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# Unmanned Underwater Vehicles (UUV)

## Fleet Perspective

Rear Admiral Rob Gaucher  
US Fleet Forces Special Assistant

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# Fleet UUV Operational History



- **2000 – 2010: Initial submarine launch and recovery (L&R)**
- **2010 – 2015: Focus on Drydeck Shelter (DDS) L&R (1319)**
- **2013: Establishment of Detachment UUV**
- **2015 – 2023: DDS launched UUV operations iso Combatant CDRs**
- **2016 – 2017: Lockout trunk launch and recovery proof of concept**
- **2016: UUV bottom submarine exercise**
- **2017: Establishment of UUVRON ONE (05 Command)**
- **2017: UUVs deployed to ARA SAN JUAN search**
- **2021: UUVRON ONE supports CENTCOM (shore/surface launch)**
- **2022: Establishment of UUVRON ONE as Major (06) Command**



# U.S. Navy Family of UUVs



## Systems in Service Today

## Coming in next 5 years

MEDIUM

### Razorback

Drydeck Shelter Launched / TTLR in Dev



Next Generation



SUUV TTLR

### Razorback TTL&R

Torpedo Tube Launched



### MEDUSA Mobile Mine



### Tetra Remotely Operated Vehicle



### Kingfish + ASPs (MCM)



Next Generation

Plug and Play Advanced Sensor Payloads (ASPs)

### Viperfish (MCM)



SMALL

### Swordfish (MCM & NSW)



Next Generation

### Lionfish + ASPs (MCM & NSW)



### LARGE

Snakehead Ph1 Prototype



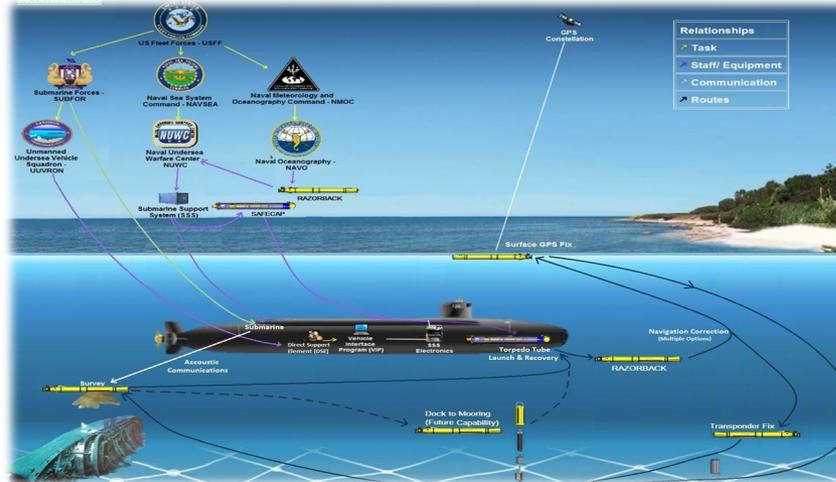
### Orca Extra Large (Mining)



TTL&R = Torpedo Tube Launch & Recovery  
MCM = Mine Countermeasures  
NSW = Naval Special Warfare



# What is Difficult in UUV Ops?

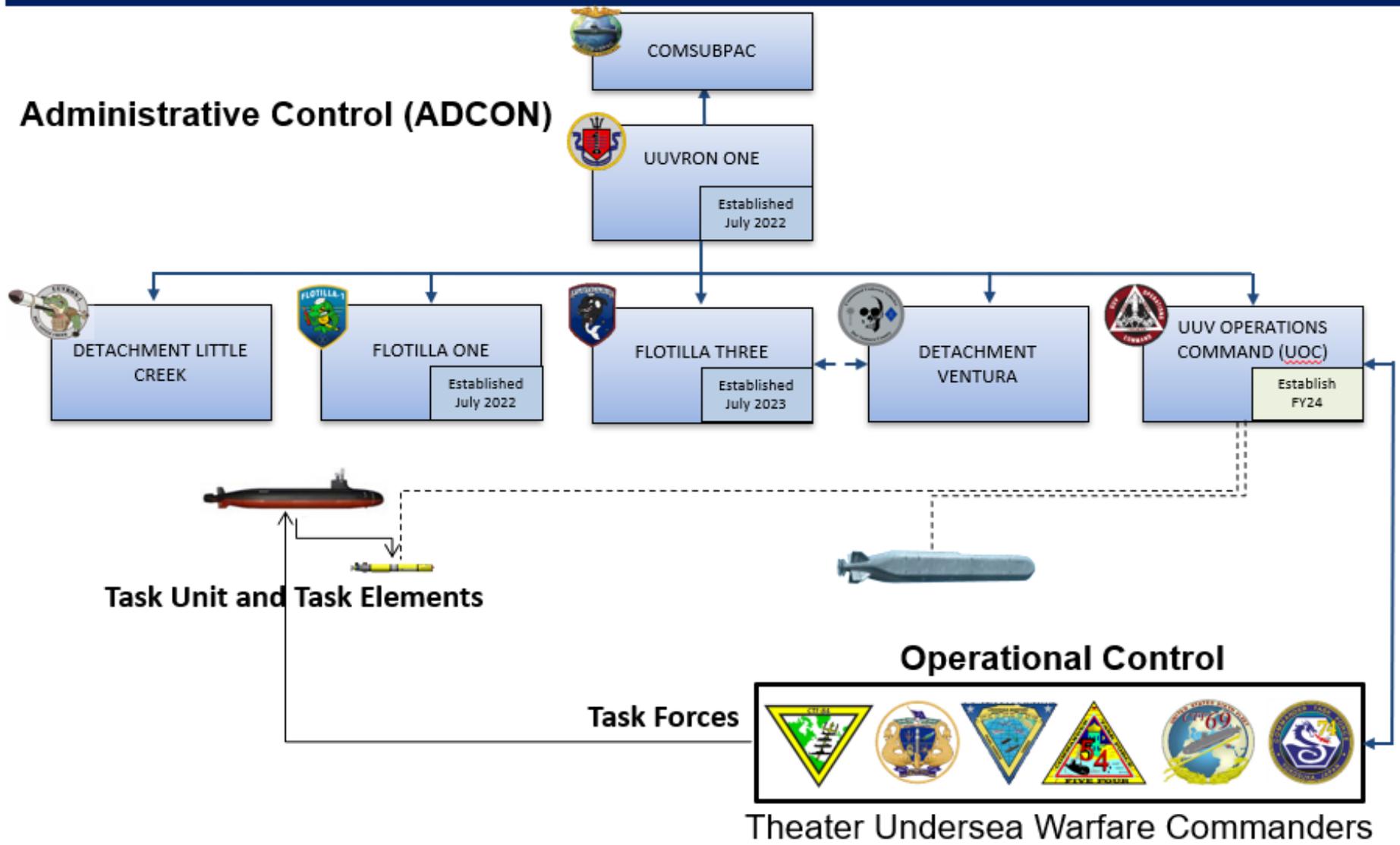


- Driving into a small opening that is moving (i.e., torpedo tube)
- Satisfying submarine safety and technical restrictions
- Operating at the air-water interface (weather, contacts)
- Operating in area with obstructions (nets, trawlers)
- Long duration, submerged navigation
- Integrating proprietary sensors with proprietary controls
- Communications, reachback, and shore based C2



# UUVRON ONE

## Administrative Control (ADCON)



Task Unit and Task Elements

## Operational Control

Task Forces



Theater Undersea Warfare Commanders



# Fleet Operations

UNCLASSIFIED



- **EUCOM:**

- 11 Exercises and 17 countries – mine countermeasure focus
- NORDSTREAM Response – bottom surveys

- **CENTCOM:** Seabed surveys, harbor survey and defense

- **INDOPACOM:**

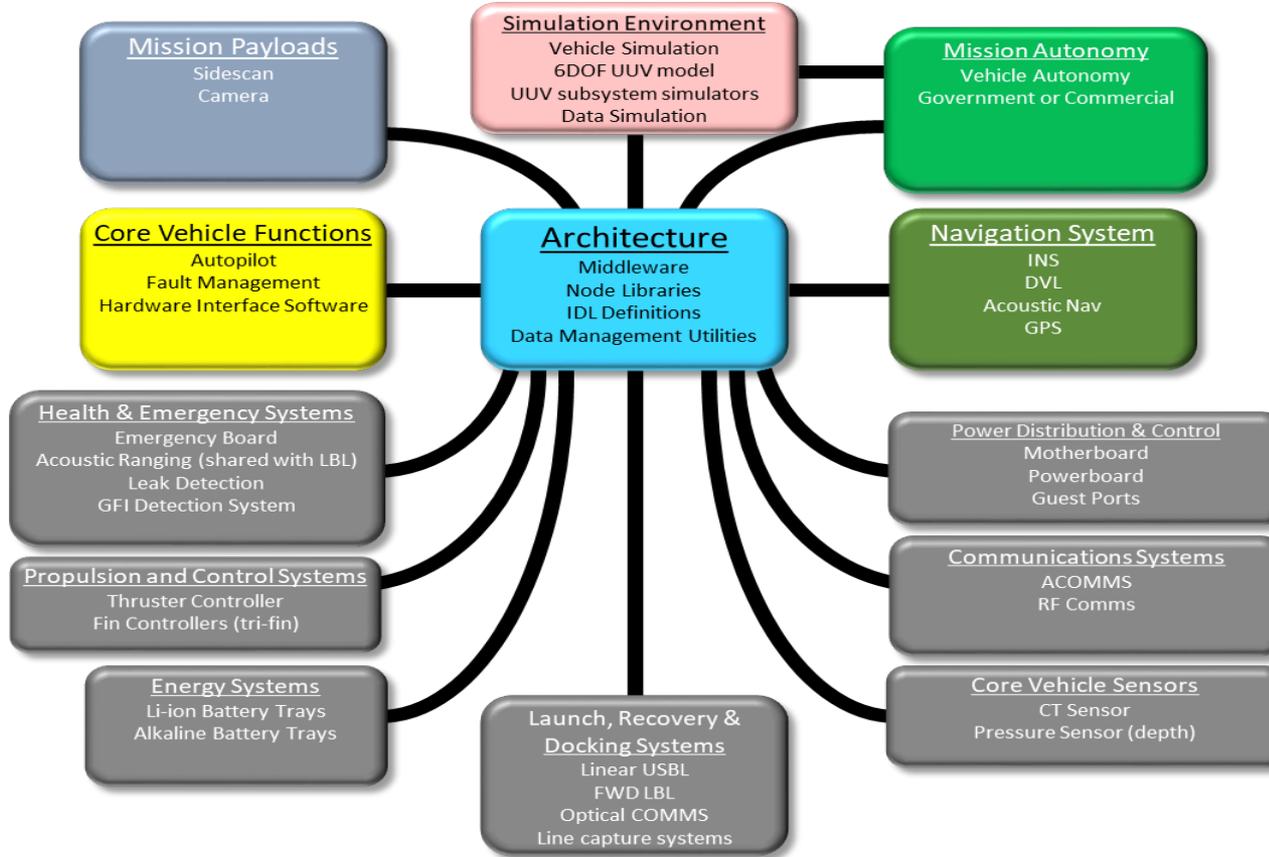
- IBP 23.3 - AUKUS Pillar 2 Subsea & Seabed Warfare experiment/exercise
- 10 exercises with 4 allies/partners (mining & mine countermeasures)

- **NORTHCOM:** Harbor survey and defense

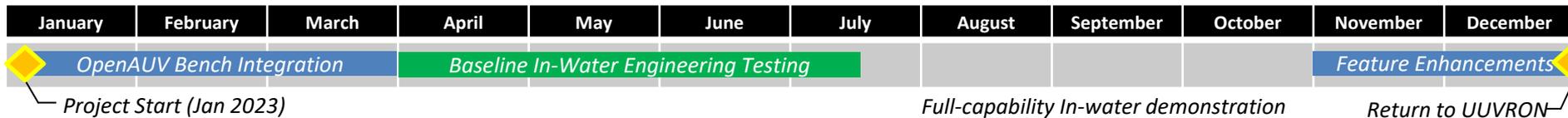


# Future Development Efforts

## Open AUV Architecture



2023 RAZORBACK-OpenAUV Conversion Schedule





# UUV Enabling Capability Initiatives



## UUV Core Technology Portfolio

