



AFOTEC

AIR FORCE OPERATIONAL TEST AND EVALUATION CENTER



Report Documentation Page

Form Approved
OMB No. 0704-0188

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1. REPORT DATE 12 MAY 2010		2. REPORT TYPE		3. DATES COVERED 00-00-2010 to 00-00-2010	
4. TITLE AND SUBTITLE AFOTEC Cyberspace Testing				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Air Force Operational Test and Evaluation Center,8500 Gibson Blvd. S.E.,Kirtland AFB,NM,87117				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES 7th Annual Acquisition Research Symposium to be held May 12-13, 2010 in Monterey, California. U.S. Government or Federal Rights License					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 16	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			



AFOTEC Cyberspace Testing

**Mr Jeff Olinger
AFOTEC Technical Advisor**

**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

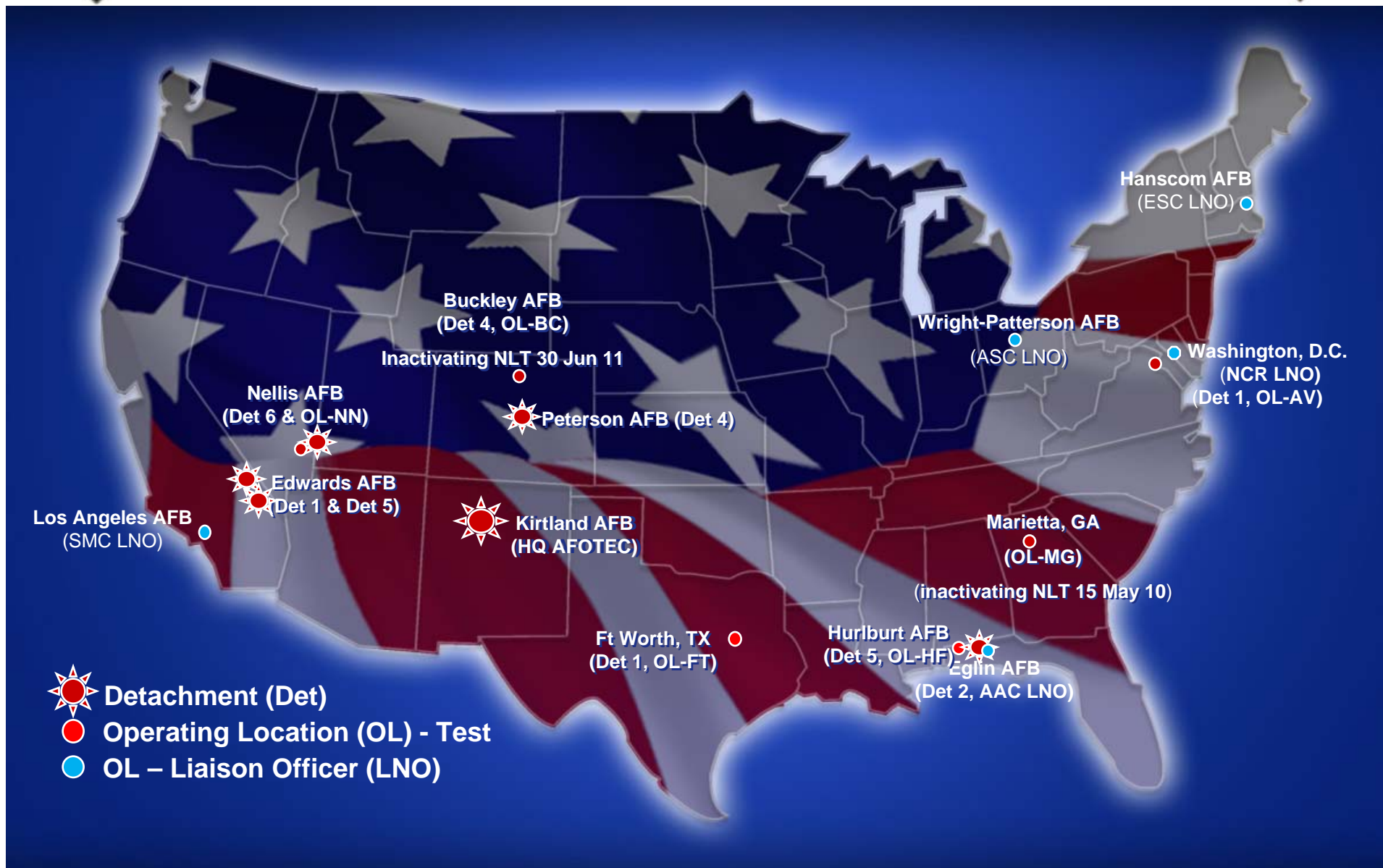


- **Independent operational test agency for AF**
 - Reports directly to CSAF
- **Operationally tests all Acquisition Category I, II, & oversight programs**
 - Required by USC Title 10
 - Guidance & direction from DoD 5000-series





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**

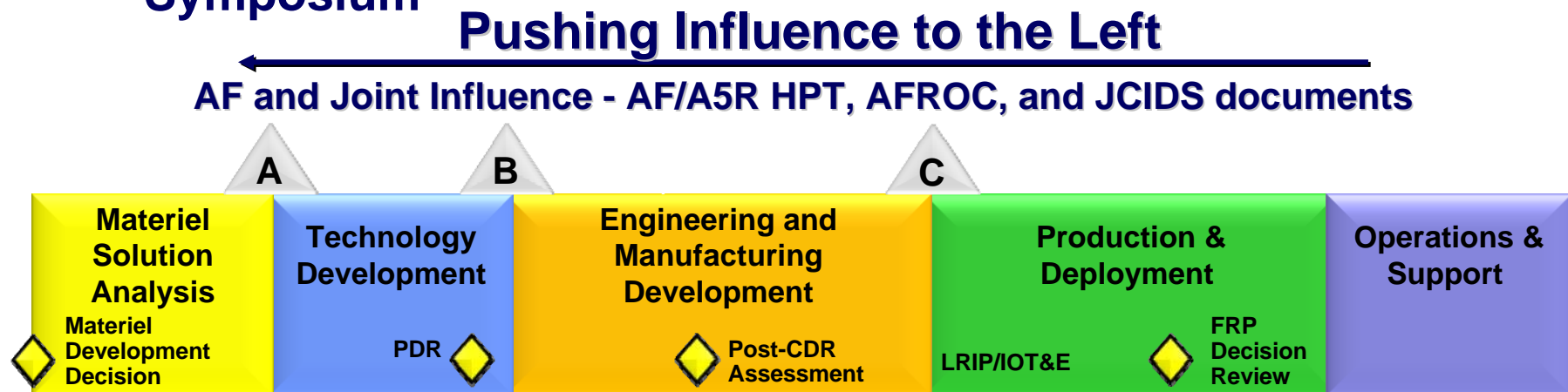




Early Influence



- **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

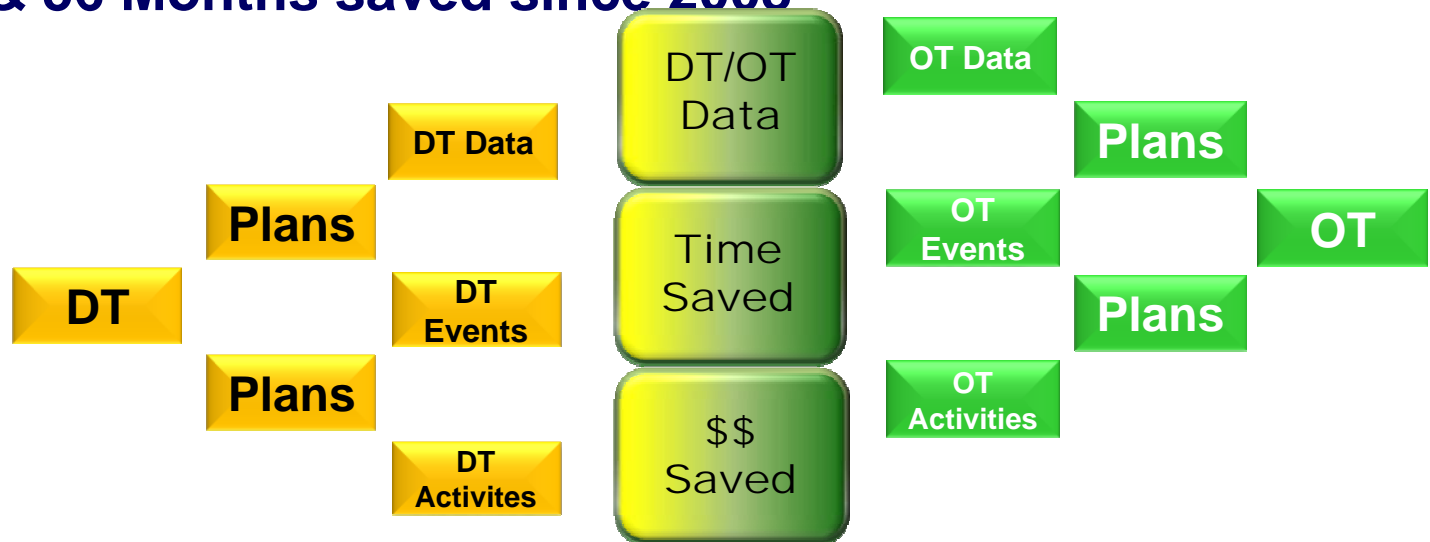




Integrated DT/OT



- 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



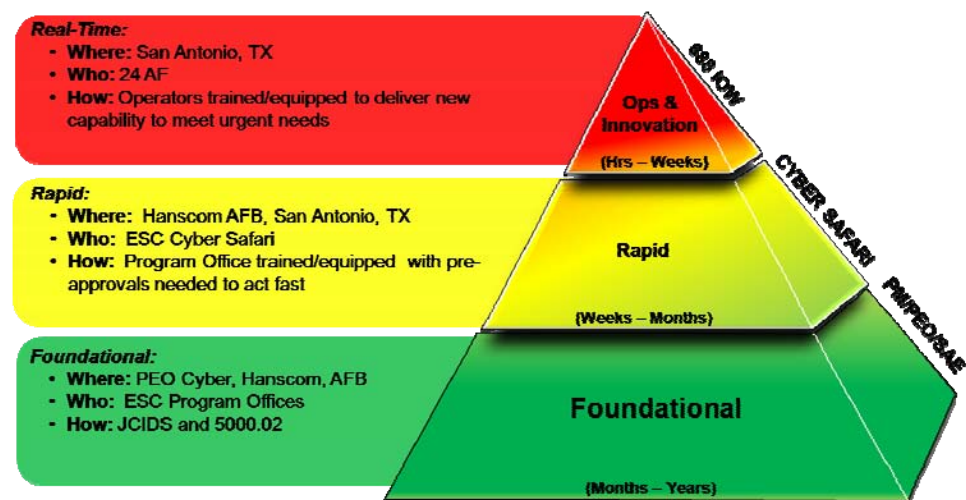
- **Acquisition & OT&E policy and execution disconnect**
- **AFOTEC hosted a Space Test Initiative Summit at Kirtland in June 2008**
- **Early Funding, Early Decisions**
 - Front-loaded acquisition decisions
- **OT&E did not inform acquisition decisions on time**
 - Effort 90% post-launch
- **Tenets 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

