



SPECIAL OPERATIONS FORCES INDUSTRY CONFERENCE

RAPID CAPABILITY INSERTION



SPECIAL RECONNAISSANCE, SURVEILLANCE, AND EXPLOITATION

SPECIAL RECONNAISSANCE, SURVEILLANCE, AND EXPLOITATION

TECHNICAL COLLECTION SYSTEMS

Hostile Forces – Tagging, Tracking, and Locating (HF-TTL)



Special Operations Tactical Video System (TVS)



Blue Force Tracking (BFT)



Joint Threat Warning System



IDENTITY OPERATIONS

Biometrics and Forensics



INTELLIGENCE SUPPORT SYSTEMS

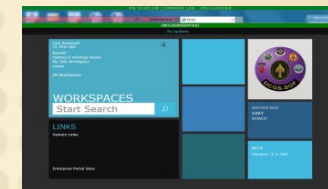
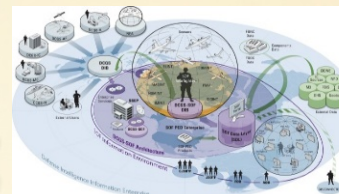
Integrated Survey Program



SOF Planning, Rehearsal & Execution Preparation

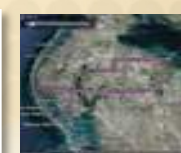


Distributed Common Ground/ Surface System SOF

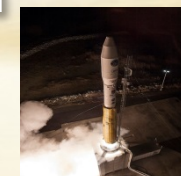
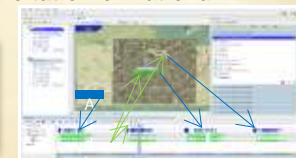


FOCUSED RDT&E

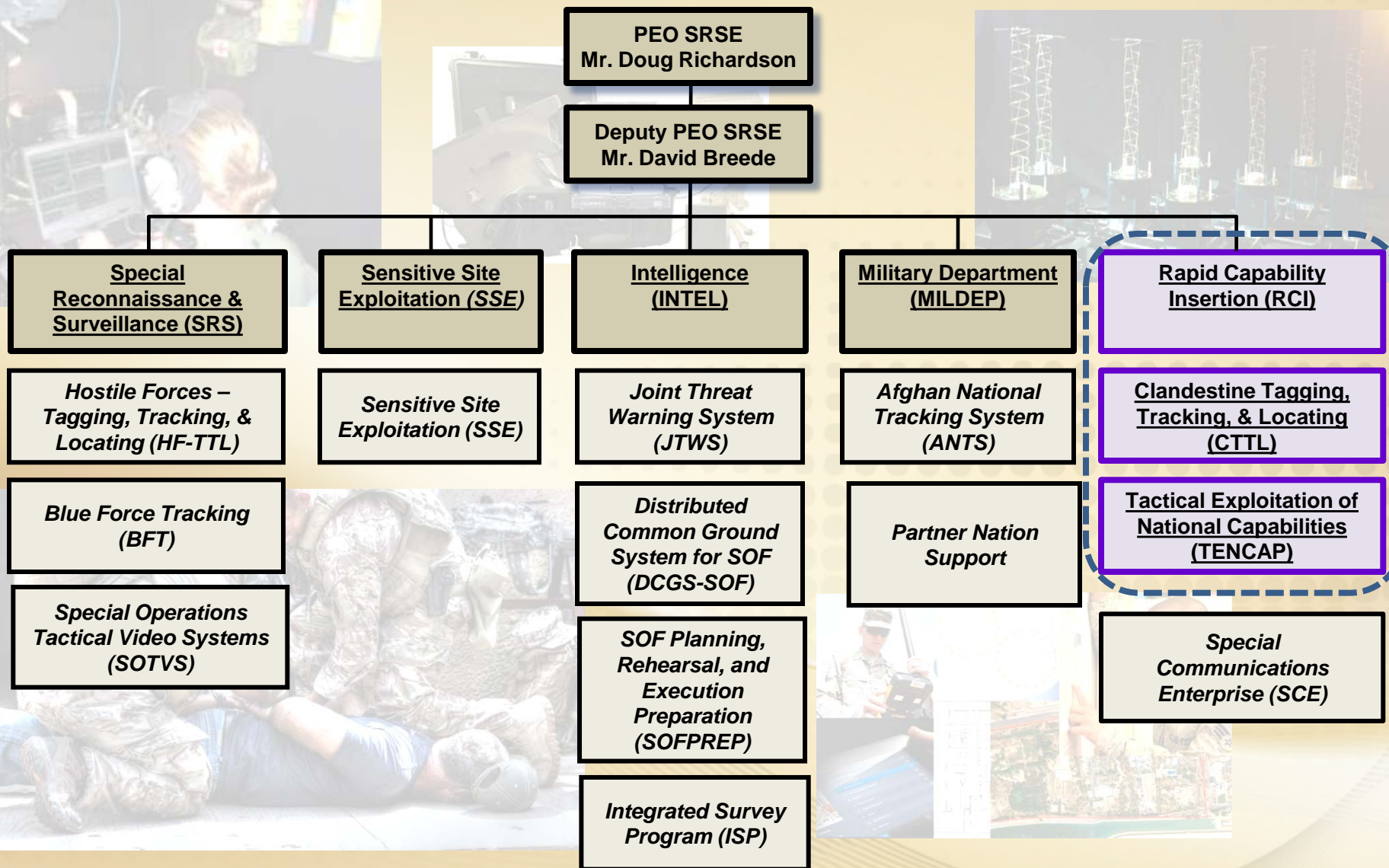
Tagging, Tracking, and Locating Special Reconnaissance



Tactical Exploitation of National Capabilities



SPECIAL RECONNAISSANCE, SURVEILLANCE, AND EXPLOITATION



RAPID CAPABILITY INSERTION

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Clandestine Tagging Tracking And Locating (CTTL):

Develops And Prototypes Innovative TTL Capabilities and Novel Reconnaissance Devices Through Applied Research And Development (R&D)

Tactical Exploitation Of National Capabilities (TENCAP):

Serves As The Command's TENCAP Office And Leverages Existing And Future Space-Related Technologies



ACQUISITION STRATEGY

- Rapid Prototyping, Technology Demonstrations, Combat Evaluations

PERIOD OF PERFORMANCE

- Project Dependent: Focus On 12-18 Month Project Development Cycle

MILESTONES

- Project Dependent

POINT OF CONTACT

- Technology & Industry Liaison Office
- TILO@SOCOM.mil
- 813-826-9482

RDT&E FUNDING

Program	FY15	FY16
• CTTL	\$ 28.7M	\$ 30.9M
• TENCAP	\$.8M	\$.8M

CURRENT CONTRACT/OEM

- Project Dependent

SOF AT&L PRINCIPLES

- **Deliver Capability to the User Expeditiously**
- **Exploit Proven Techniques and Methods**
- **Keep Warfighters Involved Throughout the Process**
- **Take Risk and Manage it!**



WHY DO WE EXIST?

RCI Mission Statement

Provide A Centralized Structure For Focused & Efficient Planning And Execution Of Applied Research And Advanced Technology Development Funding In Order To Field Rapidly Required Capability Improvements Identified By The PM RCI Quick Look Capability Based Assessments And National Intelligence Community Competitive Technology Selection Processes

“Sustain our pursuit of game-changing capabilities....do not innovate for the sake of innovating”

Gen Votel



Commander USSOCOM

October 2014

SOLVE THE PROBLEM?

\$102K on Kickstarter
825 Backers



\$8.7M on Kickstarter
219,382 Backers



“This is a card game for people who are into kittens and explosions and laser beams and sometimes goats.”

AIR UMBRELLA

HOW WILL IT BE USED?

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SO WHY DO YOU CARE?

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- **RCI serves as entry point into Programs of Record**
 - **Transition is KING!**



- **Typical RCI Year Developer Alignment**
 - **19 industry vendors on contract**
 - **3 or more new contractors annually**
 - **9 small businesses**
 - **Average 9 projects delivered to meet user requirements per year**

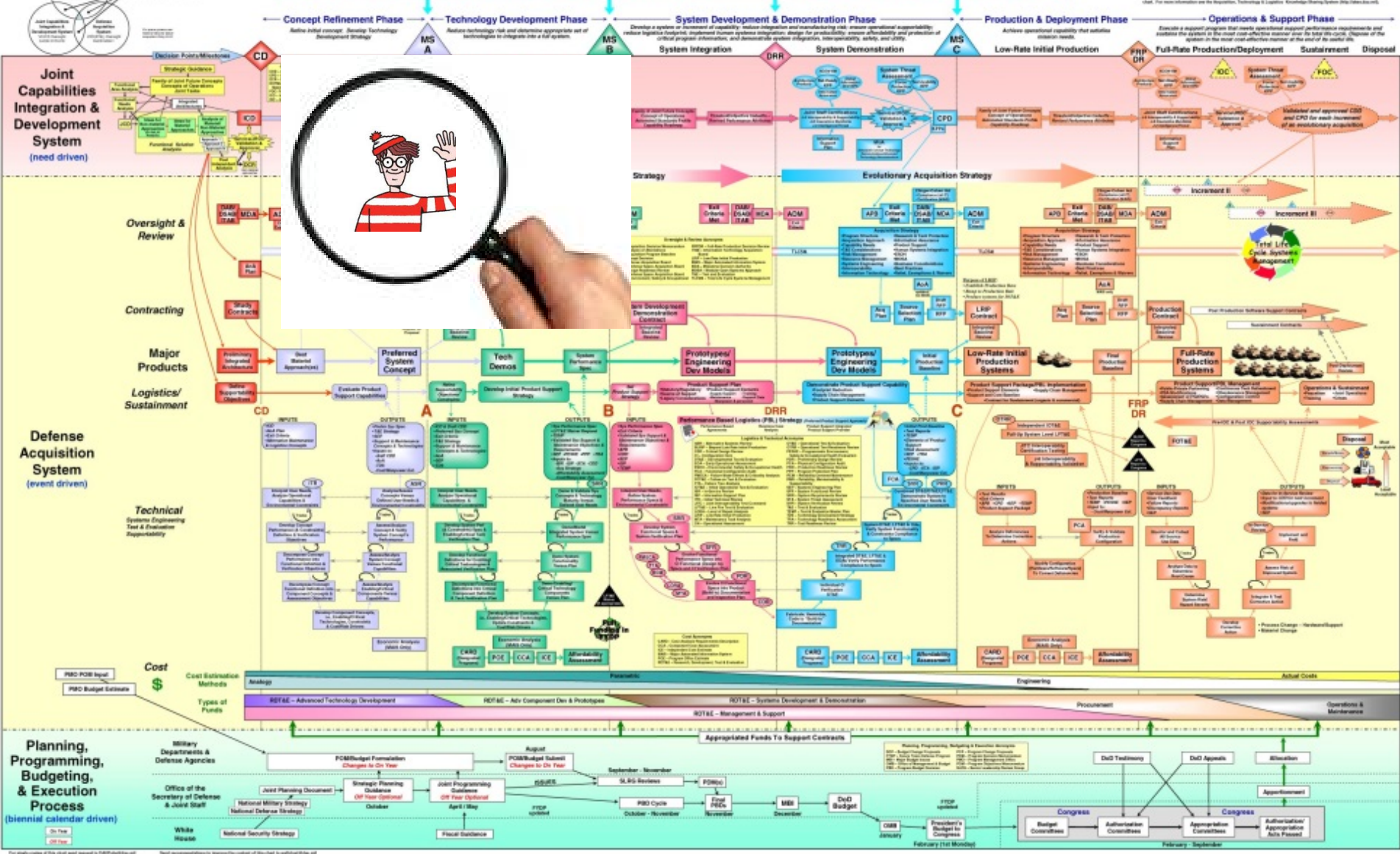
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WHAT IS SO HARD TO UNDERSTAND?

ver. 5.2, August 2005

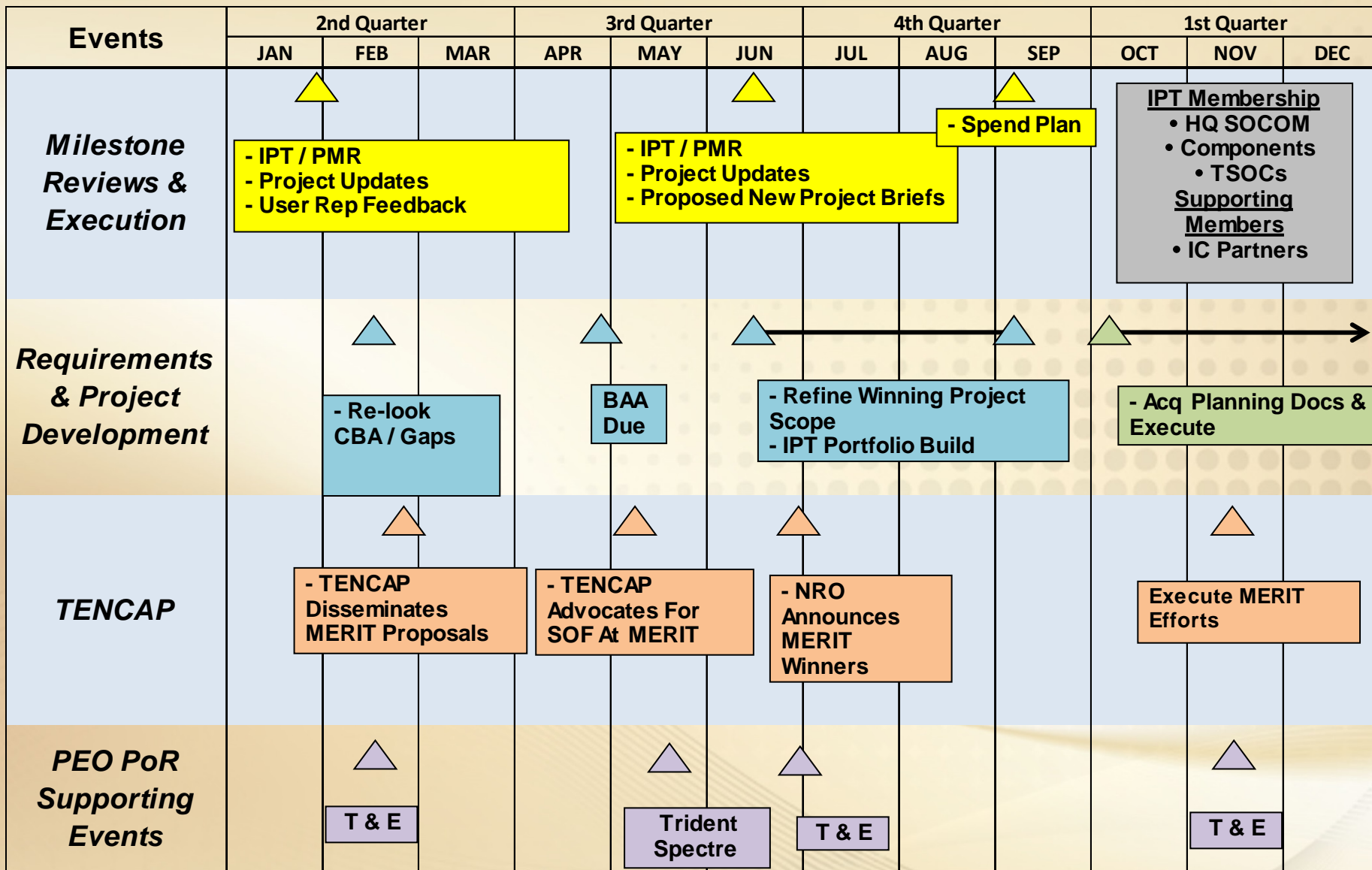
Integrated Defense Acquisition, Technology, & Logistics Life Cycle Management Framework

The Milestone Decision Authority may authorize entry into the acquisition process at any point, consistent with phase-specific entrance criteria and statutory requirements



RCI BUSINESS PROCESS

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Broad Agency Announcement (BAA)

- **USSOCOM-BAAST-2015**
 - **SOF AT&L-SR APPENDIX (tbd)**

Areas Of Interest

- Tags
- Sensors
- Biometrics/Forensics
- SIGINT
- Processing, Exploitation,
and Dissemination (PED)
- TENCAP
- Technical Support Systems

UNITED STATES SPECIAL OPERATIONS COMMAND
(USSOCOM) / SPECIAL OPERATIONS FORCES
ACQUISITION, TECHNOLOGY, AND LOGISTICS
(SOF AT&L) / SPECIAL RECONNAISSANCE,
SURVEILLANCE, & EXPLOITATION (SRSE)



CONSOLIDATED BROAD AGENCY ANNOUNCEMENT (BAA)
FOR SRSE
AMENDMENT 0002

SOLICITATION: H92222-14-BAA-SORDAC-SRSE

THE MERIT PROCESS

1st QUARTER – Oct, Nov, Dec:

CANDIDATES APPLY

- Call Out for Candidate Technology Proposals (via official msgs, emails).
- Originators submit proposals into MERIT Registry (NRO Secure Site only – JWICS).
- Cut off for Proposal Submissions – **End of Nov.**
- NRO Finalizes list of candidate Proposals for applicable FY bidding. Announces candidates for review by the MERIT Working Group (Services, Agencies, JCS, and Combatant Commands) (New proposals average 90 annually).

2nd QUARTER – Jan, Feb Mar:

CANDIDATES REVIEWED/SELECTED

- SOCOM/TENCAP prepares spreadsheet of proposals; disseminates it to SOCOM HQ elements, components, TSOCS for evaluation.
- TENCAP conducts independent, internal analysis.
- TENCAP receives/reviews inputs from HQ Elements, components, and TSOCS; works discrepancies, user requirements, etc.
- TENCAP internally racks and stacks all proposals; recommends which technologies SOCOM should SPONSOR and/or COSPONSOR. (**End of Mar**)

4th QUARTER – Jul, Aug, Sep: POST CYCLE REVIEWS – WINNERS GET ONE LAST LOOK BEFORE BEING AWARDED FUNDS

- TENCAP submits spend plans prepared by developers on SOCOM-sponsored proposals.
- TENCAP attends “Lessons Learned” MERIT WG to discuss process, improvements.
- TENCAP presents “Pre-Kick Off” briefs prepared by developers on its sponsored proposals to MERIT WG and NRO.
- FY MERIT Funds awarded (**in theory, by mid-Oct.**)

3rd QUARTER – Apr, May, Jun:

CANDIDATES COMPETE AND WINNERS ANNOUNCED

- SOCOM picks proposals to sponsor and cosponsor.
- TENCAP conducts review boards for proposals SOCOM will sponsor. Proposal authors prepare formal briefs.
- TENCAP attends formal MERIT Conference; Proposal authors brief their proposals; TENCAP ranks ALL FY proposals.
- NRO reviews proposal ratings by MERIT WG voters; compiles numerical ranking; announces results and identifies which proposals will be funded (annual average of 15) (**Mid-Jun**).

VALUE PROPOSITION

- **SOCOM is a strong advocate for our “Sponsored” proposals**
- **MERIT typically funds ~ \$6M+/yr for SOF supported projects**
- **Access to SOF users and enablers**
- **Broad awareness across DoD & IC**
- **Quick Win; 85% = 1 year efforts (< \$1M)**

FREE ADVICE

Power of the Pen

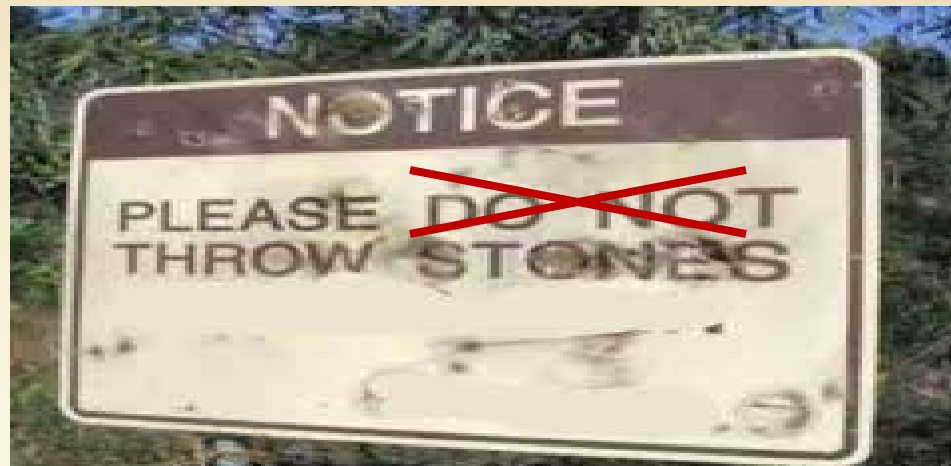
- **State facts and show relevant successes**
- **SOF Operational Scenario**
- **Competitors:**
 - Who are they?
 - Why is your approach superior?
- **Phasing**
 - Provide clear decision gates
 - Example: SRR, PDR, CDR, Demo Event 1...
- **Budget for travel...visit users and program office**
- **Proprietary is NOT a default setting in word or .ppt**
 - Must enable clean transition and sustainment

WHO HAS THE STONES?

IT'S IRONIC THAT GOLDFISH
LIVE IN GLASS HOUSES

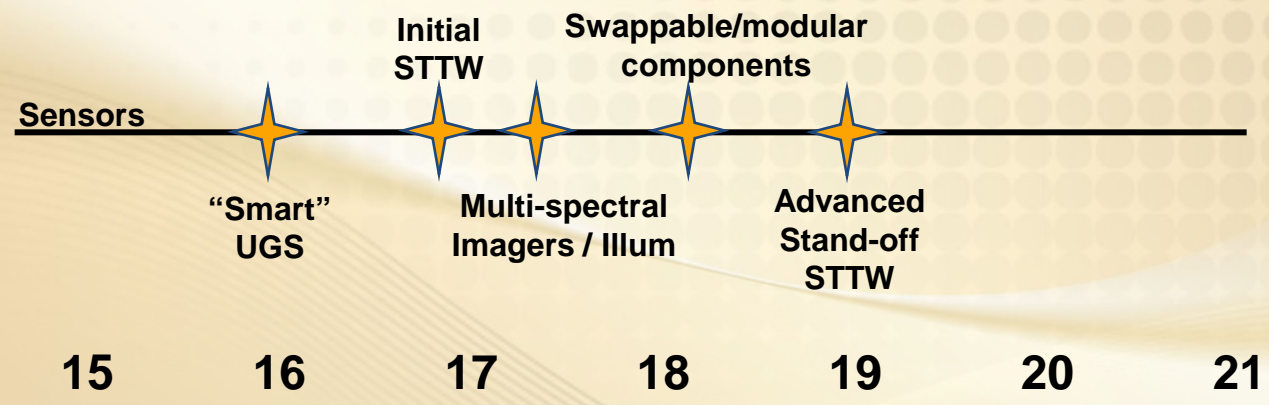
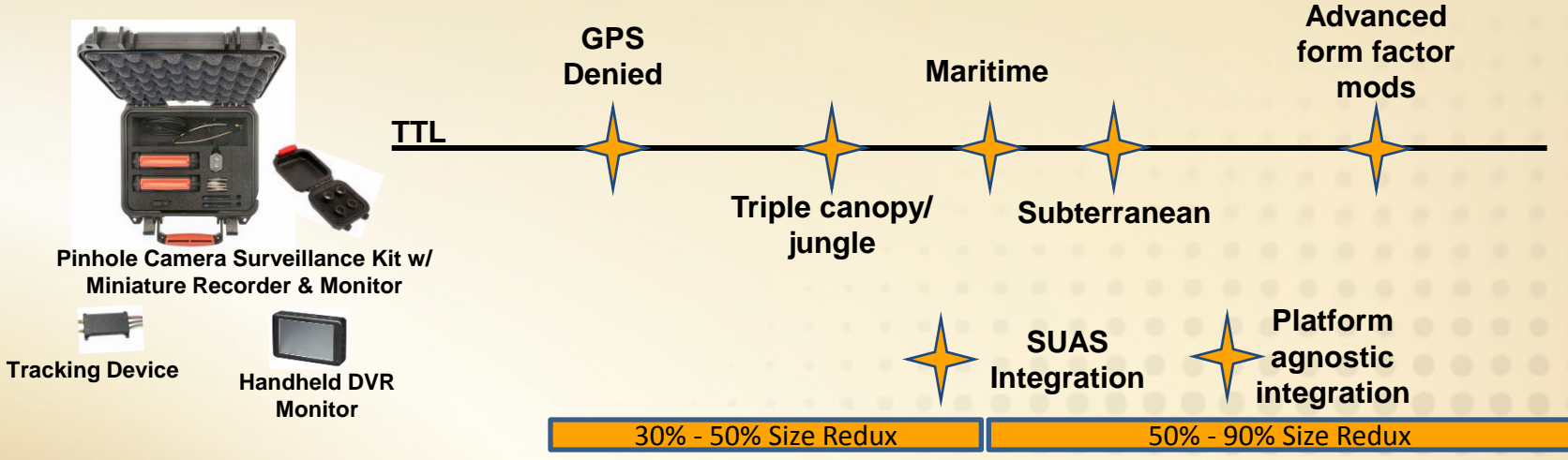


AND ALL WE GIVE THEM
ARE STONES



- Not providing timely feedback
- Ambiguous requirements
- Us vs. Them
- Sometimes...minimal upfront planning

PROGRAM MANAGER SPECIAL RECONNAISSANCE & SURVEILLANCE



FY 15 16 17 18 19 20 21

ADVANCED TAGGING TECHNOLOGY

GPS Denied Tracking



DESCRIPTION

- Triple Canopy
- Urban Environments (Multi-path) / Interior Buildings
- Blocked by Jamming or Spoofing

SCHEDULE

Focus on
Triple Canopy:

FY 16

Focus on Urban
Environments:

FY 17 - FY 18

TECHNOLOGY CHALLENGE

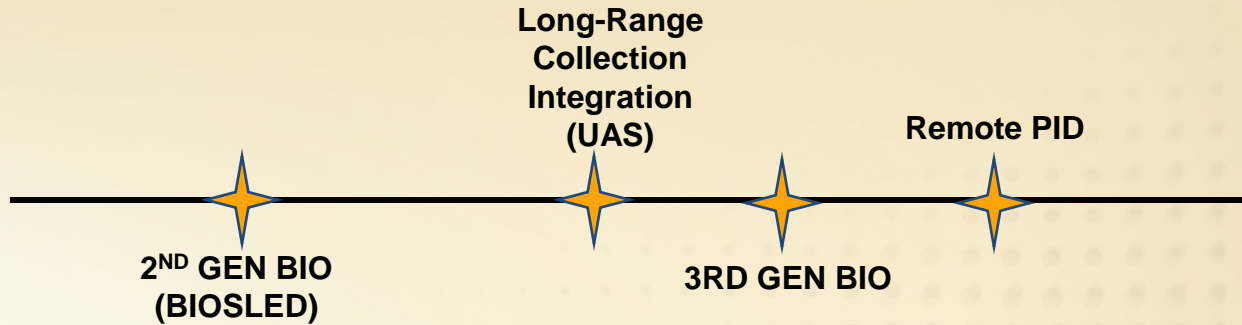
- Reduce size, weight and power requirements while increasing accuracy
- SWaP: Handheld / Body Worn; < 1 lb; Transmit Power < 400mW
- Accuracy: < 10 Meters

PROGRAM MANAGER SENSITIVE SITE EXPLOITATION

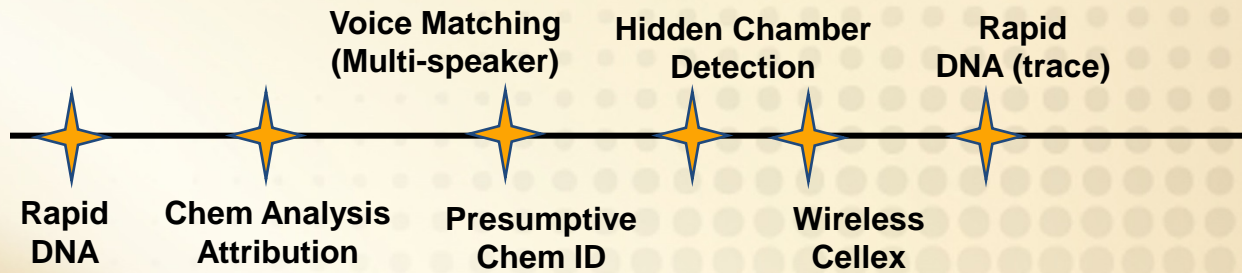
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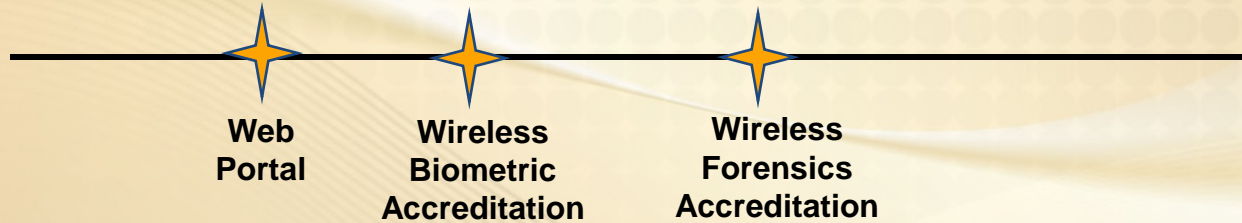
BIOMETRICS



FORENSICS



MOBILE OPERATIONS



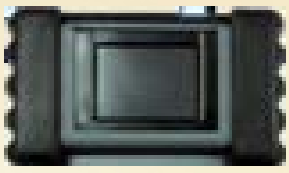
FY 15 16 17 18 19 20 21

ADVANCED RAPID DNA TECHNOLOGY

Rapid DNA Application in a Portable Handheld Device Form Factor



Current Rapid DNA Form Factors



Simulated Operator Version



DESCRIPTION

- Portable, ruggedized handheld device, battery powered for use by EAC and Operators
- Robust shelf stable reagents (12 months)
- Affordable devices
- Results in 30 minutes or less
- Maximum weight 5 lbs or less
- Cost per single test run less than \$250.00
- Generate profiles with 16 or more loci
- Flexibility and ease of use by Operators vice Law Enforcement driven requirements
- Capable of incorporating on-board Watchlists

SCHEDULE

Ongoing Technology Development And Field Evaluation:

FY 15 - FY 16

Operator Prototype Development:

FY 16 - FY 18

Laboratory and Field Evaluation:

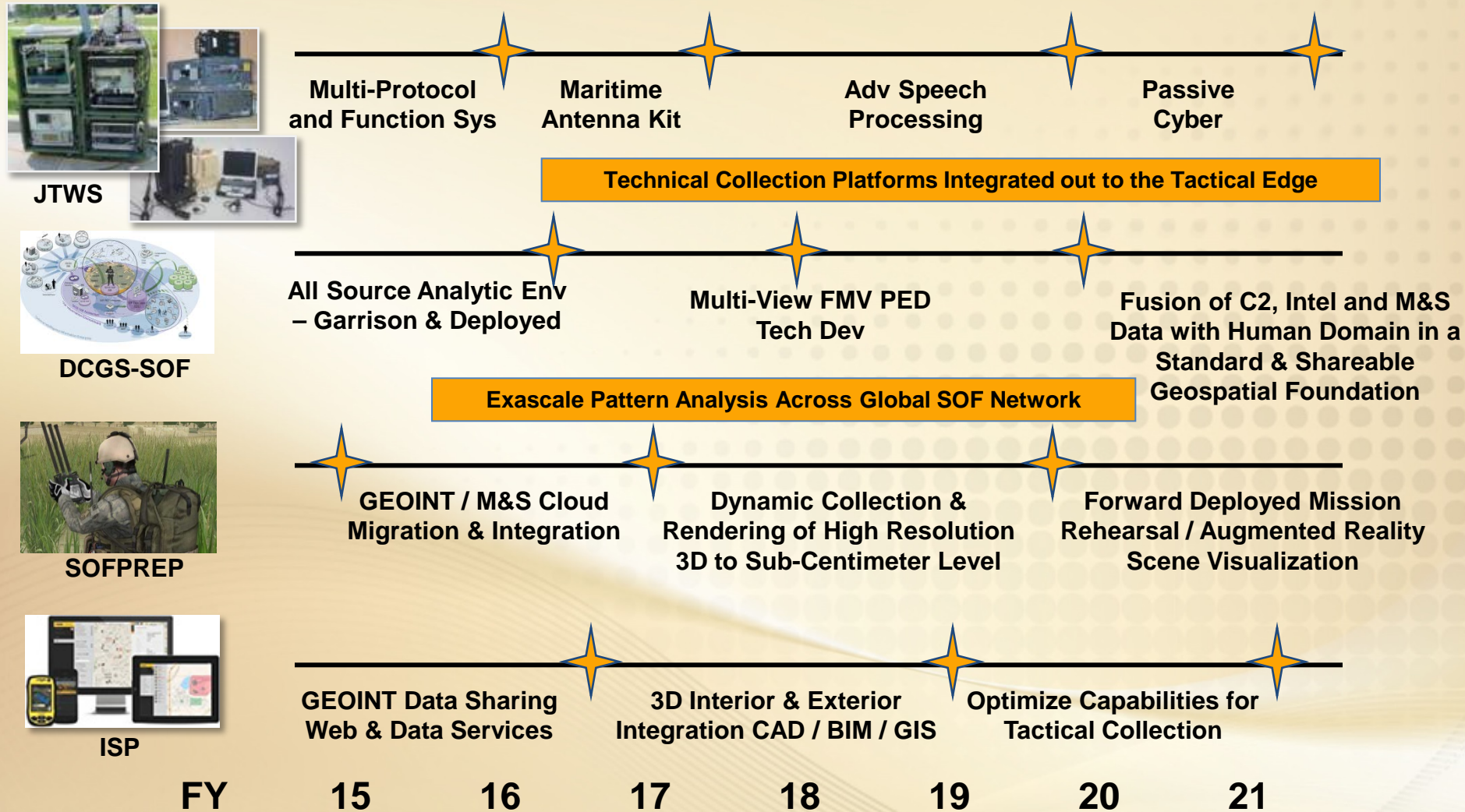
FY 18 - FY 20

TECHNOLOGY CHALLENGE

- Rapid DNA is a significant addition to SOF Exploitation Capabilities
- Greatly shortens the results response time
- End State: DNA is as ubiquitous as fingerprints
- Current Form Factors are too large, expensive and “delicate” for SOF uses

PROGRAM MANAGER INTELLIGENCE SYSTEMS

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JOINT THREAT WARNING SYSTEM (JTWS)

Maritime Antenna Kit



DESCRIPTION

- Need high-gain, broad spectrum antenna that automatically maintains orientation/elevation toward a fixed position
- Enable operations at greater standoff distance
- Platform agnostic/rapid installation (carry-on/carry-off)
- Endure rigorous maritime environment
- Combines directional RF survey/transmit low-profile antenna package

SCHEDULE

Ongoing Technology
Development
And Field Evaluation:

FY 15 - FY 16

Operator Evaluation:

FY 16 - FY 17

IOC:

FY 17

TECHNOLOGY CHALLENGE

- Higher gain antennas typically have narrow beam-width
- Narrow-beam antennas are difficult to orientate while on small vessels due to environmental effects (pitch/roll)
- System will accept a target coordinate and maintain orientation automatically
- Kit includes mounting methods, cables and adapters that enables expedited installation on a wide variety of boats

“PULLING” NEW IDEAS..

“Within research portfolios, Federal agencies are encouraged to identify and pursue clearly defined "Grand Challenges"-**ambitious goals** that require advances in science, technology and innovation to **achieve and to support high-risk, high-return research.**

Agencies should consider, where appropriate and authorized, supplementing traditional R&D "push" mechanisms (e.g., grants and contracts) with "**pull**" **mechanisms -results-based market incentives** designed to overcome market failures, engage a wide range of solvers, and catalyze innovation, such as incentive prizes and advanced market commitments.”

Dr. John P. Holdren

OMB Director, Office of S&T Policy

Memo re: S&T Priorities for FY16 Budget

TAKE-AWAYS

- Shift in Thinking
- Fail Faster (Risk Management)
- Direct contract with users and PoRs
- Capture Lessons Learned
- DoD/IC Collaboration

Multiple Transition Paths

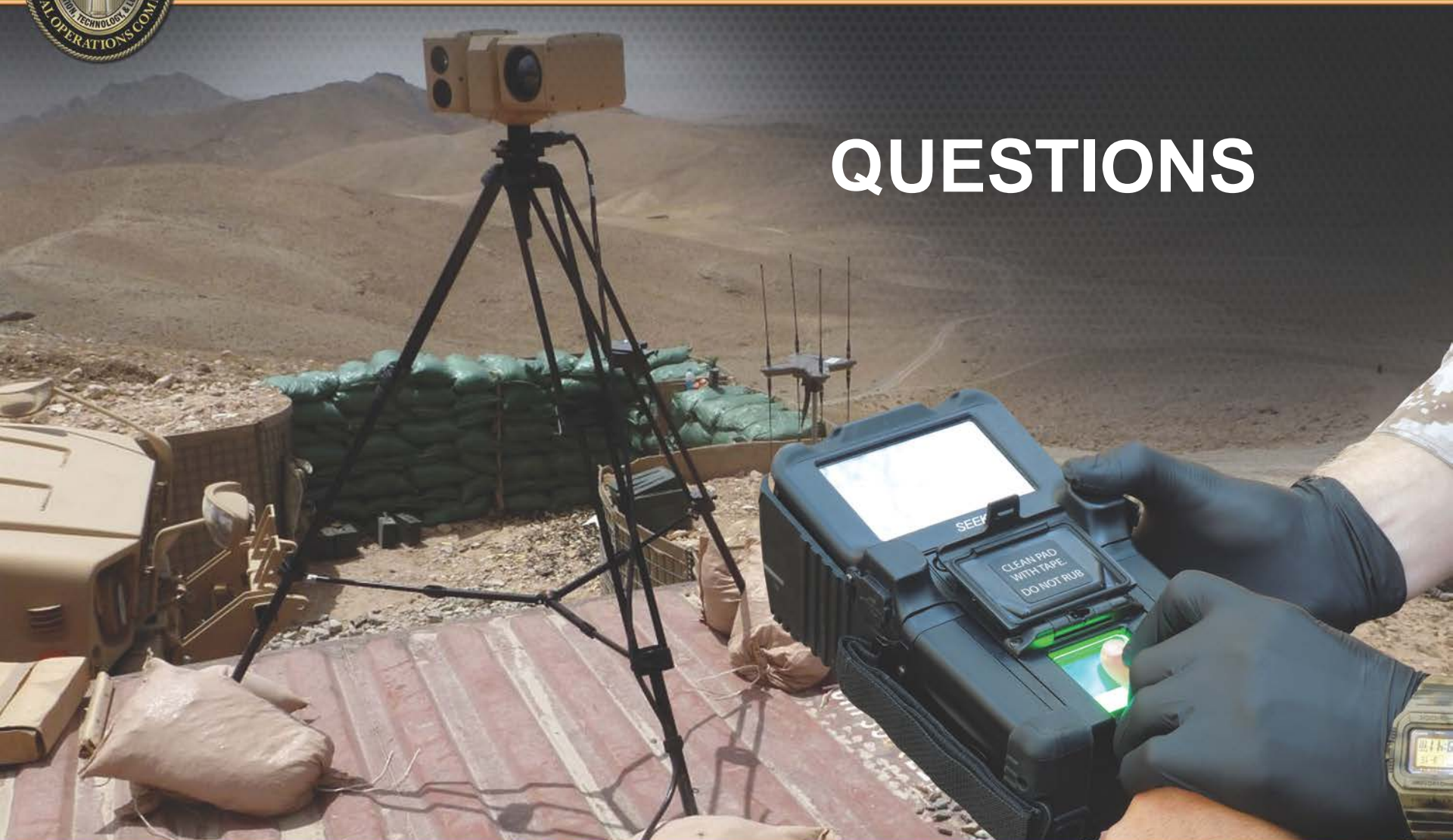
Multiple Transition Paths

Focused RDT&E
Managed at
PEO/PM Level



SPECIAL OPERATIONS FORCES INDUSTRY CONFERENCE

QUESTIONS



SPECIAL RECONNAISSANCE, SURVEILLANCE, AND EXPLOITATION