2020 NDIA Joint Armaments and Robotics Conference
NDIA Leadership Conference
October 31, 2019

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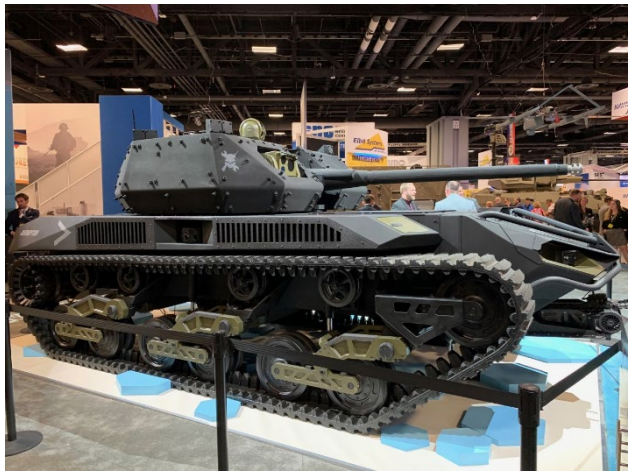
2020 NDIA Joint Armaments and Robotics Conference

- **Background**
  - Large number of competing defense related conferences.
    - Complaints from Industry - Gov't. They are not able to support all conferences
    - Request from Industry Primes to consolidate number of Armaments Conferences
  - Armaments Division consolidation 10 yrs ago, combined Small Arms GARM Conferences into one conference

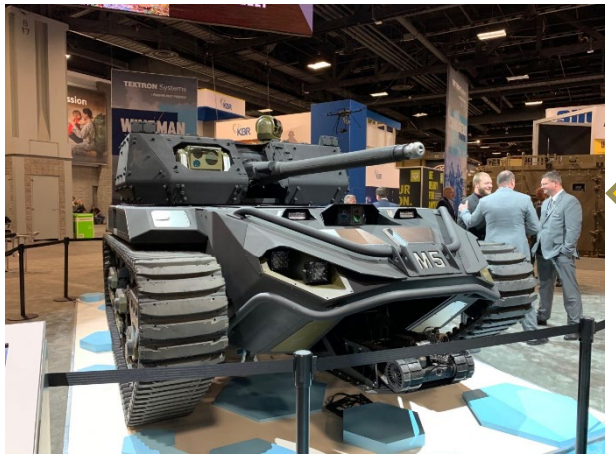
2020 NDIA Joint Armaments and Robotics Conference

- **Background**
  - Why a co-located 2020 NDIA Armaments and Robotics Conference in Columbus – MCoE (Ft. Benning), GA
    - Robotics Division had a successful conference in Columbus, GA in 2019
      - Plan was to hold 2020 Robotics again in Columbus, GA
    - Strong support from (MCoE) Leadership to host 2020 Joint Armaments Robotics Conference
    - US Defense Strategy includes integration of Armaments and Robotics to increase lethality
    - NDIA HQ's set up meeting between Armaments & Robotics Division Chairs
      - Agreed to combine 2020 conferences into one co-located conference

Robotics and Armaments Divisions Need to Collaborate: RCV and OMFV Prototypes and Technology Demonstrators at AUSA show both weapons and robotics as blended solutions

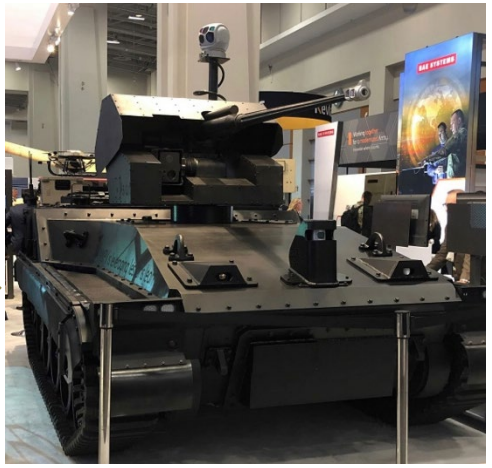


Textron/Howe &Howe RCV(M)

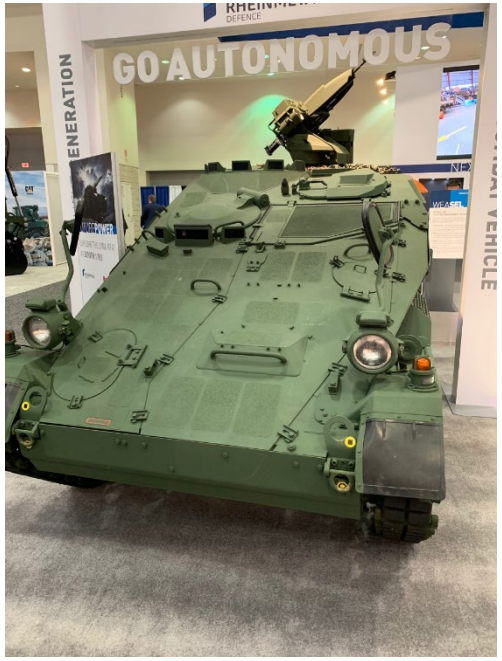


Textron/Howe &Howe RCV(M)

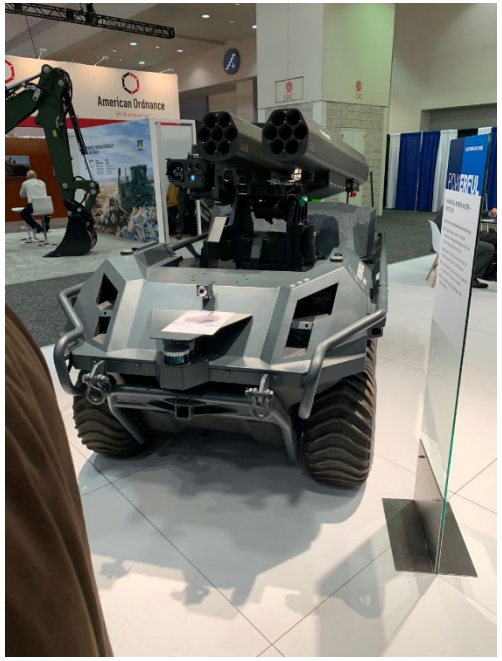
Prototypes
-and-
Testing Platforms



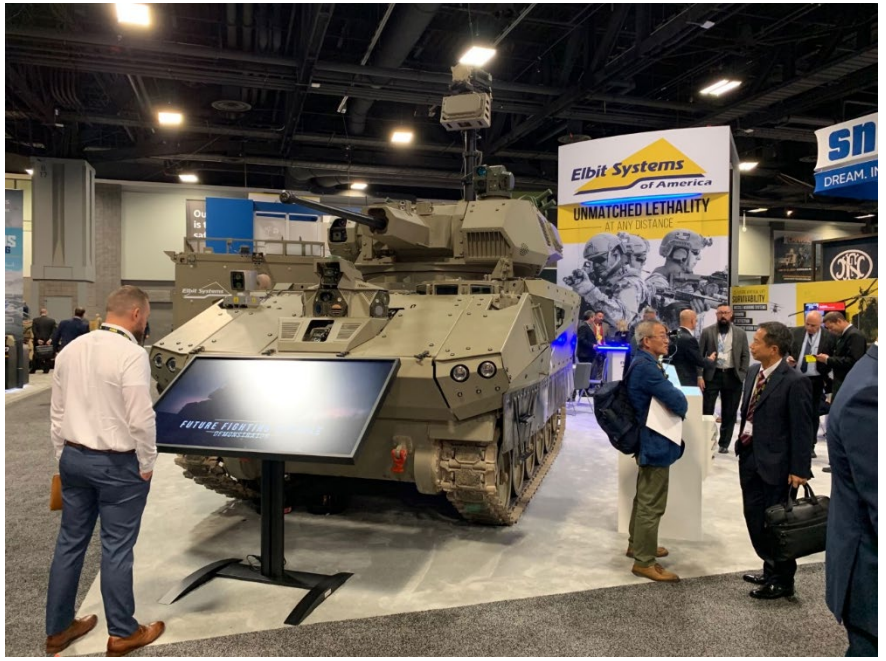
BAE RCV "Tech Demonstrator"



Rheinmetall "Weasel" RCV-to-be



Rheinmetall RCV(L) autonomous vehicle



Elbit RCV Tech Demonstrator

Armed Robotic Payloads Matter: RCV Updates from NGCV-CFT Leadership- 15OCT19

- Limited on-board lethality (self defense, ATGM, recoilless weapons); Intelligent network cues appropriate MDO (off-board) strike to provide decisive lethality
- Robust Sensor package to establish enemy COP (UAV integration).
- Attritable system.

- Increased onboard lethality to defeat some Tier I threats (medium cannon / multiple ATGM / recoilless large cannon)
- Sensor package to establish enemy COP for MDO strike for remaining targets
- Durable system.

- On-board direct fire weapon systems defeat all Tier I threats
- Off-board sensor systems develop COP.
- Non-expendable system.

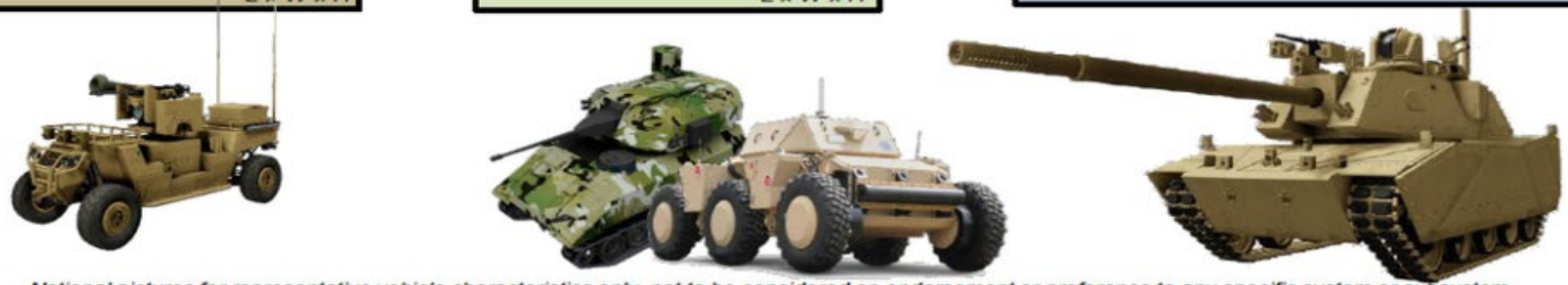
Intelligent Network leverages sensor-data to optimize multi-domain strikes

Increasing on Platform Lethality

Increasing Platform Survivability and Cost

Notional RCV Vehicle max size/weight constraints *(Based on limits for different air transportability envelopes)*

RCV Light (L)	RCV Medium (M)	RCV Heavy (H)
< 10 Ton GVW 224 x 88 x 94 in* **Transport one RCV(L) by Rotary Wing**	10 - 20 Ton GVW 230 x 107 x 94 in* **Transport one RCV (M) by C-130**	20 – 30 Ton GVW 350 x 144 x 142 in* **Transport two RCV (H) by C-17**
*L x W x H	*L x W x H	*L x W x H



Notional pictures for representative vehicle characteristics only, not to be considered an endorsement or preference to any specific system or subsystem

Robotic Combat Vehicle enables a continuum of Decisive Lethality options

2020 NDIA Joint Armaments and Robotics Conference

- **Attributes of desirable co-location**
  - Secure support of Senior Leadership of Major Military Command Early
    - Secured Letter of Intent with Ft. Benning Leadership (8) months ahead of Joint Conference
  - Joint Session morning of Day 1. Then break into separate programs
  - Reception at the MCoE National Infantry Museum – Day 1
  - Found USG person at MCoE to help coordinate building of the Program

2020 NDIA Joint Armaments and Robotics Conference

- **Attributes of desirable co-location**
  - Beneficial having Joint Conference at MCoE, which is home to US Army Soldier Lethality CFT
    - Easier for Military personnel to receive approval to travel to MCoE – Ft. Benning, GA, as they can schedule additional meetings while at MCoE for the Conference
    - Support for Capability Briefings from AMU, Army Battle Lab, Ranger Training Brigade (RTB)
    - Support for full day of live fire demonstrations (small, medium, large caliber, robotics) on MCoE ranges organized and staffed by MCoE G3 Office at no cost to NDIA
    - More attendees in one location makes the Conference more economical for NDIA HQ's
    - Joint Session / Networking Breaks / Receptions promote networking between Divisions

2020 NDIA Joint Armaments and Robotics Conference

- **Challenges**
  - Gaining support for a Joint Conference from members of both Divisions
    - Reception from both Committees has been very positive
  - Creating the right branding message for the Joint Event
    - “Enhancing Combat Lethality”
  - Finding appropriate Keynote Speakers which will appeal to full audience
  - Creating value for attendees to arrive Mon. morning and stay through Thurs. live fire demonstrations

2020 NDIA Joint Armaments and Robotics Conference

- **Successes**
  - The amount of support we have received from MCoE Leadership
  - Utilizing social media tools EARLY to promote Co-Located Conference
  - Joint Conference is 6 months away. Matt and I can share a Lessons Learned Briefing at 2020 NDIA Leadership Conference

- **Way Ahead**
  - Recommend NDIA Divisions study opportunities to co-locate with other Divisions which overlap operationally
  - If any Division Chairs are interested in getting more information on our experience setting up the first NDIA co-located Conference our contact info follows:

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