

Headquarters U.S. Air Force

Integrity - Service - Excellence

Operational Training and Test Infrastructure Update



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U.S. AIR FORCE

The Overall Classification of this Briefing is:
UNCLASSIFIED



U.S. AIR FORCE

The Readiness Challenge



Air Force capabilities and the capabilities of our potential adversaries are advancing at a rate which challenges our ability to provide realistic and relevant operational training.

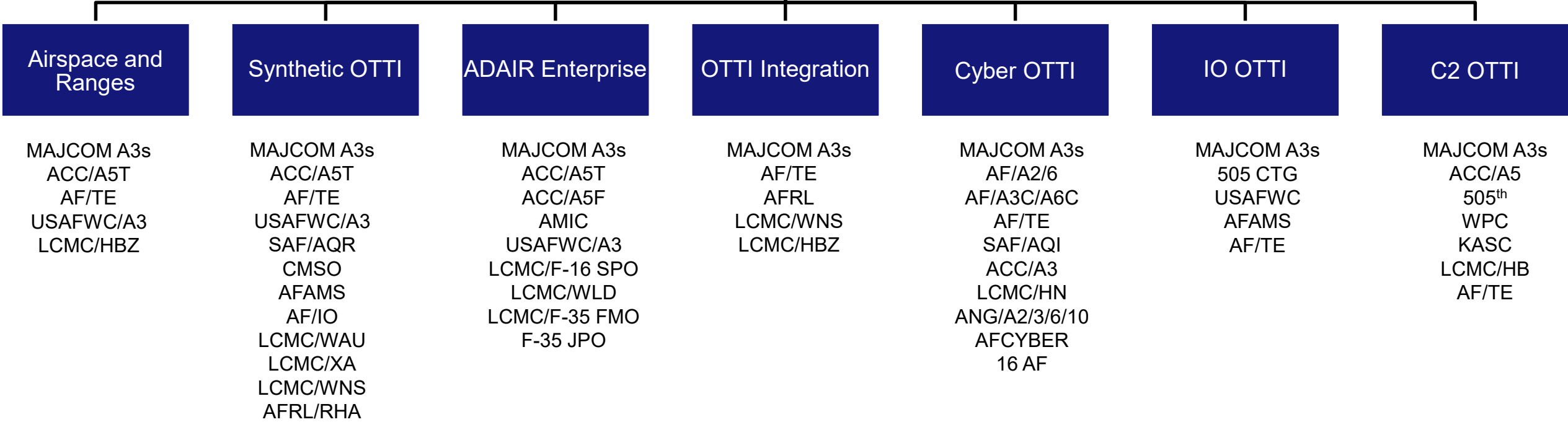
The Air Force requires a robust synthetic test and training capability, which enables realistic and high-fidelity test and training in a seamless and connected virtual environment. This capability must cross multiple generations of aircraft and associated training systems.

Airmen will Fight like they Train



OTTI CFT and Capability Development Teams

OTTI CFT
MAJCOM A3Ts, ACC/A5T, USAFWC/A3, AF/TE AF/A2/6O, AF/A5, AF/A8P, LCMC (XA, WN, HB, WA), AFAMS, CMSO





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- **Develop a Level 4 synthetic capability for all operational units**
 - **Develop Nellis Virtual Test and Training Center (VTTC) for Level 4+ high-end advanced training and tactics development**
 - **Modernize Nevada Test and Training Range (NTTR) and Joint Pacific-Alaska Range Complex (JPARC) to replicate a Level 4 threat**
 - **Modernize six Primary Training Ranges to ensure routine access to a Level 3 live training environment**
 - **Provide adversary air tailored to unit requirements**
 - **Optimize airspace to support training**
 - **Support R&D for a blended capability (blending live & synthetic)**
 - **Provide cyber training infrastructure tailored to unit requirements**



Synthetic Training and Test Capability

- OTTI Synthetic Training and Test Capability-- fill the high-end advanced training gap
 - *Synthetic Test Environment LOE* — Joint Simulation Environment (JSE) designed to provide solution (F-35)
 - *Synthetic Training Environment LOE* — *Requirements for a common synthetic training environment remain valid and approved*
 - *CSTE development transitioned to JSE as the solution for a synthetic training environment*
 - *Simulator Concurrency and Distributed Training LOE* — Support to simulator programs and DMO efforts must continue
 - *Common Simulator Architecture LOE* — SCARS effort designed to shift legacy sims to government-owned modular open system architecture
 - *Policy LOE* — Overcoming long-standing challenges/stovepipes to achieve objectives through integration and synchronization
 - EX: Multi-Level Security / Legacy aircraft simulator compatibility/integration into the environment



Support R&D for Blended Training

Background:

- Refers to blending the live and synthetic environments
- Previous work showed promise for 4th Gen
- AF not pursuing aggressively due to cost, unknown applicability to 5th Gen and airspace limitations

What we're doing:

- Working closely with Navy to flight follow their efforts
- **OSD is funding the 5th Gen Sensor Fusion Study Phase II**



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QUESTIONS