



# SPECIAL OPERATIONS FORCES ACQUISITION, TECHNOLOGY, & LOGISTICS **EXPANDING THE COMPETITIVE SPACE**

## PM - INTEGRATED SENSOR SYSTEMS (ISS)



# PEO-SPECIAL RECONNAISSANCE MISSION

Lead the rapid and focused acquisition of state-of-the-art sensors and associated C2, emplacement, recovery, and specialized communication systems across all domains to enable total situational awareness for the SOF Warfighter



## Pillars of Special Reconnaissance\*

- Complements national & theater intel collection
- Supported by SIGINT, HUMINT, TTL
- Used for target ID, acquisition, tracking & post-strike reconnaissance
- Uses unmanned collection capabilities to provide persistent, high-fidelity intelligence

\* Per Joint Pub 3-05

## Capability Development Areas

- Next-Gen Unattended Sensors
- Flexible, Tactical SIGINT
- Small Tactical Unmanned Systems
- Space-Based Collection, C2, Data Exfiltration
- Standoff Biometrics & Forensics
- Collaborative Special Reconnaissance



SOCEUR



SOC PAC



SOCSOUTH



SOCNORTH



SOCCENT



SOCKOR



SOCAFRICA

# PM INTEGRATED SENSOR SYSTEMS (ISS)

Synchronize acquisition of radio frequency signal collection, processing, exploitation, and dissemination capabilities across the air, ground, and maritime domains. Enhanced target acquisition and analysis of enemy Signals of Interest. Develop and field modular, interoperable, networked sensors and analysis tools based upon open hardware and software architectures to enable the common operating picture and data sharing to/from national databases.



## Integrated Sensor Systems Enabling SR Portfolio

- SOF depend on manned and unmanned RF Collection and Exploitation
- PM-ISS provides extended surveillance, reconnaissance to answer PIRs
- Complements national/theater intel collection
- Used for target ID, confirmation, tracking & post-strike reconnaissance

## Capability Development Areas

- Next-Gen Sensors/Antennas for Next Gen Signals
- All Domain Flexible, Tactical Sensors
- Cross Platform Mod-Payloads for UAS, UUV, USV
- Space Payloads
- National Reach-back for Special Reconnaissance Collaboration and Dissemination



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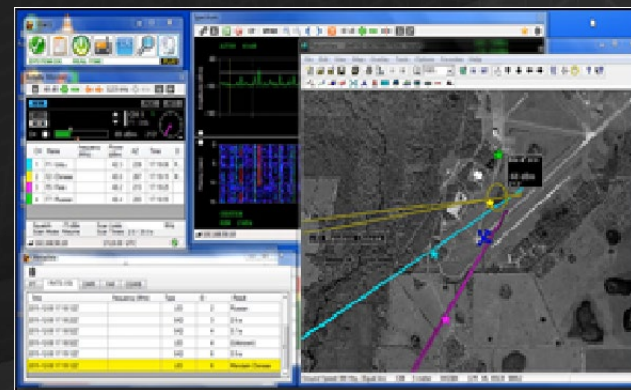
JTWS Air

### Capability Description

- JTWS-Air (Light, Medium, and Heavy) carry-on/carry-off Threat Warning capability in various size, weight, and power configurations to support AFSOC Mission Requirements
- Detects, locates, and exploits signals of interest across the RF spectrum
- Situational Awareness & Threat Warning Payloads on Small UAS platforms (Groups 1-3)

### Operational Relevance

Provides Force Protection, Threat Warning, and Situational Awareness to SOF in an Airborne Configuration



JTWS Ground

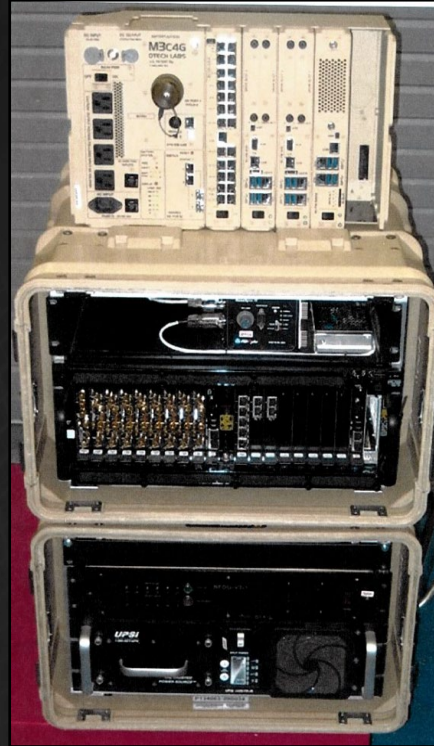
# Joint Threat Warning System Ground

## Capability Description

- Static- Next Generation Multi-Protocol Collection System at reduced SWaP
- Mobile- HF/VHF/UHF DF & Multi-protocol Receiver (some in development/test)
- Body Worn- VHF/UHF Direction Finding, Rugged, man-packable, requires 1 user per kit

## Operational Relevance

Threat Warning, Force Protection, and Situational Awareness for SOF Ground Elements





**Capability Description**

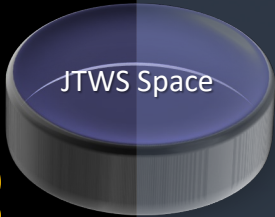
- HF/VHF/UHF DF Receiver & Multi-protocol COMINT/ELINT
- Carry-on/Carry-Off SIGINT Capabilities for Standard and Non-standard Platforms
- Configurable, ruggedized, low-profile capabilities that minimize SWaP

**Operational Relevance**

Threat Warning, Force Protection, and Situational Awareness for SOF Maritime Elements



# Joint Threat Warning System Space

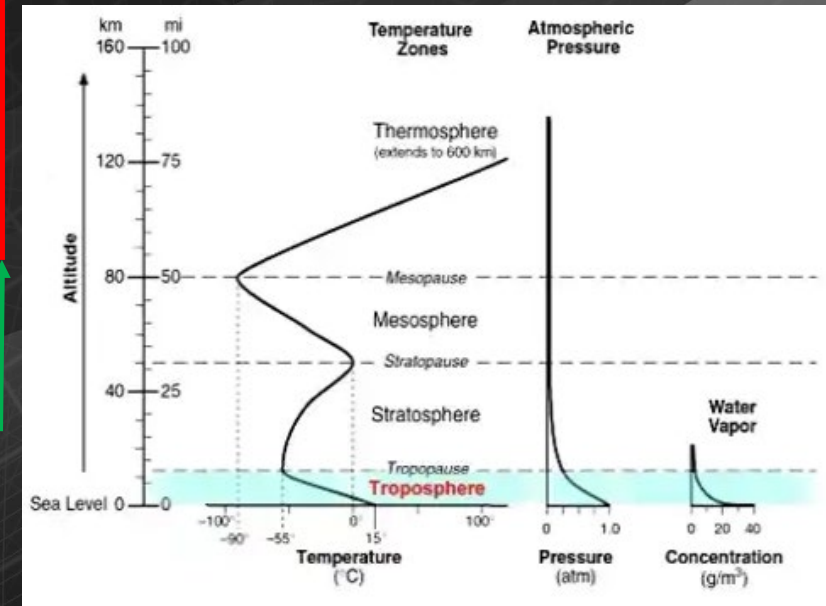
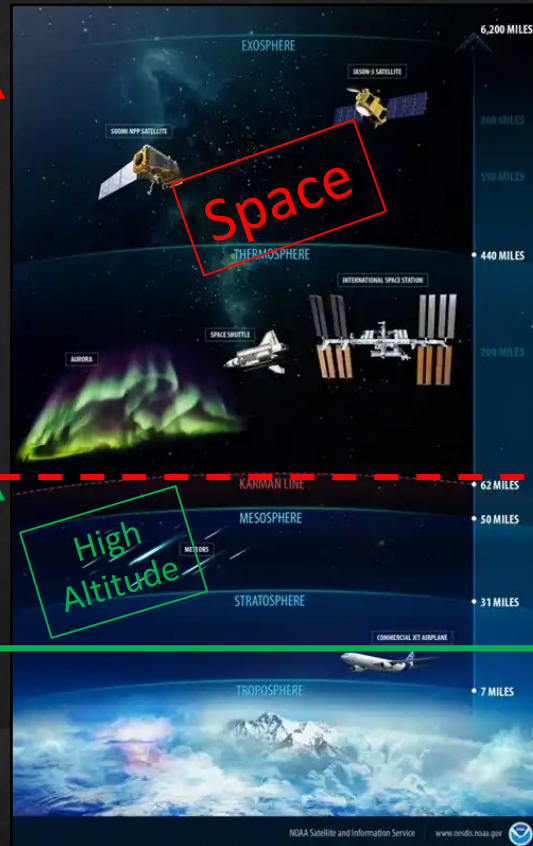
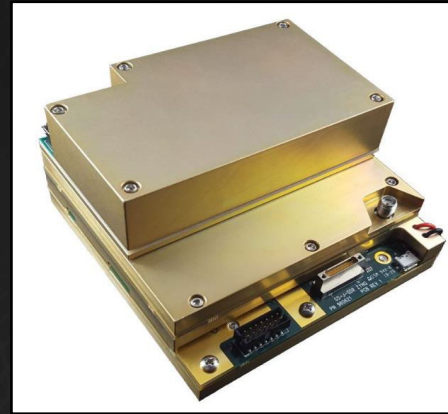


## Capability Description

- Developing Space-Based Payloads for use by SOF
- Evaluate Multi-atmospheric (High Altitude) Capabilities
- Modular HF/VHF/UHF SDRs and Receivers
- Multi-protocol RF Sensors for Survey, Detection, Direction Finding, Geolocation

## Operational Relevance

To Provide Space or other High Altitude Atmospheric-based capabilities to SOF in all domains



SIGINT PED

## SIGINT PED SILENTDAGGER

**Capability Description**

- Provides critical intelligence support and decision-making information via national technical means to globally deployed Special Operations Forces (SOF)
- Provides Intelligence, Surveillance, and Reconnaissance (ISR), and analytical capabilities at the Joint Task Force level and below
- Provides Processing Exploitation, and Dissemination capability in both garrison and deployed environments

**Operational Relevance**

Provides real-time collection processing at the tactical edge enabling Find, Fix, Analyze, and Disseminate (F2AD) operations





## **Near-term (1-2 Years)**

- Advanced and Complex Signals
- Advanced RF Filtering
- Modular Payload Compliant Sensors
- Advanced Sensor Networking for Precise Geo-location
- High Altitude Payloads/Sensors (>15 to <54NM MSL)

## **Mid-term (3-5 Years)**

- Enhanced Antennas (Low Profile, Improved Performance)
- Processing at the Edge
- High Altitude and Space Payloads
- Managed Attribution Systems

## **Long-term (6 years and beyond)**

- Automatic Signal Processing
- Sensor Autonomy / AI for Small Unit Maneuver (AISUM)

## PM-ISS Industry Week

- 27 May 2022 - Respond to RFI at sam.gov
  - Notice: H9222-RFI-22-PM-ISS-MUTC-DEMONSTRATION
- 29 Aug 2022 – Selectees Invited to Demo at MUTC

## Vulcan ([www.vulcan-sof.com](http://www.vulcan-sof.com))

- SOCOM S&T Quarterly TE Events
- Trident Spectre (Annual Event, Submit in October)

## SOFWERX ([www.sofwerx.org](http://www.sofwerx.org))

- SOCOM and DEFENSEWERX Partnership Intermediary Agreement
- Assists SOCOM in solving challenging Warfighter problems
- Facilitates collaboration with Industry, Labs, Academia

## SBIR ([www.dodsbirsttr.mil](http://www.dodsbirsttr.mil))

- Antenna Distribution Unit (phase I to II)
- Space Microsats (phase II ongoing)

## eSOF ([www.socom.mil/SOF-ATL/Pages/eSOF-main.aspx](http://www.socom.mil/SOF-ATL/Pages/eSOF-main.aspx))

## S&T BAA ([www.socom.mil/SOF-ATL/Pages/baa.aspx](http://www.socom.mil/SOF-ATL/Pages/baa.aspx))