



Robotic Combat Vehicle Update

18 April 2022



Agenda

- BLUF
- Initial GFE Concept
- Conceptual RCV (M) Desired Characteristics
- ROMA Capabilities Needs Statement
- Programmatic Overview

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BLUF

- *There is no change to the previously discussed RCV (L) Desired Characteristics.*
- *Assessing impacts of FY22 budget to the previous timelines provided below:*
 - *Publish RFP in SEP-OCT22*
 - *Initial down select in Q4FY23*
 - *Prototype delivery Q2FY24*
 - *Complete prototype evaluation/test Q3FY26*
 - *Program transition to production in Q4FY26*
- *The following RCV (M) Desired Characteristics are draft and subject to change.*
- *The RCV (M) prototyping and fielding timeline is conceptual and still requires Senior Leader approval.*



Anticipated GFE

- Autonomy Software
- Radios
- Control Station Software
- AiDT/R Software
- Guns and missiles (**industry provides turrets for RCV (M)**)
- A-PNT
- Modular architecture

Potential GFE Payloads

- TeUAS
- Counter UAS
- Smoke generation
- CBRNE detection
- Mobility/ counter-mobility
- EW

Industry's critical task is to integrate these capabilities on a reliable and durable chassis that supports intuitive modular payload transition and has ample growth potential.

A government team, other than the NGCV CFT, manages these capabilities and requirements. The primary focus of PM MPF and the CFT is to facilitate integration.



Unique RCV (M) Conceptual Desired Characteristics

Silent Watch

Infiltrate to a position of advantage and conduct at least 36 hours of silent watch.

Silent Drive

Travel at least 5 Km in "silent drive" mode

Survivability

Protect critical components against heavy machine gun fire and support modular armor packages.

UAS

Integrate one TeUAS and an untethered solution w/ at least 20 min of flight time.

Lethality

Defeat primary infantry carrying vehicles (must use ammo common to US Army) w/ primary weapon system, modular capability to integrate a future independent weapon station that can defeat troops, and integrate two ATGMs (also common to US Army).

Transportability

One C130H transports one RCV (M) for 1800 nautical miles.

Marsupial Robot

Should stow, launch, retrieve and charge one marsupial robot.

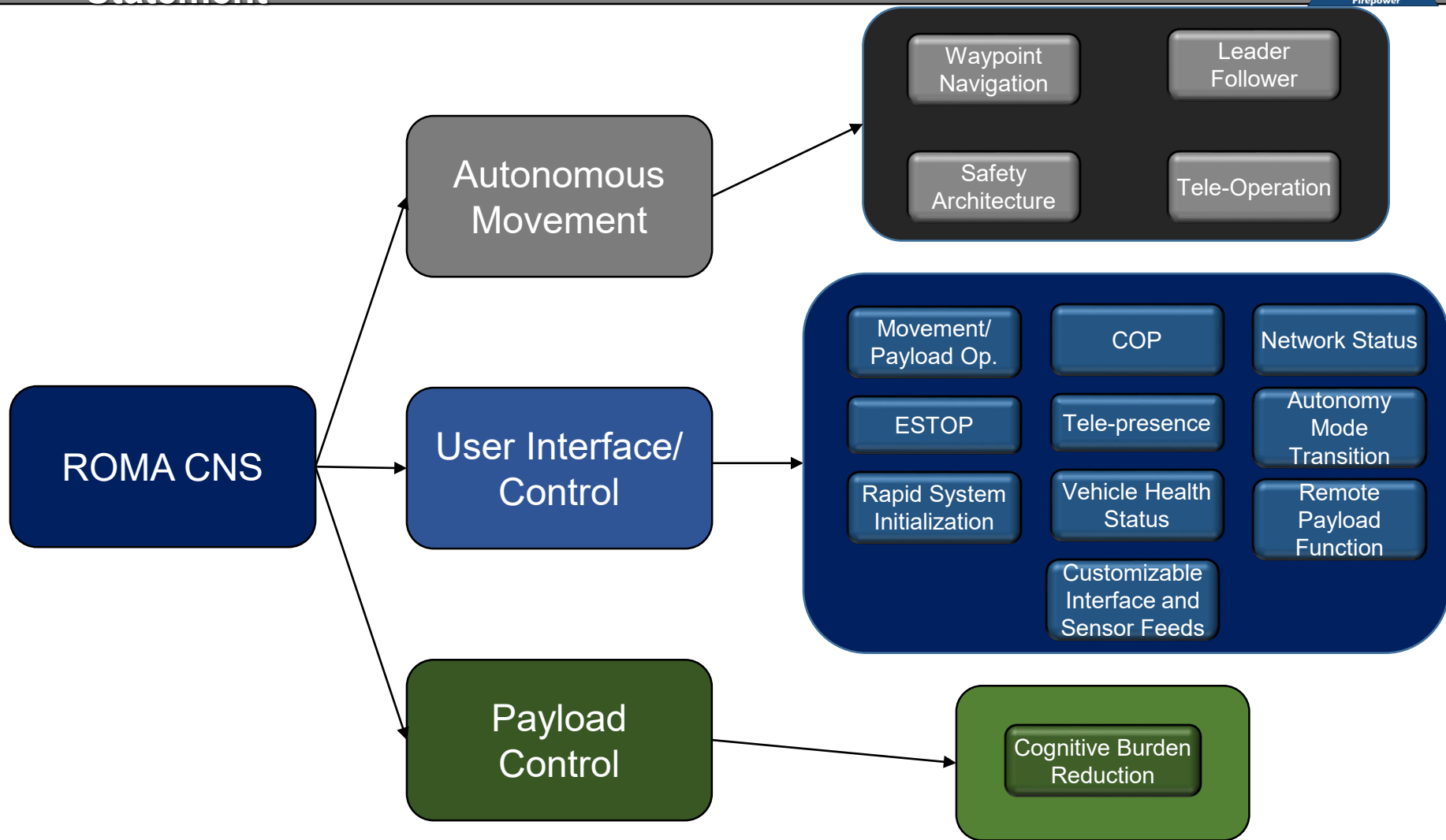
Payloads (provide SWAP)

C-UAS: Defeat Group 1&2 UAS
EW: Directional find, obscure, attack
CBRN: Stand-off detection
Obstacle Reduction: Reduce, proof, and mark one breach lane
Obscuration: 48 min of visual or multi-spectral smoke
BLOS Munitions: Loitering munitions and laser-guided ATGMs

All of these DCs are subject to change.



Robotic and Optionally Manned Autonomy Capability Needs Statement





If you would like to schedule a discussion with the NGCV CFT, please send an email to the address below and inquire about upcoming dates for our Modernization in the Motor City initiative.

usarmy.detroit.devcom-gvsc.mbx.ngcv-cft@army.mil



LTC Chris Orlowski

- RCV Product Management Office realigned under Project Lead Mobile Protected Firepower (to be renamed) to level workload across Program Executive Office Ground Combat Systems
- RCV(L) Middle Tier Acquisition – Rapid Prototyping program approved February 2022 with two lines of effort:
 - Continue experimentation / support Army MUM-T campaign of learning with current experimental (surrogate) prototypes from FY23-25
 - Full and open competition for new prototypes with a goal to transition to production in FY26 / FY27
 - Expected to implement Ground Combat Systems Infrastructure Architecture (GCIA) v2.0 as part of new prototypes and future production
- RCV Software Acquisition Pathway (SWP) Planning Phase approved August 2021
 - Execution Phase transition expected in FY22
 - RCV SWP will deliver software for RCV(L) platform, control station, and payload control based on ROMA CNS



The **Robotic Combat Vehicle team** is interested in meeting with vendors working in the following spaces: autonomous software development, systems integration, digital modeling, situational awareness technology, perception, data management, electronic warfare, mobility/counter-mobility payloads, battery technology, graphic user interfaces, and cyber security.

If you're working on solutions in these areas, we'll be at table 14.