Host Platform: Gray Eagle

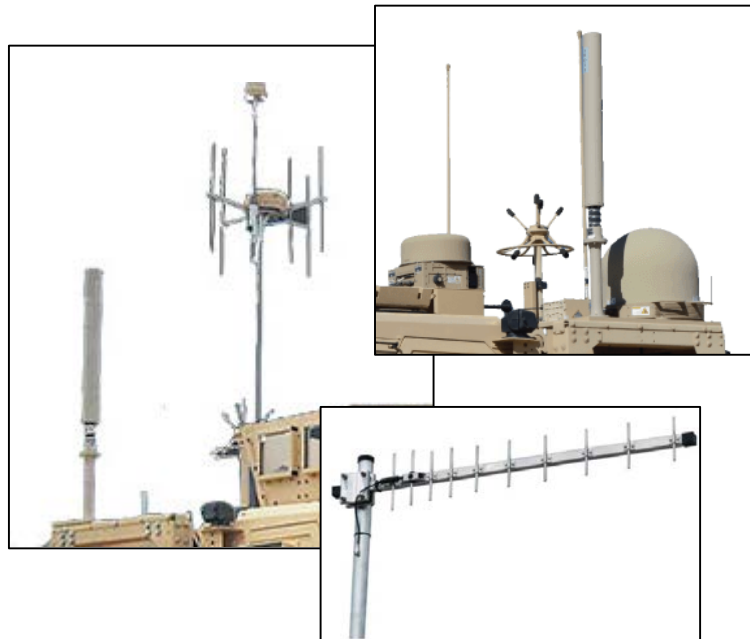**Wing Mounted Pod**

MFEW Air Capabilities

- Airborne Electronic Attack capability with the intent of denying, degrading, or disrupting enemy communications capability and emitters.

- Electronic Warfare Support (ES) to search, intercept, identify, and locate or localize sources of electromagnetic (EM) energy to support operations.

- Dissemination of Military Information Support Operations (MISO)

- Offensive Cyber Operations (OCO)

MFEW Air Large STATUS

- Tailored Milestone B approved – 12 April 2018

- Contract Strategy: Other Transaction Authority (OTA)

- Plan to award up to two (2) agreements on C5 Consortium to build prototypes for evaluation and follow on testing to support early fielding

- OTA process is ongoing. Project award planned for Aug 2018

Future Opportunities

- **MFEW Air Small** is dependent of Class III UAS

- **MFEW Rotary Wing** to be developed in coordination with other ongoing airborne programs, to include Aircraft Survivability.

- Early opportunities for prototyping may begin in FY19/20, subject to availability of funding.

PEO IEW&S

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TLS Capabilities

- An integrated, interoperable, and multi-functional collection and exploitation family of systems that are modular and mission tailorable.

- Provides expeditionary SIGINT, Electronic Warfare (EW), and Offensive Cyber Operations

- Initial capabilities will be for a tactical ground-based mobility platform that aligns with the type of maneuver force it supports

- Future configurations may include small, dismounted and/or fixed-site capabilities

STATUS

- Initial Capabilities Document has been approved. Capabilities Development Document and update to Analysis of Alternatives are underway.

- Leveraging current Programs of Record and COCOM Urgent Operational Needs to accelerate prototyping and development of organization, doctrine, and manning

- Materiel program efforts tentatively planned for FY20. Exploring various rapid acquisition methodologies to prototype and accelerate fielding to begin as early as FY19.

PEO IEW&S

TARGET PLATFORM

CENTCOM QRCs
Communication Electronic Attack with Surveillance and Reconnaissance; Networked Electronic Warfare Remotely Operated

FY11

TORO Pod From Scratch
AFRL/RCO/PEO IEWS effort
- Demo Full TORO **(Delayed)**

MQ-1C Gray Eagle
Air EW payload and power enhancements
Coordination with PM MAE

Rapid Innovation Fund
MORA (Modular Open RF Architecture) Demonstration
FY16/17 (Complete)

Calypso

Micro-Scan

'Deliver State of Industry' Group IV Solutions
-Other Transaction Authorities
Project Award NLT Aug 18
-Up to 2 Rapid Developments (18months to 1st delivery+18months)
-*Fly Before Army Buys*…if it meets threshold requirements Army can decide to procure

Risk Reduction

Leverage/Modify TSP Army POR

SDR POD
EA POD

AEW (ES/EA)

MFEW Air Large Program of Record

USMC Intrepid Tiger Block II/X

Collaborate with Industry VIGILANT HAMMER 1,2

Explore State of Industry Group III Solution

- Class III demo with EW Payload
-Effort on hold pending additional stakeholder coordination
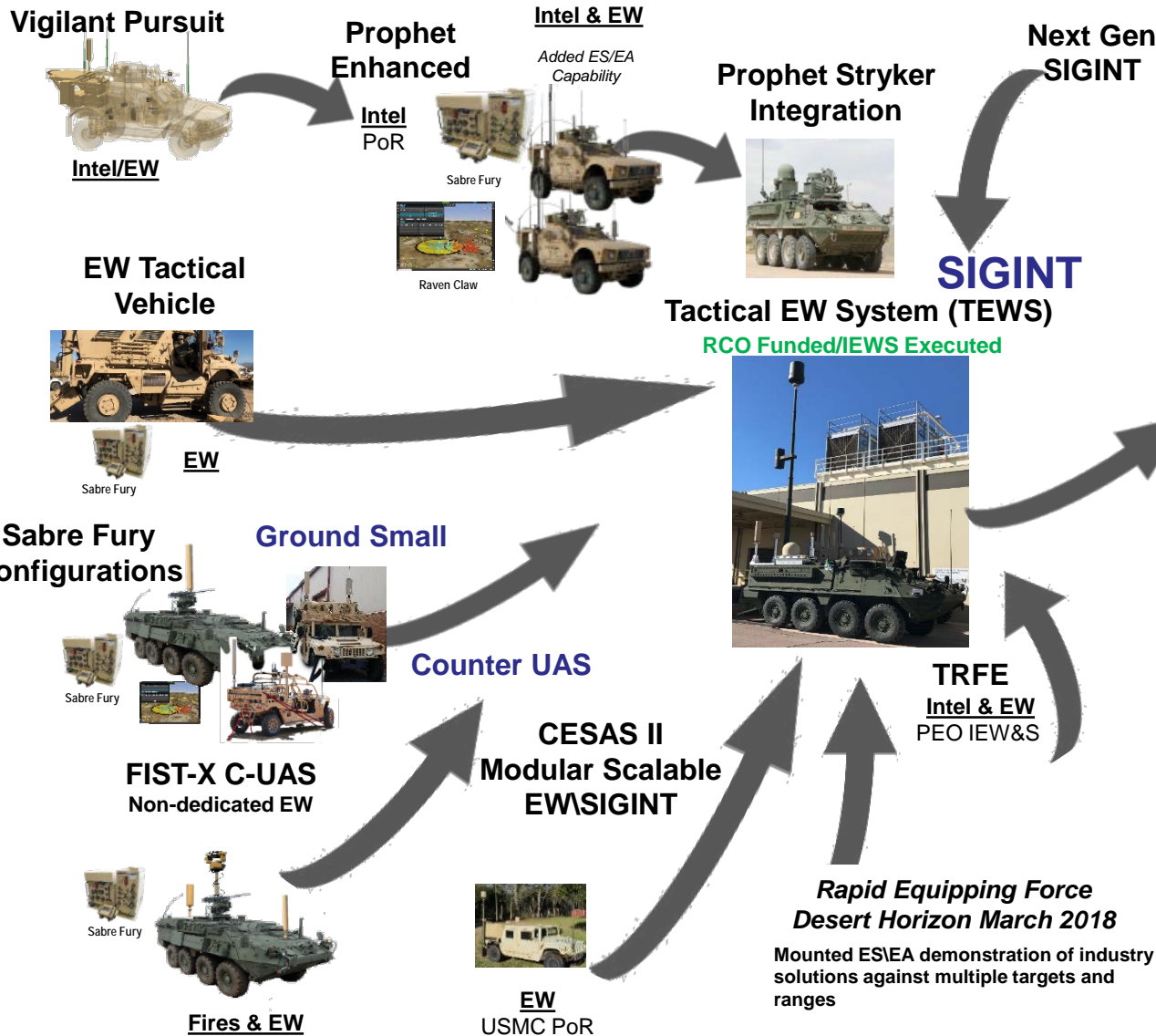-Coordinated with PM UAS

USMC Program of Record
Offensive EA Techniques, Lessons Learned
(Collaborate)

PEO IEW&S

Vigilant Pursuit

Intel/EW

Prophet Enhanced

Intel & EW

Added ES/EA Capability

Intel PoR

Sabre Fury

Raven Claw

Prophet Stryker Integration

Next Gen SIGINT

SIGINT

- Investigate all existing authorities for rapid development and technical maturation for rapid fielding
- 6.4 RDTE Funding begins in FY20
- Continue to leverage RCO, OSD , Others, to jump-start and reduce risk to program
- Ensure scalability of design for ease of incorporation of technology to pace the threat

EW Tactical Vehicle

EW

Sabre Fury

Tactical EW System (TEWS)

RCO Funded/IEWS Executed

Sabre Fury Configurations

Ground Small

Sabre Fury

Counter UAS

FIST-X C-UAS
Non-dedicated EW

Sabre Fury

Fires & EW

CESAS II Modular Scalable EW\SIGINT

EW USMC PoR

Rapid Equipping Force Desert Horizon March 2018

Mounted ES\EA demonstration of industry solutions against multiple targets and ranges

TRFE
Intel & EW
PEO IEW&S

User Feedback

Risk Reduction

Terrestrial Layer System Program of Record

TLS Technology Needs

- Miniature directional antennas that support high-power transmit for Electronic Attack (EA)
- Miniature broad-band power amps for EA
- Direction Finding (DF) performance across the full band of interest
- Fast tuning and DF capabilities/algorithms that can support ES/EA against modern waveforms
- Improved DF accuracies
- RF Interference Mitigation
- Miniature tuners/radios that support digitization
- Machine learning for automated EA attacks
- Development of smart EA techniques
- Ability to use full disk encryption on headless server
- Role based access