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Tri-Service GPS Sustainment Management Office (GPS SMO)

SMO Overview and Current Activities

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Dick Dickson – Tri-Service GPS SMO

Outline

- **SMO Background**
- **SMO Current Responsibilities & Customers**
- **SMO Recent Accomplishments**
- **Summary**



SMO Background

- **The Tri-Service GPS SMO was established in 1997.**
 - Primary reason was to create a centralized voluntary use office to provide a full spectrum of logistic and sustainment support on a wide variety of GPS Based Range Instrumentation Equipment (GPS-BRIE) utilized by the Army, Navy, and Air Force T&E ranges, Training Ranges, and individual programs.
 - Includes the same support for Foreign Military Sales (FMS) customers.
- **SMO Pedigree - Levels of Command involved in the direct review and approval of the SMO concept: (*Official correspondence and documentation on file from every level*).**
 - Test and Evaluation Reliance and Investment Board (TERIB) – Tri-Service Senior Executive Service (SES) Level.
 - Board of Operating Directors (BoOD) – Tri-Service 2 Star Level.
 - T&E Joint Program Office: Reporting directly to the Board of Directors Executive Secretariat – BOD(ES).
 - Board Of Directors (BOD) – Tri-Service 4 Star Level.
 - Director Air Force T&E.
 - Director Navy T&E (N913).



SMO Background

- **SMO Pedigree Continued:**
 - Secretary of the Air Force.
 - Office of the Chief of Naval Operations.
 - Office of the Under Secretary of Defense.
 - Assistant Secretary Legislative Affairs, Department of Defense.
 - United States Senate – Official Congressional Investigation initiated on 24 July 1998.
- **Suffice to say the SMO, as an officially sanctioned voluntary use T&E Range run Tri-Service Depot Level Sustainment Office, exists today only through the review and approval of the highest levels of DOD and in the end, the United States Senate.**
- **Formal Tri-Service GPS Sustainment Management Office Charter in place signed by the Army, Navy, and Air Force T&E Ranges.**



SMO Background

- **Managed by the Naval Air Warfare Center Weapons Division (NAWCWD) Combat Environment Simulation (CES) Division at China Lake, California.**
- **Provides support to a wide variety of GPS based instrumentation systems.**
 - Airborne external pod based systems; airborne internal mount systems; ground based systems; air-to-air, air-to-ground, and ground-to-air GPS based missile and rocket telemetry systems; and Unmanned Air Systems (UAS). If it is GPS related, it can be supported.
- **Support is provided for all aspects of these systems.**
 - GPS, inertial, power supplies, data link systems, onboard recorders, etc.
 - Support also provided for all associated components including all ground segments, data processing and display, support equipment, test equipment – End-To-End complete system support.



SMO Background

- **The GPS SMO utilizes a Contractor Logistic Support (CLS) based approach.**
 - The prime contractor is Jacobs under the CES III contract N68936-10-D-0034, Task Order 003, current period of performance through May 2015.
- **Provides full spectrum logistic support including:**
 - Repairs
 - Obsolete component replacement
 - Engineering studies
 - Depot spares management
 - Configuration control including maintaining all hardware /software data and documentation packages
 - Coordinate all frequency clearances and flight clearances (NAVAIR & SEEK Eagle)
 - Technology insertion
 - New hardware/software development, procurement and integration
 - Onsite engineering and technical support
 - Online web-based failure tracking system, depot spare request/issue, documentation package, flight clearance tracking



CURRENT SMO RESPONSIBILITIES

- **Advanced Range Data System (ARDS) – All Army, Navy, and Air Force T&E Ranges With This System**
 - Complete long term support
 - Repairs
 - New Hardware/Software Development, Procurement, and Integration
 - Configuration Control
 - Maintain documentation package (including new nomenclature requests); Initiate and execute all necessary ECPs; Coordinate CCB Activities
 - Depot Spares
 - Maintain, issue, and replenish the depot spares
 - Obsolete Component Replacement
 - Technology Insertion
 - Coordinate all required frequency clearances
 - Coordinate and execute changes to flight clearances (NAVAIR & Seek Eagle)
 - Provide Onsite Software & Hardware Engineering Support



CURRENT SMO RESPONSIBILITIES

- **F-22 Program – ARDS Internal Mount & Air-to-Air Range Infrastructure (AARI) System**
 - Repairs
 - New Hardware/Software Development & Procurement
 - Configuration Control (ARDS only)
 - Maintain documentation package (including new nomenclature requests)
 - Initiate and execute all necessary ECPs
 - Depot Spares
 - Maintain, issue, and replenish the depot spares
 - Obsolete Component Replacement
 - Technology Insertion



CURRENT SMO RESPONSIBILITIES

- **Joint Strike Fighter – Developmental Test (DT) & Operational Test (OT) Programs**
- **C1R & C2R (GLITE) Systems**
 - Sustainment Support
 - New Hardware/Software Development, Procurement, and Integration
 - Repairs
 - Obsolete Component Replacement
 - Engineering support including:
 - **Studies and analysis of the TSPI performance impact based on the location of the GLITE in the aircraft.**
 - **Develop and establish standardized boresight procedures.**
 - **Provide onsite field engineering support including implementing hardware/software upgrades.**



CURRENT SMO RESPONSIBILITIES

- **ATEC Player and Event Tracking System (TAPETS) & Mini-TAPETS – US Army Fort Bliss Operational Test Command**
 - System Upgrades and Technology Insertion
 - New Hardware Development
 - Production Procurement
 - Repairs
 - Full Time Onsite Engineering and Test Support



CURRENT SMO RESPONSIBILITIES

- **WSMR T&E Range GPS Systems**
 - Repair and Maintenance Support
 - Onsite Engineering Support
 - Full time onsite support engineer/technician
 - New Hardware Procurement
 - Obsolete Component Replacement
 - Technology Insertion
 - New System Development and Procurement
 - Configuration Management – ARDS System Only
 - Data Collection/Processing/Display Systems Software engineering support



CURRENT SMO RESPONSIBILITIES

- **WTD-61 : German Federal Armed Forces Technical and Airworthiness Center for Aircraft.**
- **Foreign Military Sales (FMS) Case**
- **GPS Range Instrumentation System (GRIS) Pods & Plates**
 - Repairs
 - New Hardware/Software Development, Procurement, and Integration
 - System Integration
 - Depot Spares
 - Maintain, issue, and replenish the depot spares
 - Obsolete Component Replacement
 - Technology Insertion
 - Provide Onsite Software & Hardware Engineering Support



CURRENT SMO RESPONSIBILITIES

- **WTD-71 : German Federal Armed Forces Military Engineering Agency For Ships and Naval Weapons.**
- **Foreign Military Sales (FMS) Case**
- **GPS-Based TSPI Data Acquisition System (TDAS) Pods & Plates**
 - Repairs
 - New Hardware/Software Development, Procurement, and Integration
 - System Integration
 - Depot Spares
 - Maintain, issue, and replenish the depot spares
 - Obsolete Component Replacement
 - Technology Insertion
 - Provide Onsite Software & Hardware Engineering Support



CURRENT SMO RESPONSIBILITIES

- **Joint Advanced Missile Instrumentation (JAMI)**
 - Repairs
 - New Hardware/Software Development, Procurement, and Integration
 - System Integration
 - Develop New Hardware Equipment Performance Specifications
 - Obsolete Component Replacement
 - Website Support
 - Software Discrepancy Reporting; Upload/Download System Software Updates; Online Documentation
 - Technology Insertion
 - Foreign Military Sales JAMI System Integration and Support



CURRENT SMO RESPONSIBILITIES

- **Common Range Integrated Instrumentation System (CRIIS)**
 - Supporting NAWCWD & NAWCAD
 - Responsible for all CRIIS Tech Manual and documentation reviews, certifications, and validation/verification
 - Currently supporting the 70% In Progress Reviews (IPR). Currently reviewing:
 - **PTS TO-0147: Portable Test Set (PTS) Operation and Maintenance Manual with IPB**
 - **MRE TO-0151: Mission Room Equipment Operation and Maintenance Manual with IPB**
 - **RGS TO-0150: Remote Ground Station Operation and Maintenance Manual with IPB**
 - **RRS TO-0149: Reference Receiver Subsystem (RRS) Operation and Maintenance Manual with IPB**
 - Supporting NAWCWD in a detailed site survey of all potential remote ground station sites – China Lake, Point Mugu, Fort Irwin, Vandenberg AFB, etc.



CURRENT SMO RESPONSIBILITIES

- **Naval Air Warfare Center Weapons Division**
- **Unmanned Air Systems (UAS) Operations & Maintenance Support**
 - Provide all aspects of day-to-day maintenance and operational support.
 - Provide full spectrum of organization operations support
 - **Document library maintenance**
 - **Operational scheduling**



SMO CY13 Accomplishments

- **Managed two active SMO CES contract task orders totaling \$51,747,275.**
- **Managed and executed 7 active subcontracts totaling \$32,646,147.**
 - Of these 7, the Nanowave subcontract has 9 individual task orders requiring management and oversight.
- **Awarded 193 purchase orders and credit card purchases for repairs and parts procurements totaling \$2,044,058.**
- **Managed and executed 1 FMS case. One more in the process of being awarded.**
- **Answered numerous data calls for the P5 program and CRIIS program.**

Significant Recent Accomplishments

- **ARDS Service Life Extension Program (SLEP)**
 - Coordinated and executed the ARDS SLEP
 - Total value just under \$20M Tri-Service wide
 - Developed 2 new power supplies
 - Coordinated and assisted Eglin AFB with the development of a new Advanced Digital Interface Unit (ADIU)
 - Coordinated and assisted Eglin AFB with the development of a new Intelligent Flash Solid State Recorder (IFSSR)
 - Developed 2 new Data Link Power Amplifiers, including completing the required DD Form 1494's for frequency clearance.
 - Developed 2 new Data Links
 - Mini-DLT (full up DLT) with MicroBee Systems
 - New ARDS DLT based on the Multi-Service Targets Control System (MSTCS) DLT. Comes in a miniaturized form for internal mount but can be incorporated into a pod DLT configuration.



Significant Recent Accomplishments

- **ARDS SLEP Continued**

- Coordinated the integration of the P5 TCTS forwarded hanger on Navy and Army pods
- Coordinated and established 3 new pod Nomenclatures (required for flight clearances)
- Coordinated Seek Eagle flight clearances for the Air Force on all three new nomenclatures for the F-15, F-16, and A-10.
- Coordinated and completed the DD Form 1494 required for frequency clearance on all new RF components developed.
- Coordinating the development and integration of a new GPS receiver and a new inertial reference unit (project is ongoing)



Significant Recent Accomplishments

- **WTD-61 Germany**

- Coordinated the procurement and integration of the Navy's Enhanced Data Link System at WTD-61. Provided hardware procurements, onsite documentation validation and verification, and assisted Pax River personnel during installation and integration.
- Coordinated the procurement and integration of the Joint Advanced Missile Instrumentation (JAMI) system at WTD-61. Provided onsite installation and integration support.
- Completed a flight certification documentation package consisting of 6 separate documents including a Declaration of Design & Performance, Interface Control Drawing, Mass Properties Report, Electromagnetic Compatibility Report, System Safety Hazard Analysis, Store Vibration Loads Statement.



Significant Recent Accomplishments

• **US Army Fort Bliss Operational Test Command**

- Coordinated the development and delivery of a new miniaturized ATEC Player and Event Tracking System, referred to as the Mini-TAPETS system.
- Currently providing 2 full time onsite support engineers.
- Ongoing TAPETS and Mini-TAPETS production hardware procurement.



Significant Recent Accomplishments

- **Hill AFB, AFLCML/HBZC & 517 SMXS/MXDED Organizations**
 - Coordinating and executing the development of a SAASM based GPS receiver replacement for the obsolete GNP-10
 - Validated the equipment specification.
 - Managing and executing the development subcontract with Geodetics Inc.
 - Providing onsite engineering support at Geodetics.
 - Providing full time onsite engineering support at Hill AFB.
 - Coordinating all Environmental Stress Screening (ESS) tests with the US Army Electronic Proving Ground.
 - Coordinating and supporting all government flight testing for acceptance and accuracy verification.



Significant Recent Accomplishments

- **Joint Advanced Missile Instrumentation (JAMI) Program**
 - Coordinating the development of an alternate source for the manufacture of 2 unique cable harness kits
 - Developed a website and failure tracking system for software discrepancies and transfer of large operating system software updates to user ranges
 - Generated and validated a telemetry transmitter specification for use in IDIQ government contracts.
 - Generated an Enhanced JAMI TSPI Unit (EJTU) equipment specification.
 - Coordinated and executed the development of a new EJTU
 - Generated 7 complete IDIQ contract packages for JAMI program office to use for direct government IDIQ contracts.
 - Some were sole source and some were open competition requiring source selection plans.

Significant Recent Accomplishments

- **Joint Strike Fighter (JSF)**

- Provided TSPI hardware support to both DT and OT JSF operations.
- Coordinated the procurement and testing of new C1R & C2R Glite systems.
- Coordinated and executed obsolete component replacements
- Supporting ongoing repairs, software upgrades, and technology insertion.



Current Contract Status

- **Current Period of Performance (POP) runs through the end of May 2015.**
- **Plans in work to extend the POP through the end of December 2015 and possibly beyond that.**
- **Paperwork in progress to add an additional \$45M in ceiling to the SMO task order.**
 - Ceiling increase expected mid-summer.
 - Interim ceiling increase expected in June 2014



CES Government POC

- **CES Government Contracting Officer Representative (COR), CES Contract Manager, and Tri-Service GPS SMO Program Manager**

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CES Government POC

- **CES Contract Financial (BFM) POC**

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Follow-On CES Contract Information

- **China Lake is already working on the follow-on contracts for the current CES III contract**
- **It will be split into three separate contracts**
 - The current task order for the GPS SMO will become a standalone contract and will be expanded to include all range instrumentation (i.e. radars, optics, lasers, etc.) as well as some targets and EW range instrumentation.
- **All three new contracts will include all the same areas covered in the existing CES III PWS plus additional scope**
- **For details and a copy of the draft PWS(S), contact Mr. Marc Katra**



Summary

- **The SMO has been an officially sanctioned sustainment office since 1997.**
 - Voluntary Use Organization
- **Provides all aspects of long term sustainment, new hardware development, and onsite system integration and testing support.**
- **Many high visibility programs utilize the SMO (JSF, F-22, JAMI, etc.).**
- **Manages many high dollar obsolete component replacement programs and new system/hardware development programs**
- **Responsible for executing over \$50M in requirements on two separate contracts.**

