

# Special Operations Forces Industry Conference



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**Science & Technology**



# Commander's Guidance for USSOCOM S&T

- Develop a coherent capability-based research and development effort focused on placing new capabilities in the hands of SOF operators
- Conduct technology discovery, coordinate research and development activities, rapidly integrate technology developments, and rapidly insert new capabilities for equipment and techniques across the force

*A Special Operations force, empowered with the newest technologies and capabilities, able to operate in any environment, work effectively with partners, and defeat all adversaries*

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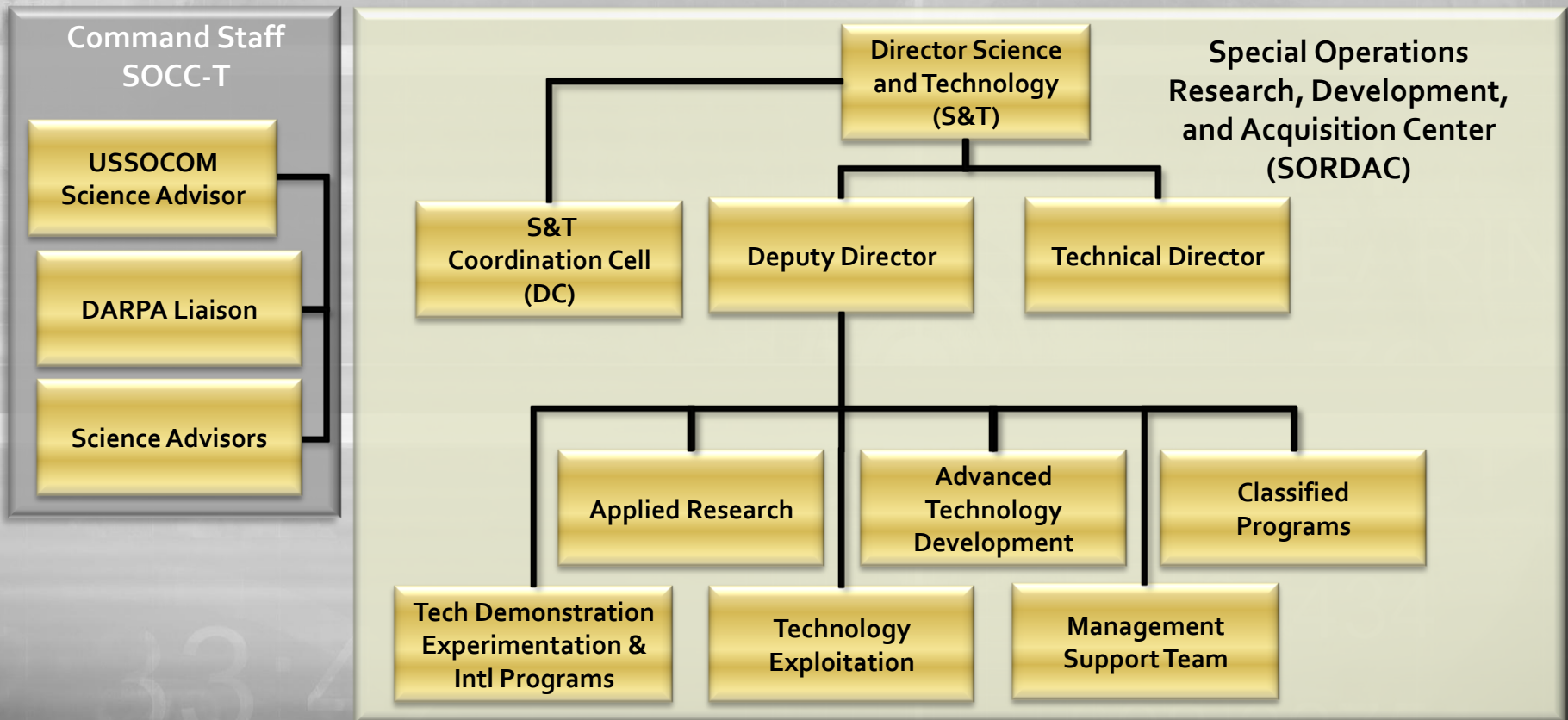
# S&T Priorities

- **Exploitation**
  - Execute “Rapid Exploitation of Innovative Technologies for SOF” (REITS)
- **Capture “Best Value” for Technology Developments**
  - Pursue a comprehensive technology development strategy, integrate with USSOCOM Components and Theater Special Operations Commands (TSOCs)
- **“Whole of Government Approach”**
  - Bring broad government synergy to solving USSOCOM technical challenges

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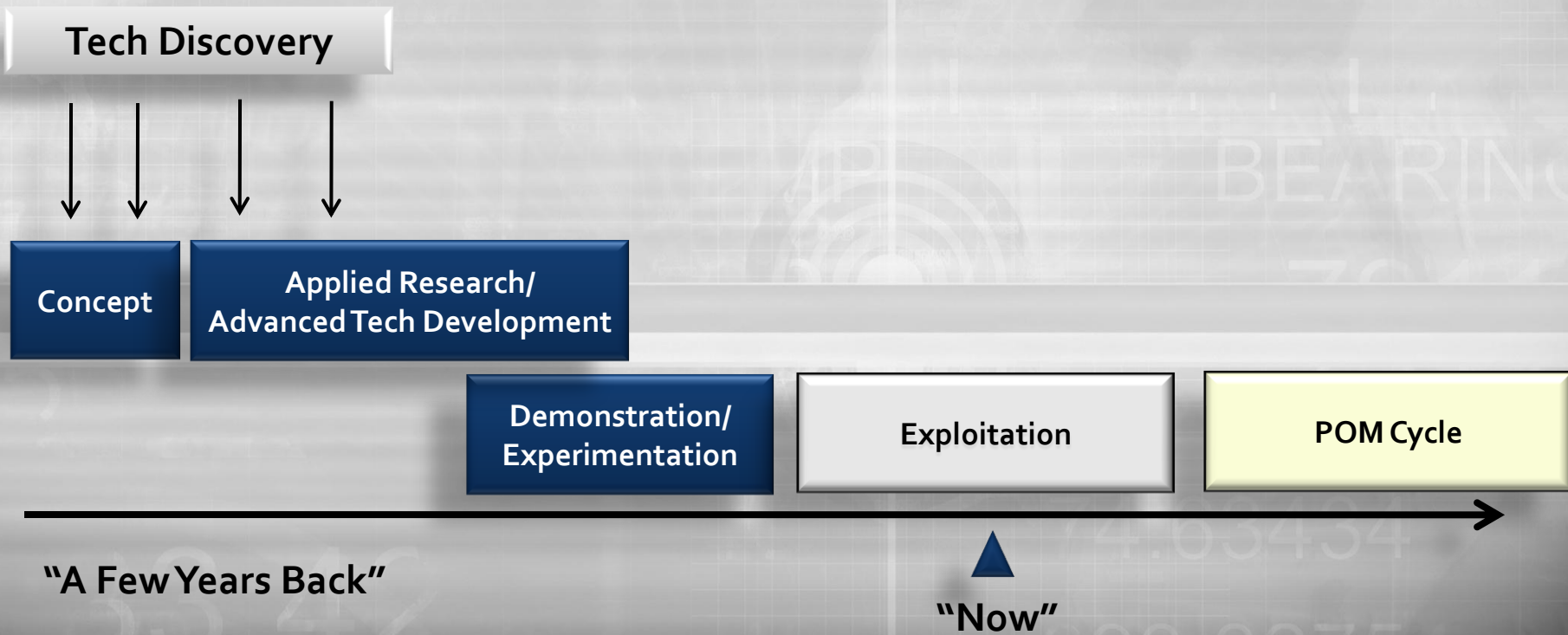
# S&T Enterprise



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# A View of the S&T “World”



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# Rapid Exploitation of Innovative Technologies for SOF (REITS)

- REITS activities include tech demos, experimentation, rapid prototyping, and a consolidated approach to “Technical Support to Operations” (TSO)



**TSO: The rapid, collaborative introduction of technical solutions to field operators, which address specific operational problems through the creation of unique equipment and capabilities.**

- Anticipates needs in advance of formal requirements.
- Uses streamlined authorities for development and insertion; are for limited operational use and are not intended as sustained capabilities.
- Activities will transition to Programs Of Record where appropriate.

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# REITS

- **FY11 and FY12 Planning**

- Command, Control, Communications, and Computers (C4); Intelligence, Surveillance, and Reconnaissance (ISR) Efforts
- Mobility Efforts
- SOF Warrior survivability and medical technologies capabilities
- Mobile Tech Complex (MTC) --SOF unique vehicles and weapons; SOF unique Electronic Warfare Improvements; and Psychological Operations

## Acquisition Strategy

- Attract innovative solutions from industry through Broad Agency Announcement (BAA) process and/or existing contract vehicles

## Period of Performance

- Emphasis on projects which can be completed within 12 months

## Milestones

- Project dependent—solution identified, prototype tested, operational insertion and use

## Point of Contact

## Funding

- FY10: \$5M
- FY11: \$10M
- FY12: \$10M

## Current Contract/OEM

- Various contracts with multiple vendors

# Mobile Technology Complex (MTC)

A complex of various modules which can be tailored to field needs in order to repair, modify, innovate, and enhance current capabilities of SOF systems. MTC Capabilities include design; fabrication in wood, metal, plastics, and electronics; modifications for vehicles.

- Reconfigurable, expandable.  
Broadband connectivity, workstations,  
Video Tele-Conferencing
- Self-contained generator and  
Environmental Control Unit
- Mobile—helicopter and truck  
transportable



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# Applied Research and Advanced Technology Development

- Funds studies and laboratory prototypes and links non-system basic and exploratory research to SOF-specific testable / fieldable items
- Rapid fabrication and evaluation of prototypes in relevant environments and funds Advanced Technology Demonstrations (ATDs)
- Driven by Technology Thrust Areas, technology insertions for Programs of Record, emerging requirements, and SOF supported Joint Capability Technology Demonstrations (JCTDs)

## Acquisition Strategy

- Full and open competition (ST and Biomedical R&D BAAs)
- "Evolutionary" Technologies and Capabilities with Manageable Risk and Clear Near-term Value

## Period of Performance

- Project Dependent: Typically 1-2 years

## Milestones

- Project Dependent

## Point of Contact

## Funding

- FY10: \$19.2M \$20.2M (TTL)
- FY11: \$22.7M \$22.4 M (TTL)
- FY12: \$18.3M \$22.6M (TTL)

## Current Contract/OEM

- Various Projects

# Current Focus

- Persistent surveillance to locate and track items of interest
- Reduce operator load, human performance, conditioning, and reconditioning
- Armor –Body and transparent
- Individual thermal protection
- Exploit emerging advanced Visual Augmentation Systems
- Small arms technology
- Multi-fuel engines
- Combatant craft technologies—mobility, signatures, situational awareness
- Wireless technologies
- Common C2 architectures
- Imaging technologies
- Far-forward Tactical Combat Casualty Care and MEDIVAC; Rapid assays/diagnostics
- Power system technologies – Size Weight and Power (SWaP)
- Manned and unmanned logistics support in austere locations

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# Opportunity

- Applied Research will pursue a multispectral Digital Night Vision Goggle (mDNVG) demonstrator in FY11
  - Short Wave Infrared (SWIR) is to be included
  - SWaP a major concern
  - Need advancement in micro digital displays

## Acquisition Strategy

- Full and Open Competition
- RFP release early FY11

## Period of Performance

- 12-18 Months

## Milestones

- RFP – 1QTR11
- Contract Award 2QTR11

## Point of Contact

## Funding

- Up to \$3M

## Current Contract/OEM

- TBD

# Small Business Innovation Research (SBIR)

- The Directorate of S&T is the Command's SBIR coordination office
- DoD web-based proposal submission
  - USSOCOM SBIR topics are posted on DoD SBIR website (<http://www.dodsbir.com>)
- Next Submission Cycle
  - SBIR Solicitation 2011.1
    - Posted on SBIR Website (10Nov10)
    - Accept Proposals (13Dec10)
    - Close to Proposals (12Jan11)

## Acquisition Strategy

- Competitive Phase I awards through DoD solicitation; high percentage of follow-on awards

## Period of Performance

- Phase I: Not to exceed 6mos and \$100K
- Phase II: Not to exceed 24mos and typically \$1M
- Phase III: Outside funds (other than SBIR)

## Milestones

- Phase I: Feasibility study and/or proof of principle
- Phase II: Prototype development up to a Technology Readiness Level (TRL) 5-6 at completion
- Phase III: Additional development and acquisition; TRL 9 at completion

## Point of Contact

## Funding

- FY10: \$10.097M
- FY11: TBD

## Current Contract/OEM

- Various Projects

# Questions?



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