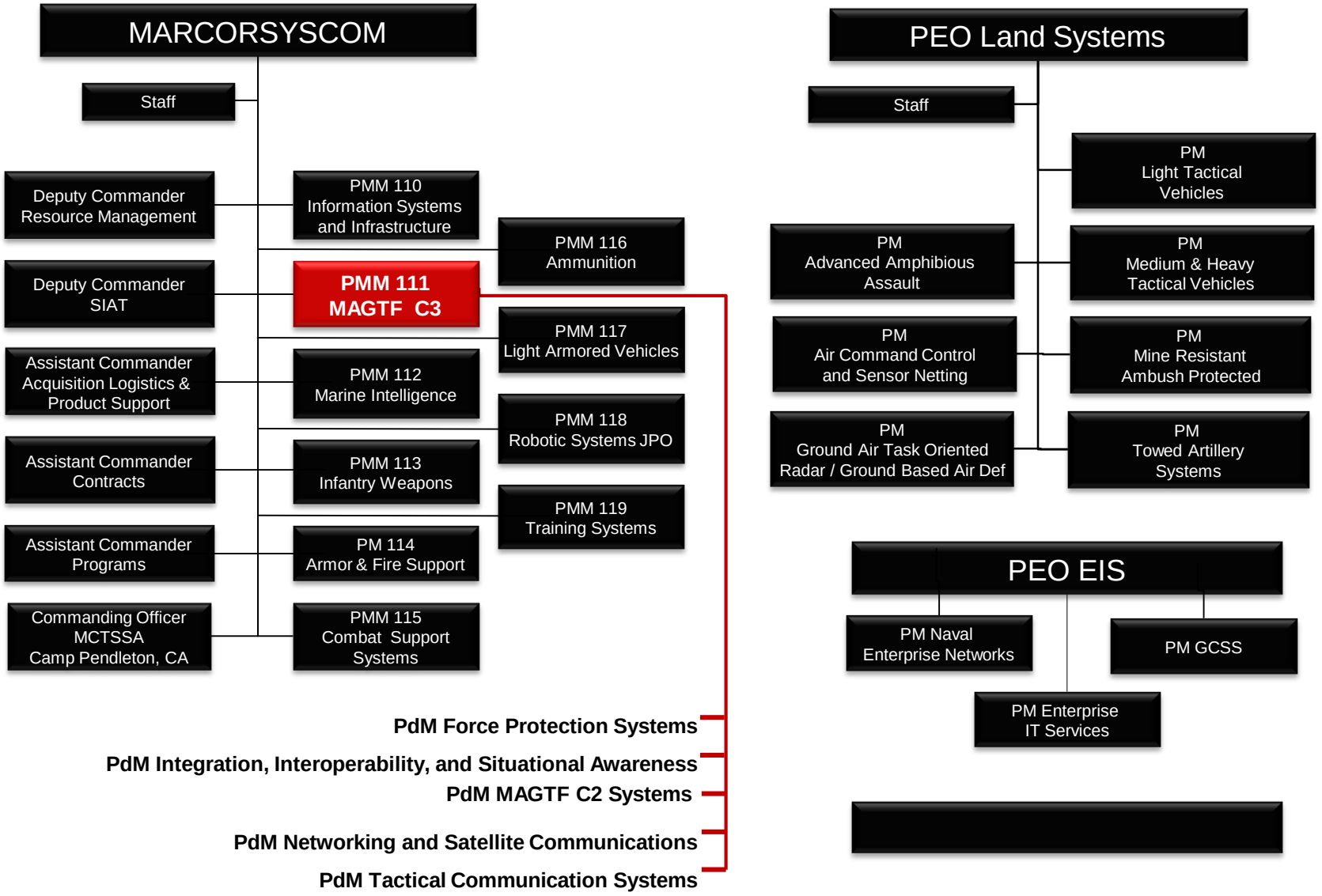
MAGTF Command, Control, Communications (MC3)

Col D. B. McDaniel

12 October 2016
Expeditionary Warfare Conference

.

Organization



MC3 Points of Contact

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Operations Manager	Mr. Stephen Magee

Assistant Program Managers

Program Management	Mr. John Maurer
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Financial Management	Ms. Marjorie Schmitt
Engineering	Mr. Jeff Smith

Product Managers

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PdM Integration, Interoperability, and Situational Awareness	Mr. Eric Miller
PdM MAGTF C2 Systems	Ms. Amy Rideout
PdM Networking and Satellite Communications	LtCol Bert Rakdham
PdM Tactical Communication Systems	LtCol Shelton Richards
Science and Technology Lead	Mr. Brad Crane

Marine Corps Guidance

37th Commandants Planning Guidance

-Maintaining and improving the high quality people that make up today's Corps.

–Decentralizing the training and preparation for war, while adhering to Maneuver Warfare principles in the conduct of training and operations.

–Modernizing the force, especially by leveraging new and evolving technologies.

- *PEOPLE*
- *READINESS*
- *TRAINING / SIMULATION / EXPERIMENTATION*
- *INTEGRATION WITH THE NAVAL AND JOINT FORCE*
- *MODERNIZATION AND TECHNOLOGY*

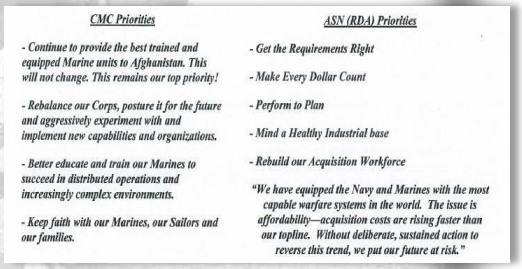
MCSC Mission

To serve as the Department of the Navy's (DON) systems command for Marine Corps ground weapon and information technology (IT) system programs in order *to equip and sustain Marine forces with full-spectrum, current and future expeditionary and crisis response capabilities*.

MCSC Commander's Intent

Align MCSC Priorities with Commandant's and ASN RDA's Priorities

- **Work Environment**
- **Executing to the Plan**
- **Professional Credibility**
- **Preparing for the future**



CMC Priorities

- Continue to provide the best trained and equipped Marine units to Afghanistan. This will not change. This remains our top priority!
- Rebalance our Corps, posture it for the future and aggressively experiment with and implement new capabilities and organizations.
- Better educate and train our Marines to succeed in distributed operations and increasingly complex environments.
- Keep faith with our Marines, our Sailors and our families.

ASN (RDA) Priorities

- Get the Requirements Right
- Make Every Dollar Count
- Perform to Plan
- Mind a Healthy Industrial base
- Rebuild our Acquisition Workforce

"We have equipped the Navy and Marines with the most capable warfare systems in the world. The issue is affordability—acquisition costs are rising faster than our topline. Without deliberate, sustained action to reverse this trend, we put our future at risk."

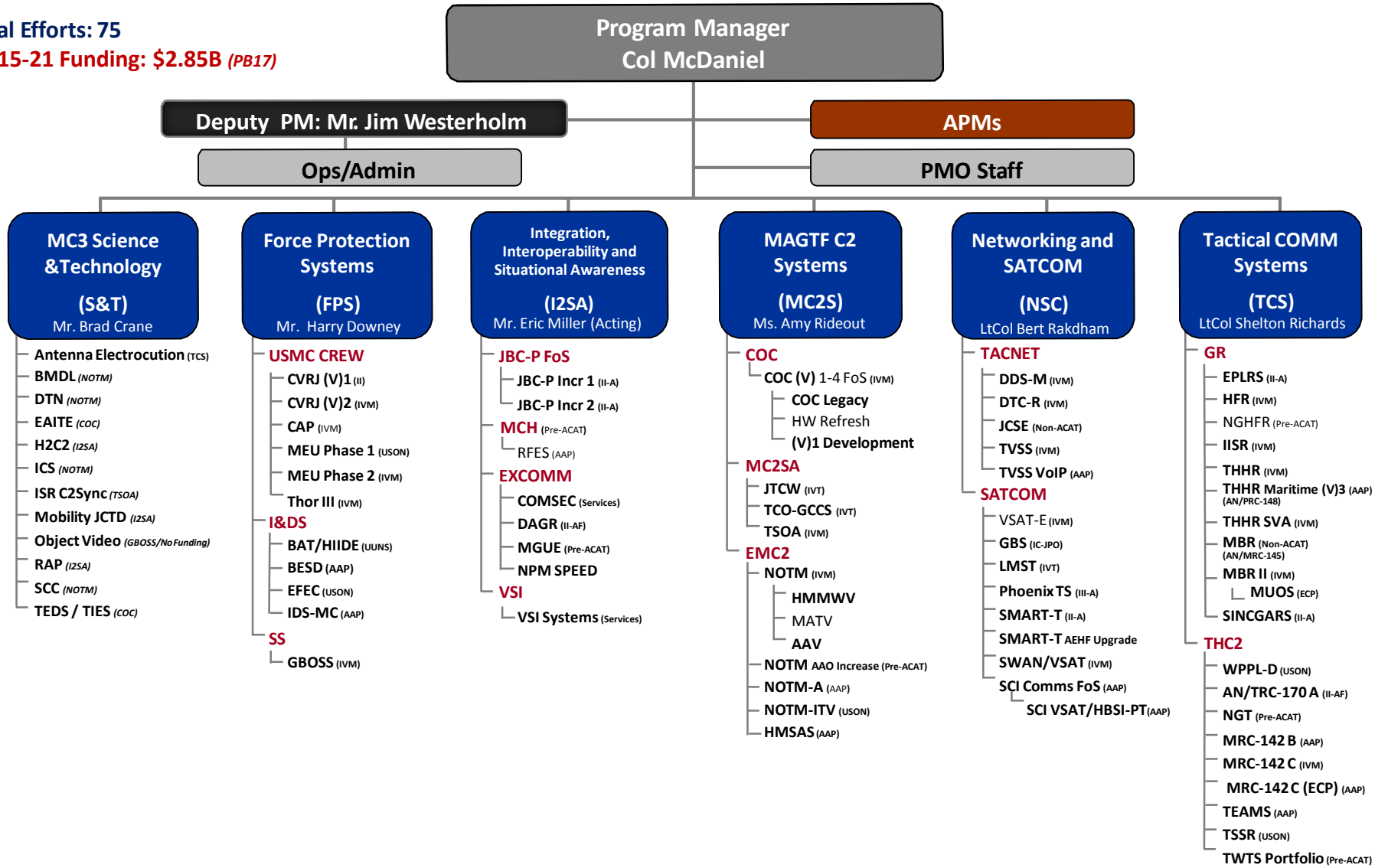
MC3 Priorities

Honor, Courage, Commitment

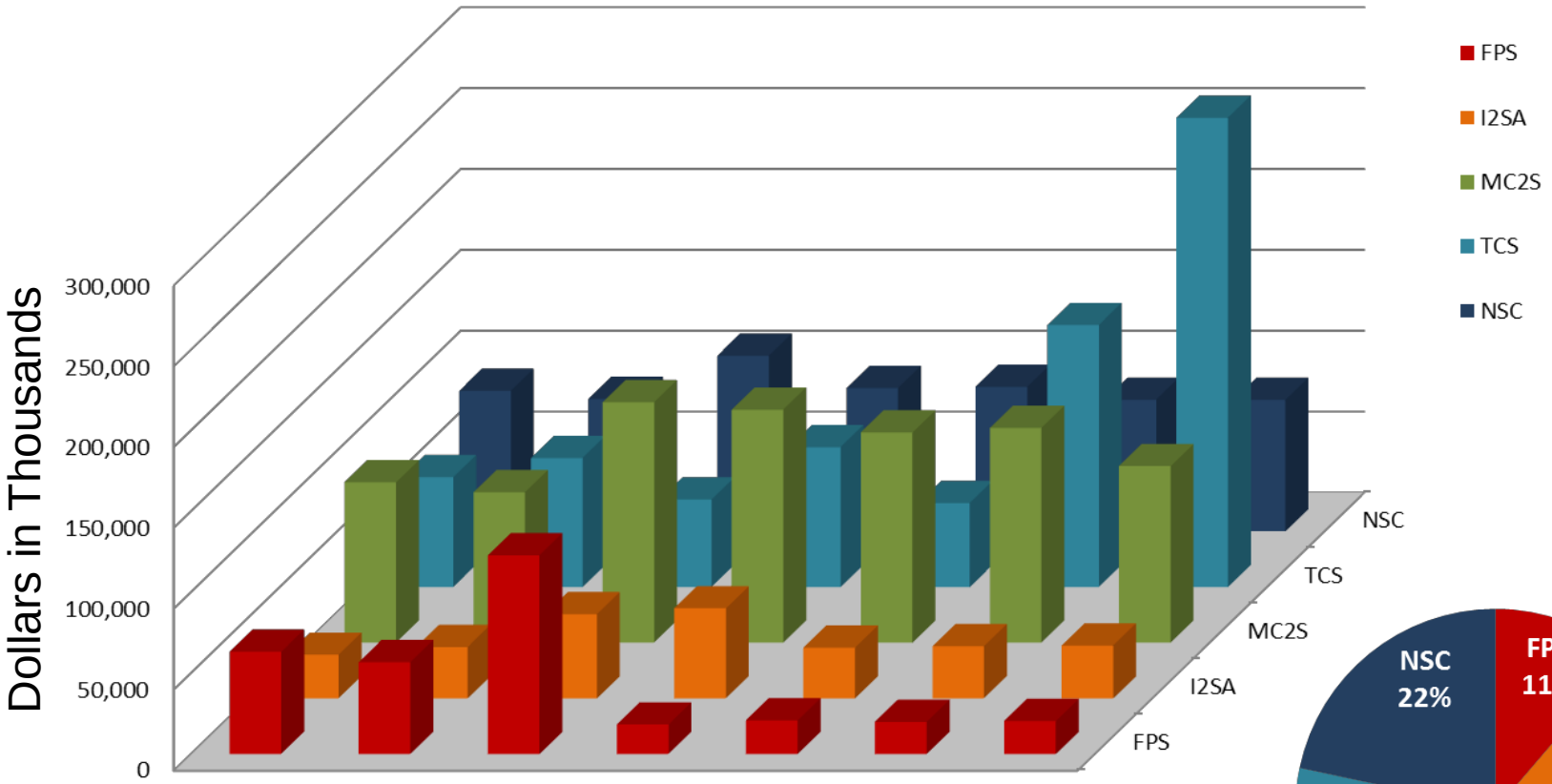
MC3 Priorities: Align with EF-21, accomplish the mission, foster a team environment, moral character and professionalism.

MC3 Organization

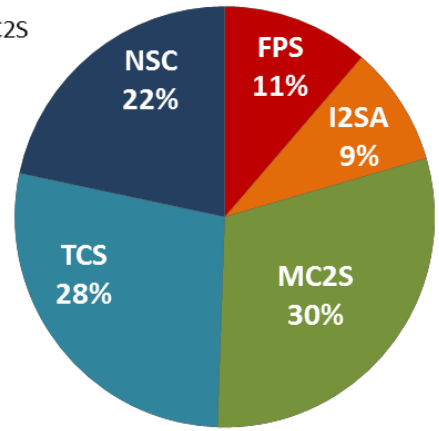
Total Efforts: 75
FY 15-21 Funding: $2.85B *(PB17)*



MC3 Financial Resources



	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Total
FPS	63,283	56,835	122,965	18,234	20,815	19,895	20,321	322,348
I2SA	26,915	31,720	52,021	55,688	31,311	32,249	32,620	262,524
MC2S	99,150	92,994	148,764	144,097	130,024	132,795	109,204	857,028
TCS	67,885	79,681	54,129	86,489	51,872	161,975	290,245	792,276
NSC	86,850	81,867	108,612	88,587	89,326	81,329	81,241	617,812
Total	344,083	343,097	486,491	393,095	323,348	428,243	533,631	2,851,988



Baseline funding including OCO funds.

20160217: Data Source-PB17 Controls.
FY15 Reflect actuals from EOY 30Sep15 SOF.

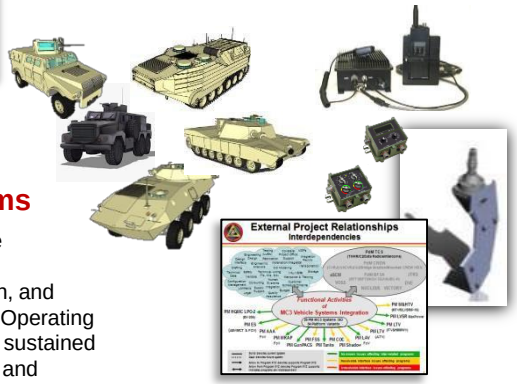
Integration, Interoperability, and Situational Awareness (PdM I2SA)

PdM I2SA MISSION

Provides, integrates, and sustains C2 and Situational Awareness capabilities to enhance decision making across MAGTF operations.

Vehicle Systems Integration (VSI)

VSI Technologies that provide method of organizing to support C3 integration requirements for the vehicle platforms. Facilitates the IPPD process approach to Systems Integration.



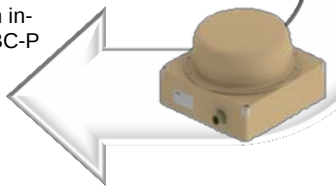
MAGTF Common Handheld (MCH)

MCH will provide low cost commercially available platforms (Smartphones and Tablets) for operational use on tactical networks regardless of the operational environment.

Mounted System

TOC Kit

KGV-72 PIED



BFT 2 Transceiver

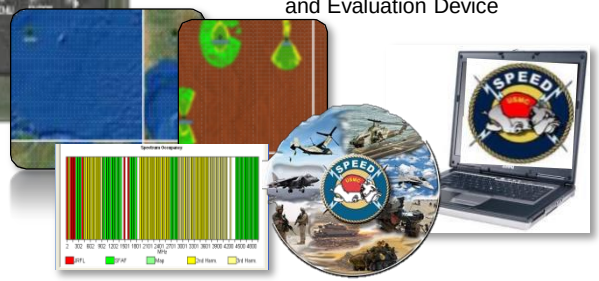
Expeditionary Communication Systems

Technologies that provide secure communications, secure position, navigation, and timing information, and communications planning for the Operating Forces. Systems developed and sustained include NPM/SPEED, COMSEC, and DAGR.

DAGR
Defense Advanced Global Positioning System Receiver

COMSEC
Communications Security

SPEED
Systems Planning Engineering and Evaluation Device



Joint Battle Command-Platform Family of Systems (JPC-P)

JBC-P FoS is the primary battlefield Command and Control (C2)/Situational Awareness (SA) system that provides tactical input/output digitized Position Location Information (PLI) and SA at the company and vehicle levels. It is the successor hardware (HW) and software (SW) program to the Urgent Universal Need Statement (UUNS) Blue Force Tracker (BFT)/Force XXI Battle Command Brigade and Below (FBCB2) SW which includes an in-line encryption device (KGV-72 and upgraded transceiver). JBC-P FoS has two increments: Increment (Inc) I and Inc II.

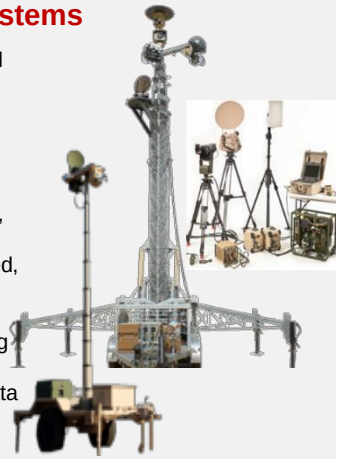
Force Protection Systems (PdM FPS)

PdM FPS MISSION

PdM FPS leads the Marine Corps' efforts in the research, development, acquisition, and sustainment of Counter Radio-Controlled Improvised Explosive Device Electronic Warfare (CREW) Systems, Surveillance Systems, and Identification and Detection Systems.

Surveillance Systems

G-BOSS: Ground-Based Operational Surveillance System. Expeditionary, ground-based, self-contained, multi-spectral sensor-oriented, persistent surveillance system utilizing a fused video and sensor data display.



Identification and Detection Systems

BESD
Biometric Enrollment and Screening Device (BESD) is the current USMC biometric capability, which is a multi-modal (fingerprint, iris, face) handheld collection system that provides the ability to collect, match, share, and store identity information..
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IDS-MC
Identity Dominance System-Marine Corps (IDS-MC) is a multi-modal (fingerprint, iris, face) biometric collection system that provides the ability to collect, match, share, and store identity information. The IDS-MC is comprised of a Handheld and a Client Laptop. IDS-MC is the enduring USMC biometrics capability and will replace BESD in FY17.

EFEC
Expeditionary Forensics Exploitation Capability (EFEC) provides tactical (level 1) and operational (level 2) forensic technical exploitation capabilities (recognize, preserve, collect, analyze, store and share) required by Marine Corps forward deployed forces

USMC CREW Systems

Counter Radio-Controlled Improvised Explosive Device Electronic Warfare

CVRJ (V)1 and CVRJ (V)2
CREW Vehicle Receiver Jammer.
A vehicle-mounted active and reactive electronic countermeasure.

THOR III
THOR III: Man-portable Counter RCIED solution for selected threats.

CREW Modi
CREW Marine Expeditionary Unit Phase 1 Modi-The system is a non-developmental, modular, man-portable RCIED jammer. The Modi system is a single box solution.

~~CREW Modi II~~
CREW Marine Expeditionary Unit Phase 2 -The system is a non-developmental, modular, man-portable RCIED jammer. The Modi II system is a single box solution.

MAGTF Command And Control (C2) Systems (PdM MC2S)

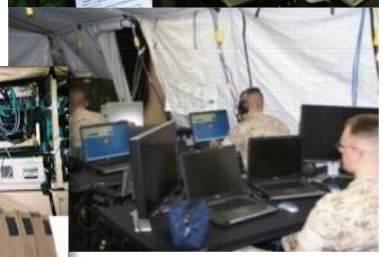
PdM MC2S MISSION

Manage a diverse portfolio of C2 programs and technology initiatives, to deliver to the Marine warfighter and end-to-end, fully integrated, cross functional set of MAGTF Command & Control (C2) Capabilities.

Combat Operations Center

The Combat Operations Center (COC) is a deployable, self-contained, centralized facility that provides shared command and control / situational awareness (C2/SA) functionalities in a collaborative environment. COC hosted applications provide Blue and Red force tracking, increased situational awareness, information sharing, and enhanced decision making.

COC (V) 1-4



MAGTF C2 Systems and Applications

MAGTF C2 Systems and Applications (MC2SA) (GCCS-TCO/JTCW/TSOA) provides the common, modular and scalable collaborative planning execution, and assessment software for all elements and echelons of the MAGTF.

GCCS-TCO

Global Command and Control System-Tactical Combat Operations

TSOA

Tactical Service Oriented Architecture

JTCW

Joint Tactical COP Workstation

Extensible MAGTF C2 Systems

The transitioning of S&T projects such as the Mobile Modular Command & Control (M2C2) system and the Network-On-The-Move (NOTM), and Hatch Mounted Satellite Antenna System (HMSAS) capability into programs, satisfies OPFOR Requirements and ensures warfighters are equipped with C2 CAPE technology en-route and within the AO.

HMSAS (NOTM-A Inc 1)

NOTM-A Inc 2

M2C2-COBRA 3

HMMWV

ITV

NOTM

AAV

M-ATV

Networking And Satellite Communications (PdM NSC)

Mission

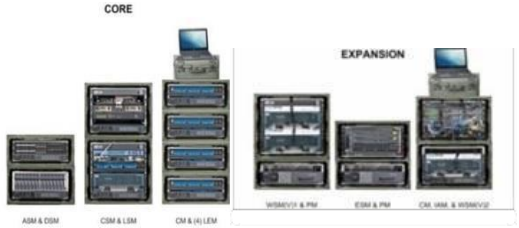
PdM NSC leads the Marine Corps' effort in research and development, acquisition and sustainment of tactical networking and switching equipment; wireless broadband, and satellite ground communication systems.

Tactical Network Systems (TACNET)

Tactical networking, tactical switching, and technical control functions to our Operating Forces. Systems being developed and sustained include TDN DDS-M and TVSS.

TVSS

Tactical Voice Switching System



TDN DDS-M

Tactical Data Network
Data Distribution System - Modular

VSAT FoS

Very Small Aperture Terminal Family of Systems

VSAT Large

VSAT Expeditionary

VSAT Medium *VSAT Small*

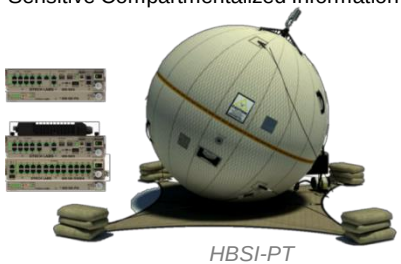
Satellite Communication Systems (SATCOM)

EHF and SHF wideband SATCOM systems providing long-haul communications for the MAGTF. Capabilities include reach back to higher headquarters via the GIG and intra-MAGTF communications. Wideband SATCOM supports users from the MEF down to the Team level. Systems include VSAT/VSAT-E , AEHF SMART-T, GBS, and SCI Comms (HBSI-PT and SCIK).

SCI COMMS

High Bandwidth Special Intelligence-Palletized Terminal (HBSI-PT)

Sensitive Compartmentalized Information Kit (SCIK)



HBSI-PT

SCIK

GBS

Global Broadcast Service

AEHF SMART-T

Advanced Extremely High Frequency Secure Mobile Anti-Jam Reliable Tactical Terminal

Tactical Communication Systems (PdM TCS)

PdM TCS MISSION

PdM TCS leads the Marine Corps' tactical communication modernization effort through the acquisition and life cycle management of tactical communication systems supporting combat and training operations.

TEAMS Tactical Elevated Antenna Mast System

AN/MRC-142 FoS
AN/MRC-142 Radio Termination Set

Terrestrial High Capacity Communications

Line-of-Sight (LOS) and Beyond LOS voice and data tactical radio capabilities.

AN/TRC-170A
Troposcatter Microwave Radio Terminal System

AN/PRC-117G

AN/VRC-114(V)1

AN/VRC-114(V)2

MBR/MBR II
Multi-Band Radio II

EPLRS
Enhanced Position Location Reporting System-ENM (Network Manager)

WPPL-D
Wireless Point-to-Point Link

Ground Radios

Multiband Line-of-Sight and Satellite man-packable and vehicular mounted capabilities and **Tactical Hand Held Radios** (THHR), line-of-Sight handheld and vehicular mounted capabilities supporting the United States Marine Corps.

AN/VRC-112
AN/VRC-113

IISR
Integrated Intra-Squad Radio

THHR
Tactical Hand-Held Radio

THHR-Maritime

THHR-SVA
Tactical Hand-Held Radio Single Vehicle Adapter

HFR
High Frequency Radio

NGT
Next Generation Troposcatter

Current System
AN/TRC-170

MC3 Program Manager's Comments

Areas where we need help:

- Cyber Security
- Interoperability
- Reducing weight
- Reducing Costs while increasing Reliability