



AFOTEC

AIR FORCE OPERATIONAL TEST AND EVALUATION CENTER



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AFOTEC Cyberspace Testing

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**NPS Acquisition Research Symposium
12 May 2010**



Purpose



- **Provide a brief overview of AFOTEC, our responsibilities and test initiatives, and a quick look at several business system-related test programs**





Scope & Responsibilities

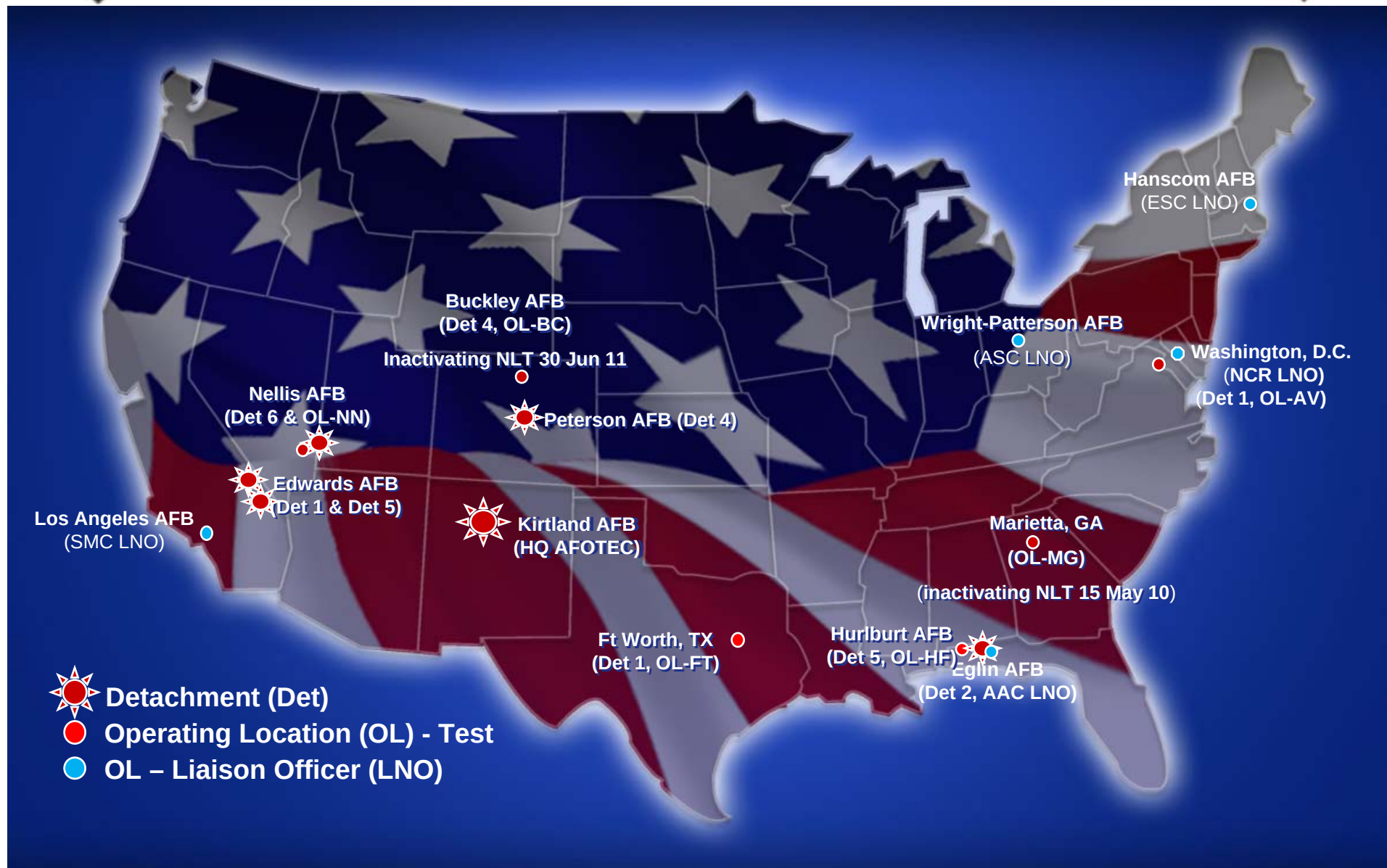


- Independent operational test agency for AF
 - Reports directly to CSAF
- Operationally tests all Acquisition Category I, II, & oversight programs
 - Required by USC Title 10
 - Guidance & direction from DoD 5000-series





AFOTEC Locations





Approach to Testing



- **Early & continuous influence throughout the acquisition process**
- **Integrated Developmental Test /Operational Test (IDT/OT)**
- **Determine effectiveness, suitability & mission capability**
 - Clearly identifies capabilities delivered to warfighter
- **Reports provide decision-quality data to acquisition decision makers**
 - Occasionally inform major command fielding decisions



AFOTEC Initiatives



- Early Influence
- Integrated Developmental Test/Operational Test (IDT/OT)
- Space OT&E Model
- Cyberspace OT&E Initiative

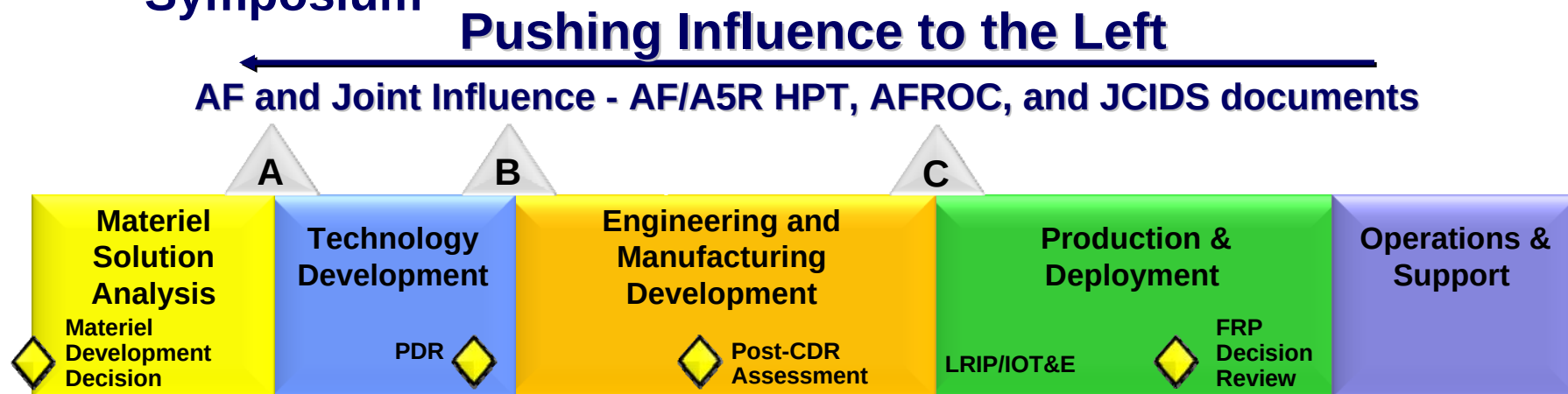




Early Influence



- **Formalized approach to:**
 - Refine capability requirements and acquisition strategies
 - Develop test and evaluation strategies and plans
- **Greatest opportunity to affect emerging capabilities**
 - Apply standardized OT&E methodologies
 - Typically begins before Milestone A
- **Raises interaction level & brings more people to our area**
 - Summits, High Performance Teams, AF Test and Evaluation Symposium

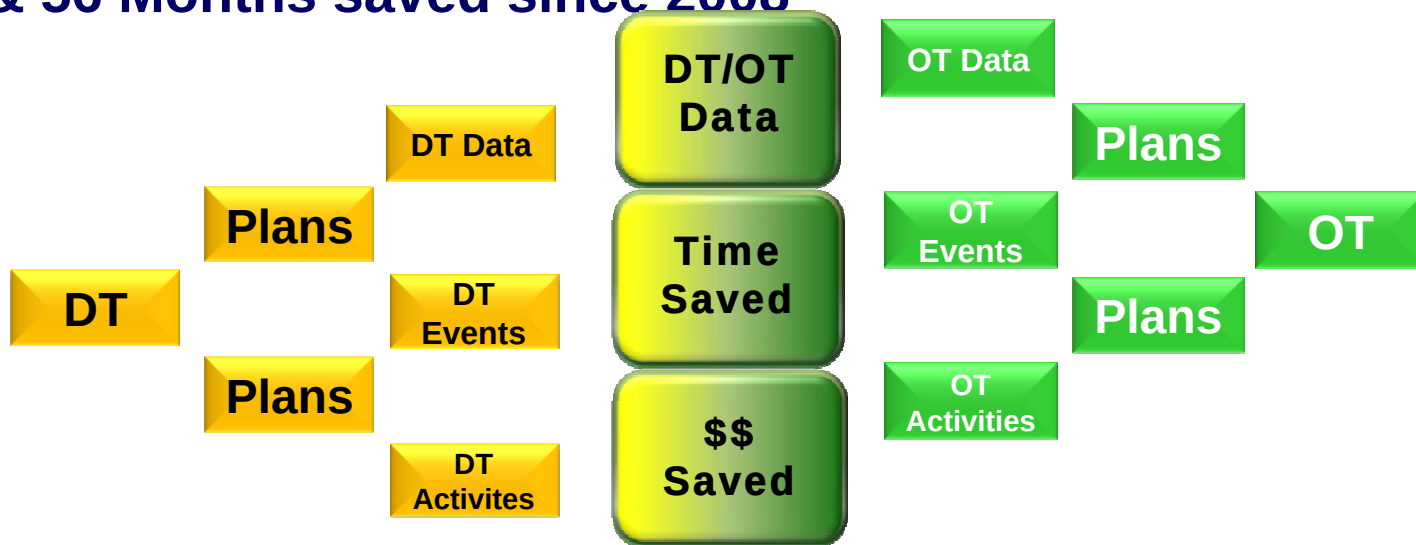




Integrated DT/OT



- Work early and consistently throughout program
- Reduce duplication and share data
- Shorten the timeline from concept to deployment
 - Reduce cost and time by leveraging developmental test
- Optimal use of limited resources
 - Test Articles, Ranges, Funding and Time
 - > \$58.9M & 56 Months saved since 2008





Space OT&E Model



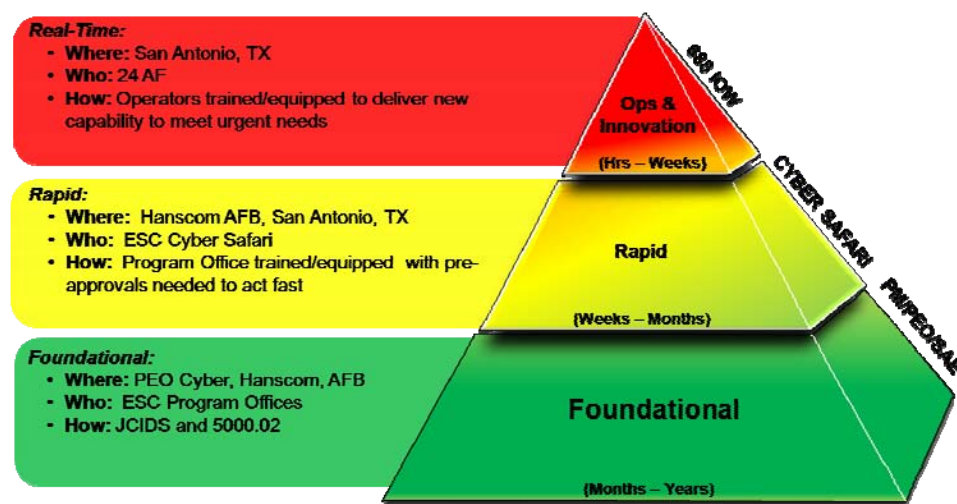
- Acquisition & OT&E policy and execution disconnect
- AFOTEC hosted a Space Test Initiative Summit at Kirtland in June 2008
- Early Funding, Early Decisions
 - Front-loaded acquisition decisions
- OT&E did not inform acquisition decisions on time
 - Effort 90% post-launch
- Tenets of transformed space OT&E model
 - Maximize early influence
 - Integrated DT/OT throughout
 - Agile analysis and reporting
 - System-of-system evaluations
 - Effort now 90% pre-launch



Cyber Acquisition and Sustainment



- AFSPC and AFMC anchored Agile Cyber Acquisition with Ops & Innovation and Rapid Tiers
 - AFOTEC involved from the onset; remains cognizant and collaborative for synergy and integration
- AFOTEC is evolving Cyber OT&E Model for AF and Joint foundational acquisitions
 - Synchronized with on-going OSD efforts evolving acquisition policy for IT Systems





Cyberspace OT&E



- **Collaborating with acquisition & warfighter communities**
 - Influence requirements process early to ensure “fight through” capabilities are testable and measurable
 - Ensure STAR contains relevant cyberspace threats
- **Collaborating with the Air Force Research Labs (AFRL)**
 - AFRL is supporting AFOTEC development of Cyberspace OT&E methodologies for dirty and contested environments
 - AFRL providing critical opportunities to identify the latest technologies, capabilities, vulnerabilities and threats



Cyberspace OT&E



- **OT&E Tenets of Excellence**
 - Early and continuous influence to refine requirements
 - Integrated DT/OT throughout acquisition life cycle
 - Agile to support emerging cyberspace acquisition strategy
 - Conducted in operationally realistic environments
(e.g. dirty and contested environments)
- **Cyberspace acquisition strategy is emerging and will demand a comprehensive OT&E strategy**

OT&E of Cyberspace capabilities should enable timely acquisition and fielding of capabilities that ensure mission assurance



Program Examples



- **Defense Enterprise Accounting and Management System (DEAMS)**
 - Joint OSD Business Management Modernization Program
 - AFOTEC involved Jun 09—2 yrs prior to MS B (EOA)
 - IDT/OT: integration into existing system/processes
 - Impacted schedule for Increments 1&2/Spirals 1-4
- **Expeditionary Combat Support System (ECSS)**
 - Provide AF-wide integrated logistics system
 - Involvement since program initiation 2007
 - IDT/OT: completed EOA Apr 10
 - Results based on real data: functional/systems integration testing (FIT/SIT) with contractor/RTO and AFOTEC



Summary



- **AFOTEC conducts operational test and evaluation to inform acquisition decision makers and major using commands**
- **Engaged early and often across the acquisition community to improve acquisition processes**
- **Integrated DT/OT is foundation for all testing, including IT-based systems**
- **AFOTEC is actively engaged as part of entire acquisition team from earliest program stages**



Questions

