



THE UNDER SECRETARY OF THE NAVY  
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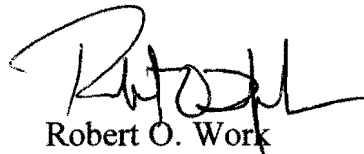
MEMORANDUM FOR DISTRIBUTION

SUBJECT: Secretary of the Navy Unmanned System Goals and the Consortium for Robotics and Unmanned Systems Education and Research (CRUSER)

Pursuant to the Secretary of the Navy's Unmanned Systems Goals outlined in the attachment, the Naval Postgraduate School is authorized to establish the Consortium for Robotics and Unmanned Systems Education and Research (CRUSER) to shape generations of naval officers through education, research, concept generation and experimentation in maritime application of robotics, automation, and unmanned systems. CRUSER will also provide a DoD-wide community of interest to exchange research and experimentation results.

The Office of Naval Research (ONR) will have funding responsibility for CRUSER efforts and will ensure CRUSER is supported in future resource plans, beginning in POM 12.

The Secretariat lead for Unmanned Systems goals is Mark Gorenflo, who can be reached at (703) 614-0199, or email at [Mark.L.Gorenflo@navy.mil](mailto:Mark.L.Gorenflo@navy.mil).



Robert O. Work

Attachment:  
As stated

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# Department of the Navy Unmanned Systems Goals

## NEW OPERATIONAL NAVAL CAPABILITIES

### *IN THE AIR—*

- **Deploy an operational carrier capable Unmanned Carrier Launched Airborne Surveillance and Strike (UCLASS) squadron by 2020**
  - Commission the squadron in 2017 to work the transition of the UCLASS program into the Fleet
  - UCLASS Limited Operational Capability in 2018 capable of ISR and strike
  
- **Develop and Deploy DoN/Joint Unmanned Aircraft System Capabilities**
  - Develop common system components across MRUAS and Cargo UAS to achieve maximum capability for service/joint mission requirements, with a goal of achieving a common “truck” for both missions.
  - Group 5 Fixed Wing Maritime Support – BAMS IOC 2016
  - Group 4 Vertical Lift Seabased Cargo UAS – CUAS IOC 2016
  - Group 4 Expeditionary EW/ISR/Strike – MEF/MEB UAS IOC 2018
  - Group 4 Seabased ISR – MRUAS IOC 2019
  
- **Promote Unmanned Aircraft System Commonality - Adopt UAS Standard Interoperability Profiles (USIP) that ensure all DoN systems have Level 3 interoperability (LOI 3) and, when appropriate, have Level 4 interoperability (LOI 4).**
  - By 2018 every Ship operated systems will be controlled by common control station software.
  - By 2020 each Marine Unmanned Aerial Vehicle Squadron (VMU) will have LOI 3 with DoN systems.
  - By 2020 Navy and Marine Corps Group 4/5 Ground Control Stations will be LOI 4.

### *ON AND UNDER THE SEA—*

- **Deploy Large Diameter Unmanned Undersea Vehicles (LD UUVs), from an operational UUV Squadron, on independent missions by 2020**
  - Commission the Squadron in 2018 to continue operational experimentation, develop tactics, techniques and procedures and begin mission planning.
  - Work to achieve the following UUV endurance/autonomy goals:
    - UUV capable of 30 days submerged operations by 2014
    - UUV capable of 70 days submerged operations by 2016
    - UUV capable of fully autonomous operations by 2018
  - First independent mission in support of Combatant Commander in 2020
  
- **Establish LCS as mission-focused UxS platform in concert with Mission Module development plan.**
  - By 2018, begin forward-deploying LCS and MCM Modules

- By 2024, replace all legacy mine countermeasures ships and aircraft with LCS-based Mine Countermeasures Mission Modules incorporating unmanned mine search and sweep capability.
- By 2025, demonstrate USV-based ISR and fixed-site force protection capability.

***ON THE GROUND—***

- **Field an integrated Family of Robotic Systems by 2020 to augment the capabilities of the MAGTF/Fleet.**
  - **Increase firepower:** Provide one weaponized UGV section per infantry battalion to enhance offensive and defensive capabilities
  - **Increase mobility & force protection:** Equip and train Engineer battalions and Explosive Ordnance Disposal units with robots that are capable of conducting 75% of explosive obstacle reduction/neutralization missions.
  - **Enhance ISR:** Equip all maneuver units (from squad through battalion) with autonomous tactical sensors of various sizes and capabilities that can provide 24 hour, all-weather surveillance of their AOR.
  - **Logistics:** Continue to leverage joint programs so that 50% of all USMC logistics vehicles will have optionally-manned capability that will allow commanders to tailor convoy operations depending on the tactical situation or mission.

**SUPPORTED BY A CULTURE THAT EMBRACES UNMANNED SYSTEMS**

- **Establish Navy and Marine Corps Human Capital and Training Strategy for UxS:**
  - By 2012, establish UxS Human Capital management processes that include accession goals, career progression milestones and tracking mechanisms.
  - By 2012, develop a training strategy to identify facilities that maximize joint efficiencies in basing and manning across the spectrum of UxS.
  - By 2013 identify UxS critical Knowledge, Skills and Abilities (KSAs) required for operating UxS and develop a core curriculum to support development of those KSAs.
  - By 2013, develop a strategy to Process, Exploit and Disseminate the volume of data anticipated from unmanned systems and identify the manpower and training required to support that strategy.