



# UNITED STATES SPECIAL OPERATIONS COMMAND

**Mr. Tony Davis**  
Director

SCIENCE AND TECHNOLOGY

“Somewhere something incredible  
is waiting to be known.”

*-Carl Sagan*

SCIENCE AND TECHNOLOGY

**“If the rate of change  
on the outside exceeds  
the rate of change  
on the inside, the  
end is near.”**

*Jack Welch*

# S&T VISION

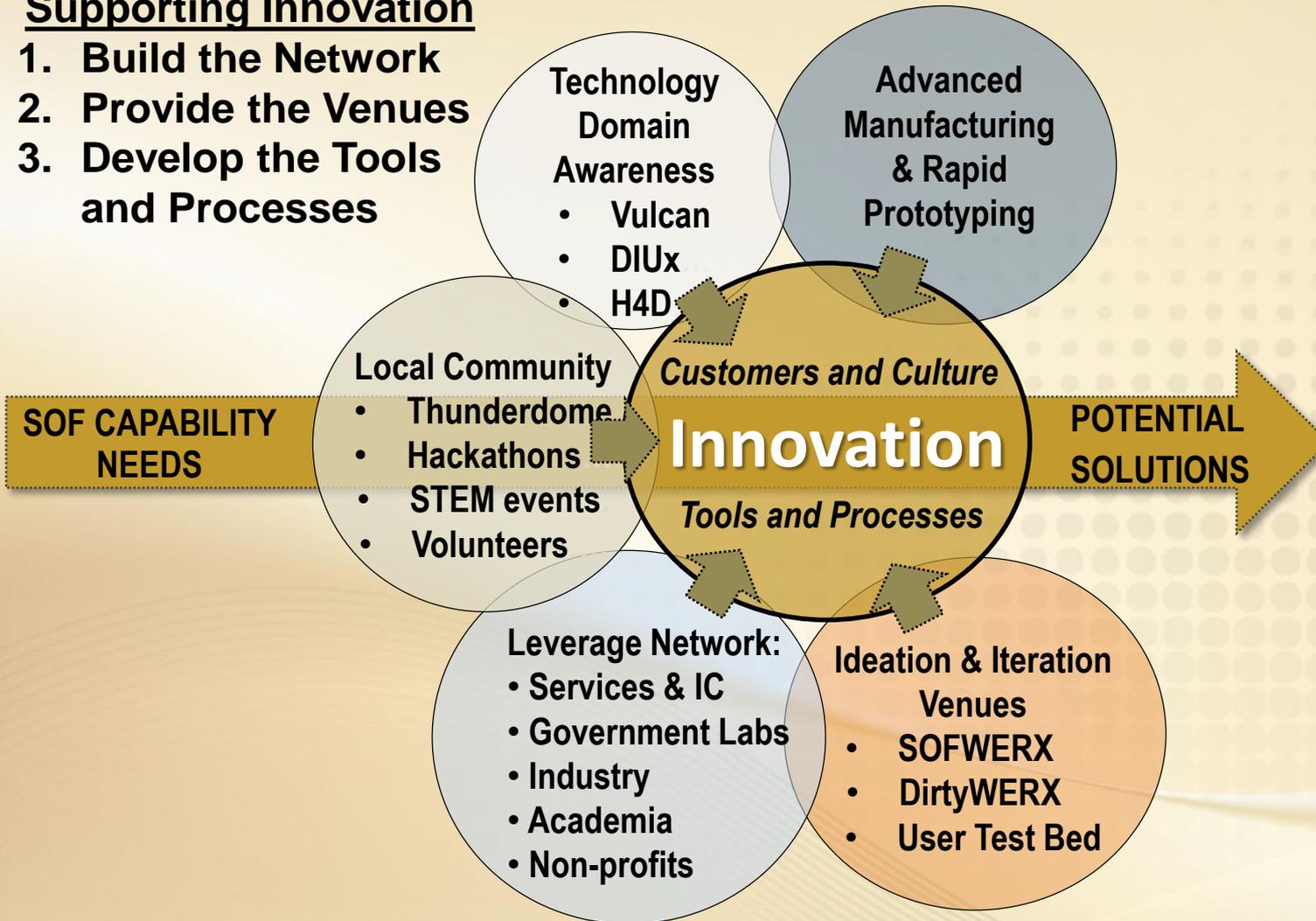


**Discover, Enable, and Transition technologies  
to provide an asymmetric advantage for  
Special Operations Forces**

# INNOVATION ECOSYSTEM

## Supporting Innovation

1. Build the Network
2. Provide the Venues
3. Develop the Tools and Processes



# Innovation Thrives in a Marketplace



Sign up for SOFWERX ecosystem  
at: <http://www.sofwerx.org>



*“So by accelerating the collisions, community, and co-learning...  
innovation and productivity increases.” Tony Hsieh, Zappos.com*

**Co-Invention**      **Thunderdome Events**  
**Rapid Prototyping**      **Project Vulcan**      **Education with AT&L**  
**Technology Awareness**      **Fellowships / Interns**  
**Workforce Development**      **Industry Engagement**

# New Operating Models

## Rapid Prototyping Events (RPE)



## Field Trials



## Rapid Transition Opportunities



## Thickening the Network



# TECHNICAL EXPERIMENTATION (TE)

- **TE 16-2, 7-11 Mar 2016, Camp Roberts, California**
  - Experimentation Focus: C4 and Mobility
- **TE 16-3, 11-15 Jul 2016, Atterbury-Muscatatuck Center for Complex Operations, Indiana**
  - Experiment Focus: Unconventional Warfare / Urban Ops
- **TE 16-4, 19-23 Sep 2016, Little Creek, VA**
  - Experiment Focus: Maritime Surface Craft
- **TE 17-1, 14-18 November 2016, Camp Blanding, FL**
  - Experimentation Focus: Night Vision/Electro Optics and Advanced Sniper Rifle Military Utility Assessment (MUA)
- **Public Link:**  
<http://www.socom.mil/sordac/Pages/ExpWithUS.aspx>
- **LinkedIn Group:**  
[SOCOM Technical Experimentation](#)



# CRADA

## Cooperative Research and Development Agreements

- **What...**
  - Provide a mechanism for technology transfer
  - A legal document, not a contract--No money can be exchanged
- **Why we use them...**
  - Leveraging non-federal entity RDT&E efforts
  - Support non-federal entity to expend IR&D to support cooperative development
  - Save time and money
  - Increase communications and focus technology development
- **SOCOM S&T CRADAs...**
  - **SOF AT&L-ST-15-01-XX Collaborator** (Blanket document – multiple agreements)
    - Single CRADA signed by Acquisition Executive—blanket applicability across SOF AT&L
    - Multiple work plans signed by Program Executive Officers or Directors—agreement with company on specific technology project and associated government support

# Enduring Technology Needs (PEO Tech Insertion Roadmaps) 1 of 2

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- C4**
- Stabilized Rapid Adaption of Network
  - Security and Network Management/Monitoring of Mobile Ad-hoc Network
  - Open Standard Airborne ISR Transport Modem
- Fixed Wing**
- High definition, 3D & multi-color EO/IR, multiple moving target tracking, FOPEN
  - Crew workload reduction, machine intelligent processing/Tactical Flight Mgmt
  - Situational awareness with full spectrum threat reduction and counter measures
  - 105 mm cannon precision guided ammunition and fuses, loitering munitions
  - High energy laser, power management, aiming and focus turret
  - Multispectral sensor
  - Combat ID, IFF to ID friendly and hostile in all environments
- Maritime**
- Common Operating Tactical Picture
  - Low Probability of Intercept/ Detection Communications
  - Wireless Intercom
  - Surface System/Active Ride Control
  - Maritime Personnel Signature Management Technologies
  - Situational Awareness, High Visual/NIR Transmittance Window Films

# Enduring Technology Needs (PEO Tech Insertion Roadmaps) 2 of 2

Rotary  
Wing

- High Power Watts for Over the Horizon Communications
- Improved RW Counter Measures
- Advanced IR Countermeasures & Self-Protection for RW Aircraft

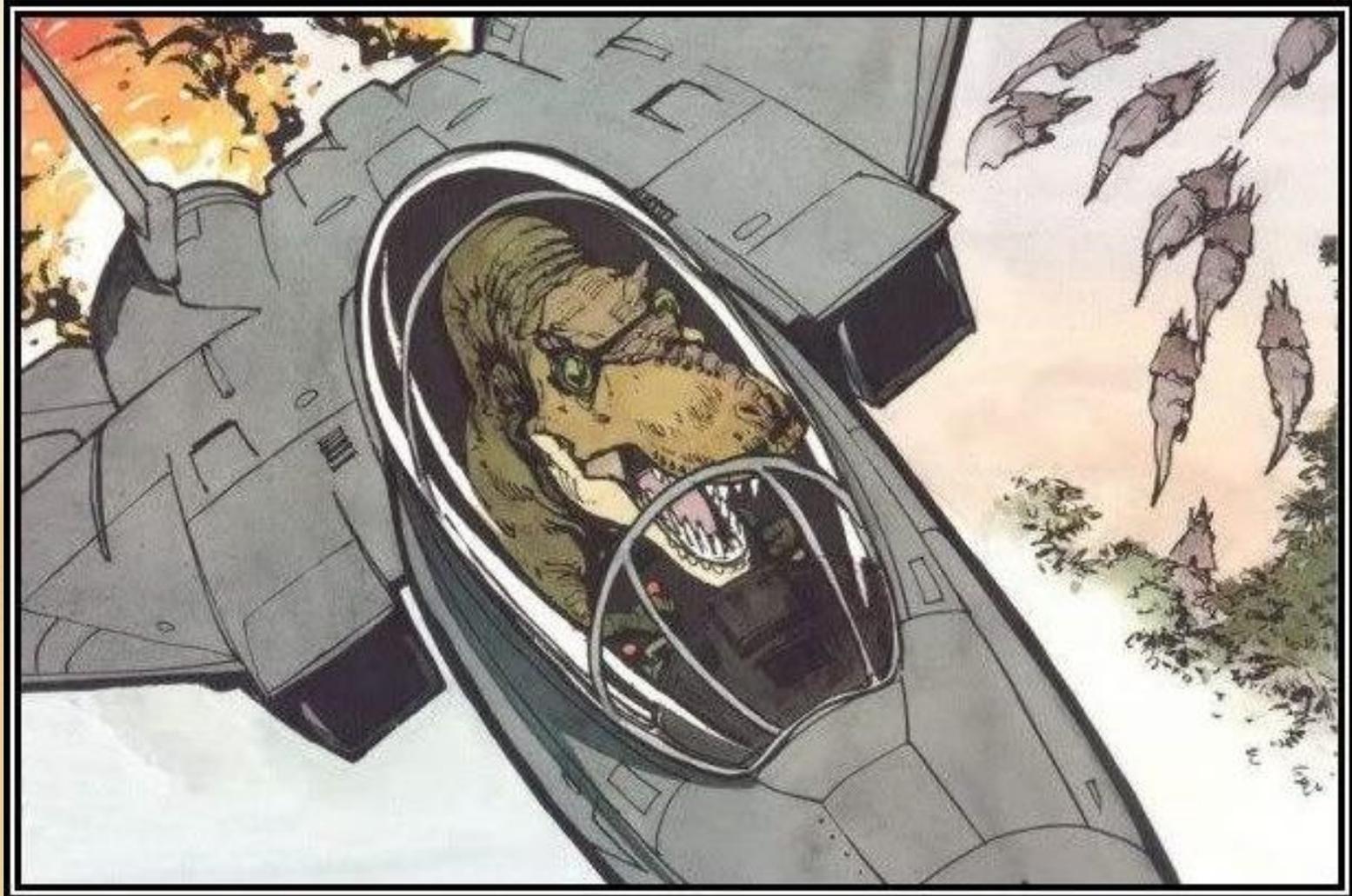
SRSE

- Maritime Forensics Exploitation Capability
- Hidden Chamber/Material Detection
- Portable, Automated 3D Room/Building Mapping Device
- Stand-off/Remote Facial Recognition & Iris Capture
- Dustless Latent Print Collection
- Rapid Identification of Materials for Site Exploitation

SOF  
Warrior

- Transferrable armor for commercial vehicles
- Helmet sensor system to monitor and record linear and rotational accelerations
- High Sulfur Diesel Engine Capability
- Camouflage Applique
- Reduced IR Signature
- Improved Gun Barrels
- Variable Transmission & Laser Protection Eyewear
- Tactical stand-alone ballistic plate
- Multiple colors or spectral bands within the same sensor and SWAP
- Thermal band Identify Friend or Foe (IFF) beacon, backwards compatible

# *Adapt or Die*





# QUESTIONS?

Email: [anthony.davis@socom.mil](mailto:anthony.davis@socom.mil)

Twitter: [@tonydavis\\_st](https://twitter.com/tonydavis_st)

LinkedIn: [www.linkedin.com/in/tonydavisst](http://www.linkedin.com/in/tonydavisst)

