Panel Discussion

SPECIAL OPERATIONS FORCES ACQUISITION, TECHNOLOGY, & LOGISTICS

COL Paul Weizer, Program Executive Officer
SOF DIGITAL APPLICATIONS

SOF AT&L

PEO-SOF DIGITAL APPLICATIONS

MISSION:

Rapidly consolidate, integrate, acquire, and divest of SOF unique software solutions through use of the Adaptive Acquisition Framework and commercial best practices while providing cradle-to-grave management for the duration of required capabilities.

PEO SOF DIGITAL APPLICATIONS (SDA)
SOF AT&L-SDA

PEO SDA
COL Paul Weizer

DPEO SDA
Christina Bell

Chief Engineer

Chief Software Integration Officer

- **PM SOF DE - GAP**
- **PM MCS/COP**
- **PM SOMPE/TAK**
- **PM DCGS-SOF**

Mission Command System
/Common Operating Picture (MCS/COP)

Mission Command System/Common Operating Picture MCS/COP

- SOCOM's integration with JADC2 and related service solutions
- Integration of mission planning, execution, and post-mission processes and artifacts within a collaborative Common Operational Picture
- Rapid exchange of data between network domains and classification
- Fine-grained access controls from tactical to strategic users

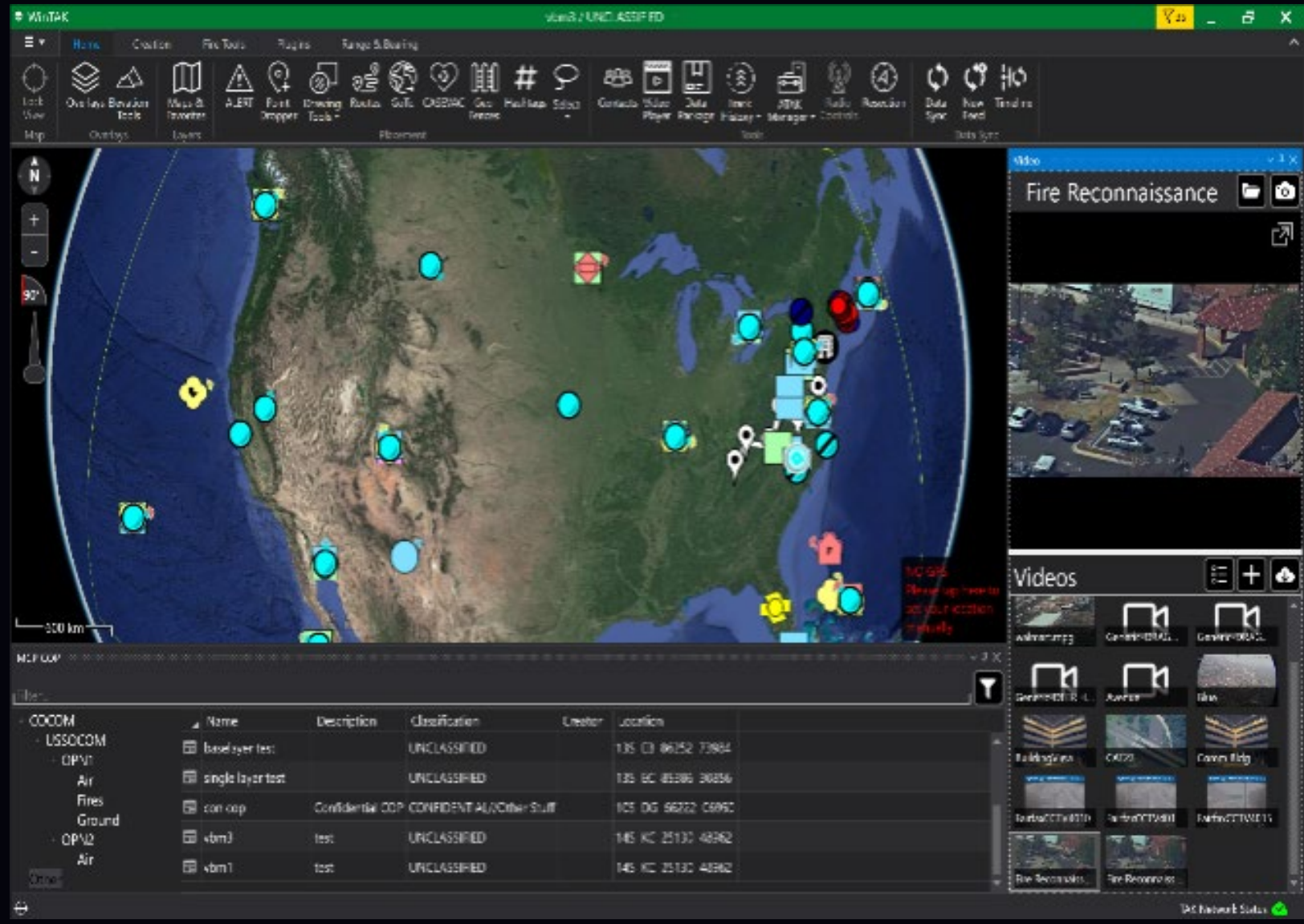
VENDOR, DATA, APPLICATION, COP, CLOUD AGNOSTIC

9 Fundamental Principles

- Common data repository and systems architecture
- Suite of tools
- All levels of war
- All domains
- All SOF joint functions
- Globally collaborative C2
- Advanced fused analytics
- Joint, interagency, intergovernmental, and multinational
- Denied, disrupted, intermittent, and limited bandwidth

Program Status

- Executing under the Software Acquisition Pathway
- Development Managed via the Scaled Agile Framework
- Minimum Viable Capability Release (MVCR) Deployed on USSOCOM SOFNET-S (SIPR)
- Lead program driving the instantiation of the USSOCOM Software Factory
- Forward Momentum for bleeding edge technology insertions



Code@SOCOM: Continuous Delivery to SOF

Applications

TAK · MCS·COP · DCGS-SOF · SOMPE

Thinnest Viable Platform

GitLab

Data Plane
Zero Trust Architecture
Control Plane

SOF Cross-Domain Solution
Infrastructure-as-a-Service

IL2 | IL4 | IL6 | IL6+

Continuous User-Driven App Development, Measured Ourselves by World-Class Software Delivery Metrics

DORA Metric	Low	Medium	High	Elite	SOCOM TODAY
Deployment Frequency	1/mo → 2/yr	1/wk → 1/mo	1/day → 1/wk	Ad hoc	Low
Deployment Latency	1/mo → 6/mo	1/wk → 1/mo	1/day → 1/wk	< 1 day	Low
Time to Restore	1/wk → 1/mo	< 1 day	< 1 day	< 1 hr	High
Change Fail Rate	46-60%	←	0-15%	→	TBD

Iterative and Deliberate Platform Evolution to JADC2 Reference Architecture

TAK.gov | DI2E | PlatformOne Party Bus + IronBank | Equilibrium

Universal Data Library (UDL) + API Gateway + PAI/CAI + IaaS Services

Future Capability w/ DSO Reference Architecture

IaaS Native Services

PLATFORM ONE BIG BANG

Cloud-Native, Open-Source-First Approach
to Multi-Level and Massively-Scalable Infrastructure

SCCA-Compliant Cloud-to-Edge IaaS

https://github.com/Azure/missionlz

Code@SOCOM is how SOCOM Pursues a Testable, Deployable Product Line.

Mission Command System/ Common Operating Picture MCS/COP | Lines of Effort

- Requirements refinement/decomposition
- Software development
- DEVSECOPS/Continuous integration and delivery
- Architecture management
- Support/field service engineers

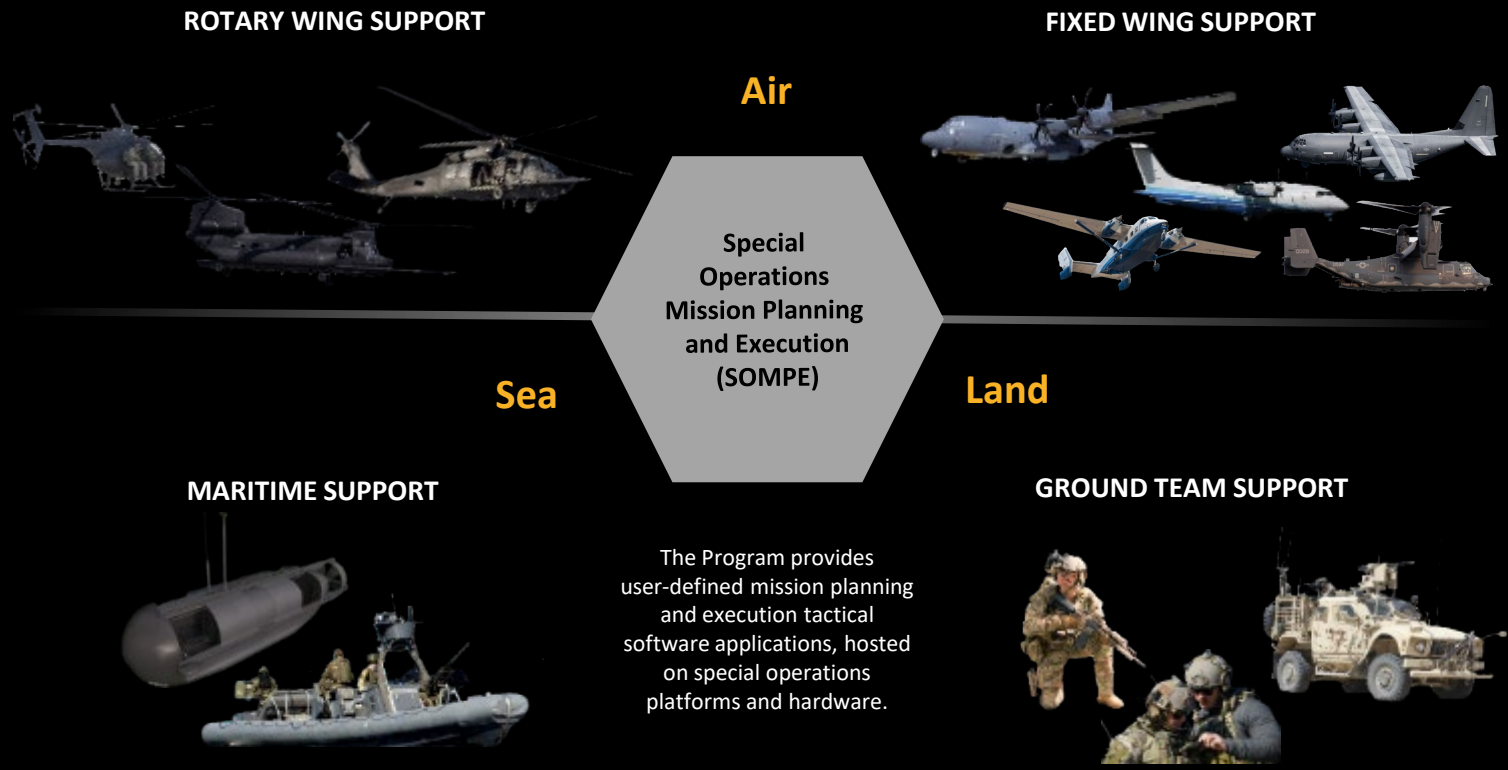
Get Connected

- TAK
- Engage with Current Vendor Ecosystem
- USSOCOM Small Business Office
- MCS/COP Futures Team
- SOFWERX
- eSOF

Special Operations Mission Planning and Execution (SOMPE)

Special Operations Mission Planning Equipment | Tactical Assault Kit
SOMPE | TAK

- Commercial Solutions Opening for Air Mission Planning
- Leveraging the TAK Open Government Owned DEVSECOPS Pipeline
- SOF peculiar Tactical Assault Kit (TAK) plug-in development
- Continuous Integration with Warfighting Platforms
- SOCOM TAK Server Federation



Current Ecosystem

mindgrub sherpa6 PAR GOVERNMENT

psi ARA 3GIMBALS

Sawdey Solution Services KBR Cruz Associates, Inc. NOVA TECHNICAL SOLUTIONS, INC.

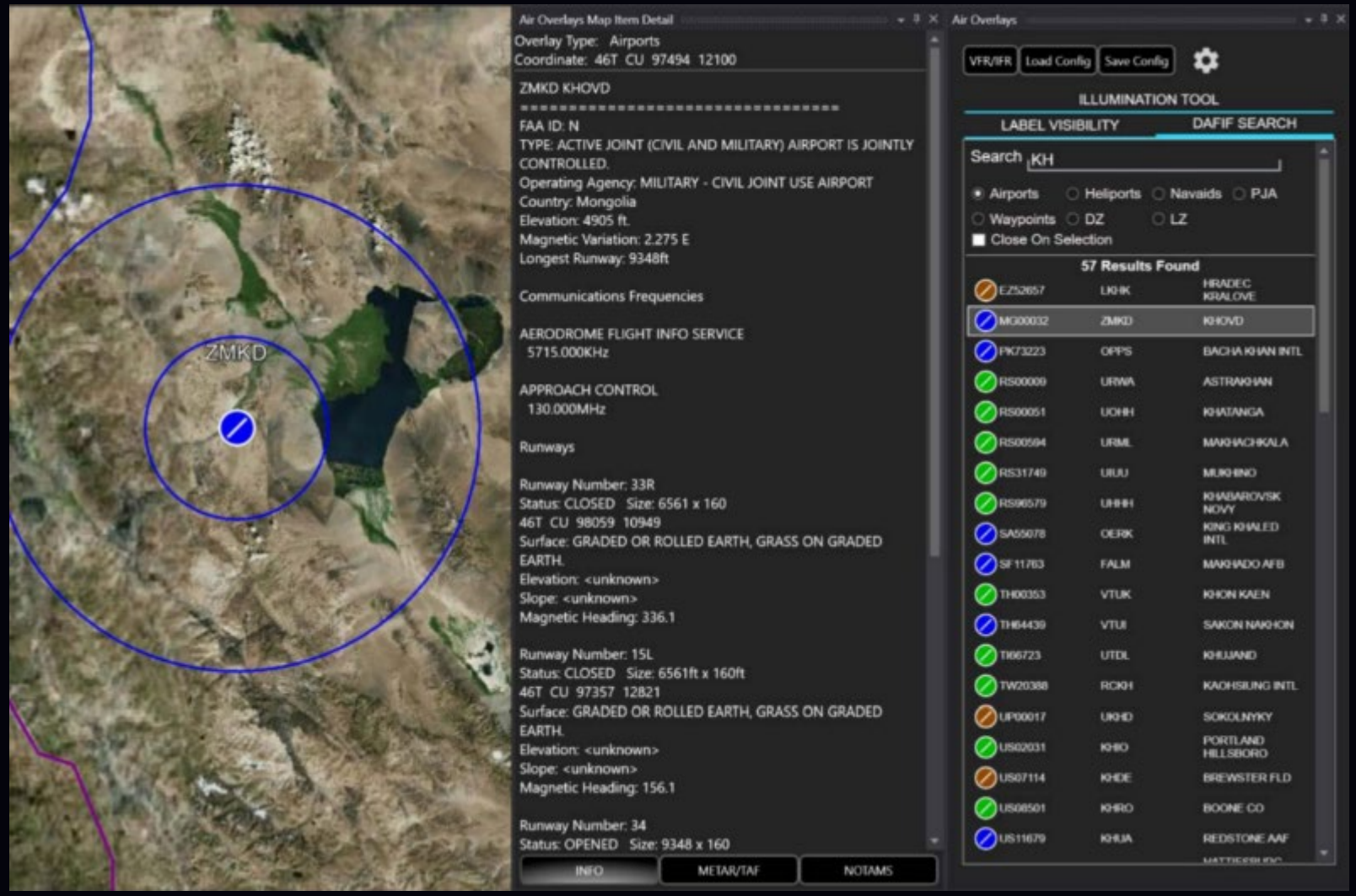
cti SOFWERX KOKUA SUPPORT SERVICES CORP. ENGINEERING | MANAGEMENT | LOGISTICS Geoweb 3d

9 Fundamental Principles

- Enable the Military Decision-Making Process
- Synthesize Operational Military Battlespace Information
- Tactical Situational Awareness
- Austere and Dynamic Operating Environments
- Prioritize for Task Saturation and Data Overload
- Cognitive Assistance Through Automation
- Battlespace Communications
- Denied, Disrupted, Intermittent, and Limited Bandwidth
- Machine-to-Machine, Bi-directional, Modular Open Systems Approach

Program Status

- Community of 19,000 SOF Users
- Actively and Rapidly Tailoring Tactical Capability for Conflicts
- Providing Real Time Battlefield Situational Awareness
- Pivoting to Software Acquisition Pathway – Planning Phase with R&D Investments
- Championing the TAK Gov't Open Software Ecosystem (Tactical Assault Kit and Team Awareness Kit)
- Fueling Innovative "Collisions" across the TAK community
- Integrating to Warfighting Platforms to Synthesize Data across Land, Air, Sea

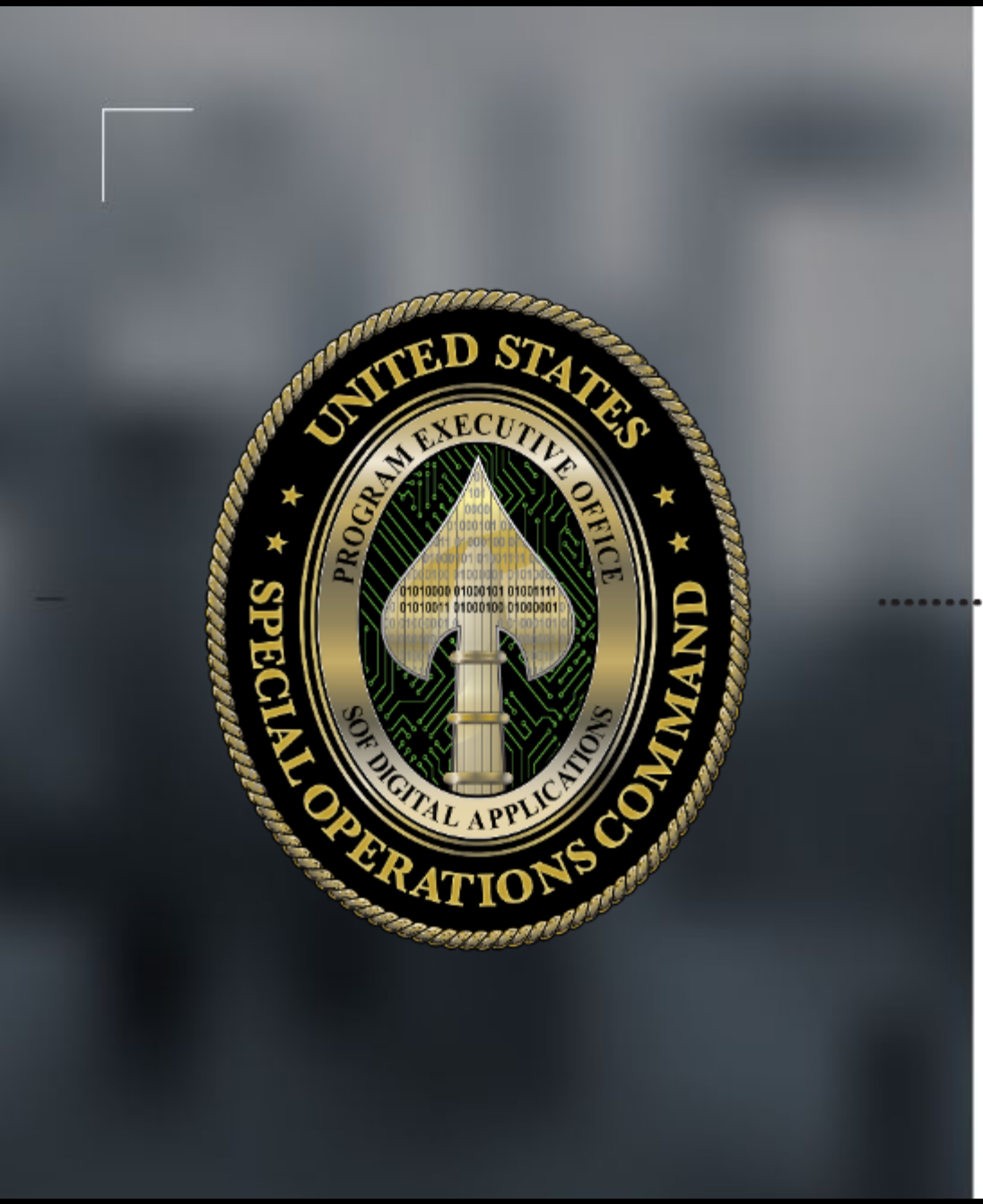


Areas of Interest

- Commercial Software for Air Flight Planning as an Accelerator
- Rapid Peer-to-Peer Authentication on the Battlefield
- Synthesizing Battlefield Data Based on Roles and Trust
- Mission Planning Rules Based Automation (Decision Trees)
- Operator Safety of Emerging Conditions
- Human-to-Machine Interaction in Tactical Scenarios
- Streamlining Tailored Mission Software Fielding Packages and Data
- Active Tactical Cyber Defense in Semi-Permissive Environments
- Penetration Testing and System Red Teams with Operational Viewpoints

Get Connected

- Commercial Solution Opening for Aviation
- TAK Development
- USSOCOM Small Business Office
- SOFWERX
- eSOF



SOF Digital Ecosystems (DE)

Digital Ecosystem DE

- Provide PEO-SDA with technical talent
- Technical talent in the following areas:
  - Data Scientist
  - Data Engineer
  - Software Developers
  - Data Integrator
  - Database Administrator/Engineer
  - Data Architect
  - System Architect
  - Data Manager
  - Machine Learning Engineer
  - Front End Developer/Software Engineer

Ecosystem of Vendors

STEMBOARD

Future Opportunities

LEVELUP CODE WORKS

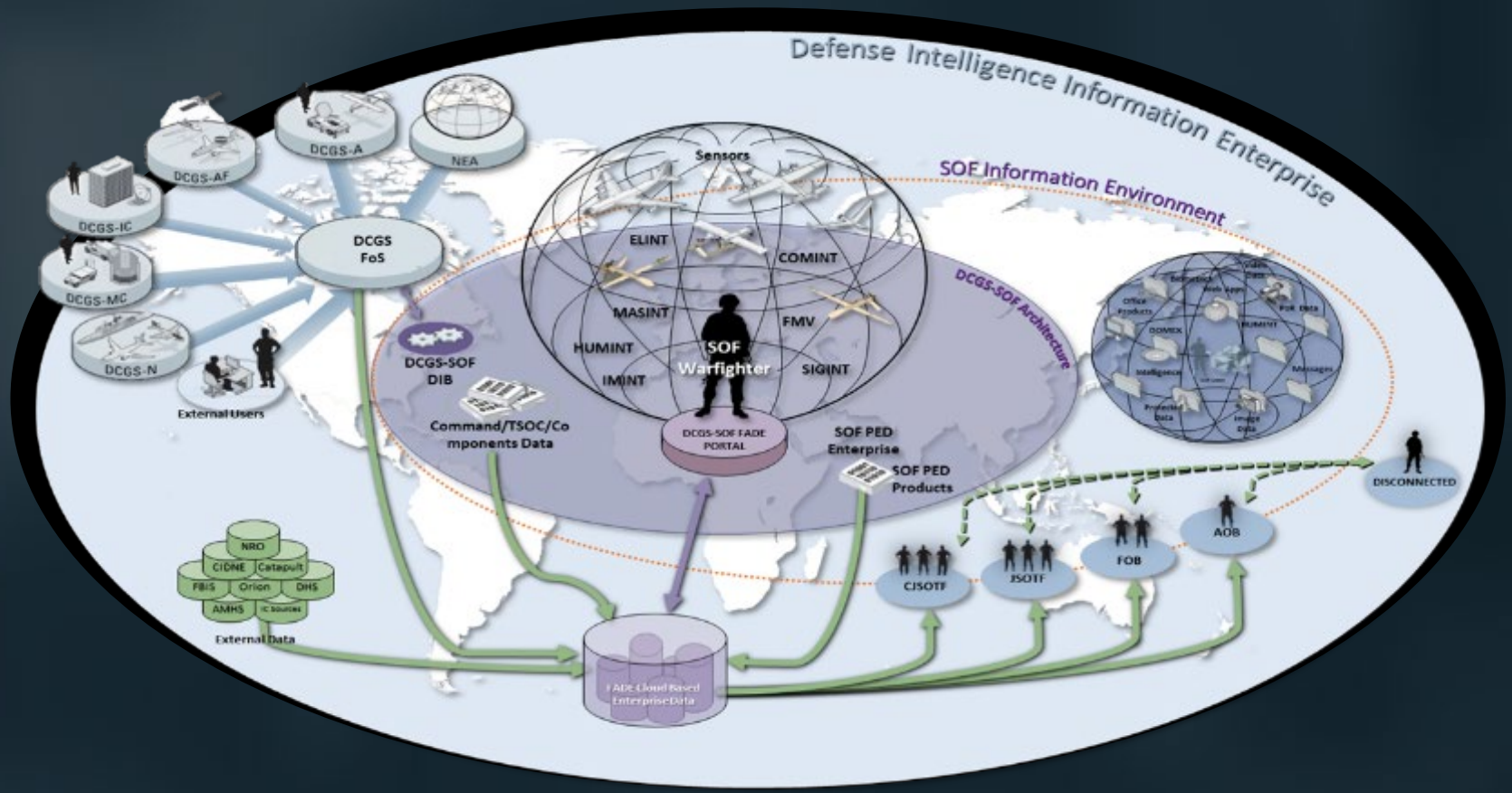
Program Status

- Executing under the Software Acquisition Pathway
- Development Managed via the Scaled Agile Framework
- Contract awarded 3QFY22

Intelligence

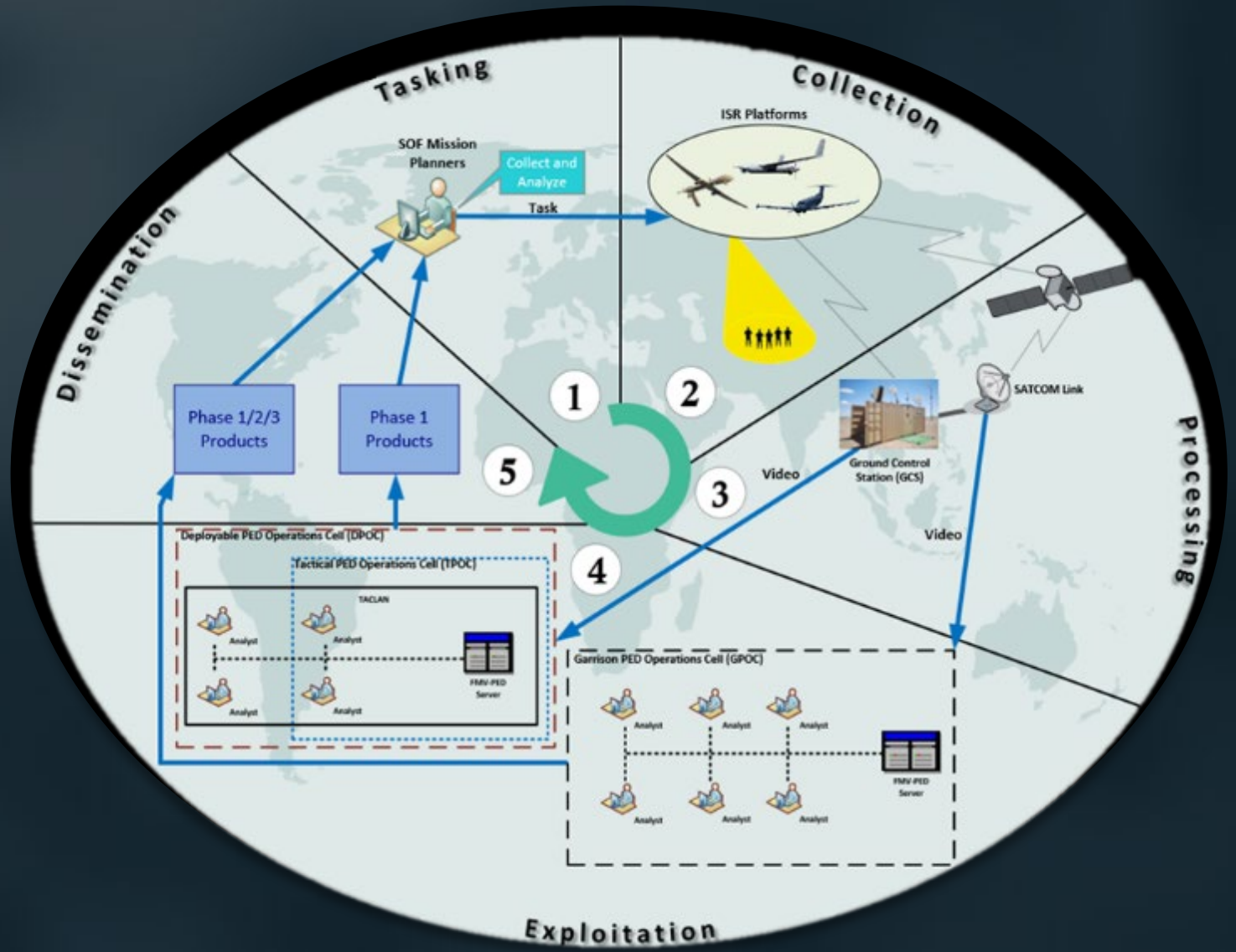
Enterprise/All-Source Information Fusion (ENT/ASIF)

- Interconnect the Warfighter and Sensors
- Provide All-Source Information Fusion via an interoperable construct
- Executing under the Software Acquisition Pathway, implementing Scaled Agile Framework & MOSA
- Continuous User Feedback loop to support insertion of bleeding edge technology



SOF GEOINT ISR PED (SGIP)

- Major acquisition program currently at Milestone C
- Evaluating transition to alternate adaptive acquisition pathway
- Support near-real time actionable reporting and visualization requiremen ts



Distributed Common Ground Surface DCGS-SOF

- Enterprise/ All-Source Information Fusion (ENT/ASIF)
  - Advanced Analytics
  - Capability Integration
  - Denied-Disrupted Intermittent and Limited (D-DIL) Environment
- SOF GEOINT ISR PED (SGIP)
  - Artificial Intelligence/Machine Learning
  - Fusion-as-a-Service
  - 3D Modeling
  - D-DIL Environment

Current Ecosystem of Vendors

Belcan
HUNATEK
University of South Florida
STRIVEWORKS
ITC
Pacific Northwest National Laboratory
CACI Ever Vigilant
IBM
NOVETTA Part of Accenture Federal Services
esri
BAE SYSTEMS
APPLIED IMAGERY
Adobe
vmw
Forcepoint
Red Hat

Get Connected

- Engage with Current Vendor Ecosystem
- FEDBIZOPS COTS SW & HW
- CRADAs
- SBIRs
- SOFWERX
- eSOF
- Trident Spectre

Panel Discussion Q&A

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