



Targets, Ranges and UAVs: An Operational Test Perspective



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DOT&E Charter

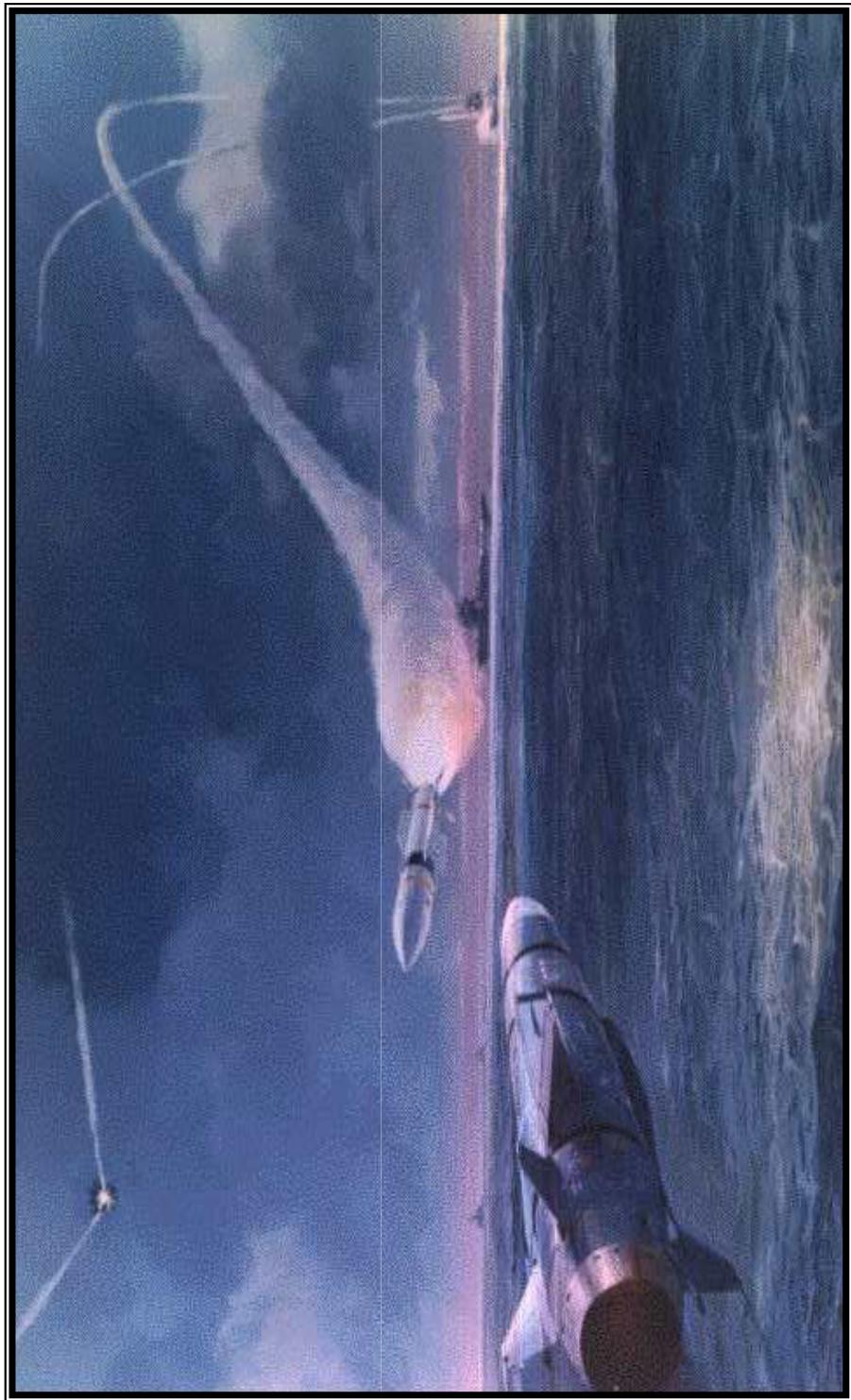


- Title X, Sec.2399. Para (b) Operational Test and Evaluation.
 - (1) Operational testing of a major defense acquisition program may not be conducted until the Director of Operational Test and Evaluation of the Department of Defense approves (in writing) the adequacy of the plans (including the projected level of funding) for operational test and evaluation to be conducted in connection with that program.
 - (2) The Director shall analyze the results of the operational test and evaluation conducted for each major defense acquisition program. At the conclusion of such testing, the Director shall prepare a report stating—
 - “(A) the opinion of the Director as to—“(i) whether the test and evaluation performed were adequate; and “(ii) whether the results of such test and evaluation confirm that the items or components actually tested are effective and suitable for combat; and
 - “(B) additional information on the operational capabilities of the items or components that the Director considers appropriate based on the testing conducted.”

DOT&E approves the OT&E plans which identifies the test resources (i.e., targets and ranges) for all programs on OSD oversight.



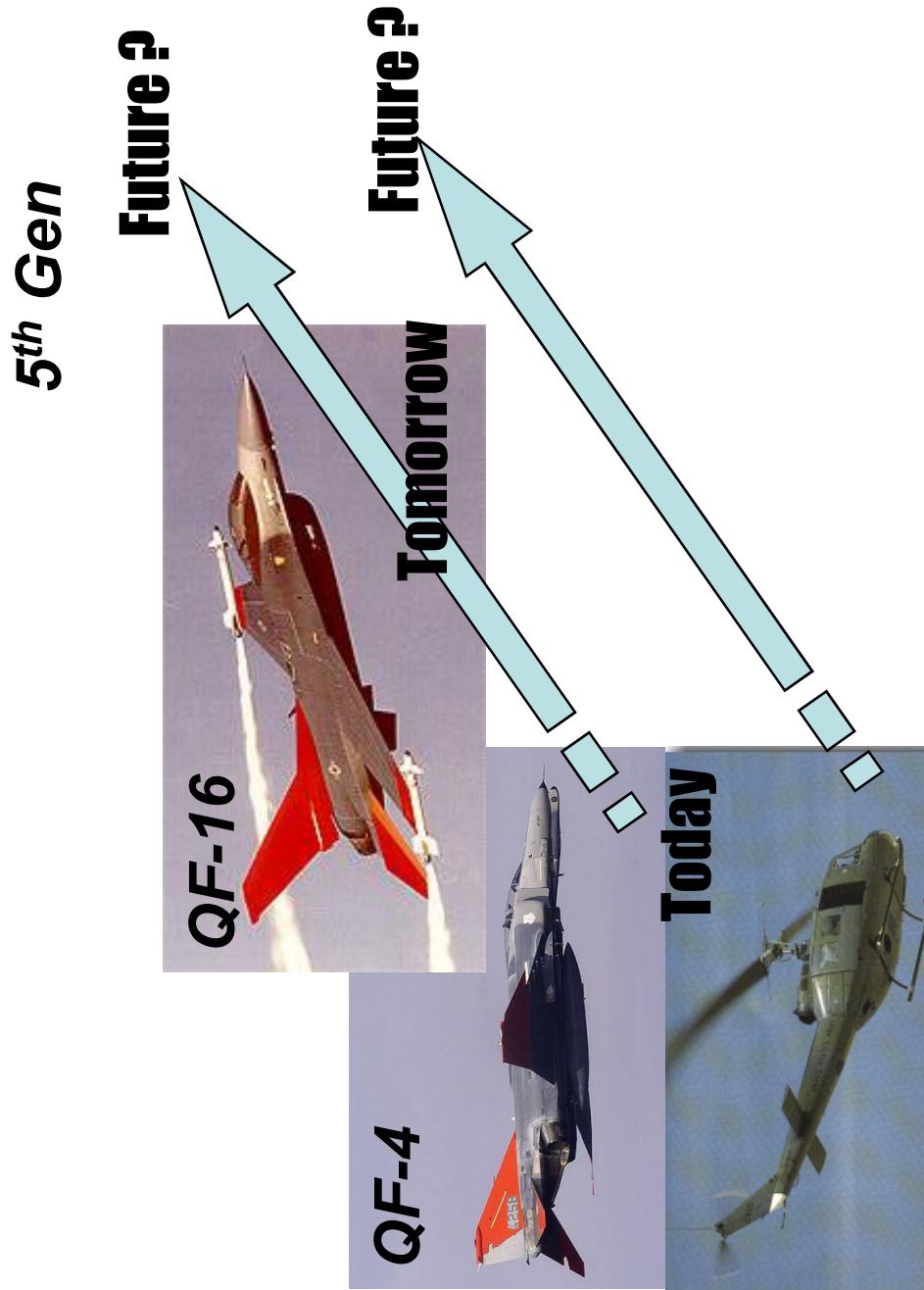
Missile Targets



End to End Testing is Necessary – “Test Like You Fight”



Full Scale Aerial Targets





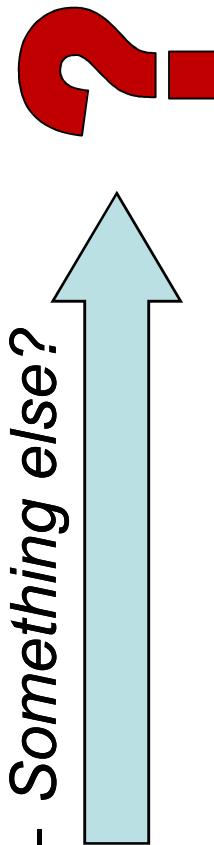
Cruise Missile Targets (Subscale Subsonic)

- Air Force - BQM-167A
- Army - MQM-107
- Navy – Venerable BQM-74E



What will be the future Navy ASCM target?

- BQM-74F
- BQM-167 Variant
- Something else?





Mobile Ground Targets

- **It's About Representing The Threat**



- **It's About Test and Training**
- **And It's About Cost**

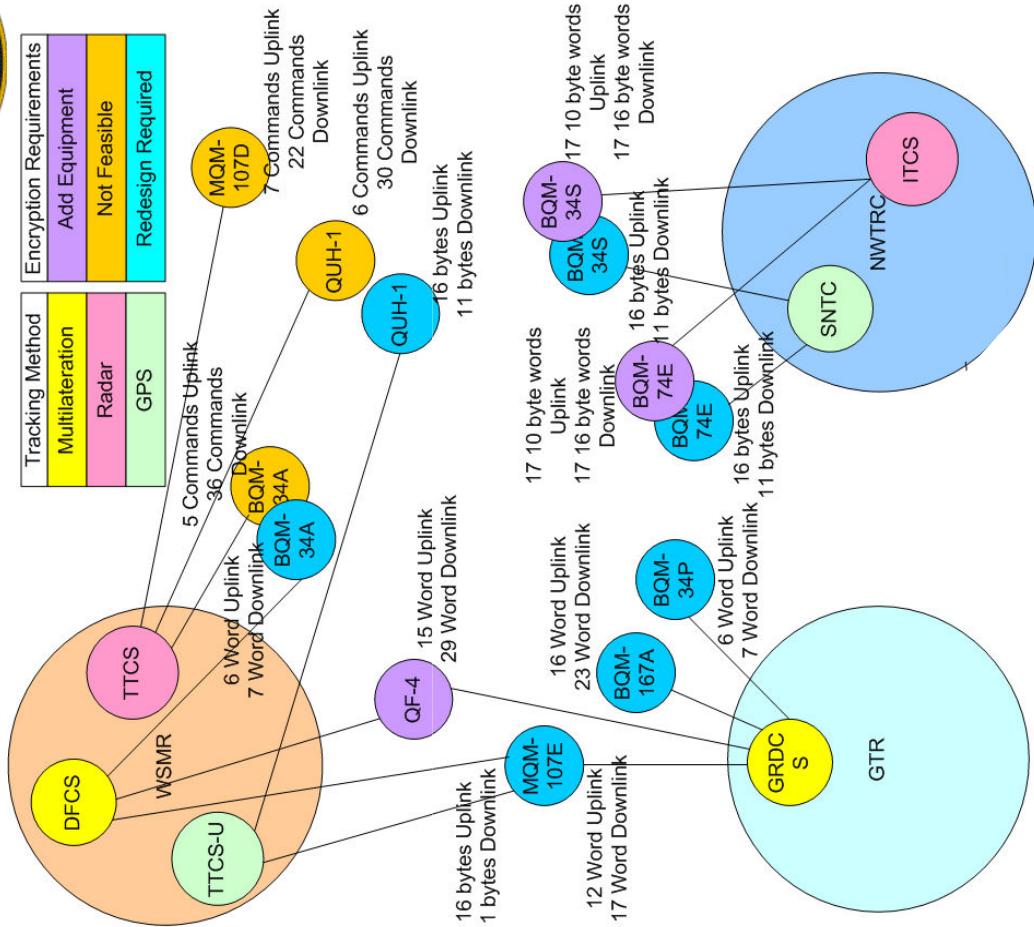




Target Control



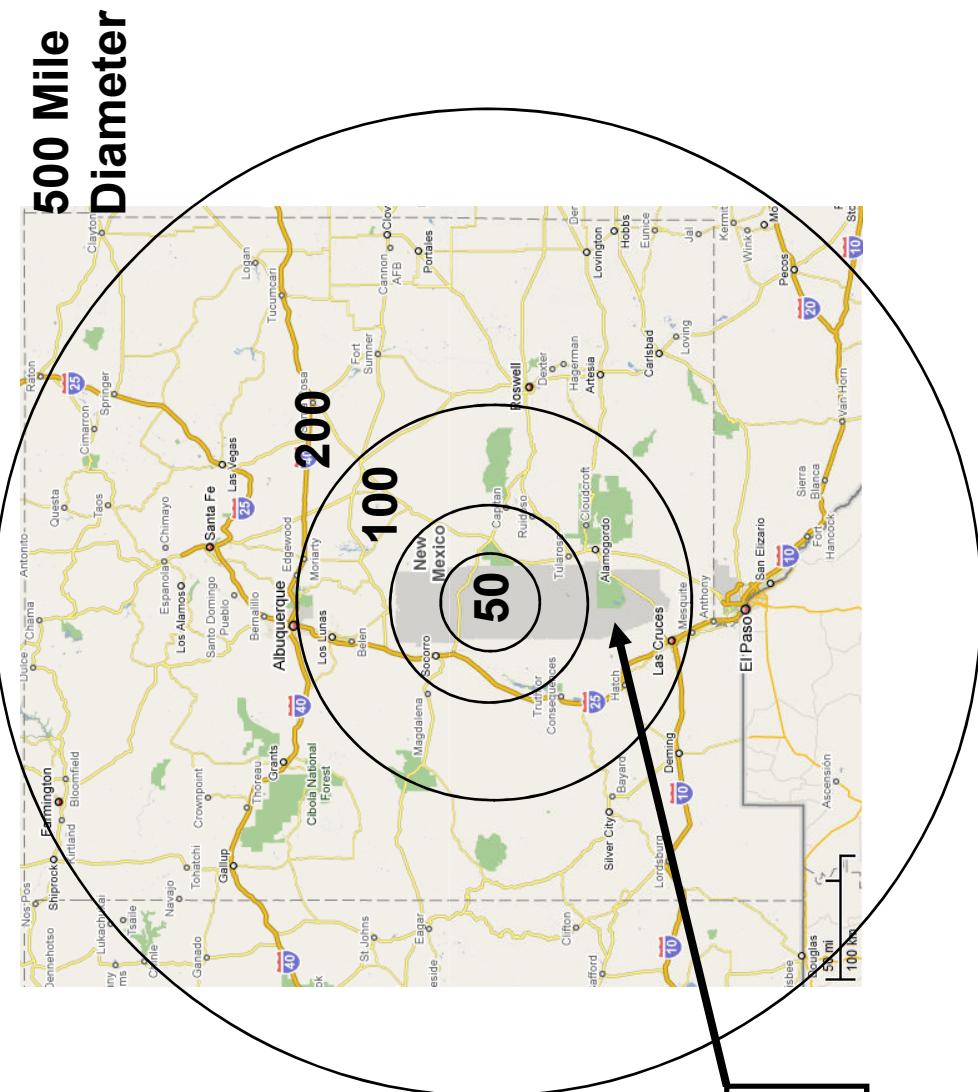
- The 2005 DSB Task Force on Aerial Targets envisions the gradual introduction of common control elements that would eventually provide us with the ability to “shoot any target on any range.”
- We need a corporate approach towards open architectures and standards based development



This is not a technical problem but more so a cultural problem



Ranges



White Sands
Missile Range

- AGING INFRASTRUCTURE
- ENCROACHMENT
- FOOT PRINT
- SPECTRUM





Unmanned Air Systems



- **Perspectives:**

- ACTD legacy
- Dual-program problem
- Limited meaningful testing
- Performance





Unmanned Air Systems



- **What should be done now?**

- Fielded systems: Invest in reliability growth and improvements to suitability
- Systems under development: Accomplish the fundamentals necessary for a successful program
- Realistic DT/OT: Change the paradigm that “UAS’s are just unmanned systems”





Summary



- UAS's are a paradigm shift in how we need to test.
- Expand the capability and flexibility of the range
- Targets must focus on representing the threat for its intended use (Training, DT, OT)



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Land Warfare Systems
Expeditionary Warfare System
Future Combat Systems
Battle Command
Land Munitions
Rotary & Tilt-Rotor Aircraft
Tactical UAV
Chem-Bio Defense Program
Joint Rapid Acquisition Cell
Integrated Resource Analysis
T&E Threat Resource Activity
Joint Test Board

Live Fire – Land, Air, Naval
Lethality & Survivability

Joint IED Defeat
Joint Live Fire Program
Joint Aircraft Survivability
Joint Technical Coordinating
Group-Munitions
Effectiveness

Missile Defense
Space & Strategic Systems
Net-Centric Systems
Strategic C4ISR Systems
Major Automated Info System
Chemical Weapons Demil

Network Information
Assurance & Interoperability
Assessment

Surface Ships
Submarines & UUVs
Naval Combat Systems
Radars
Sonars
EW System
CEC
Naval Munitions
Missiles
Guided Projectiles
Torpedoes

Air Combat Systems
Strategic Air Combat Systems
Aircraft Carriers
Air Launched Munitions
Endurance UAVs
Air Warfare C4ISR Systems
IR/UV/RF Def Combat Sys
Airlift Systems

Joint T&E Program
Center for Counter Measures