



MEDICAL BIOMEDICAL BIODEFENSE *Symposium*



SUPPORT TO AMERICA'S WARFIGHTERS AND VETERANS

SEPTEMBER 23-24, 2026

CHAPEL HILL, NORTH CAROLINA



MEDICAL BIOMEDICAL BIODEFENSE *Symposium*

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CHAPEL HILL, NORTH CAROLINA

WELCOME REMARKS

Mary Beth Thomas, Ph.D.

Senior Vice President,
Science and Business Development
North Carolina Biotechnology Center





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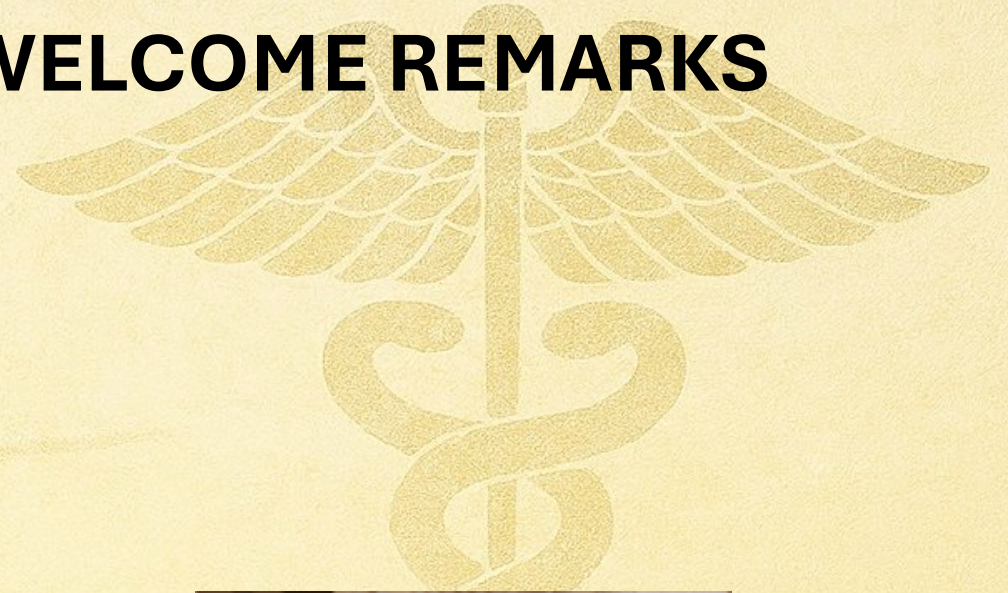
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US Senator Ted Budd
North Carolina

Represented by
Justin Somers
Regional Director

WELCOME REMARKS





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Jon Ramsey

Field Vice President
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Brian Snyder

Director of Business Development



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Michael B. McGinnis, M.D., M.P.H.
Executive Director,
Bureau of Medicine and Surgery
Director, Civilian Corps

KEYNOTE REMARKS





ADVANCING NAVAL MEDICINE

Dr. Michael McGinnis (SES)
Executive Director
U.S. Navy Bureau of Medicine & Surgery

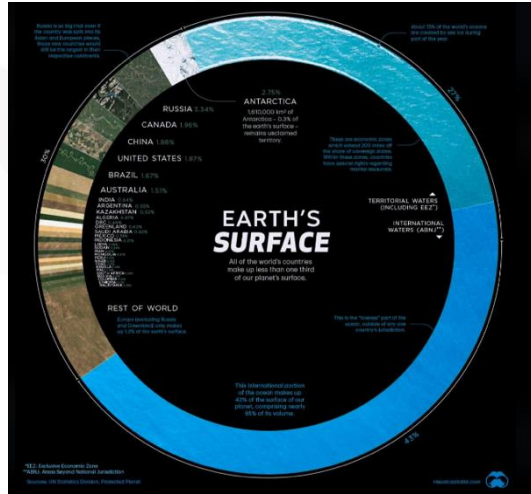


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NAVMED | Seapower vs. New Threats



- **More than 90%** of international trade moves on the ocean, and **95%** of international data moves through undersea cables.
- **Seapower** ensures the protection of freedoms from those who would use intimidation or coercion to undermine international law.
- **Asymmetric threats** challenge the freedom of navigation in key choke points.

The U.S. Navy protects America's prosperity: Seas are the lifeblood of our economy, our National Security and our way of life.



NAVMED | North Star

Navy Surgeon General Campaign Plan 2028

Department of the Navy
Bureau of Medicine and Surgery



By 2027, Navy Medicine will deliver agile, scalable, trained, and certified medical units to provide enduring **support** to the Fleet, Marines and the Joint Force in **high-end competition, crisis, and conflict**.

Navy Medicine will be organized to facilitate all phases of **Force Development, Force Generation, Force Preservation** and full restoration of the warfighter.



NAVMED | On Any Given Day...



- Ensuring mission readiness for and “**Rendering Assistance**” to **438,560+ Sailors** (Active + Reserve) and **209,600+ Marines** (Active + Reserve) across the globe
- Serving in support of **140+** concurrent missions including leading **4** medical type commands (TYCOMs):
 - Naval Medical Forces Atlantic (NMFL)
 - Naval Medical Forces Pacific (NMFP)
 - Naval Medical Forces Development Command (NMFDC)
 - Navy Medicine Research and Development Command (NMRDC)
- **44,000+** Active Duty/Reserve/Civilians serving worldwide at:
 - **29** Navy Medicine readiness and training commands that enable medical proficiencies through “reps and sets” in a military treatment facility
 - **36** Education and training commands and activities to keep Navy medicine professionals mission ready and prepared
 - **13** Public health commands and activities
- Overseeing **130** instruction programs for every level of experience and training **2500+** hospital corpsmen



NAVMED | Global Locations



NAVMED | Key Operational Problems

For 20+ Years, Complete Air / Land / Sea Military Advantage



- An agile, adaptive medical force learned, evolved to save lives in the battlespace
- Achieved 90% survivability rate for Sailors and Marines wounded in combat – an unprecedented achievement in the history of warfare.

To Peer Competitors



- Now engaged in strategic competition where U.S. dominance in the battlespace is not assured, requiring active deterrence.
- Navy Medicine must enable naval force generation while delivering ready medical forces and operational medical capabilities to save lives in a contested battlespace.

Navy Medicine maintains & increases the survivability and lethality of the Navy and Marine Corps most valuable weapons system – our Warfighters



NAVMED | Key Operational Problems



- Maritime combat will generate casualties at sea and ashore
 - Exceeding recent experience
 - Different mix of casualties
- Mass casualties require large scale recovery and patient movement
- Delayed/non-linear patient movement requires medical care en route
- Medical Logistics Disruption (push vs pull)
- Blood supplies must be readily accessible and quickly distributed
- Maritime platforms require all personnel to provide care (TCCC)



NAVMED | Advantage at Sea

- Integrated all-domain Naval power – synchronizing the complimentary capabilities, capacities, roles, investments, and authorities of the naval service
- Expands ability to **deliver effects across the competition continuum in all domains**: from the sea floor to space; across the world's oceans, littorals, and coastal areas ashore; and in the information environment, cyber domain, and electromagnetic spectrum.



NAVMED | Strategic Alignment w. CNO's Priorities

FOUNDRY

FLEET

FIGHT



NAVMED | Strategic Alignment w. CNO's Priorities

FOUNDRY

LOE 2. Deliver and Sustain Medically Ready Naval Forces via Optimized Garrison Access to Care

FLEET

LOE 3. Ensure Quality Healthcare & Patient Safety

FIGHT

LOE 1: Deliver and Sustain Whole Ready Medical Forces

LOE 5. Design and Deliver the Future Naval Medical Force

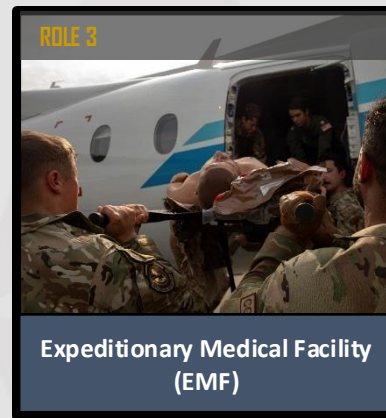
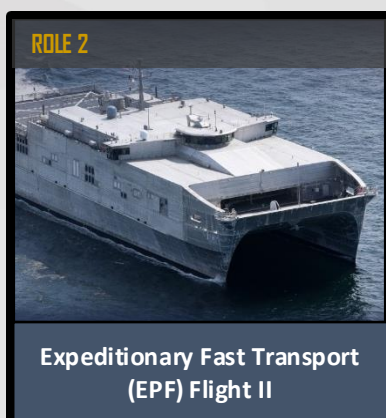
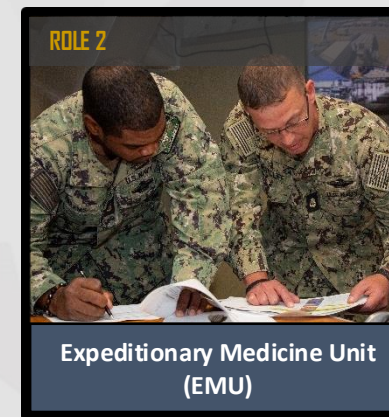
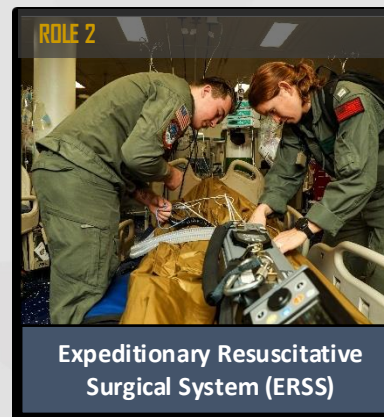
LOE 4. Assemble and Retain Talented Naval Medical Forces



NAVMED | LOE 1: Deliver & Sustain Whole Ready Naval Medical Forces



NAVMED | LOE 1: Major Deployable Units



NAVMED | Five Lines of Effort



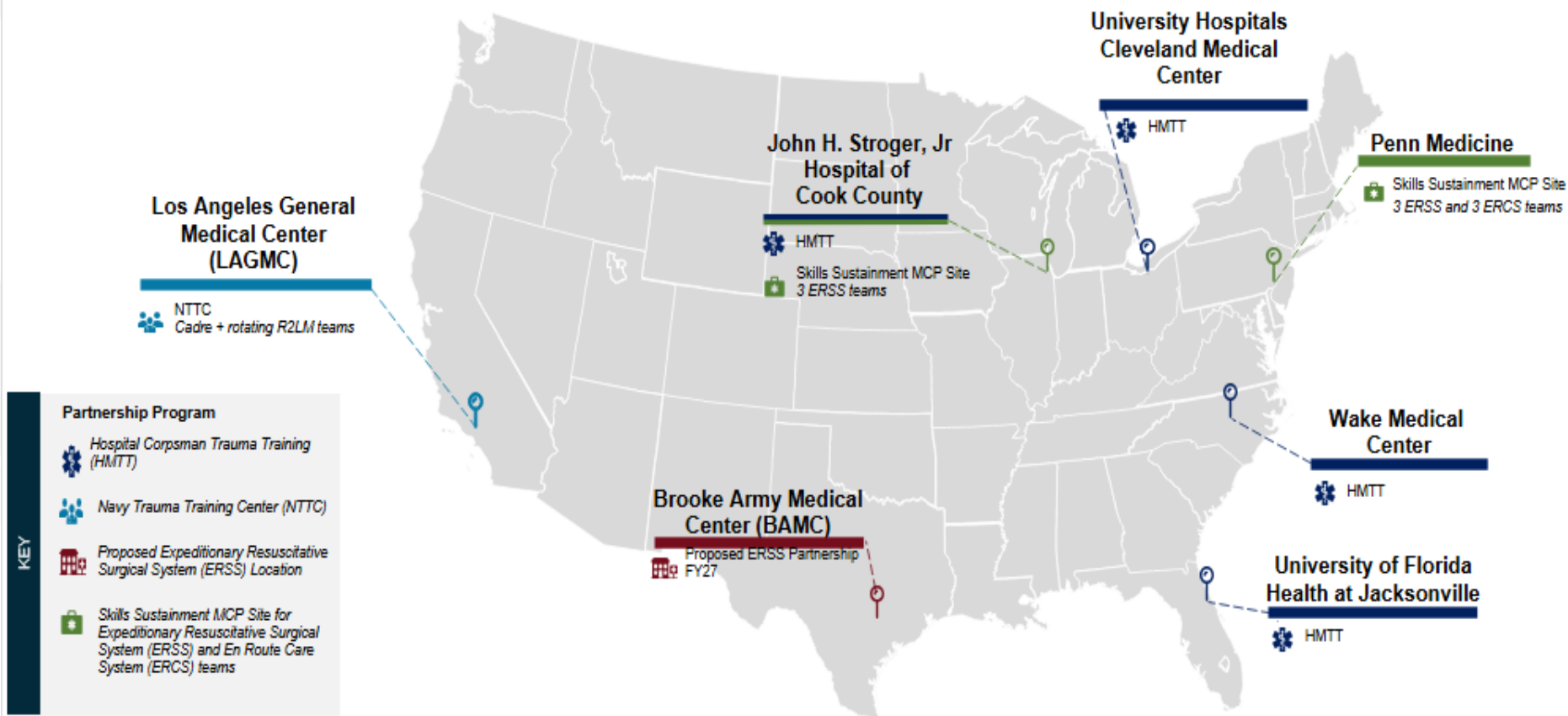
LOE2 Deliver & Sustain Medically Ready Naval Medical Forces via Optimized Garrison Access to Care

- VA/DoW Resource Sharing Agreements (governed under 38 U.S.C. § 8111)
- Joint Incentive Fund (JIF)
- VA Office of Academic Affiliations (OAA) Partnerships
- Department of Veterans Affairs / Department of War Medical Sharing Office (MSO)
- Federal Electronic Health Record Modernization (FEHRM) Office
- Joint Health Information Exchange (HIE)
- TRICARE Liaison Network



NAVMED | National Partnership Sites

Navy Medicine maintains several partnerships and continues to explore opportunities for expansion to meet a range of readiness needs.



NAVMED | Local Partnerships



NAVMED | Local Partnerships



MIL-CIV Forging the Future Naval Medical Force

Fayetteville, Technical Community College (FTCC)

- Established a high-yield military-civilian partnership with FTCC, leveraging local academic infrastructure to train **Corpsmen to be Paramedics**
- Minimizing DoW training overhead while rapidly fielding advanced life-saving capabilities to fully staff and sustain ERCS capabilities.



NAVMED | Five Lines of Effort

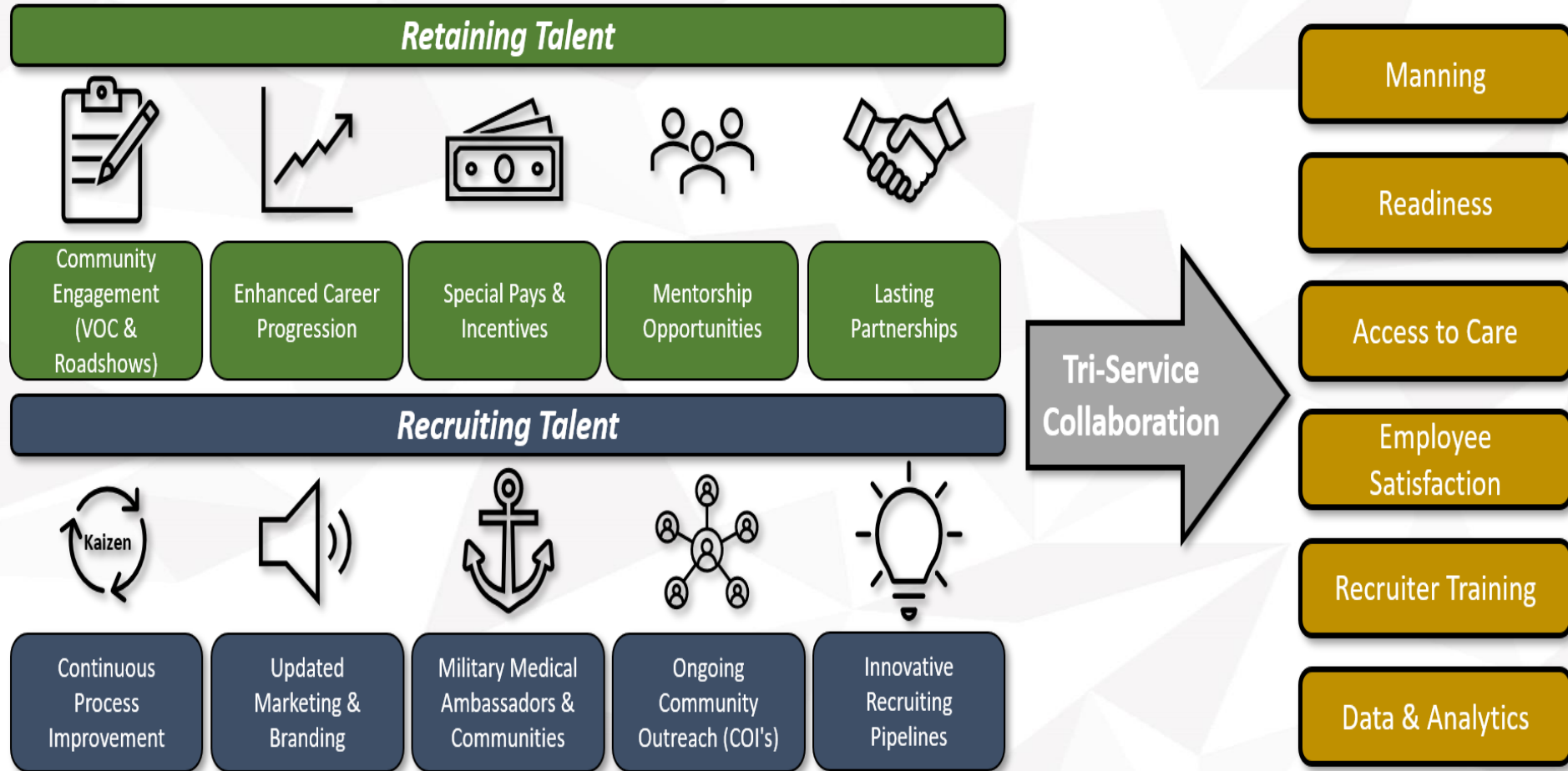


LOE3 Ensure Quality Healthcare and Patient Safety

- Credentialing and privileging of Five Eyes Partners
- Expanded **Quality and Senior Leadership Academy** to senior medical officers afloat
- Updated expeditionary scope of practice
- **Quality Medical Assist Visit** established as future of Navy Medicine advocacy and training
- Enhancing healthcare quality through a **modernized electronic medical record** and cloud-based AI tools / data storage



NAVMED | Assemble & Train Talented Medical Forces



NAVMED | Five Lines of Effort

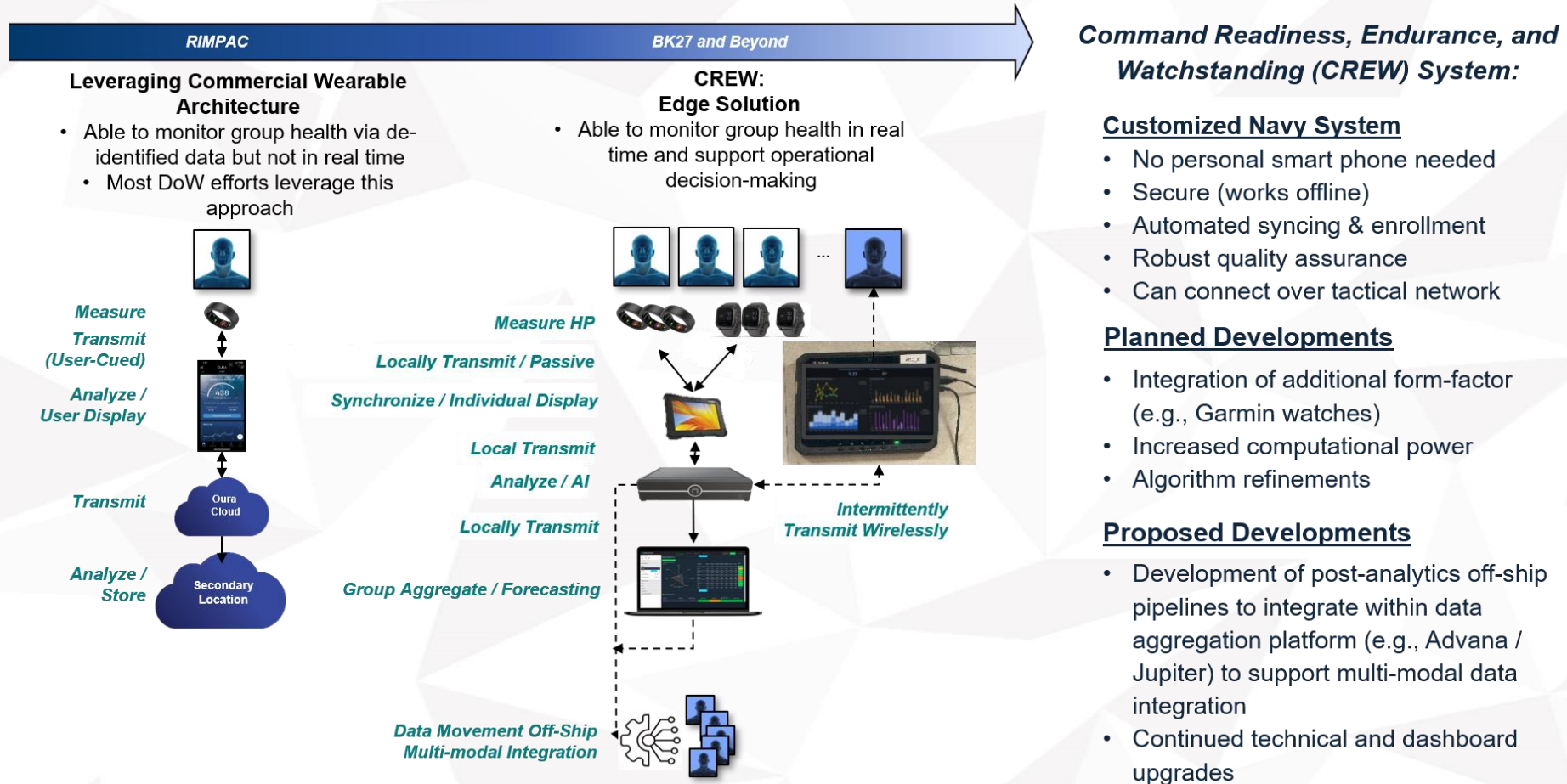


LOES Design and Deliver the Future Naval Medical Forces

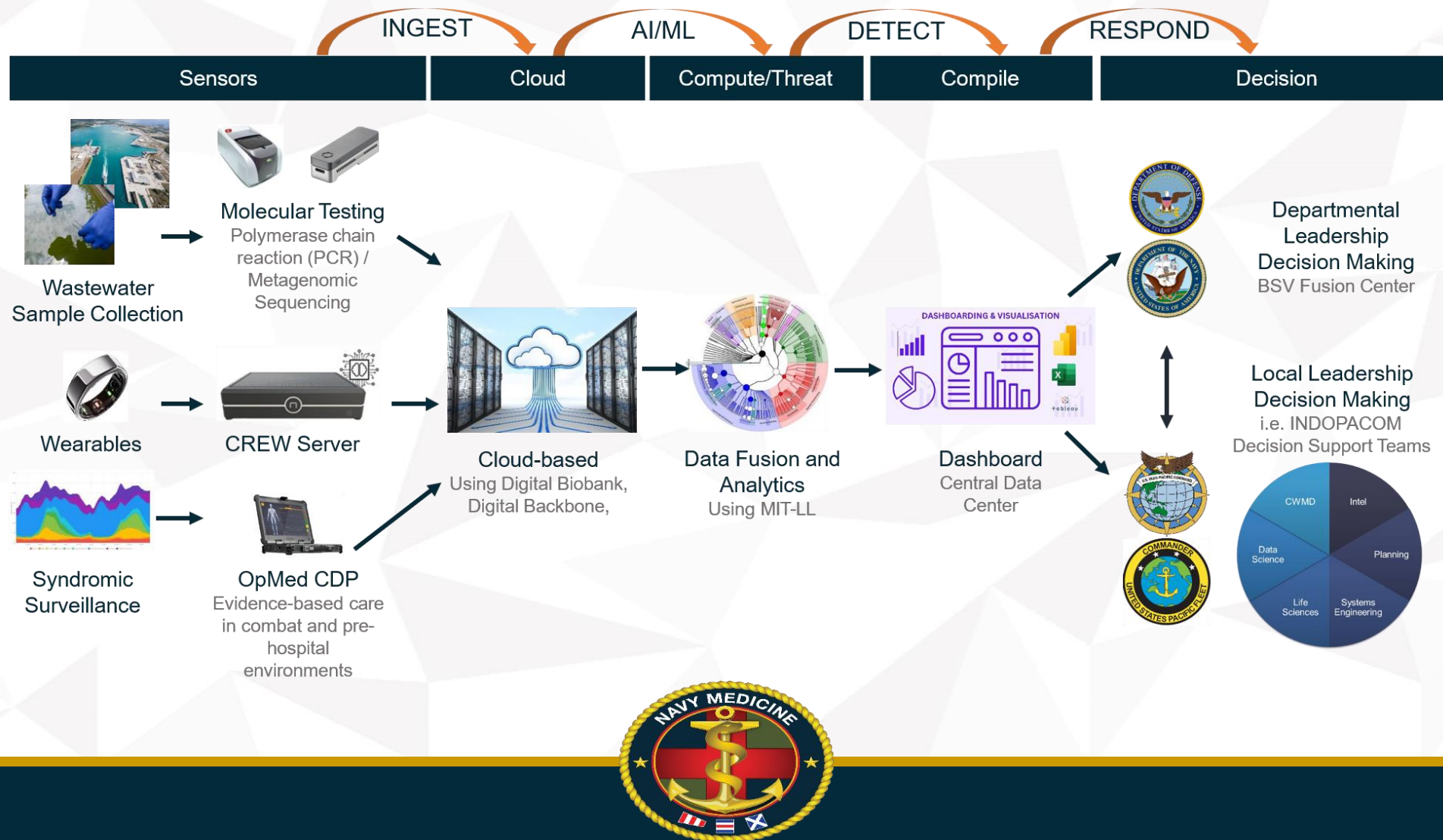
- Leveraging our robust research & development enterprise
- Focusing on **human performance optimization** (e.g., sleep/fatigue, physical & mental fitness)
- Ensuring uninterrupted operations regardless of environment (e.g., heat, cold, chem/bio/rad/nuc contaminated, altitude, undersea)
- Providing **early warning** and mitigation of health threats (e.g., biosurveillance)
- Improving **Health IT and AI** utilization



NAVMED | Human Performance Optimization – CREW



NAVMED | Biothreat Early Warning



NAVMED | Human Performance Optimization - Wearables



PROBLEM | *The Navy currently lacks the ability to identify and isolate biothreats on ships underway.*

CONCEPT | Through participation in a series of exercises, examine the feasibility of implementing four key bio-surveillance methods to inform a biothreat early warning system: Wastewater surveillance, symptom surveillance using wearable devices, air sampling, and syndromic surveillance of OpMed CDP clinical data.

RIMPAC26

- Wastewater samples were taken from ships pier-side prior to transit to Hawaii and pier-side in Hawaii. Samples will then be sent to a lab for PCR and sequencing to test for both targeted pathogens and threat agnostic pathogens harmful to human health.
- Wearable devices (Oura Ring 4) tracked 200 participants throughout the exercises to monitor health and test illness prediction algorithms and characterize the potential actionability of data provided to detect emerging outbreaks.
- Air sampling devices were placed in ship common areas to conduct passive surveillance for respiratory illnesses.

Balikatan 2027 and Beyond

- Wastewater samples will be collected from ships and analyzed using targeted PCR and untargeted NGS.
- Wearables illness prediction algorithm will be containerized on the CREW system and continuously inform dashboards for early signs of infection.
- Air samplers will be placed in ship common areas.
- Electronic Health Records (OpMed CDP) will integrate clinical data with the other testing modalities.
- Data from all surveillance modalities is integrated into decision support dashboards to inform intervention and mitigation.

14 APR	...	17 APR	...	10 JUN	...	12 JUN	...	20 JUN	...	23 JUN	24 JUN	...	31 JUL	01 AUG	...	07 AUG	08 AUG	09 AUG
RIMPAC26 Final Planning Conference				Study Enrollment				Additional Onboarding JBPHH			RIMPAC26 Execution						Post-Study Activities	
						Travel to JBPHH								Return to San Diego				
				Pier-side Sample Collection							Pier-side Sample Collection						Pier-side Sample Collection	
						Sample Analysis		CUI//PRVCY					Sample Analysis				Sample Analysis	



NAVMED | Conclusion

- STRATEGIC ALIGNMENT
- NAVY MEDICINE ENTERPRISE 5 LINES OF EFFORT
 - Sustain Whole Ready Naval Medical Forces
 - Medically Ready Forces
 - Quality Healthcare and Patient Safety
 - Assemble and Retain
 - Deliver Future Naval Medical Forces





QUESTIONS?

Dr. Michael McGinnis (SES)
Executive Director
U.S. Navy Bureau of Medicine & Surgery





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WELCOME REMARKS



Jimmy Hendrix

Director of Regional Programs and
Incoming Executive Director
NC Military Business Center





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SENIOR EXECUTIVE LEADERSHIP IN MEDICAL ACQUISITION



Ronald Miller, D.M.

Executive Director

Office of Logistics & Supply Chain Management
Department of Veterans Affairs



James F. Dillman III, Ph.D.

Chief Scientist

Research & Engineering Directorate
Defense Health Agency



Colonel Deon Maxwell

Commander

Army Medical Logistics Command



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