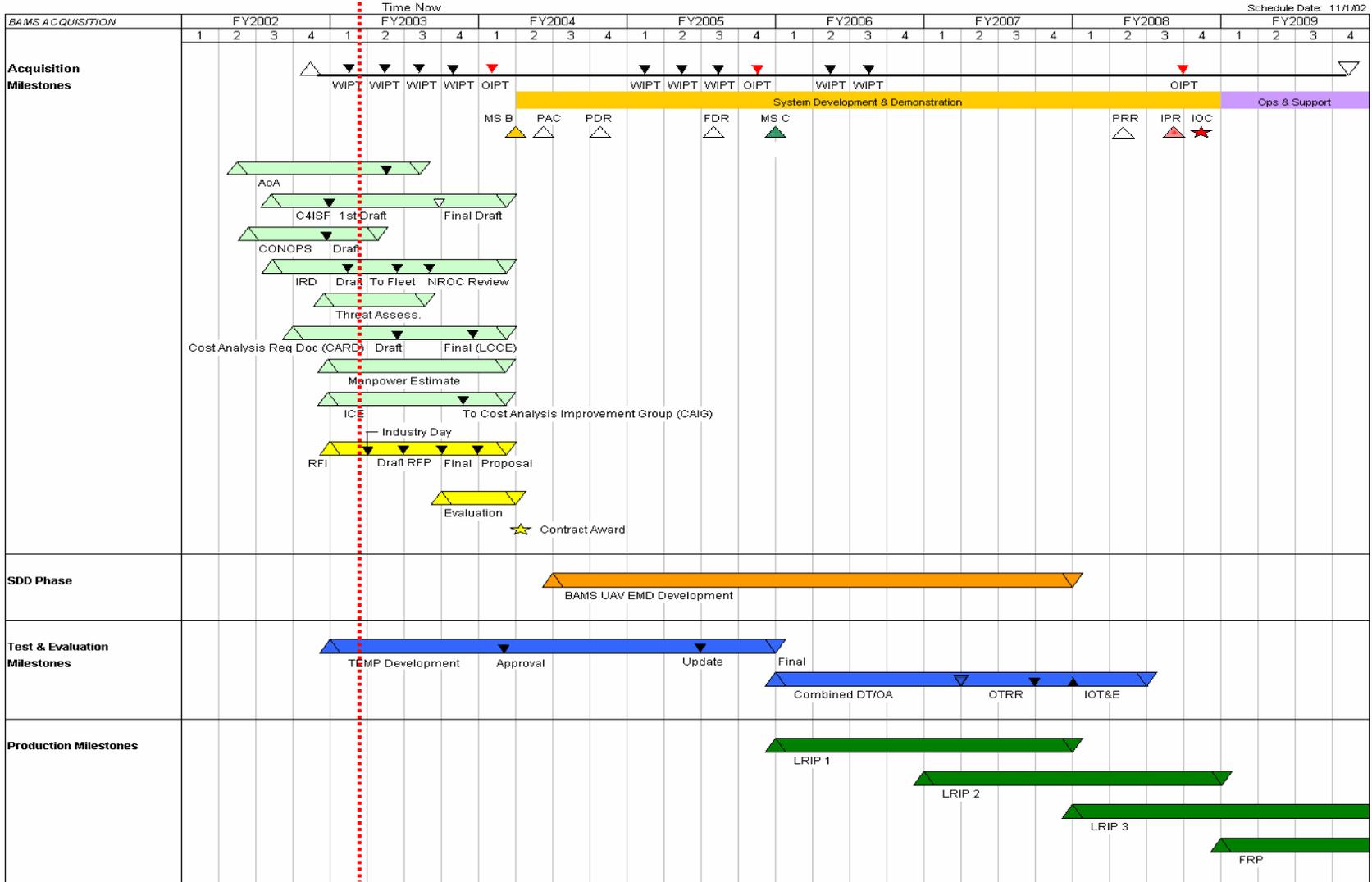


Naval UAV Integrated Schedule





BAMS UAV Schedule





BAMS UAV

Initial Requirements



- Persistent Maritime/Land ISR Capability
 - Long dwell, Medium-to-high altitude
 - Operates in altitude or stand-off sanctuary
 - Forward basing
 - Unarmed
 - Data Direct to War Fighter, Maintain Reach Back
- Direct Sensor Data to CVN
- Battle Group Support
 - Maritime / Littoral Battlespace Management
 - Strike support
- Sensors
 - As Required to Support Mission





Contracting Strategy



- Current Planning
 - Competition
 - Cost-Type Contract for Non-Recurring Engineering, Integration
 - Fixed-Price-Type Contract for LRIP, Full Rate Production Efforts
- Dependent on Results, MITRE Corp Analysis of Alternatives May Modify Competition Strategy



Analysis of Alternatives

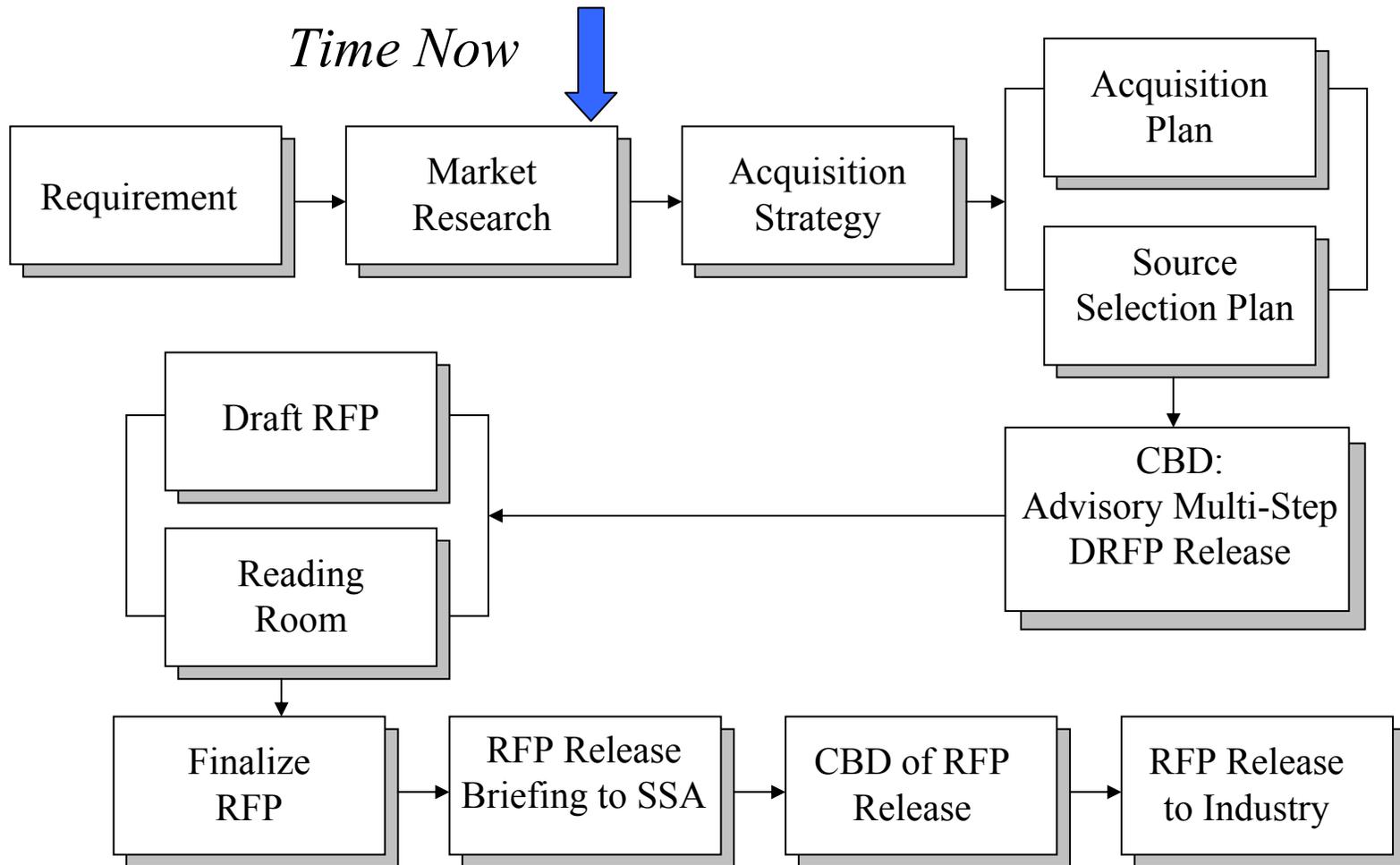


- AoA Effort Began Jul 02
- AoA to Consider Areas Such as:
 - UAV Performance
 - Impact on C4I Infrastructure
 - Interoperability
 - Total Ownership Cost Estimation
 - Manpower Impacts
- Data Collection Completing
 - Industry Participation
 - Data Package for A/V, Payloads, Bandwidth Requirements, Control/Collection/Dissemination, Cost
- Simulation Runs Beginning End of January
- Completion of AoA Scheduled for Apr 03





Pre-Solicitation Process Competitive Award





BAMS UAV ISSUES



- Bandwidth
 - LOS and BLOS
- Air/Afloat/Ground C4I-C2 Architecture
 - Unique issues to USN
- Parallel Development Efforts
- Requirements creep
 - Everyone's "truck"
- Manpower



Next Steps



- Industry One-on-One Meetings
 - Beginning in January 2003
 - Coordinate via NAVAIR Contracting Office
- Future Industry Days
 - Acquisition Documentation and Strategy
 - SOW, Performance Specification
 - Announcements Via Federal Business Opportunities Website, <http://www.fedbizopps.gov>
- BAMS UAV Acquisition Program Updates via PMA-263 Website



Points of Contact



- **PMA-263: Telephone 301-757-5304**
 - CAPT Dennis Sorensen, Program Manager
 - Mr. Paul Achille, Deputy Program Manager
 - Mr. Rich Klessner, BAMS UAV IPT Lead
 - LCDR Mike Schachterle, Deputy BAMS UAV IPT Lead
 - Mr. Charles Nava, A/V Team Lead
 - Mr. Jeff Semenza, Ground System Team Lead
 - LCDR Chris Williams, Payload Team Lead
 - Mr. Keith Carter, APM System Engineering
 - Mr. Tony Leondaridis, APM Logistics Lead
- **Contracting Officer:**
 - Mr. Mike McLoughlin, Contracting Officer, 301-757-5898
 - Ms. Lynda Frattone, Contracting Specialist, 301-757-5897



http://uav.navair.navy.mil



Welcome to Navy Unmanned Aerial Vehicles PMA263 - NAVY MARINE CORPS INTRANET

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QUESTIONS????



Backups



BAMS UAV AoA - Information Request

1 - Background



- **Performance is constrained by FY08 IOC**
 - **Based on existing technology**
 - **Modest development assumed**
 - **Funding and schedule must be identified**
 - **Spiral growth capability must not be precluded; open system architecture desired**
- **We request manufacturers develop one page summaries for their products (vehicles, sensors, control station, bandwidth mitigation techniques, and costs)**
 - **Include Measures of Performance (MOP) and the associated capabilities**
 - **Provide insight into technical maturity and approach for developing a UPC/NRE cost rationale**
- **All responses must be delivered by COB 1-17-03 to impact study**





BAMS UAV AoA - Information Request 2 - Vehicle



- **Provide specifications**
 - **Length, wingspan, height, underside wing height at fuselage and at tip of wing**
 - **Weights: empty, gross, payload**
 - **Identify the components and component weights included in the weight calculations (such as communications gear, avionics systems, ...)**
 - **Performance**
 - **Max. radius; with and without payload**
 - **Cruise altitude and cruise speed with payload**
 - **Max altitude and max speed with payload**
 - **Power to support sensors and systems**





BAMS UAV AoA - Information Request

3 - Sensors



- **Sensors considered include: radar, COMINT, ELINT, EO/IR, communications (C2 and data delivery: both LOS and BLOS), and communications relay**
 - **Other sensors will be considered upon receipt**
- **Light/Medium/Heavy alternatives based upon industry capabilities**
 - **Space, Weight and Power (SWAP) must be identified**
 - **Measures of Performance defined for alternatives**
 - **If sensors are interchangeable, provide architecture**
 - **If pod format, provide mating dimensions and locations, and effects on UAV performance**
- **Example MOP and capabilities for radars include: sensitivity, field of regard, electronic beam steering, simultaneous MTI and SAR, modular architecture, Space Time Adaptive Processing (STAP) “front end”, COTS signal processors, SWAP**





BAMS UAV AoA - Information Request 4 - Control Station and BW Mitigation



- **Control Station**
 - Provide estimates of SWAP, number of stations and displays
 - Provide Manning estimate including number and level
 - Estimate communication frequencies, required Bandwidths, and associated latencies for LOS and BLOS control
- **Bandwidth (BW) Mitigation Techniques**
 - BAMS UAV with full sensor set could require significant BW
 - Identify techniques for reducing bandwidth (must meet IOC date)
 - Estimate BW “savings”, loss of information (if any), and associated latencies





BAMS UAV AoA - Information Request

5 - Costs



- **Identify POCs for cost**
- **Producibility**
 - **Current production capability**
 - **R&D required to modify existing production system to meet the schedule**
- **Provide failure rates**
- **Define the maturity of the current system**
- **Define a contractor logistics support system**

