



Foreign Comparative Testing (FCT)

Briefing to KDIA

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Why Foreign Comparative Test?



“When budgets are tight we need to reach out and work with our partners”

-- Honorable Frank Kendall, Under Secretary of Defense (USD)
Acquisition, Technology and Logistics (AT&L) (COMDEF, Sep 2013)

“As funding decreases across the department, the need for international collaboration increases”

-- Al Shaffer, Assistant Secretary of Defense (ASD) Research and Engineering (R&E) (COMDEF, Sep 2013)

FCT → Partnerships, Affordability, Innovation, Interoperability, Value



FCT Mission



Mission: Find, Assess & Field World-Class Technologies to Enhance Military Capabilities and Provide Long-Term Value

- ***Focus on Technologies to Counter Emerging Threats***
- ***Support DoD Acquisition Policy & United States Code Title 10 by Promoting Competition***
- ***Office of the Secretary of Defense (OSD) Selects & Funds Projects, US Military Services & USSOCOM Execute Testing***
- ***Connects Foreign Technologies to US DoD Development and Acquisition Programs***



Measuring Progress

~ Last 34 Years ~



- **OSD investment: \$1.23 Billion (constant FY14 \$)**
 - **Led to procurements for 271 projects worth \$10.9B**
- **Accelerated fielding averages 2-4 years**
- **Led to foreign vendor teaming with U.S. industry in 34 states for roughly 30% of the projects procured**
- **Average project – \$600-800K, 18-24 months**



FCT for FY15+



- **Widen technology readiness spectrum considered by FCT program**
- **Increase foreign participation and strengthen partner capacity with an emphasis on cost sharing**
- **Gather information on foreign technology options**



FCT Evaluation Options

**Developmental
Prototype
(TRL 6)**



**Operational
Prototype
(TRL 7)**



**Qualification Test
(TRL 8-9)**



Assessment

**Transition/
Procurement**

FCT Projects Can Be Side-by-Side Comparative Evaluations



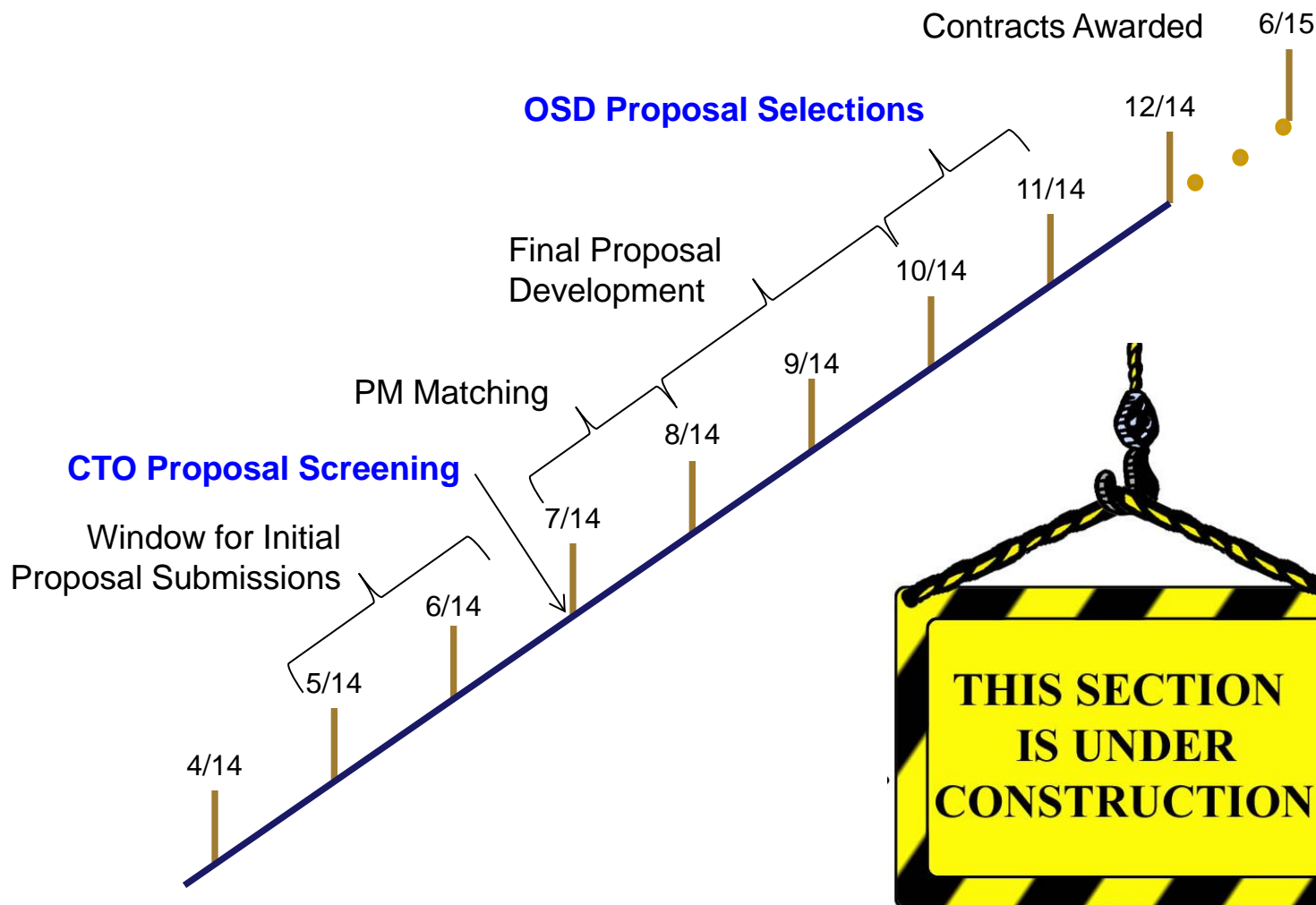
FCT Focus Areas for FY16



- **Space Capability Resilience**
- **Autonomous Systems**
- **Electromagnetic Spectrum Agility**
- **Countering WMD**
- **Novel Counters for Force Application**



FY15 FCT Proposal Timeline





Send Us Your Product Information



Product Template

- Product
- Company Name
- Country
- POC Information
- Website
- TRL
- Countries Using
- Application (So What?)
- Science (How it works)
- Data (key performance metrics)
- US Partners
- Previous Work w/ DoD

OSD Foreign Comparative Test – Product Template

Product: XX mm High Velocity (HV) Airburst Munitions System (ABMS)

Company Name: Advanced Systems (AS)

Country: Republic of Antarctica

Point of Contact: Mr. Jones

Phone: (555) 555-5555

Website: www.abcd.com

Email: abcd@abcd.com



Short Description: The HV ABMS consists of a Fire Control System, an Ammunition Programmer and XX x XX mm Air Burst Munitions. High explosive, Flash and Bang, Counter defilade, increased lethality, improved accuracy.

Technology Readiness Level (fielded, lab tested, operational test): TRL: 9 The HV ABMS is qualified and in production.

Countries using the technology: Madagascar, Dominican Republic, Greenland, etc.

Application: (the so what?) The HV ABM is specially designed to allow soldiers to effectively engage enemies in defilade and to provide improved accuracy and higher lethality through a technologically improved muzzle velocity compensation capability.

Science (how it works): Muzzle velocity compensation for the immediate round fired. The 40mm HV ABMS is an upgrade kit to existing launchers to provide Air Bursting Precision capability. The FCS accurately lazes the target and the ballistic card computes the time to burst. The computed time to burst based on the measured velocity is programmed into the fuze only upon exit at the ammunition programmer. Enhanced safety with its built-in self-destruct mode and gives ABM the ability to function as a point detonating HE cartridge as well as an Air-Burst cartridge.

Data:

- Grenade Length: XX mm • Weight: XXX gm
- Muzzle Velocity: XXX m/s • Maximum Range: XXXX m
- Lethal Radius: X m • Arming Distance: XX to XX m
- Fuze Type: Programmable Time Fuze

U.S. Partner: AS does not currently have a relationship with a US company.

Previous work with DoD: Technology developed through US DoD laboratory funding.



How to Get More Info

- **CTO Website -- <https://cto.acqcenter.com/osd/portal.nsf/>**
 - Additional background information on FCT
- **Contact your Embassy in DC – Defense Attaché or the trade or science and technology organization**
- **Contact the Security Cooperation Office / Attachés in the US Embassy in your country**
- **Contact CTO directly – either the main office or Service/SOCOM specific contacts given in this brief**



Key Points of Contact



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Back-Up

Examples of Successful FCTs



Results – Innovation

New Process, New Approach or Concept, New Material

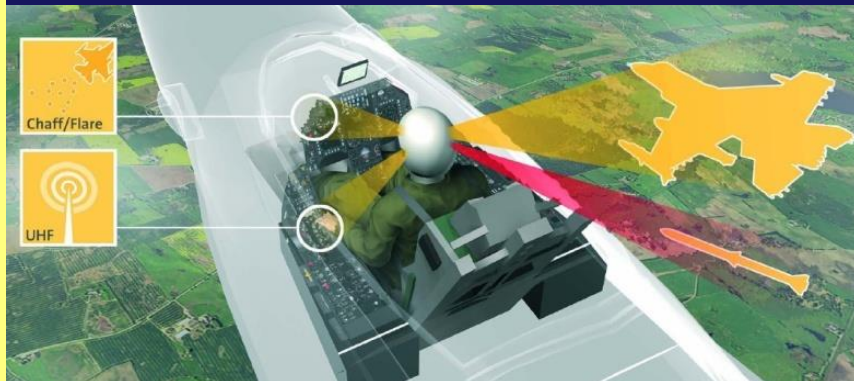
**More resilient, corrosion resistant,
and weldable alloy**

**Operations & Sustainment
Avoidance \$1.2B**

5059 Aluminum Alloy



3D Audio / Active Noise Reduction



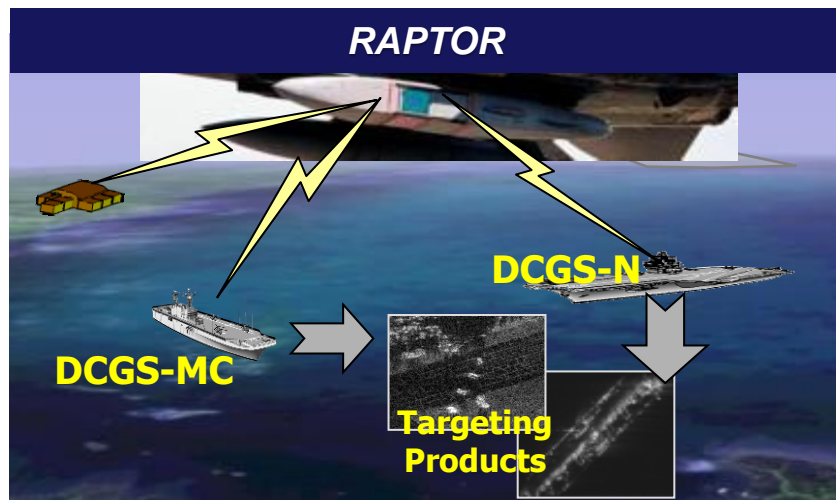
**Provides audio cue from source
direction for improved Situational
Awareness**

**RDT&E Avoidance \$5.1M
Fielding Reduction – 5+ years**



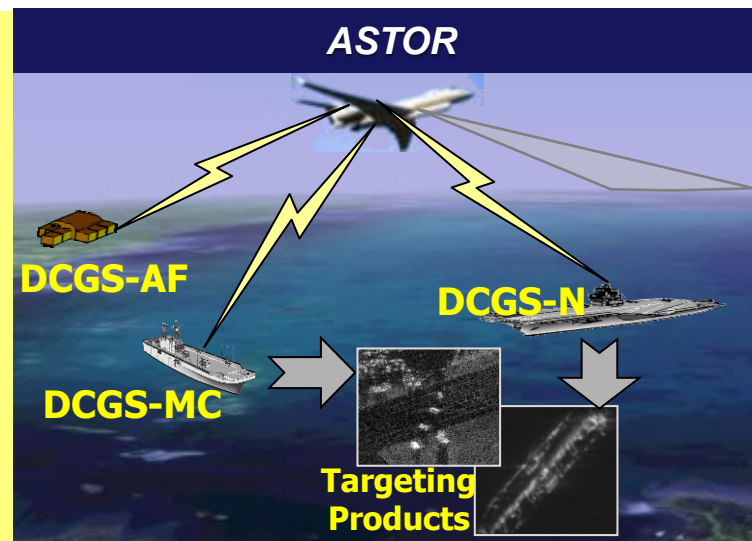
Results – Interoperability

Ability to Work More Closely with our International Partners



Enables US Distributed Common Ground System (DCGS) units to download stand-off electro-optic and infrared imagery collected by the Reconnaissance Airborne Pod TORnado (RAPTOR) pod on UK Tornado GR4 aircraft

Enables US Distributed Common Ground System (DCGS) units to download Synthetic Aperture Radar/Ground Moving Target Indication imagery collected by the Airborne STand-Off Radar (ASTOR) system on UK Sentinel aircraft





Results – Value

**Lower Life Cycle Cost, Multi-role, Reduced Man hours,
Decreased Logistics Footprint**



Digital Flight Control System EA-6B

**Replaced analog flight controls
with digital system that increased
Mean Flying Hours Between
Failure from 83 to 3417 (measured)
= Operations & Sustainment
Avoidance \$68M**

**Provides capabilities of 4
separate rounds in one for less
cost and logistics burden**

120mm Multi-Purpose High Explosive Rounds

