

FROM THE PRESIDENT

Jim Semerad, CDR, SC, USN (Ret)

Happy 2021 to the Reserve Organization of America community in Michigan. Having worked with the Sea Service community for years, I have the privilege to look at all Reserve service's; i.e. our Great Lakes U.S. Coast Guard Reserve Force has been very busy the last couple of months. This month, I have the opportunity to present a Family Support award. We strongly encourage you to reach out to the Reserve community and extend your support. The reality is many in the Reserve community, especially the Michigan National Guard, are being asked to serve our country and are stepping up to the challenge.



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Our Annual Conference will be virtual on April 10, 2021. The guest speaker,

Gavin Brown of MAMA, will present an update on the Michigan space launch initiative. We will also have an update from ROA Headquarters on current operations and Legislative Affairs. Our annual meeting will follow.

Executive Summary
Who
A Public Private Partnership (P3) organized by the Michigan Aerospace Manufacturers Association.
What
Launch Facility for rockets carrying small & midsized satellites into Low Earth Orbit (LEO) from horizontal and vertical platforms and a <u>Command Center</u> to manage post-launch satellite operations.
Why
Networked constellations of LEO satellites are being planned. 12,000 are planned for the next decade (versus 1,200 satellites currently in LEO). Existing launch facilities are insufficient to meet launch demand. Multibillion impact on Michigan's economy.
Where
Northern Michigan (north of 45 th parallel) is perfectly situated for polar orbit launches. Good infrastructure for logistics and technical support.
When
Site selection is underway. Site plan for environmental and FAA permits due in 2020, construction in 2021 with launches in 2022

I have been attending National events virtually and can attest that ROA is vibrant and very active. It is amazing that the staff and volunteers have not stopped supporting members and Reservists. Col (Ret) Keith Sousa is preparing to present the ROTC and JROTC awards for 2021. We are still waiting to determine whether these will be presented virtually or in person.

We are anxious to recruit and retain mem-

bers. Bookmark www.roa.org and www.roami.org websites. Through ROA, I found many people to mentor me in my career. You can provide a similar opportunity to a Reserve member.



Keynote Presentation: Michigan Space Launch Initiative

The Michigan Launch Initiative (MLI) is a public/private program of the Michigan Aerospace Manufacturers Association (MAMA) that provides a collaborative platform for academia, industry, and governmental agencies to provide low earth orbit (LEO) and hypersonic launch technology for commercial and defense applications. The MLI's priority is to organize industry partners to establish and operate satellite launch facilities and a command center in Michigan.

Gavin Brown

As Executive Director of the Michigan Aerospace Manufacturers Association, Gavin Brown is committed to establishing Michigan as a leader in the commercialization of near-Earth space and as a source for highly qualified suppliers to the Defense, Commercial, General Aviation, and UAV aerospace manufacturing sectors. Gavin is recognized as the driving force for promoting aerospace and defense companies active in Michigan. With more than 25 years of aerospace experience, Gavin founded the Michigan Aerospace Manufacturers Association in 2007.

Schedule of Events

0900-0915 Conference Welcome & Introduction 0915-1000 Michigan Space Launch Initiative Update Gavin Brown, Executive Director, Michigan Aerospace Manufacturers Association 1000-1010 Break 1010-1045 ROA National Update by a national staff member 1045-1100 Break 1100-1230 Department Business Meeting and Election of Officers ZOOM# Join Zoom Meeting online: https://us02web.zoom.us/j/85605322282?pwd=QmpDV0tmbzhHVFJWUDIKTmtzdkx1dz09 Or join by phone: (312) 626-6799

From the Army Vice President

Louis Wilson, LTC, US Army Retired, Army Vice President

Robotic Combat Vehicles: The Army's Future Tanks

The Army has outlined objectives for a range of Robotic Combat Vehicles (RCV) to include: an RC-Light 7 ton armed scout, an RC-Medium 10 ton armed with fire-power, and an RC- Heavy 30 ton to serve a as wingman to the 60-70 ton Abrams M-1.

The Army envisions drones and ground robots advancing ahead of human soldiers. On a future battlefield, Robotic Combat Vehicle (RCV) Lights scout the enemy, sweep paths through minefields, pop smoke to

conceal the advances, jam enemy transmissions, report enemy contacts, and take shots with anti-tank missiles. Their computers transmit target coordinates to the rest of the force. Precision-guided longrange shells pound the enemy positions as larger robots move up, 10ton mini-tanks called RCV-Mediums that boast machine-guns, missiles, and 30mm chain guns. The third wave follows not far behind: a hard core of humans in M1 Abrams tanks, escorted by wolf packs of cannon-toting 30-ton RCV-Heavies.

This vision is years ahead of reality, but the Army is experimenting with unmanned vehicles. The Robotic Combat Vehicle (RCV) family will use common navigational software and control interfaces. Each variant will use the same electronic and mechanical standards, a modular open architecture that should let soldiers in the field plug and play a range of payloads, from missiles to smoke gen-



Titan Robot Fitted with Javelin Anti-Tank Missile

erators to radio jammers. Maj. Corey Wallace, an armored cavalry officer serving on the Futures Command's Next Generation Combat Vehicle (NGCV) Cross Functional Team, told the NDIA Armaments, Robotics, and Munitions (ARM) Conference, the goal is that "most things are modular" and troops in the field can "swap payloads in 30 minutes or less."

The NGCV team has drafted desired "characteristics," for the RCV family. The priority is assured wireless control with autonomy. The Army always wants a human gunner deciding whether to fire. For now, the robots will need a remote-control driver as well, so that each RCV requires two human operators, plus a sergeant coordinating each pair of robots.

A top priority payload is defense against small drones. ISIS has mounted hand grenades on drones. Russia used drones to spot targets for artillery in Ukraine. A future adversary is likely to flood the zone with swarms of drone scouts. The Army looked into drone-killing lasers, but the power supplies are too bulky for the lighter RCVs. What is far more compact and feasible, are jammers that keep the drone from reporting your position to enemy artillery.

Priorities also include: handling hazards such as minefields and IEDs, air defense Stinger missiles, and retransmission nodes for battlefield communications. The RCV-Light will carry a single anti-tank guided missile (ATGM) to give it one shot against the toughest targets, but otherwise it will be designed to fight infantry and unarmored trucks. The RCV-Medium, like the Textron M5 Ripsaw, is a lot more like a tank. The Medium will carry more armor and a pair of anti-tank missiles and a high-velocity 30mm auto-cannon to kill light armored infantry vehicles. The RCV-Heavy is the least clearly defined. It is meant to be a "robotic tank" with firepower and survivability comparable to the M1 Abrams main battle tank. It is intended as a "wingman".

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The Michigan Reservist

Opinions expressed herein are those of the editor or columnists and are not necessarily those of the Department of Michigan or the Reserve Officers Association of the United States. Newsletter Editor LTC (Ret) Scott D. Murdoch smurdoch@imanor.com

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