



**MARINE CORPS SYSTEMS COMMAND**  
Equipping our MARINES

**PORTFOLIO MANAGER  
COMMAND ELEMENT SYSTEMS**

# PORTFOLIO MANAGER Combat Element Systems





# MARINE CORPS SYSTEMS COMMAND

Equipping our MARINES

## Organization Chart

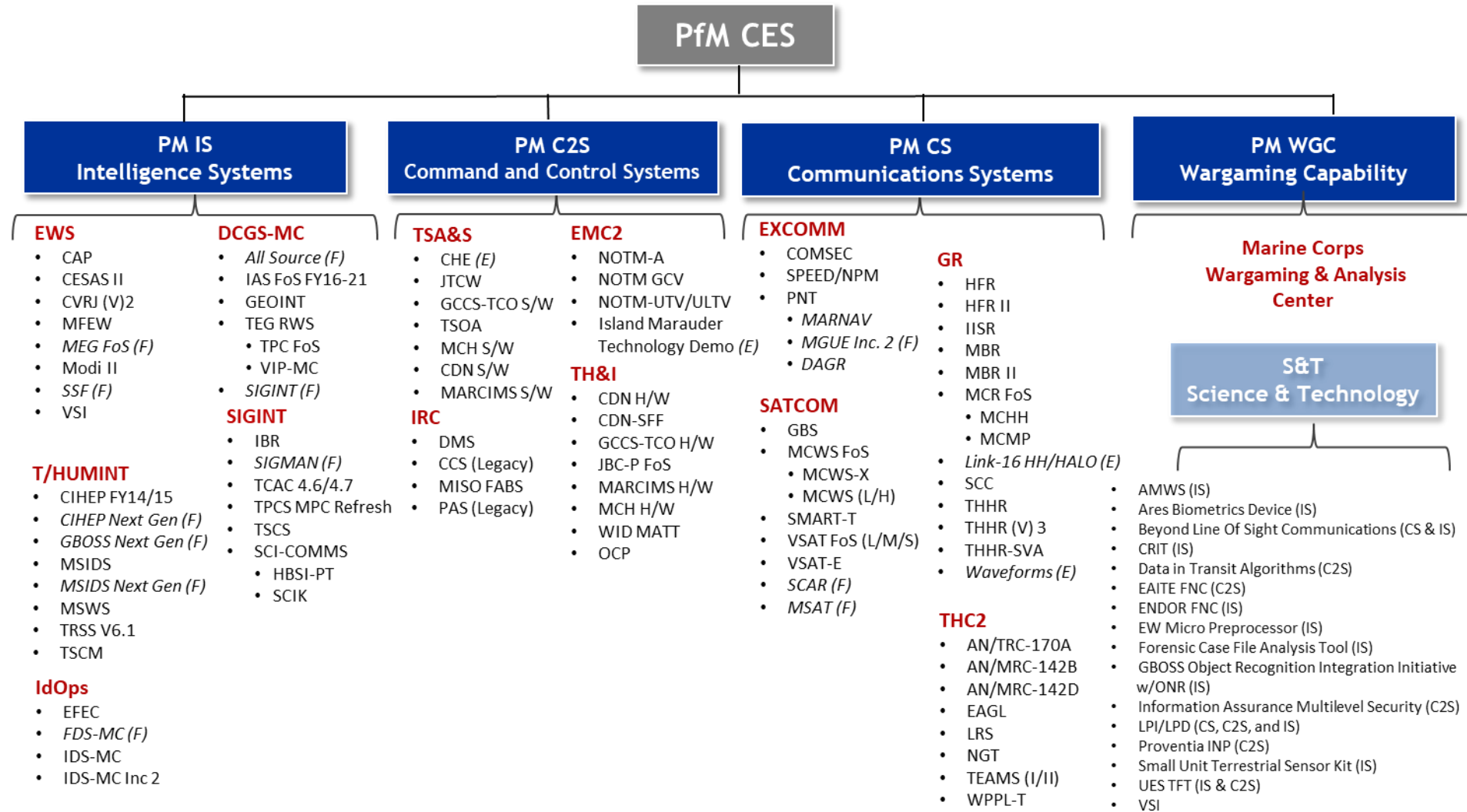




# MARINE CORPS SYSTEMS COMMAND

## Equipping our MARINES

## Deeper Dive Into PfM CES Systems



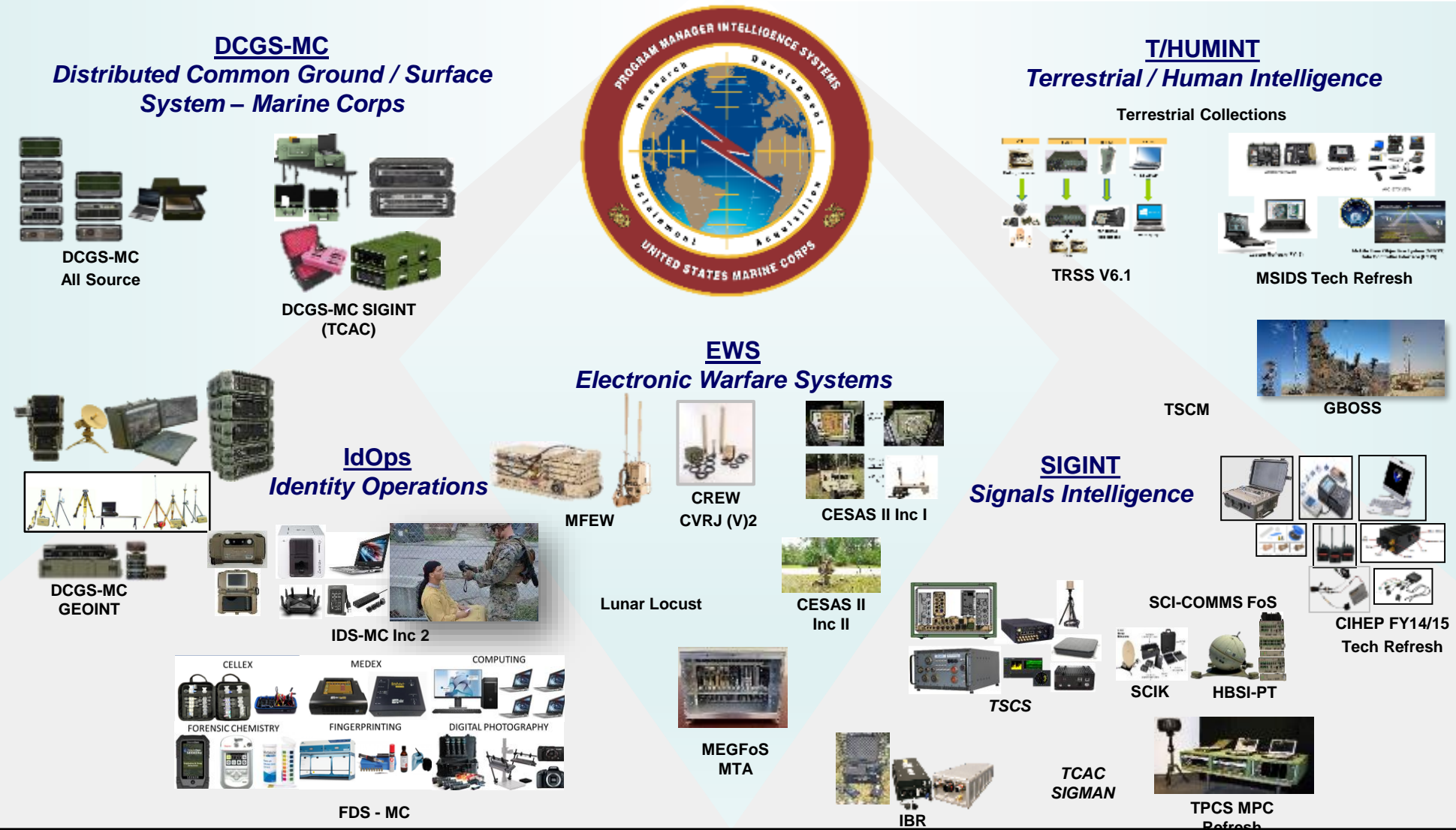


# MARINE CORPS SYSTEMS COMMAND

## Equipping our MARINES

## PM Intelligence Systems

*Mission: Equip and Sustain our Marine Forces with timely, capable, and cost effective intelligence capabilities for current and future expeditionary and crisis-response operations.*





# MARINE CORPS SYSTEMS COMMAND

## Equipping our MARINES

## PM IS PMO Overview



### 5 Teams pressing forward:

- 160.1 Electronic Warfare Systems (EWS)
- 160.2 Distributed Common Ground/Surface System-Marine Corps (DCGS-MC)
- 160.3 Terrestrial and Human Intelligence (T/HUMINT)
- 160.4 Signal Intelligence (SIGINT)
- 160.5 Identity Operations (IdOPS)

### FY22 Focus Areas:

- Field new capabilities in support of Force Design
- DCGS-MC (CIW, CGW, CIS, AATS)
- EWS (MEGFoS MTA, Lunar Locust, CESAS II Inc II, MFEW)
- SIGINT (TSCS Receivers, IBR ENTR V4, TCAC, SCI Comms)
- IDOPS (IDS-MC)
- Reduce Size, Weight and Power (SWaP)
- Common Hosting Environment
- Integrate AI/ML (Digital Integration, Computer Vision, Automation)
- Naval Integration

### • Challenges:

- ❖ Upgrading Ground/Maritime Sensors
- ❖ Data Science/Architecture/Strategy
- ❖ S&T Transition



EWS  
MFEW



DCGS-MC  
All Source



SIGINT  
IBR



T/HUMINT  
GBOSS



IDS-MC  
IDS-MC Inc 2





## **Areas Where Industry Can Help**

- ▶ **Field new capabilities in support of Force Design**
- ▶ **DCGS-MC (CIW, CGW, CIS, AATS)**
- ▶ **EWS (MEGFoS MTA, Lunar Locust, CESAS II Inc II, MFEW)**
- ▶ **SIGINT (TSCS Receivers, IBR ENTR V4, TCAC, SCI Comms Light Fidelity (LIFI))**
- ▶ **Reduce Size, Weight and Power (SWaP)**



**PM Intelligence Systems Opportunities**

Title	Planned RFP
<b>None</b> (procurements planned FY22/FY23 timeframe are either leveraging contracts through the warfighting labs or are sole-source based upon the technology)	



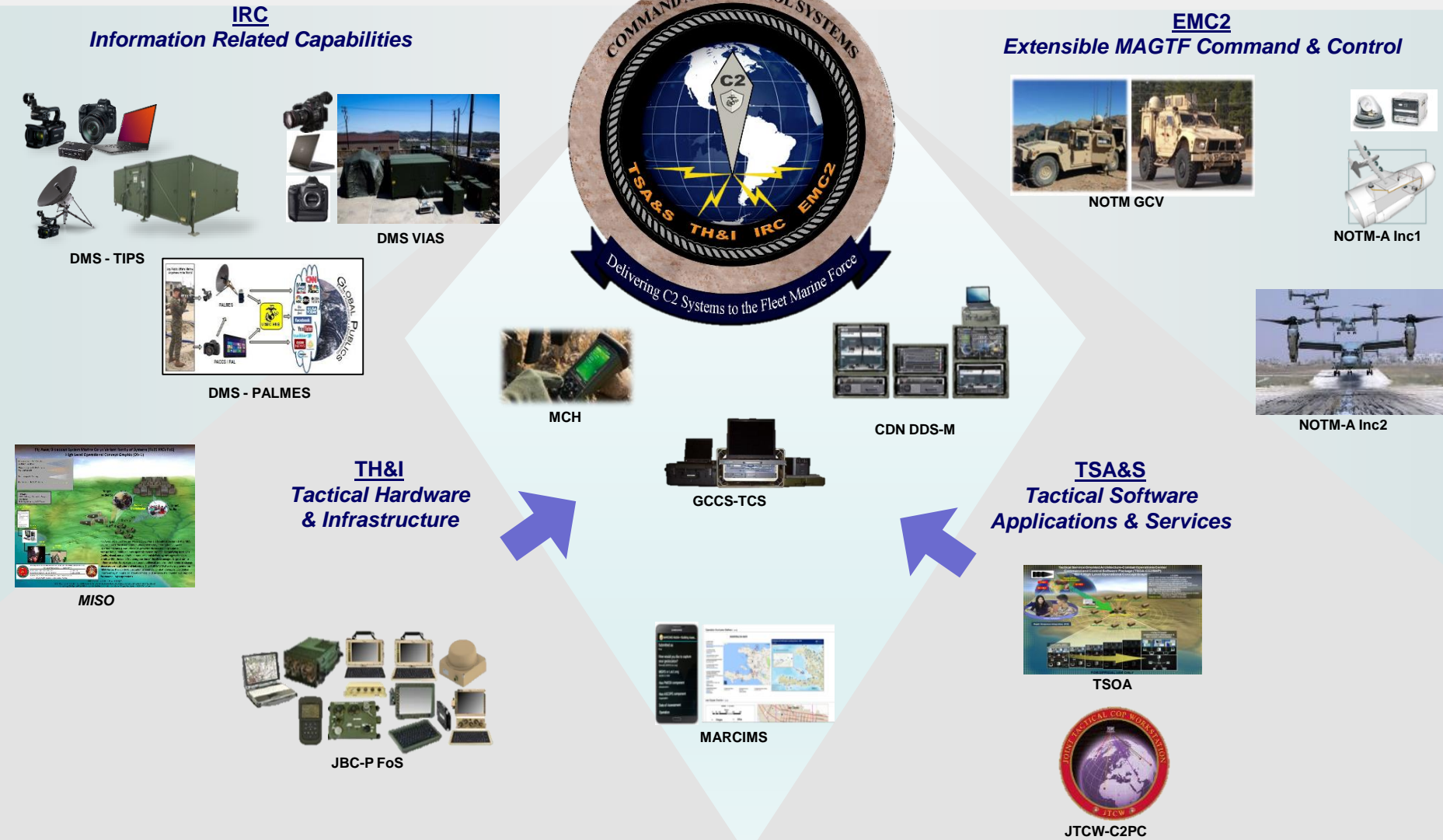
# MARINE CORPS SYSTEMS COMMAND

Equipping our MARINES

# PM Command and Control Systems



Mission: Provide and sustain Command and Control capabilities to the MAGTF







# MARINE CORPS SYSTEMS COMMAND

## Equipping our MARINES



## PM C2S PMO Overview

### 4 Teams pressing forward:

- 161.1 Tactical Software, Applications, & Services (TSA&S)
- 161.3 Extensible MAGTF Command and Control (EMC2)
- 161.4 Information Related Capabilities (IRC)
- 161.5 Tactical Hardware & Infrastructure (TH&I)

### FY23 Focus Areas:

- Continuous integration / continuous delivery / development of software
- Investigating data and software management in a cloud environment
- Implementing a federated capability
- Emphasis on tactical networking solutions that provide the appropriate Size, Weight, and Power (SWaP)
- Identify common handheld requirements and converge when possible
- Networking-On-The-Move (NOTM) Ground Combat Vehicles fielding
- Integration of NOTM onto the Ultra-Light Tactical Vehicle
- Integration of NOTM onto Navy amphibious ships
- Technology refresh and hardware modernization
- Wireless capabilities for End User Devices across classification levels

### Challenges:

- ❖ Configuration management in a more rapid manner
- ❖ Maintaining the existing capabilities in the fleet
- ❖ Executing a parallel development effort for the future implementation



JTCW-C2PC



CDN



NOTM-A Inc1



NOTM-A Inc2



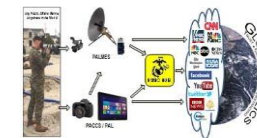
MCH



NOTM GCV



DMS - VIAS



DMS - PALMES



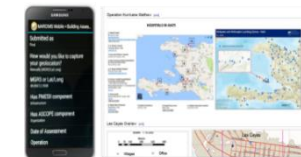
GCCS



MISO



TSOA



MARCIMS



# Areas Where Industry Can Help

- ▶ **A standard C4ISR/Electronic Warfare Modular Open Suite of Standards (CMOSS) solution for:**
  - ▶ **Tactical Imagery Production System Next Generation (TIPS NG)**
  - ▶ **Networking-on-the-Move Ground Combat Vehicle (NOTM GCV): Utility Light Tactical Vehicle (ULTV) / Amphibious Combat Vehicle (ACV) / Armored Reconnaissance Vehicle (ARV)**
  - ▶ **Combat Data Network (CDN)**
- ▶ **Secure Wireless solutions**
  - ▶ **Light Fidelity (LIFI)**
  - ▶ **Cellular (5G)**
  - ▶ **On-the-Move and At-the-Halt**



**PM C2S Opportunities**

Title	Planned RFP
TIPS NG Development	FY-23



# MARINE CORPS SYSTEMS COMMAND

Equipping our MARINES

## PM Communications Systems



*Mission: Deliver to our Marines modern, operationally suitable and sustainable tactical communication systems; and enhance MAGTF long-range air surveillance capability.*

### GR Ground Radios



SPEED/NPM



COMSEC

### EXCOMM Expeditionary Communications

### THC2 Terrestrial High-Capacity Communications



AN/TRC-170



WPPL-T



AN/MRC-142D



LRS  
Line-of-Sight  
Radio System



EAGL  
Expeditionary Advanced  
Ground Link



NGT  
Next Generation  
Troposcatter



TEAMS



TEAMS II  
Tactical Elevated  
Mast System II

### SATCOM Satellite Communications



GBS



TSR-11



PRS-11



SMART-T

### VSATCOM



VSAT-S



VSAT-M



VSAT-L



VSAT-E



VSAT-E







# MARINE CORPS SYSTEMS COMMAND

## Equipping our MARINES

## PM CS PMO Overview



### 4 Teams pressing forward

- 162.1 Expeditionary Communications (EXCOMM)
- 162.2 Ground Radios (GR)
- 162.3 Satellite Communications (SATCOM)
- 162.4 Terrestrial High-Capacity Communications (THC2)

### FY22/FY23 Focus Areas:

- Cryptographic Modernization
- Positioning Navigation Timing (PNT) Modernization
- Tactical Communications Modernization (TCM)
- Waveform Management
- Satellite Communication Modernization
- Terrestrial High-Capacity Communications Modernization
- Free Space Optics/Expeditionary Advanced Ground Link

### Challenges:

- ❖ Addressing Near Peer Threats, Expeditionary Advanced Base Operations, Littoral Operations in a Contested Environment
- ❖ Integrating Waveforms into Proprietary Hardware
- ❖ COVID related supplier delays
- ❖ Cybersecurity posture



**Tactical Communications Modernization**

**Line-of-Sight Radio System (LRS)**



**Expeditionary Advanced Ground Link (EAGL)**

**Mounted Assured Resilient Navigation (MARNV)**







## **Areas Where Industry Can Help**

- ▶ **Modular and Scalable communication system designs**
- ▶ **Systems that are capable of incremental upgrades at the component level from across industry**
- ▶ **Systems that enable pushing maintenance capabilities to the forward edge**
- ▶ **Low Probability of Intercept (LPI) / Low Probability of Detection (LPD) / Anti-Jam (AJ) communications**
- ▶ **Naval interoperability**
  - ▶ **Systems compatible with future naval systems**
  - ▶ **Systems that can be operated from amphibious ships**
- ▶ **CMOSS/MOSA form factors for manpack radio solutions.**



**PM Communications Systems Opportunities**

Title	Planned RFP
Marine Corps Wideband Satellite Communications - Light & Heavy (MCWS-L/H)	April 2022
Potential LINK 16 RFI/RFP	FY23
MARNAV	4QFY22



# MARINE CORPS SYSTEMS COMMAND

## Equipping our MARINES

## PM WGC PMO Overview



### 1 Team pressing forward

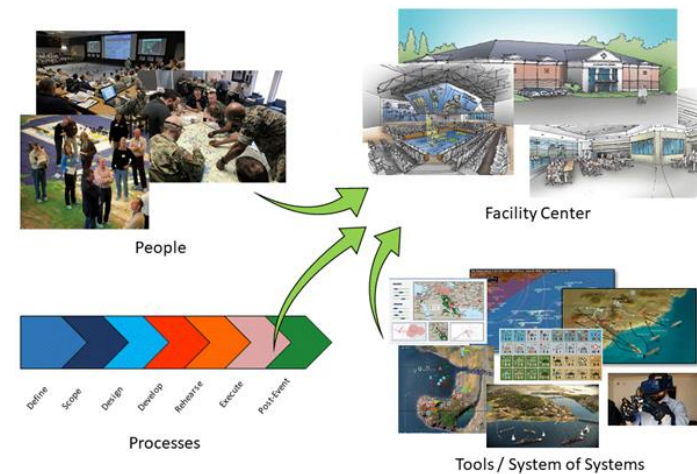
- 163.0 Wargaming Capability (WGC)

#### FY22 Focus Areas:

- Phase II – Integrated Prototype Development and Demonstration
- Identification and integration of enterprise services
- Refine IT Infrastructure requirements supporting the installation of the wargaming materiel solution within the MCWAC Facility
- Refining Phase III – Baseline & Production/Deployment requirements

#### Challenges

- ❖ Affordability – Funding shortfalls (CR, Congressional Marks, Reclamas, CYD, UPL, Prioritization backing)
- ❖ Integration complexity of technology and classified data in all aspects of the Wargaming Process
- ❖ Identification of additional networks required for the facility from receiving organization
- ❖ Feasibility of full Modeling & Simulation-conceptual model requirements
- ❖ Identification and integration of enterprise services with facility and materiel solution
- ❖ Multiple classification layers requiring integration, access, and transfer (i.e. CDS)
- ❖ Data Governance determinations
- ❖ Management and execution of multiple space and system accreditation efforts while maintaining targeted IOC/FOC schedule
- ❖ Stakeholder engagement and out-year responsibilities (policy changes)





# Areas Where Industry Can Help

- ▶ As the program continues development of an integrated prototype and coordinating the network design and infrastructure, the plan is to continue to evaluate emerging technologies to help address the crucial vision for the Marine Corps Wargaming Capability.
- ▶ Current areas of interest are:
  - ▶ Development of over 400+ conceptual models required for the full spectrum of wargames that cross multiple domains (land, air, sea, space, cyber):
  - ▶ TAA and BAA compliant Floor Display for an auditorium:
  - ▶ Processing and safeguarding classified data and simulations across multiple networks within a wargame: and
  - ▶ Approved cloud services over classified networks.
- ▶ The program is also interested to hear about any private equity into similar capabilities used commercially or with other DoD agencies.
- ▶ Industry can contact the program at [MCSC\\_PM\\_WGC@usmc.mil](mailto:MCSC_PM_WGC@usmc.mil) or look for periodic advertisements on SAM.gov .



**PM Wargaming Capability Opportunities**

Title	Planned RFP
None	





# QUESTIONS?

Contact : [MCSC\\_PfMCES@USMC.MIL](mailto:MCSC_PfMCES@USMC.MIL)

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