"...advanced autonomous systems...to gain competitive military advantages” (NDS)

"...accelerating the development of the unmanned capabilities and long-range fires enabled by [Project Overmatch]” (Novel Force)

"Through a capabilities-based approach, we can build a future where unmanned systems are at the front lines of our competitive advantage.” (UCF)

"Cost-effective platforms and manned-unmanned teaming will increase the capacity of the fleet and expand our ability to distribute our forces” (AaS)

"Unmanned platforms play a vital role in our future fleet” (NAVPLAN)

"To seamlessly integrate [Intelligent Autonomous Systems] as trusted members of the Naval Enterprise” (IAS)
UNMANNED MARITIME SYSTEMS ACQUISITION

PEO Unmanned and Small Combatants (PEO USC)

Expeditionary
- PMS 420
  - MCM USV
  - MHU
  - Knifefish
- PMS 495
  - Barracuda
- PMS 408
  - MK18 MOD 2 Viperfish
  - MK18 MOD 1 Lionfish
- PMS 340
  - MK18 MOD 1 Lionfish

Undersea
- PMS 406
  - Orca XLUUV
  - Snakehead LDUUV
  - Razorback

Surface
- Core Technologies
- Enabling Capabilities

ACCELERATE | INNOVATE | DELIVER

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UNMANNED SURFACE WARFARE

USV PROTOTYPES

2019
Overlord USV1 Nomad

2019
Overlord USV2 Ranger

2023
Overlord USV3 Vanguard

2022
Overlord USV4 Mariner

2023
MUSV #1

2020
Sea Hunter

2021
Seahawk

REQUIREMENTS

2018
2019
2020
2021

ENABLING CAPABILITIES

Advanced Networks and Radios
Integrated Combat System
Vessel Control Software
Sensory Perception and Autonomy
Platform and Payload Prototyping

FUTURE SURFACE COMBATANT FORCE USVs

LARGE USV

MEDIUM USV

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UNMANNED UNDERSEA WARFARE

SNAKEHEAD PHASE 1 PROTOTYPE

LTV 38/48/54” PROTOTYPES

RAZORBACK DRY DECK SHELTER (DDS)

TORPEDO TUBE LAUNCH & RECOVERY (TTL&R)

REQUIREMENTS

2004
Snakehead CCD
2019
Phase 1 TLRs

2020
SSW ICD

2019
LBS AUv(S) SOF
2012
LBS AUv CPD

CORE TECHNOLOGIES

Autonomy and Command and Control
Payloads
Endurance
Platform Integration

PROTOTYPE OPERATIONS

SUBMARINE-HOSTED DIVERLESS LAUNCH AND RECOVERY UUVs

RAZORBACK TTL&R

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AUTONOMY DEVELOPMENT

Platform-specific monolithic autonomy baselines
Unique platform, payload, C2 interfaces
Defined interfaces for common autonomy services
Unmanned Maritime Autonomy Architecture (UMAA)

Continuous autonomy software pipeline with automated compliance, performance, and certification testing
Rapid Autonomy Integration Lab (RAIL)
One to One C2 Solutions
Not Integrated Ashore or Afloat
Not Interoperable

Common core software (Common Control System-CCS)
Common Government developer and Software Support Activity
Integration into ashore control centers (UOC) and afloat combat systems by Government PMOs