NAVWAR

23.4 Information Webinar Session
N234-P07 (PMW 170)
N234-P08 (PMW 150)

12 JUL 2023

Shadi Azoum

NAVWAR SBIR/STTR Program
Manager

Rules of Engagement

▼ Mute microphone

▼ Put questions in chat

▼ Responses will be verbal, not in chat

▼ Technical questions only, no programmatic questions

▼ Presentation with audio posted to NavySBIR.com

Locating Instructions and Topics

▼ DoN participates in the DoD Broad Agency Announcement (BAA)

▼ DoD 23.4 BAA Preface
https://www.dodsbirsttr.mil/submissions/baa-schedule/active-baa-announcements (dodsbirsttr.mil)

– Overarching Guidance/Requirements

– Submission Requirements and Process

▼ DoN 23.4 BAA Instructions
https://navysbir.com/open_topic.htm

– DoN-specific requirements

– Topics

Read the DoD Preface and DoN Instructions

Participating System Commands

▼ Marine Corps

   – Ground weapon and information technology programs for the Marines

▼ Naval Air Systems Command (NAVAIR)

   – Naval aviation aircraft, weapons, and systems operated by Sailors and Marines

▼ Naval Sea System Command (NAVSEA)

   – Engineers, builds, buys and maintains ships, submarines and combat system

▼ Naval Information Warfare System Command (NAVWAR)

   – Capable and secure communications and networks that span platforms and facilities

Conventional vs. Open Topics

▼ Conventional Topics

   – identify a specific Naval problem

   – a desired technical objective

   – an output

▼ Open Topics

   – identify mission-critical needs

   – soliciting proposals to adapt commercial products or solutions

      • to close capability gaps

      • improve performance

      • or provide technological advancements in existing capabilities

DoN Open Topics

▼ Seeking commercial solutions:
- Manuf. Readiness Level 8/9 (Low Rate Initial Production / Full Rate Production)
- COTS/NDI that require RDT&E engineering, design or integration

▼ Mission critical needs:
- Logistics in a Contested Environment
- Holistic Common Operational Picture

▼ Technical focuses:
- Renewable Energy Generation and Storage
- Trusted AI and Autonomy
- Advanced Computing and Software
- Integrated Sensing and Cyber
- Sustainment

Events and Links

▼ "Ask Me Anything" Webinar Session (27 JUN)

  – Recording: https://navysbir.com/Navy_Open_topic-AMA-V1a.htm

  – Slides: https://navysbir.com/docs/Navy_Open_topic-AMA_Slides-6-27-23.pdf

▼ "Ask Me Anything" Webinar Session (18 JUL @ 1300 ET)

▼ Information Webinar Session, NAVAIR (10 JUL @ 1300 ET)

  – Recording: https://navysbir.com/Navy_Open_topic-IS-navair-V1a.htm

  – Slides: https://navysbir.com/docs/NAVAIR-Open_Topic-webinar7-10-23.pdf

▼ More information on https://navysbir.com/open_topic.htm

NAVWAR Mission and Vision

▼ **MISSION**:
NAVWAR identifies, develops, delivers and sustains information warfighting capabilities supporting naval, joint, coalition and other national missions.
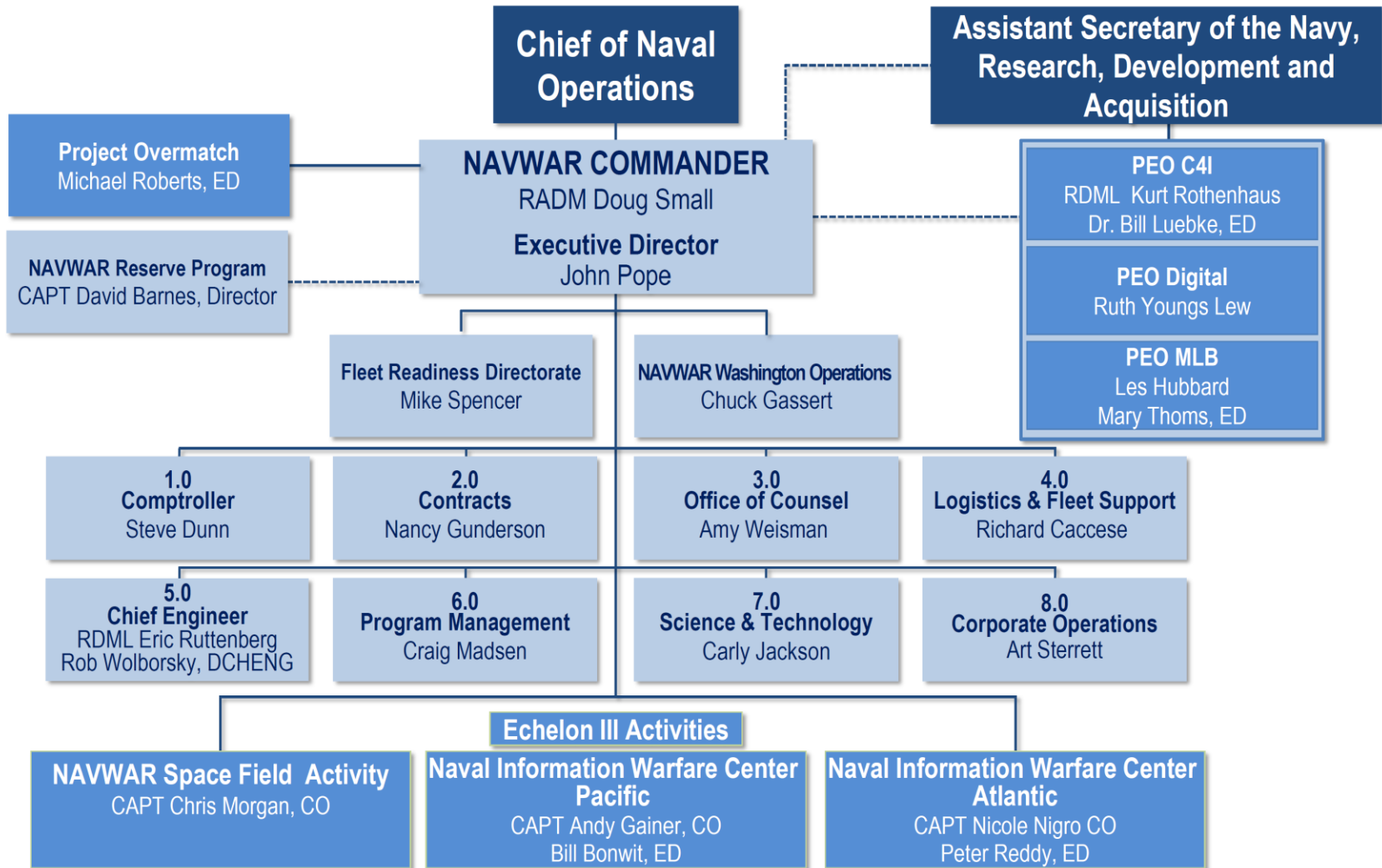
▼ **VISION**:
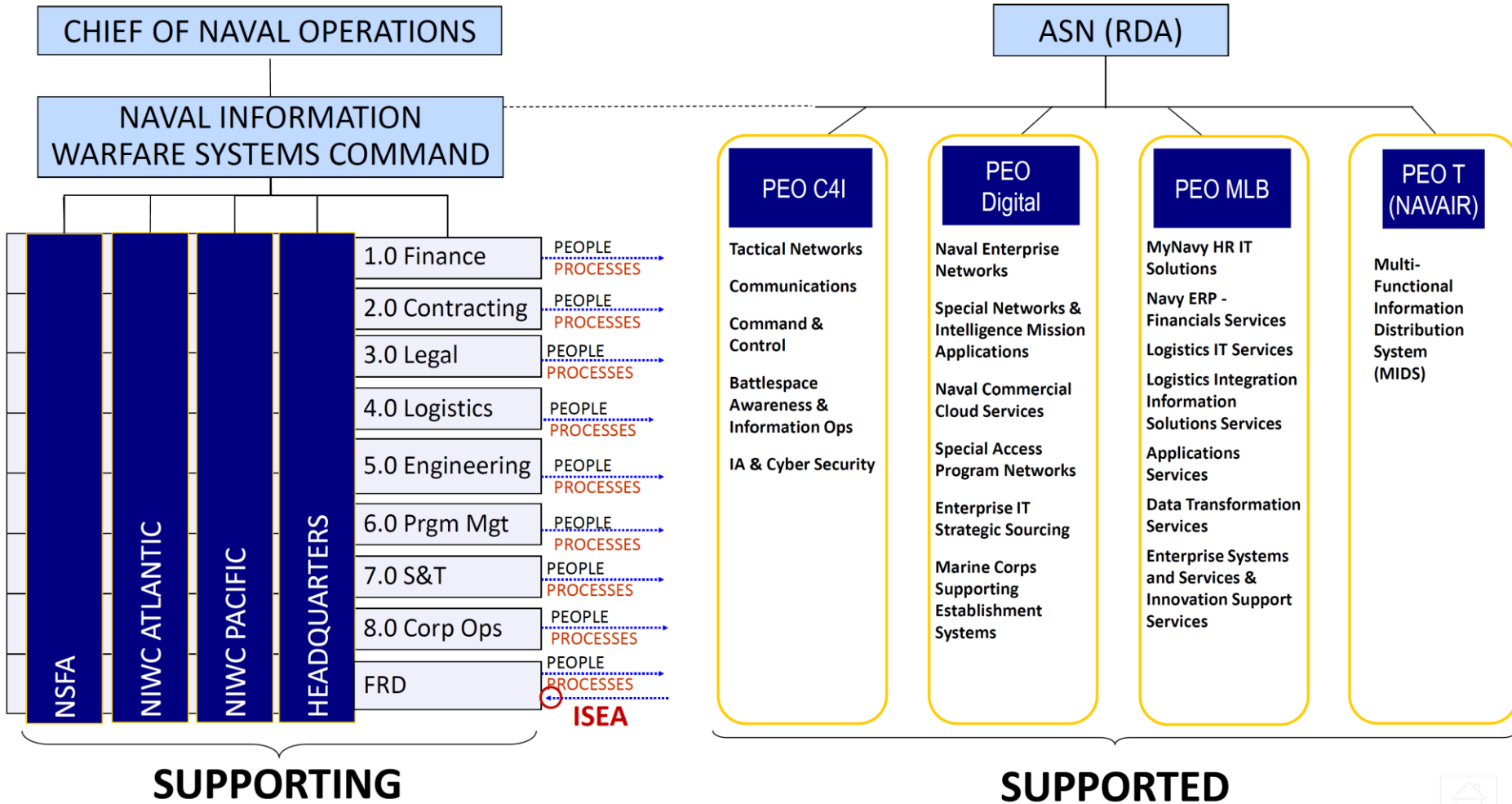Rapidly deliver cyber warfighting capability from seabed to space.

Organization (1/2)

Organization (2/2)

SUPPORTING

CHIEF OF NAVAL OPERATIONS

NAVAL INFORMATION WARFARE SYSTEMS COMMAND

NSFA | NIWC ATLANTIC | NIWC PACIFIC | HEADQUARTERS

1.0 Finance — PEOPLE / PROCESSES
2.0 Contracting — PEOPLE / PROCESSES
3.0 Legal — PEOPLE / PROCESSES
4.0 Logistics — PEOPLE / PROCESSES
5.0 Engineering — PEOPLE / PROCESSES
6.0 Prgm Mgt — PEOPLE / PROCESSES
7.0 S&T — PEOPLE / PROCESSES
8.0 Corp Ops — PEOPLE / PROCESSES
FRD — PEOPLE / PROCESSES

ISEA

SUPPORTED

ASN (RDA)

PEO C4I
- Tactical Networks
- Communications
- Command & Control
- Battlespace Awareness & Information Ops
- IA & Cyber Security

PEO Digital
- Naval Enterprise Networks
- Special Networks & Intelligence Mission Applications
- Naval Commercial Cloud Services
- Special Access Program Networks
- Enterprise IT Strategic Sourcing
- Marine Corps Supporting Establishment Systems

PEO MLB
- MyNavy HR IT Solutions
- Navy ERP - Financials Services
- Logistics IT Services
- Logistics Integration Information Solutions Services
- Applications Services
- Data Transformation Services
- Enterprise Systems and Services & Innovation Support Services

PEO T (NAVAIR)
- Multi-Functional Information Distribution System (MIDS)

Introduction to PMWs 150 and 170

▼ **PMW 150**: **Command & Control** provides operational & tactical C2 capabilities by integrating real-time & near real-time representations of tactical situations while including targeting support, chemical-biological warnings & logistics support for the Navy, Marine Corps, joint & coalition warfighters

▼ **PMW/A 170**: **Communications & GPS Navigation** provides & supports interoperable, cost-effective communications, & Position, Navigation & Timing services, assured & resilient communications, & GPS navigation to enable information dominance for maritime forces

Program Executive Office
Command, Control, Communications,
Computers and Intelligence (PEO C4I)

Naval Information Warfare Systems Command (NAVWAR) Information Session

SBIR 23.4 Topic - N234-P07

12 July 2023

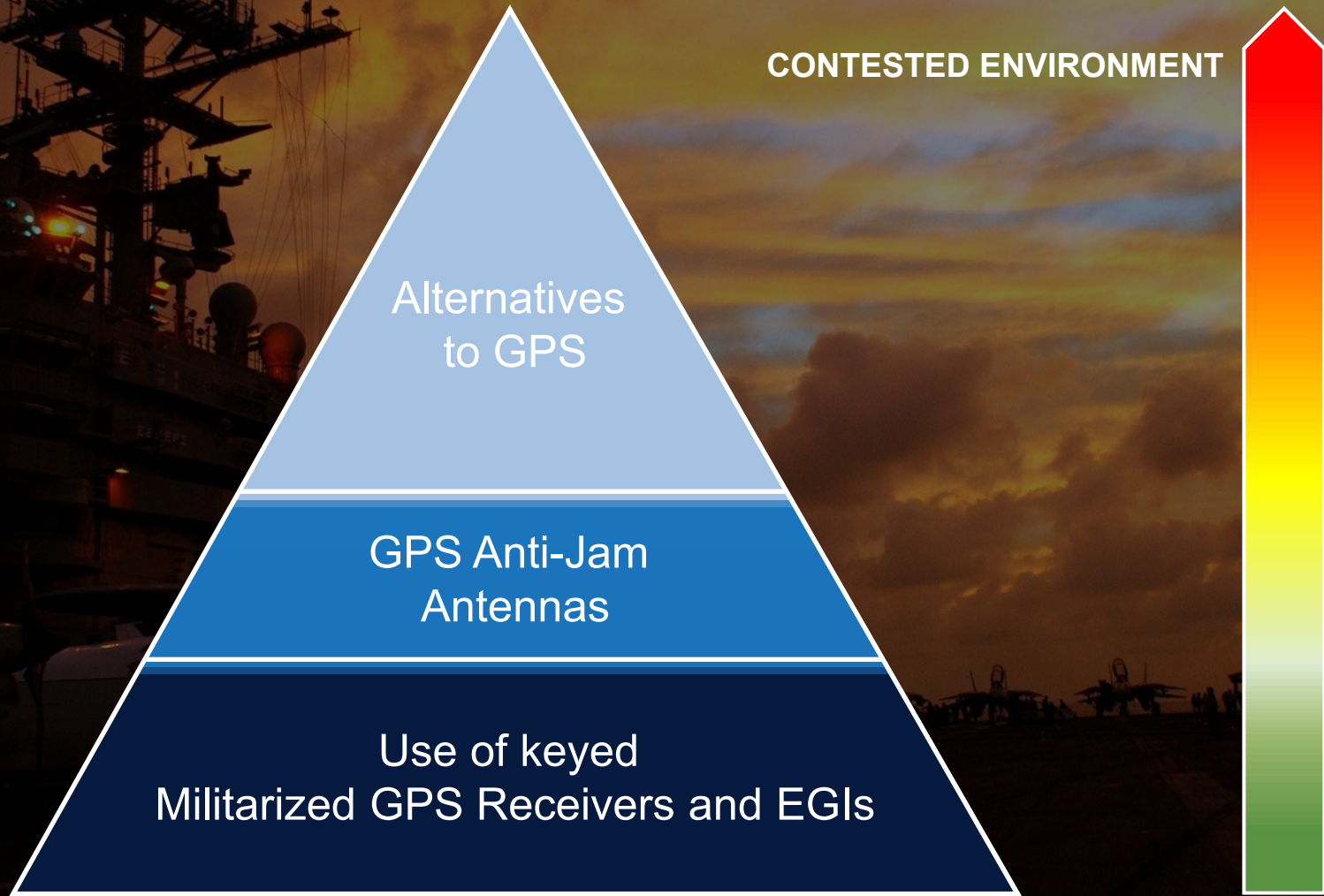Briefer: McLaina Mazzone
S&T APM (PMW/A 170)
mclaina.mazzone.civ@us.navy.mil

*Deliver threat-based C4I and space capabilities to enable
the fleet to compete, deter and win — tonight*

Assured PNT Pyramid

CONTESTED ENVIRONMENT

Alternatives to GPS

GPS Anti-Jam Antennas

Use of keyed Militarized GPS Receivers and EGIs

APNT Capability requires scalable open architecture to integrate complimentary technologies

Transition Program of Record (PoR) Overview

- Global Positioning System (GPS)-based Positioning, Navigation, and Timing Service (GPNTS)

  ➢ Next generation positioning, navigation, and timing (PNT) system providing modernized, robust, secure, integrated, and interoperable network-centric PNT capabilities

  ➢ Open Architecture (OA) approach allows for integration of alternate PNT sources

NAVWAR SA Tool
Topic (N234-P07) Overview

- Objective: Develop a software (SW)-based tool that uses Artificial Intelligence (AI) to sift data and identify potential GPS threats in near real-time and present it into a Navigation Warfare (NAVWAR) Situational Awareness (SA) picture

- Can tie into a Common Operational Picture (COP) to be used by operational commanders at the Combatant Command (COCOM) level down to individual platform/units to make informed decisions with a better understanding of warfighting capability

SBIR Phasing Expectations

- Phase I: Study describing research and results of potential algorithms (how they would work, data requirements, etc.), resulting in TRL 2/3
  - ➤ Take into account the PoR(s) architecture and interfaces
  - ➤ Include M&S to support outcome/recommendations
  - ➤ Develop Phase II Project Plan to include detailed schedule, spend plan, performance objectives, and transition plan for the identified PoR(s)

- Phase II: SW development (prototype) and perform initial integration activities to Technology Readiness Level (TRL) of 4/5
  - ➤ Develop performance and interface specifications
  - ➤ Government will make coordinate collaboration with the PoR team(s)
  - ➤ Develop Phase III Project Plan to include detailed schedule in Gantt format and spend plan, as well as lifecycle support strategies and concepts

- Phase III: Refine, fully develop, and integrate the solution into the PoR(s)
  - ➤ Experimentation/demonstration to increase TRL to 6/7
  - ➤ Support fielding by implementing lifecycle support strategies and concepts

Accelerated delivery of required capability that is affordable, integrated and interoperable