



Contested Logistics Industry Week

19 September 2024

Modernizing Sustainment for 2040 Panel

Moderated By: Mr. McConnell, CASCOM DCG

- Mr. Manning, DASA
- MG Lawrence, AMC Deputy G3
- BG Behn, HQDA G4
- Ms. French, DLA Deputy J3

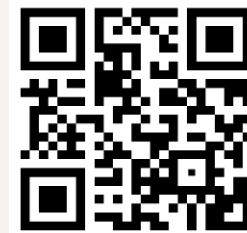


Questions
Slido.com
Code: 2471639

15-Minute Break



Tech Nomination Form



Feedback Form

UP NEXT...

*Contested Logistics and
Changes to the
Modernization Mindset Panel*

Contested Logistics and Changes to the Modernization Mindset Panel

Moderated By: BG Upton, Director CL CFT

- Dr. Shone, Deputy CoS HQDA G-8
- BG Cushing, CG DEVCOM
- Dr. Jahn, Sr Advisor to CSO OSD
- COL Mills, Principal Advisor DARPA



Questions
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Continuous Transformation and Persistent Experimentation

COL Herbermann, Director, Sustainment –
Capabilities Development and Integration Directorate

COL Zetterwall, Director, Concepts and Sustainment
Battle Lab



Questions
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Continuous Transformation

Concepts

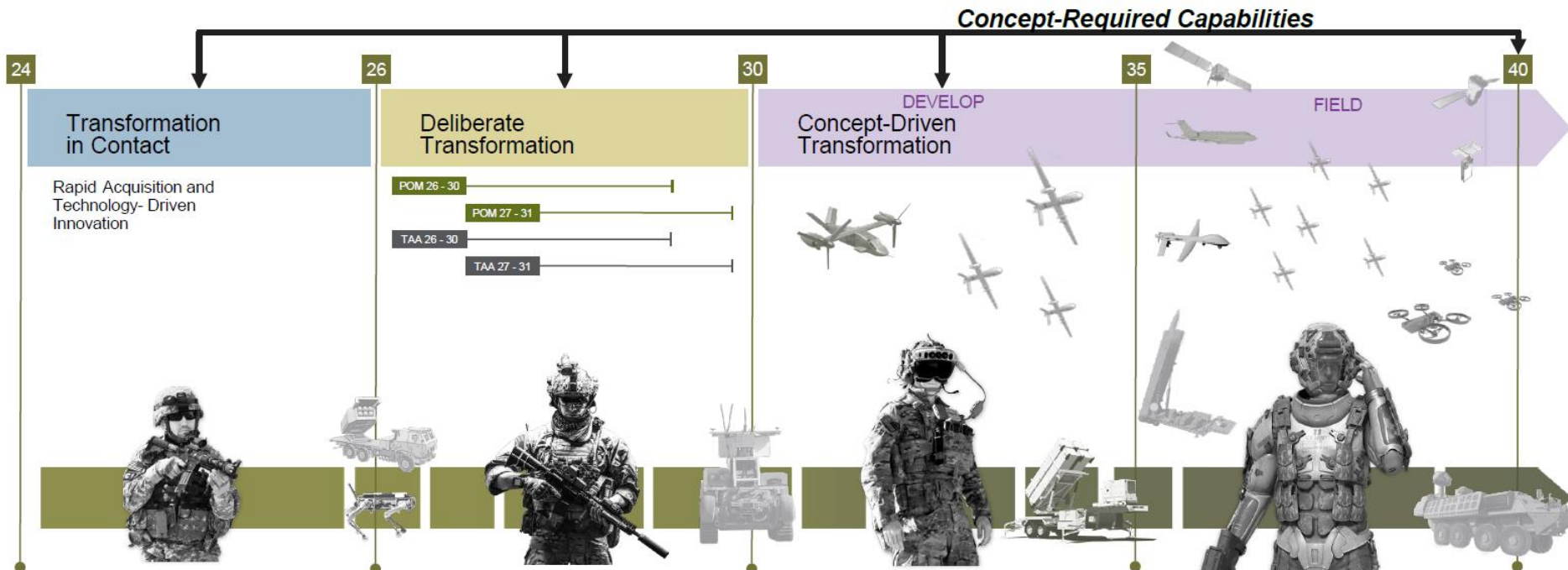
- Characteristics of Adversaries
- Warfighting Notions
- Future Studies Program

Requirements

- Sustainment Capability Gaps
 - IP TBA 22-23: 14 Gaps
 - ADP CBA: 4 Gaps
 - Arctic CBA: 9 Gaps
 - IP TBA 1.0: 11 Gaps
 - CNA & LSCO: 46 Gaps
 - Gap Refinement CBA: TBD
- Materiel Solutions

Experimentation

- Concept Driven Transformation
- Deliberate Transformation
- Transform in Contact
- PC-C4 Insights
- PC-C5





Sustainment Persistent Experimentation



Project Convergence is a series of experiments conducted both in CONUS and forward in operational theaters incorporated in Army Service Component/ COCOM exercises designed to assess future concepts and early prototype capabilities in a live field environment. Capstone (PCC5, 6, 7) experiment occurs every 12-18 months.



SUSTAINMENT MODERNIZATION EXPERIMENT

Sustainment Modernization Experiment Live prototype assessment of emerging technologies in a field environment focused on autonomous distribution and advanced power systems (CRC 18, 19, 21)

Efforts in support of Army 2030-2040

FM & C Operations in LSCO ROC Drill (2-6 DEC 24) In support of SSI, the experiment will explore finance and comptroller operations to identify and address capability gaps impacting the operating force. (CRC-21)

AUKUS TRILAT TTX (28-31 MAR 25) Exploration of node delivery timing (CRC 18, 19, 21)

EOD TTX (DEC 25) Ongoing engagement supporting transformation of EOD opns with Sust/Prot WfF (CRC 18, 21)

Efforts in support of Army 2040

2040 Personnel Replacement Operations LOE (27-29 AUG 24) How will non-unit replacement operations be executed in 2040 (CRC 21)

2040 Maintenance & Recovery LOE (21-24 OCT 24/FEB 25) How does Maint and Recovery change in the 2040 FOE (CRC 21)

Efforts in support of Army 2040

Predictive Sustainment (27-31 JAN 25) Technical evaluation of how AI and ML can enable predictive sustainment. Focus on data sets, and questions that could be answered by AI or ML (CRC 18, 21)

Pulsed Sustainment (14-18 JUL 25) Examine the implications of operating in a widely-dispersed area under A2/AD and DDIL conditions that requires infrequent resupply operations. (CRC 18, 19, 21)

Sustainment at Scale in A2/AD Environment (OCT 25) Assess the ability to sustain opns in an A2/AD environment when there is significant uncertainty regarding the receipt of sustainment. (CRC 18, 19, 21)

Rapid Deployment Operations in 2040 (MAR 26) Assess the ability to rapidly deploy and sustain the 2040 Objective Force in an A2AD environment. (CRC 18, 19, 21)

2040 Distribution and Materiel Management (AUG 26) Explore emerging MM and DM capabilities that will enable 2040 sustainment operations. (CRC 18, 19, 21)

Sustainment Related Army Warfighting Concept 2040 Concept Required Capabilities Informed:

18 – Army formations require lethal autonomous capable systems that provide expanded operational reach, prolonged endurance and help sustain the joint force

19 – Army formations require energy solutions for production, collection, storage and distribution

21 – Army formations must conduct multi-functional and multi-modal sustainment operations

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
FY 25	Maint Operations	FSP 25-1	FM&C Opns	Predictive Sust	Recovery Operations	AUKUS TRILAT TTX PCC5		SMEx 25	FSP 25-2	Pulsed Sust		
FY26	A2AD Sustainment	FSP 26-1	EOD TTX			Rapid Deploy Ops	SMEx 26		FSP 26-2	PCC6	2040 DM3	



Unclassified

Lunch Break (1150-1300)

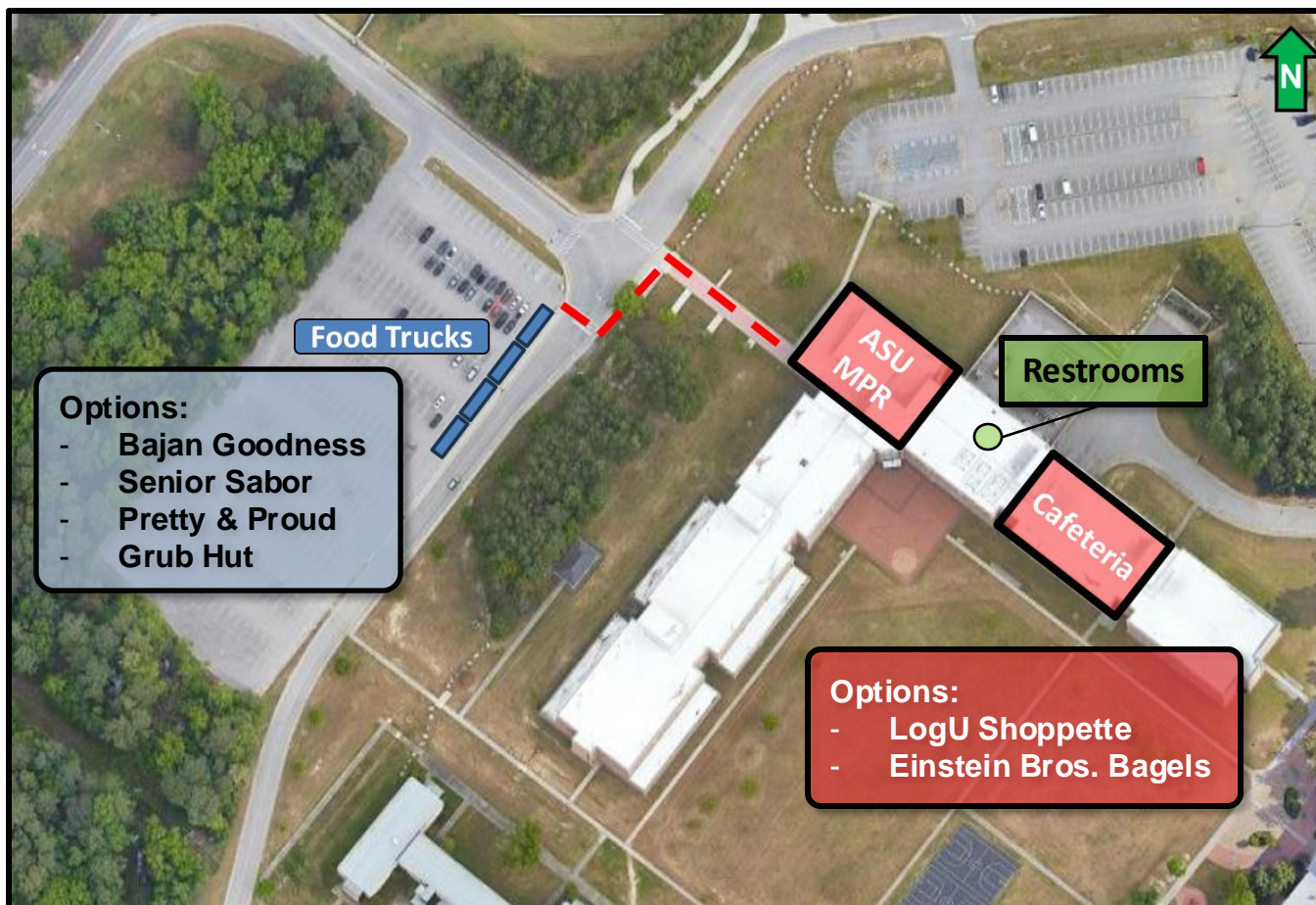


Feedback Form



Tech Nomination Form

*Restrooms are located
down the hallway
towards the cafeteria.*



Food Trucks

Options:

- Bajan Goodness
- Senior Sabor
- Pretty & Proud
- Grub Hut

Options:

- LogU Shoppette
- Einstein Bros. Bagels

Restrooms

Cafeteria

Additional On-Base Options:

Main Express:

300 A Avenue, Bldg. 1605

- Panda Express
- Charley's
- Qdoba

Troop Mall Complex:

1431 Sustainment Ave

- Pizza Hut
- Tropical Smoothie Café
- Boopers Malt Shop
- Jimmy John's
- Shoppette

Unclassified

Support Starts Here!

Future of Transportation Panel

Moderated By: COL Arnold, Chief of Transportation

- CW5 Thom, TC Regimental Warrant Officer
- CW5 Laferte, HQDA G-3/5/7
- CW5 Deans, Maritime and Intermodal Dept
- Mr. Overton, Chief SCDID Transportation Requirements
- Mr. Burgdorf, Force Development Directorate



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Transportation at a Glance

U.S. ARMY

Mission: The U.S. Army Transportation School trains, educates, and develops Transportation professionals for the total force; and drives change through DOTMLPF-P solutions to sustain large scale combat operations in a multi-domain operations environment.

Vision: Transportation professionals and solutions enable the Army to deploy, fight and win, anytime and anywhere. Mobility equals lethality and survivability!



COL William C. Arnold
34th Chief of Transportation



CSM Kenneth E. Hood III
16th Regimental Command
Sergeant Major



CW5 Terry Throm
8th Regimental Warrant Officer

Total TC Force
59,456 Auth
48,566 O/H (82%)



FY23 SMDR IMT/PME/Functional/DL
Training Load
19,228
spread across 8 locations

Fort Gregg-Adams, VA Transportation School HQs

IMT & Functional Trained

- 88N (Transportation Management Coordinator)
- Senior Transportation Ops Course
- Unit Movement Officer Deployment Course
- Master Driver Trainer Qualification Course
- TC-AIMS II TOPS Course
- TC-AIMS II Functional User Course
- Air Deployment Planners Course
- License Instructor/Examiner Course (DL)

Average Total Training Load: 12,183
IMT: 616 / Functional: 4,067 / DL: 7,500
67% of TC Training

FT Liberty
UMODPC

FT Carson
UMODPC

FT Drum
UMODPC

FT Cavazos
UMODPC

FT Stewart
UMODPC

Satellite
Courses

Joint Base Langley-Eustis, VA

IMT, PME & Functional Trained

- 88H (Cargo Handling Specialist)
- 88K (Watercraft Operator)
- 88L (Watercraft Engineer)
- 88U (Railway Specialist)
- 880A (Marine Deck Officer)
- 881A (Marine Engineering Officer)
- 880A/880A1 WOILE
- RTCH Operators Course (ASI R1)
- 88K/L20 Certification Course
- Railway Operations Crewmember Course
- Locomotive ENG/Conductor Cert/Recert Course
- Marine Radar OBS/Auto Radar Plot Cert/Recert Crs

Average Total Training Load: 1,132
IMT: 753 / Functional: 73 / DL: 306
6% of TC Training

Fort Leonard Wood, MO

IMT Only

-88M (Motor Transport Operator)

Average Training Load: 4,816
27% of TC Training

One Army School System (OASS) Construct

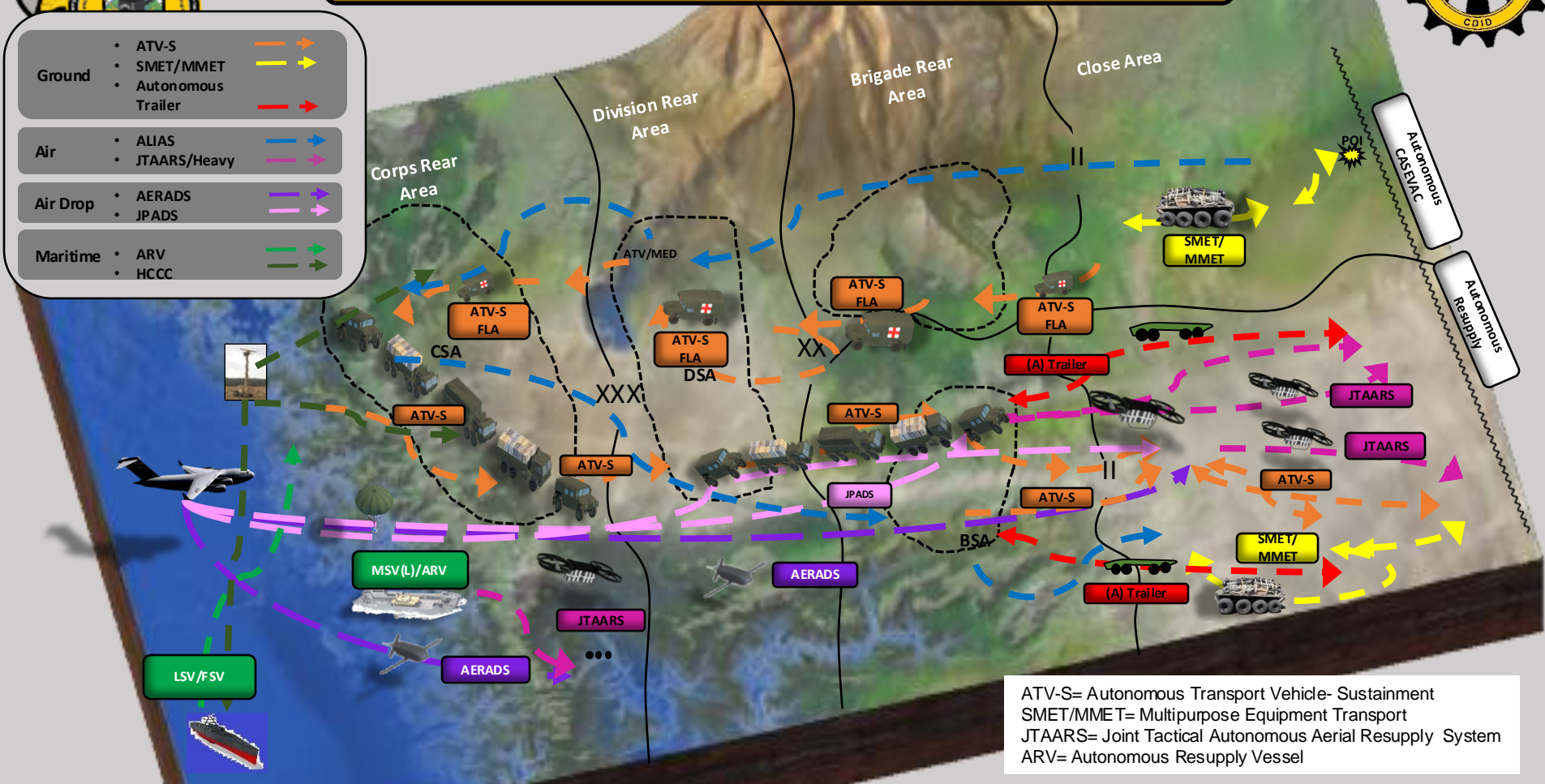
10 ARNG Regional Training Sites teach UMODPC, 88M10 MOS-T & 88M30 ALC

3 USAR Total Army School System Training Sites teach 88H/M/N/U MOS-T & CMF88 NCOPDS





Notional Multidomain Distribution



Sustainment in future Large Scale Combat Operations will require multi-domain solutions. The threats will require all transportation and sustainment formations to conduct maneuver to enable logistics operations; staying in one place too long presents greater risk. The Army must employ and sustain widely dispersed dynamic formations in a highly contested environment while maintaining full integration with the joint force across all domains.

How can we leverage innovative solutions to create options for an intra-theater supply chain that operates in constant motion and independent of stationary or fixed facilities, unencumber service members, and build operational endurance by moving key commodities and personnel in all domains at the volume required to sustain large scale combat operations?

10-Minute Break



Tech Nomination Form



Feedback Form

UP NEXT...

Future of Quartermaster Panel

Future of Quartermaster Panel

Moderated By: COL Miller, Quartermaster Commandant

- Mr. Watts, Deputy Director CL-CFT
- Mr. Hanifin, Director Aerial Delivery/Field Svcs Dept
- Mr. Goetz, PEO CS & CSS
- CPT Dicarlo, Director Petroleum & Water Dept
- Mr. Majewski, Branch Chief SCDID Quartermaster Requirements



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Quartermaster at a Glance



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10-Minute Break



Tech Nomination Form



Feedback Form

UP NEXT...
Future of Ordnance Panel

Future of Ordnance Panel

Moderated By: COL Montgomery, Chief of Ordnance

- COL Waite, TPO-EOD Director
- CW5 Sheppard, OD Regimental Warrant Officer
- Dr. Meston, Branch Chief SCDID Ordnance Requirements



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Ordnance at a Glance



Total OD Force
93,607 Auth
83,891 O/H (90%)



FY24 Student Load
ODS 30,836 + DAC 153,210 (w/DL)
= 184,046 total

U.S. Army Ordnance School

Vision: Develop future technicians with the right knowledge, skills, and attributes to deliver effects in LSCO (Army 2030-40) and Build Combat Power within the Operational Force through those technicians.

Mission Statement: Train, educate, and develop agile Ordnance technicians who drive change; employ, develop, and design DOTMLPF-P solutions to build Army strategic readiness and sustain land dominance for LSCO (Army 2030) in Contested Environments.

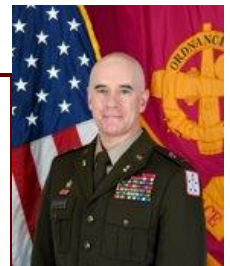
***We provide these 4 functional areas for the U.S. Army:
Maintenance – Ammunition – EOD – Explosives Safety***



COL Robin Montgomery
45th Chief of Ordnance



CSM James A. LaFratta
16th RCSM



CW5 Kent H. Shepherd
13th RCWO

Ordnance School at Fort Gregg-Adams, VA
and 6 Satellite Training Locations

13 ARNG Ordnance Training Sites
4 USAR Ordnance Training Sites

Defense Ammunition Center (DAC)
McAlester, OK with 14 Regional Training Sites

30 Enlisted Military Occupational Specialties
9 Warrant Officer Specialties
2 Officer Areas of Concentration
7 Additional Skill Identifiers
4 Functional Courses
(ASU instructs Off, WO, and NCOPDS)
(RTSMs instruct thru OASS/TASS)

Interservice Training Review Organization:
Ft Gregg-Adams, VA
Army Course Title/Marine Course Title
Small Arms Artillery Repairer/Small Arms Repairer
Ammunition Specialist/Ammunition Technician



The Future of Explosive Ordnance Disposal

- Operations at Scale of Conflict
- AI Enabled Operations
 - *Rapid Wide Area Detection and Characterization*
 - *Non-intrusive Diagnostics*
 - *Render-safe Development / Recommendation*
 - *Workload and Capacity Prioritization*
- Virtual Reality Training / Augmented Reality Execution
 - *Major Weapon Platforms*
 - *High Complexity / Low Density Operations*
 - *Human-Machine Teaming*
- Non-explosive neutralization and disposal of hazards
- Removing the Soldier from the Blast Zone
- Physiological and Environmental Monitoring
- Assessing Mental Health Risks

Small Business Innovation Research (SBIR) Program

Ms. Fox, Contested Logistics & Sustainment Transition
Broker Team (TBT), ASA(ALT)



Questions
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Closing Remarks

COL Herbermann, SCDID Director

*If you are not returning tomorrow, please
drop your badge off before you depart.*

Upcoming SBIR Topics



A244-069: Enhanced Explosive Ordnance Disposal (EOD) Training Capability

- This topic seeks to provide Joint Service Explosive Ordnance Disposal (EOD) Technicians the capability to conduct a comprehensive, interactive training to enable identification and clearance of explosive and other hazards from friendly and adversary major weapons platforms currently unavailable to the institutional training base or operational force due to physical location, low density, or higher priority physical system testing requirements.

A244-070: Advanced Manufacturing of Engine Cooling Fans for Wheeled Vehicles

- The Army (DOD, allies, and partner nations) lack a common understanding of the necessary components (technology and/or software) needed to resource an expeditionary Advanced Manufacturing capability capable of ad hoc design, fabrication, data transfer, assembly, quality assurance to fabricate complex Class IX repair parts. The Army seeks a solution to enable different Advanced Manufacturing (AdvM) technologies to work seamlessly, from item design through the fabrication of individual sub-components to assemblage of assemblies operated by Soldiers in tactical environments to fabricate complex Class IX repair parts.

A244-071: Water at the Point of Need

- The U.S. Army requires the production of a portable, compact, and lightweight means to produce potable water at the point of need from salt, brackish, and freshwater sources to sustain small Security Forces Assistance Brigade (SFAB) teams for an extended durations in austere environments. Developing a lightweight potable water production capability located at the point of need would significantly reduce the logistics tail of the warfighter and support current distribution shortfalls.

A244-072: Lighter, Low-Cost Family of Bidirectional Inverters

- During a recent analysis, the Army identified a critical need for improved energy management by 2040. Specifically, there is a gap in the availability of lightweight, cost-effective inverters that can handle power transfer in both directions—from AC to DC and DC to AC—at varying capacities (60 kW, 30 kW, and 10 kW). These inverters are essential for future tactical vehicles to efficiently manage power between generators and onboard systems.

Upcoming SBIR Information



Dates:

- Topics are in pre-release until **24 SEP** (During the pre-release period, the government is not accepting proposals, but the small businesses can view the topics and discuss technical questions directly with the topic owners)
- **25 SEP**: Army begins accepting proposals via DSIP (pre-release ends, direct questions with the topic authors are no longer allowed)
- **15 OCT**: DSIP Q&A closes to new questions at 12pm ET
- **29 OCT**: Deadline for proposal submissions NLT 12pm ET



U.S. ARMY

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DAY 2 – Multipurpose Room



Time	Topic	Personnel
0800-0900	Registration	
0900-0910	CG's Opening Remarks	- MG Donahue, CASCOM CG
0910-1010	Autonomous Distribution - Human Machine Integration Contested Logistics - Cross Functional Team Panel	Moderator, COL Smith, TPO-SMC - Mr. Watts, Deputy Director CL-CFT - LTC Ziskin, AI2C - Ms. Bailey, Power Division Chief, C5ISR - Mr. Overton, Chief, S-CDID Transportation Requirements - Mr. Nguyen, Telecommunications Specialist, NC3-I CFT - Ms. Murphy, Capabilities Development Specialist, CL CFT
1010-1020	10-Minute Break	
1020-1120	Renewable & Distributed Energy Generation and Storage S-CDID A&I Operational Energy Team Panel	Moderator, Mr. Absher, Branch Chief SCDID Operational Energy - COL Vitale, Deputy Director HQDA ASA IEE - Dr. Waits, Chief Energy Conversion Branch - Mr. Gibson, Chemical Engineer DEVCOM C5ISR Center - Dr. Reed, Division Chief Energy Sciences - Mr. Jeckell, Systems Engineer CL CFT (virtual)
1130-1230	Lunch	
1230-1330	Advanced Manufacturing CASCOM Ordnance Branch Panel	Moderator, COL Montgomery, Ordnance Commandant - Mr. Davies, Lead AdvM Systems USMC Systems Command - Mr. Bailey, Capability Developer SCDID - Mr. Gill, AdvM Capability Coherence UK Army HQ - Mr. Vretis, DEVCOM AC
1330-1340	10 Minute Break	
1340-1440	Water at the Point of Need CASCOM Quartermaster Branch Panel	Moderator, COL Miller, Quartermaster Commandant - Mr. Wienecke, Capability Development Specialist, CL CFT - Dr. Dusenbury, Senior Technical Exper DEVCOM GVSC - Mr. Burden, Capability Developer SCDID - SFC Gordillo, QM Water Training Division
1440-1450	10-Minute Break	
1450-1550	Enhanced EOD Training Capability Explosive Ordnance Disposal (EOD) Panel	Moderator, COL Waite, Director TPO-EOD - Mr. Ur, Lead Visual Info Specialist DEVCOM AC - Mr. Peterson, Capability Developer SCDID - Mr. Crowther, Technology Training Div CASCOM - SFC Pearson, TPO-EOD

No-Host Social





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Contested Logistics Industry Week

Thank you

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Contested Logistics Industry Week

20 September 2024

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Opening Remarks

MG Donahue, CASCOM CG



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Autonomous Distribution – Human Machine Integration Panel

Moderated By: COL Smith, TPO-SMC

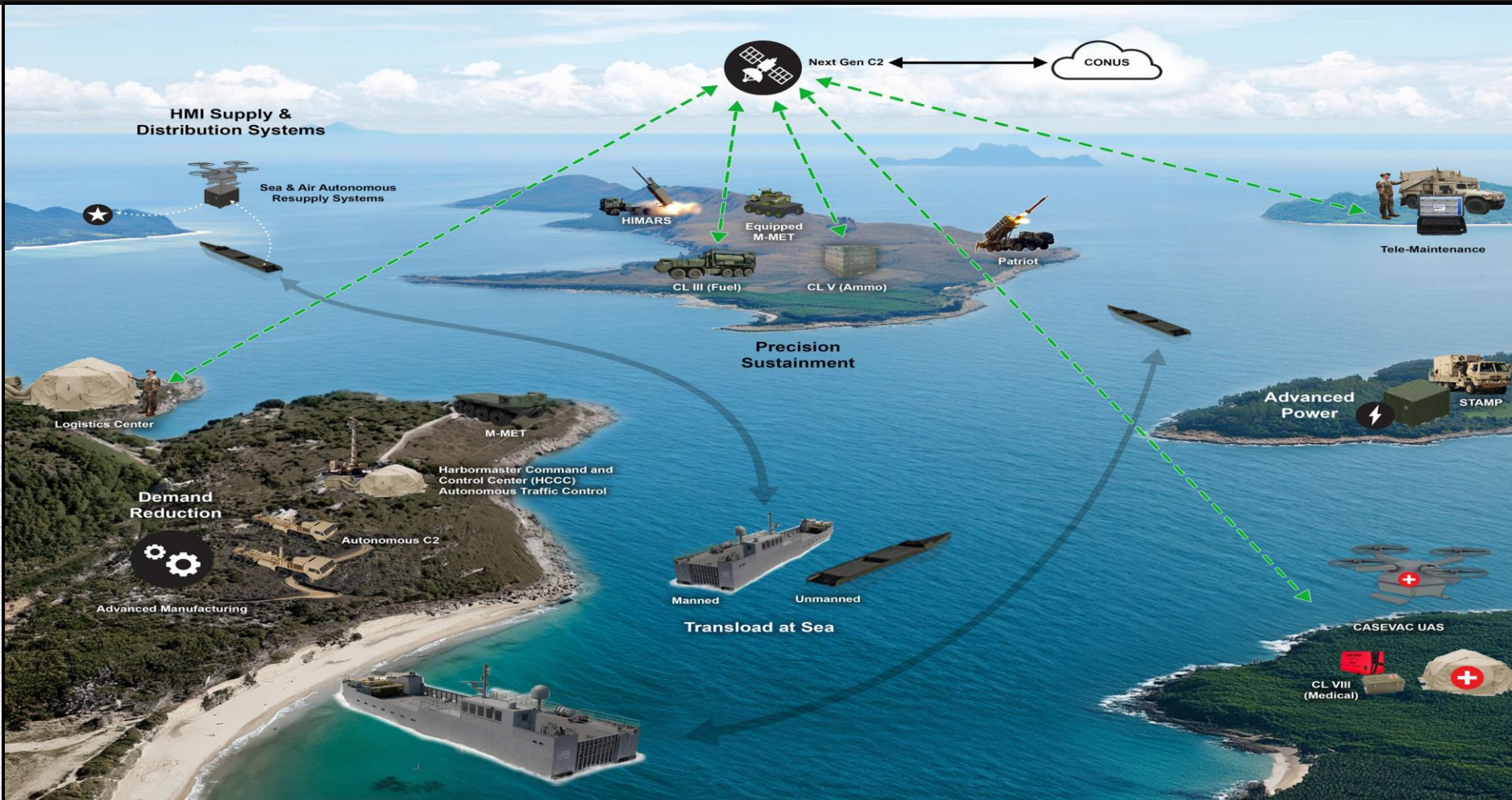
- Mr. Watts, Deputy Director CL-CFT
- Ms. Bailey, Power Division Chief, C5ISR
- Mr. Overton, Chief Transportation Requirements SCDID
- LTC Ziskin, Soldiers and Sustainment, AI2C
- Mr. Nguyen, Telecommunications Specialist (Network), NC3-I CFT
- Ms. Murphy, Capability Developer, CL CFT



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CONTESTED LOGISTICS CONCEPT OV-1



HMI Supply and Distribution

How does the Army autonomously distribute critical supplies (ammo, fuel, maintenance, and medical) to land-based formations dispersed over extreme distances in a contested environment? How do we create options for an intra-theater supply chain that operates in constant motion and independent of stationary or fixed facilities or capabilities to autonomously move key commodities and personnel in all domains at the volume required to sustain large scale combat operations?

10-Minute Break



Tech Nomination Form



Feedback Form

UP NEXT...

*Renewable & Distributed
Energy Generation and Storage
Session*

Renewable & Distributed Energy Generation and Storage Panel

Moderated By: Mr. Absher, Chief SCDID Operational Energy

- COL Vitale, Deputy Director HQDA ASA IEE
- Dr. Reed, Division Chief Energy Sciences
- Dr. Waits, Chief Energy Conservation Branch
- Mr. Jeckell, Systems Engineer CL-CFT (Virtual)
- Mr. Gibson, Chemical Engineer DEVCOM C5ISR



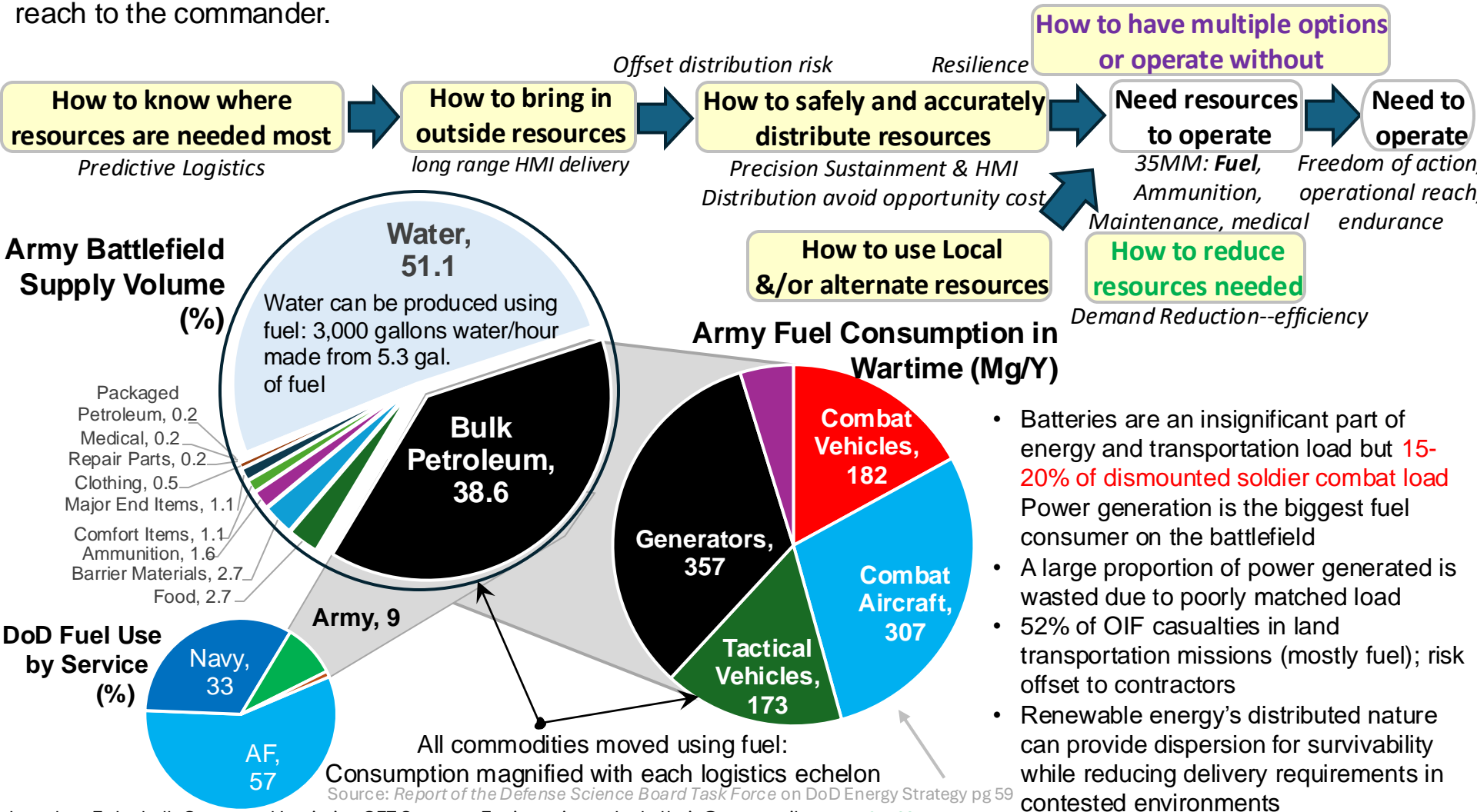
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Contested Logistics Problem



Advanced Power Problem Statement: How to reduce **transportation requirements and risk** from delivery of **consumable liquid fuels and batteries** into a contested environment through the integration of advanced energy solutions, including power generation, battery alternatives, hybrid drives, sustainable fuel technologies, efficiency, and demand reduction, in order to improve resilience and provide sustainable freedom of action and operational reach to the commander.



- Batteries are an insignificant part of energy and transportation load but **15-20% of dismounted soldier combat load**
- Power generation is the biggest fuel consumer on the battlefield
- A large proportion of power generated is wasted due to poorly matched load
- 52% of OIF casualties in land transportation missions (mostly fuel); risk offset to contractors
- Renewable energy's distributed nature can provide dispersion for survivability while reducing delivery requirements in contested environments

Operational Energy



Dr . Waits

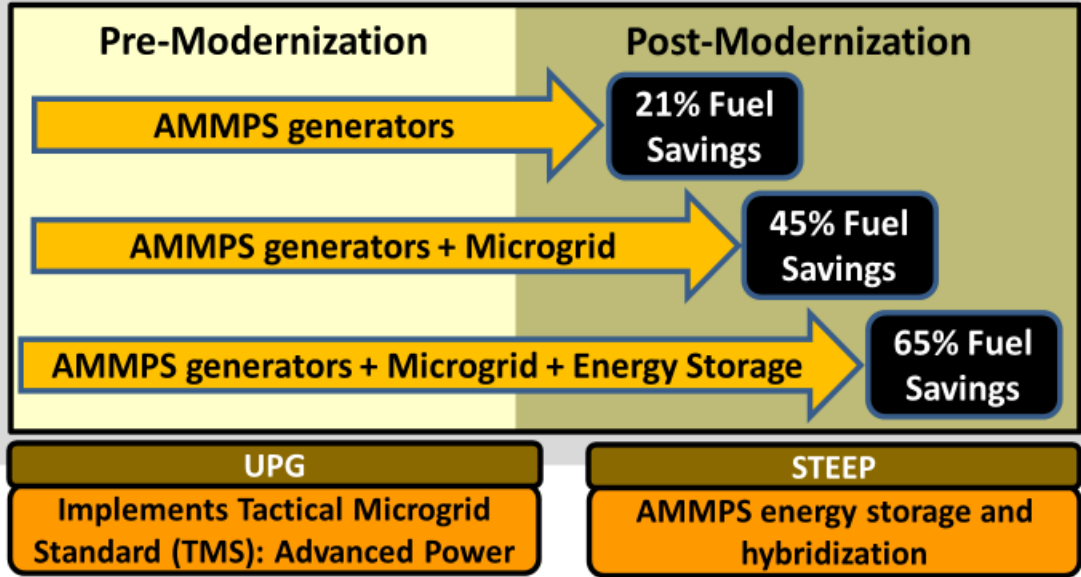
Dr . Reed



Operational Impacts of Demand Reduction

BE ALL YOU CAN BE.

Improved Battlefield Flexibility

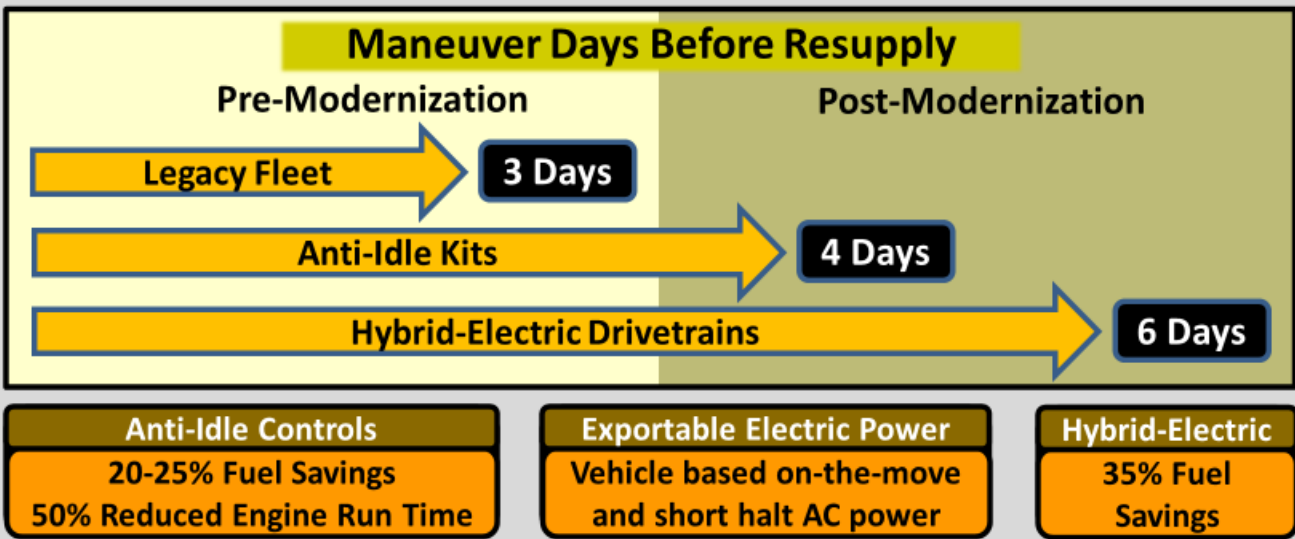


More efficient electric power generation enables more maneuver with less frequent resupply

Universal Power Gateway (UPG) implements TMS Advanced Power and provides commanders with flexible power using fewer generators (Draft Army requirement in progress)

Stable Tactical Expeditionary Electric Power (STEEP) provides hybrid energy storage for any AMMPS genset (DIU/USMC funded development)

Improved Operational Reach



Fuel resupply is the greatest limiting factor of tactical range, for most formations

Hybridization provides improved operational capability over longer distances for longer durations

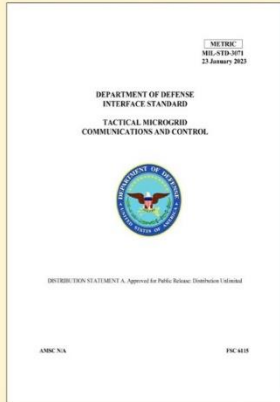


MIL-STD-3071

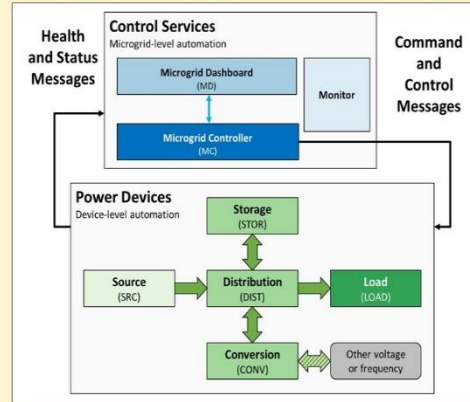
Tactical Microgrid Standard (TMS)



MIL-STD-3071 Document



Device Roles



TMS Tools



Monitor - 1) Verify connectivity; 2) Display published data; 3) Record captured data; 4) Visually inspect message content.



Simulator - Simulate any TMS device role to include a microgrid controller



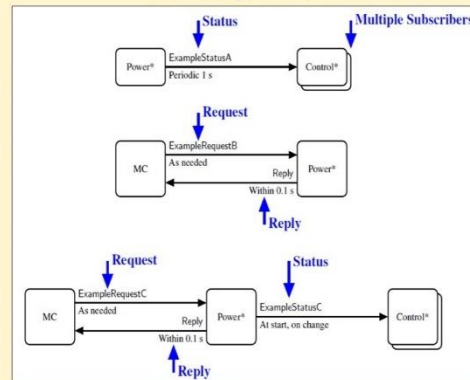
Compliance Document - Outlines the test procedures that need to be performed to verify compliance to the standard



Compliance Checker - Performs initial checks for validation and verification of a TMS device

*Available to U.S. Government agencies and their contractors

Message Flows



An Interoperability Standard to Enable Communication and Controls of Microgrids

What is the TMS?

- An official military standard for power device data and communication to maximize interoperability between solutions from various vendors

TMS Benefits

- Interoperability between power systems from different vendors
- *Resilience, adaptability, and efficiency* for the Warfighter
- Applicable for all services and in all environments to include air crafts, ships, tactical vehicles, space assets, installations, and others.

Application and Compliance

- To be utilized in acquisition of military power systems across all services
- Compliance to be tested and verified through Army Test and Evaluation Command (ATEC)

Governance, and Participation

- Owned by PEO CS&CSS and governed with input from all services.
- Welcome industry participation in shaping the future TMS



Get a copy of the standard here!

FOR FURTHER
INFORMATION:

U.S. ARMY COMBAT CAPABILITIES
DEVELOPMENT COMMAND
CSISR CENTER:
DEVCOM.ARMY.MIL

POINT OF CONTACT:
Frank W Bohn
Frank.W.Bohn.civ@army.mil
443-947-0369



What is needed



Problem Statement: During a recent analysis, the Army identified a critical need for improved energy management by 2040. Specifically, there is a gap in the availability of lightweight, cost-effective inverters that can handle power transfer in both directions—from AC to DC and DC to AC—at varying capacities (60 kW, 30 kW, and 10 kW). These inverters are essential for future tactical vehicles to efficiently manage power between generators and onboard systems

- 1. Bidirectional Power Transfer**
- 2. Cost-Effective Production**
- 3. Lightweight Design**
- 4. Compatibility with Tactical Microgrid Standard (TMS)**
- 5. Integration with Intelligent Power Distribution**



Unclassified

Lunch Break (1130-1230)

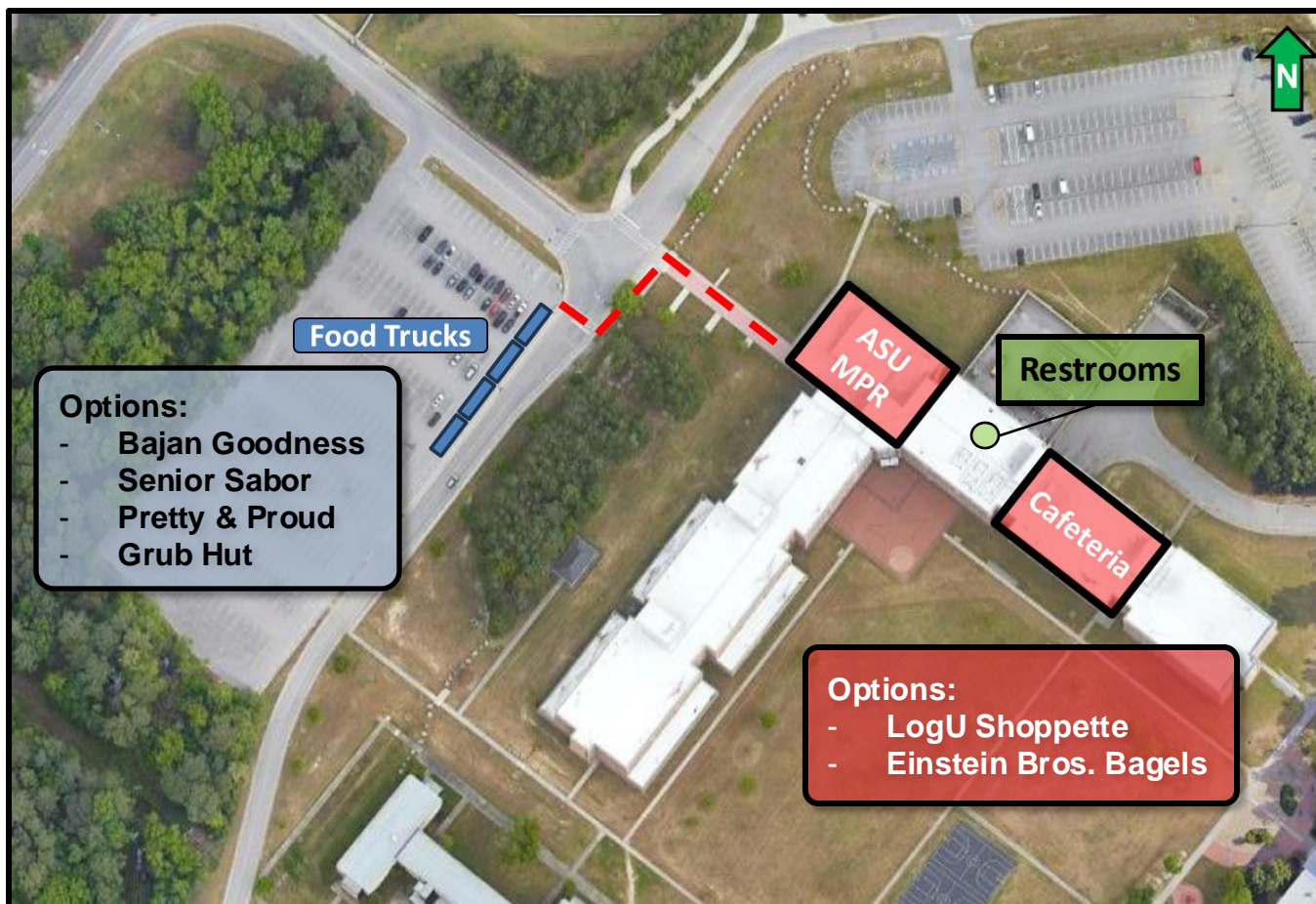


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Troop Mall Complex:

1431 Sustainment Ave

- Pizza Hut
- Tropical Smoothie Café
- Boopers Malt Shop
- Jimmy John's
- Shoppette

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Advanced Manufacturing Panel

Moderated By: COL Montgomery, Chief of Ordnance

- Mr. Adrian Bailey, Capability Developer, Sustainment Capability Development Integration Directorate (S-CDID)
- Mr. Robert Davies, Lead AdvM Systems, USMC Systems Command
- Mr. Digby Gill, AdvM Capability Coherence, UK Army HQ
- Mr. Thomas Vretis, DEVCOM Armaments Center



Questions
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USMC, Mr. Robert Davies



Tactical Fabrication (TACFAB) – Unit level

- MOS agnostic
- (2x polymer 3d printers, laptop), began fielding 2024
- Data sharing
- Near term: additional of handheld scanners & medical TACFAB??



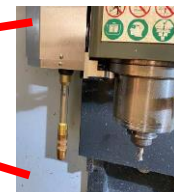
Expeditionary Fabrication (XFAB) - Intermediate maintenance

- Fabricator MOS (Machinist & welder MOS) merging MOS/FY25
- (5x polymer 3d printers, laser scanner, gasket cutter, 5 computers, network switch), began fielding 2022
- Data sharing
- Near term: add expeditionary metal 3D printing (slated for XFAB-017)



Advanced Integrated Mobile Machine Shop (AIMMS) - Intermediate maintenance

- Procuring US Army MWMSS, adding WAAM.
- Fabricator MOS (Machinist & welder MOS) merging MOS/FY25
- 2040: CCMD collaboration (“i-tunes” payment, IP, ITARS)
- Integrate USMC Digital Repository with GCSS-MC, DLA JAMMA, RAPID-E (NATO)



United Kingdom, Mr. Digby Gill



British Army HQ focusing on

- Strategy.
- Running trials and projects to develop AM Capabilities.
- Technical Data Packs.

Capabilities

- Polymer and Metal.
- AR Assistance and Inspection.
- Digital Repository.

What are the problems we are looking to solve?

- Expedient Maintenance.
- Innovation.
- Obsolescence.
- Support the supply chain.

Successes

- CSAM Experimentation.
- AdM Network.
- Support to Ukraine.
- Influencing the change at Defence level from a Bottom Up to Top Down approach ongoing.

Challenges

- Training .
- Deployed Assurance.
- Design Library continuity.



3D printers get army's ageing, damaged fleet back to front

Army's ageing fleet is being brought back to front line by 3D printing technology, according to a report by the BBC. The report states that the British Army is using 3D printing to create spare parts for its ageing fleet of vehicles, which are often difficult to find or too expensive to replace. The technology is being used to create parts for everything from engines to suspension components. The report also mentions that the British Army is using 3D printing to create spare parts for its ageing fleet of vehicles, which are often difficult to find or too expensive to replace. The technology is being used to create parts for everything from engines to suspension components.



Continuous Transformation DEVCOM, Mr. Thomas Vretis

DIVERSE CAPABILITY TO FABRICATE A VARIETY OF COMPLEX ITEMS

- Multiple manufacturing methods e.g., machining, injection molding, PCB, assembly, etc. – whatever it takes
- A Capability is not just a technology but involves all of DOTMLPF-P



COMMUNICATION AND DATAFLOW BETWEEN SYSTEM COMPONENTS

- Vision systems with AI/ML to track components, determine motion characteristics for assembly, and enable in-situ monitoring/processing for quality assured outputs
- C2 integration/networking with sensors to drive predictive logistics with condition-based maintenance and just-in-time fabrication



HARDWARE DEVELOPMENT TO ENABLE INCREASED MOBILITY/SURVIVABILITY

- Durable, survivable manufacturing equipment – shock isolation, gimbals, etc. – operation on the move?
- Ground vehicle platform integration concepts to enable maneuver



**DEVELOP REQUIREMENTS FOR *CAPABILITIES*, NOT SPECIFIC SYSTEMS; AND
FUND CAPABILITY *PORTFOLIOS* FOR FISCAL AGILITY**

10-Minute Break



Tech Nomination Form



Feedback Form

UP NEXT...

*Water at the Point of Need
Panel*

Water at the Point of Need Panel

Moderated By: COL Miller, Quartermaster Commandant

- Mr. Wienecke, Capability Development Specialist, CL-CFT
- Dr. Dusenbury, Senior Technical Expert DEVCOM GVSC
- Mr. Burden, Capability Developer SCDID
- SFC Gordillo, QM Water Training Division



Questions
Slido.com
Code: 2471639

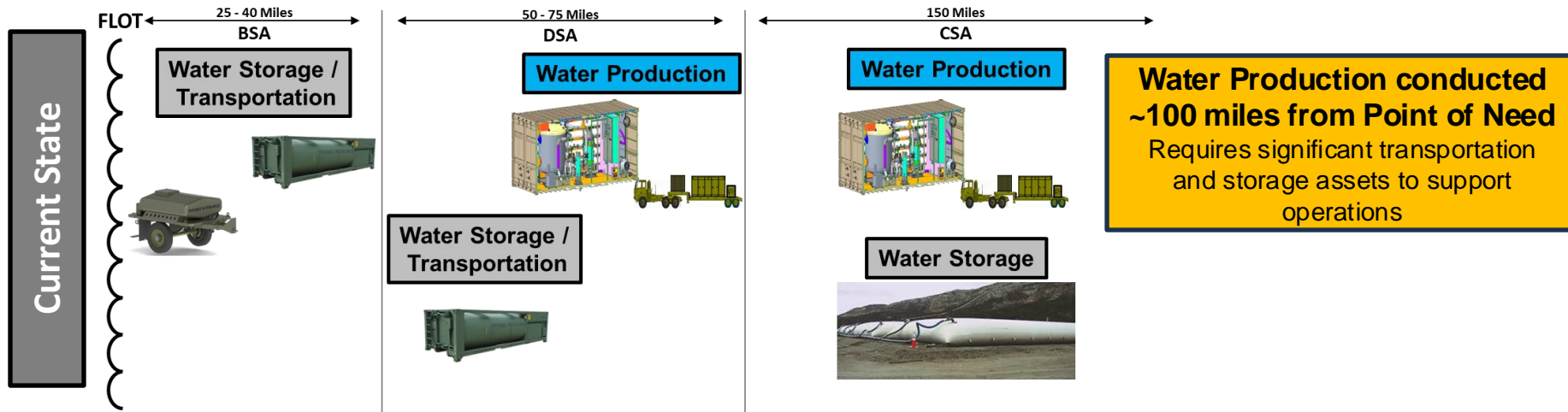
Support Starts Here!

Water at the Point of Need



SIBR Problem Statement:

The US Army seeks the development of a ruggedized lightweight (100 pounds or less) water purification system that requires one Soldier to operate and leverage onboard vehicle power to produce 50 gallons per hour of potable water from a freshwater source and at a reduced flow rate commensurate with the water quality from brackish, salt, and CBRN-contaminated raw water sources.



Desired Outcomes:

- Decreased demand on transportation assets
- Support to disaggregated organization



10-Minute Break



Tech Nomination Form



Feedback Form

UP NEXT...

***Enhanced EOD Training
Capability Panel***

Enhanced EOD Training Capability Panel

Moderated By: COL Waite, Director TPO-EOD

- Mr. Ur, Lead Visual Information DEVCOM AC
- Mr. Peterson, Capability Developer SCDID
- Mr. Crowther, Technology Training CASCOM
- SFC Pearson, TPO-EOD



Questions
Slido.com
Code: 2471639

Support Starts Here!



Colonel Bradley Waite
Director, Training and Doctrine Command Proponent Office-Explosive Ordnance
Disposal
Combined Arms Support Command and the
Sustainment Center of Excellence
Fort Gregg-Adams, Virginia



U.S. ARMY

THE CHALLENGE WE FACE



Friendly, Adversary, or Neutral, once on the battlefield they are all the responsibility of US Army EOD.

Support Starts Here!



U.S. ARMY

WHAT WE ARE LOOKING FOR



- **Augmented / Virtually Reality training capability, with the potential to transition to operational use on the battlefield**
- **Capable of training EOD personnel in the identification and safe download procedures for major weapon systems, US and foreign**
- **Crawl, walk, run training capability, with the ability to identify and highlight key physical actions or mechanical components to the operator**
- **Platform agnostic, developed using Unity3D, delivered with development source files for sustainment and future revisions.**
- **Russian T-72 Main Battle Tank utilized for initial demonstration of capability**



U.S. ARMY

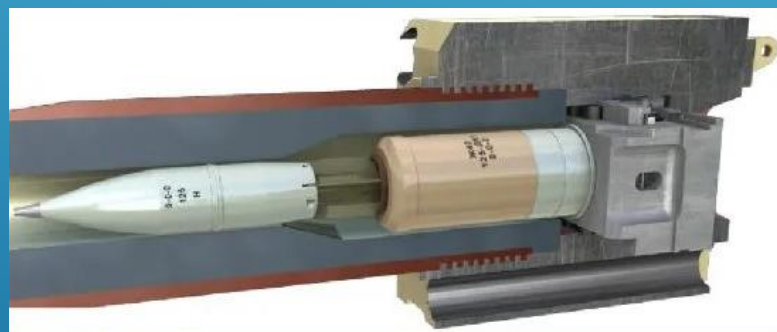
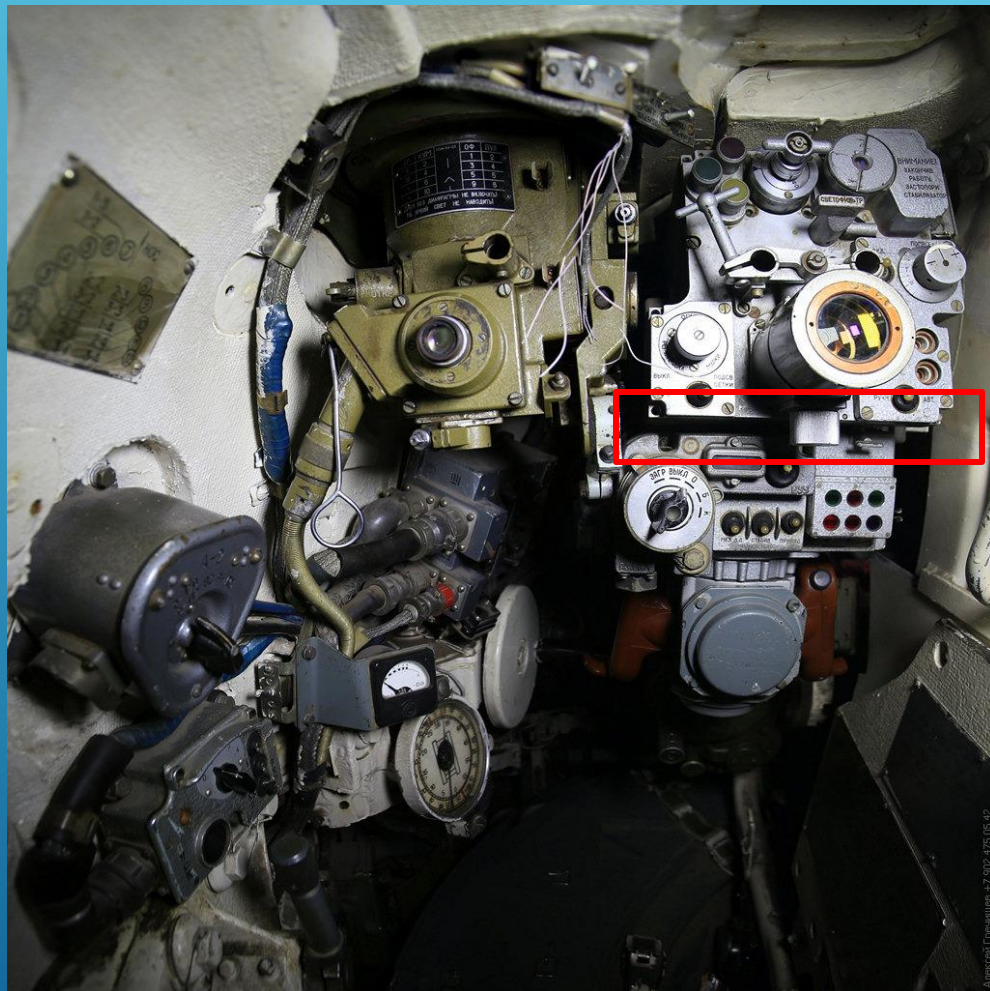
RUSSIAN T-72 MAIN BATTLE TANK





U.S. ARMY

DOWNLOADING COMPLEXITY





U.S. ARMY

SQUIRRELING AWAY AMMO



8 rounds strapped to Engine Bulkhead; 3 more rounds held behind gunner's seat



2 rounds strapped next to commander's seat



Additional storage adjacent to right hull conformal fuel tank.

Up to 45 main tank rounds total when T-72 is fully loaded



U.S. ARMY

QUESTIONS?



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Closing

COL Herbermann, SCDID Director

*Please drop your badge off
before you depart.*

Submit Questions



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Leviathan
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LightSpeed Aerospace, LLC
LMI
Lockheed Martin Corporation
ManTech
Maritime Applied Physics Corporation
McQ Inc
Mesodyne
MetroStar Systems
MicroStrategy
Moser Energy Systems
Near Earth Autonomy

Nimble Hub, LLC
Noble Supply and Logistics
Northrop Grumman Oracle
Oshkosh Defense
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