



**NOAA**

# NOAA Fleet Plan Update to the GOMO Community Workshop

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# Fleet Plan – 8 Strategies to Meet NOAA's At Sea Requirements



**ONE**  
DESIGN AND  
CONSTRUCT NEW  
NOAA SHIPS



**TWO**  
WORKFORCE  
DEVELOPMENT



**THREE**  
EXTEND THE  
SERVICE LIFE OF  
EXISTING NOAA  
SHIPS



**FOUR**  
INCREASE NOAA  
FLEET  
UTILIZATION



**FIVE**  
INTEGRATE NEW  
TECHNOLOGY



**SIX**  
INCREASE USE OF  
CHARTERS AND  
CONTRACT  
VESSELS



**SEVEN**  
EXPAND  
PARTNERSHIPS

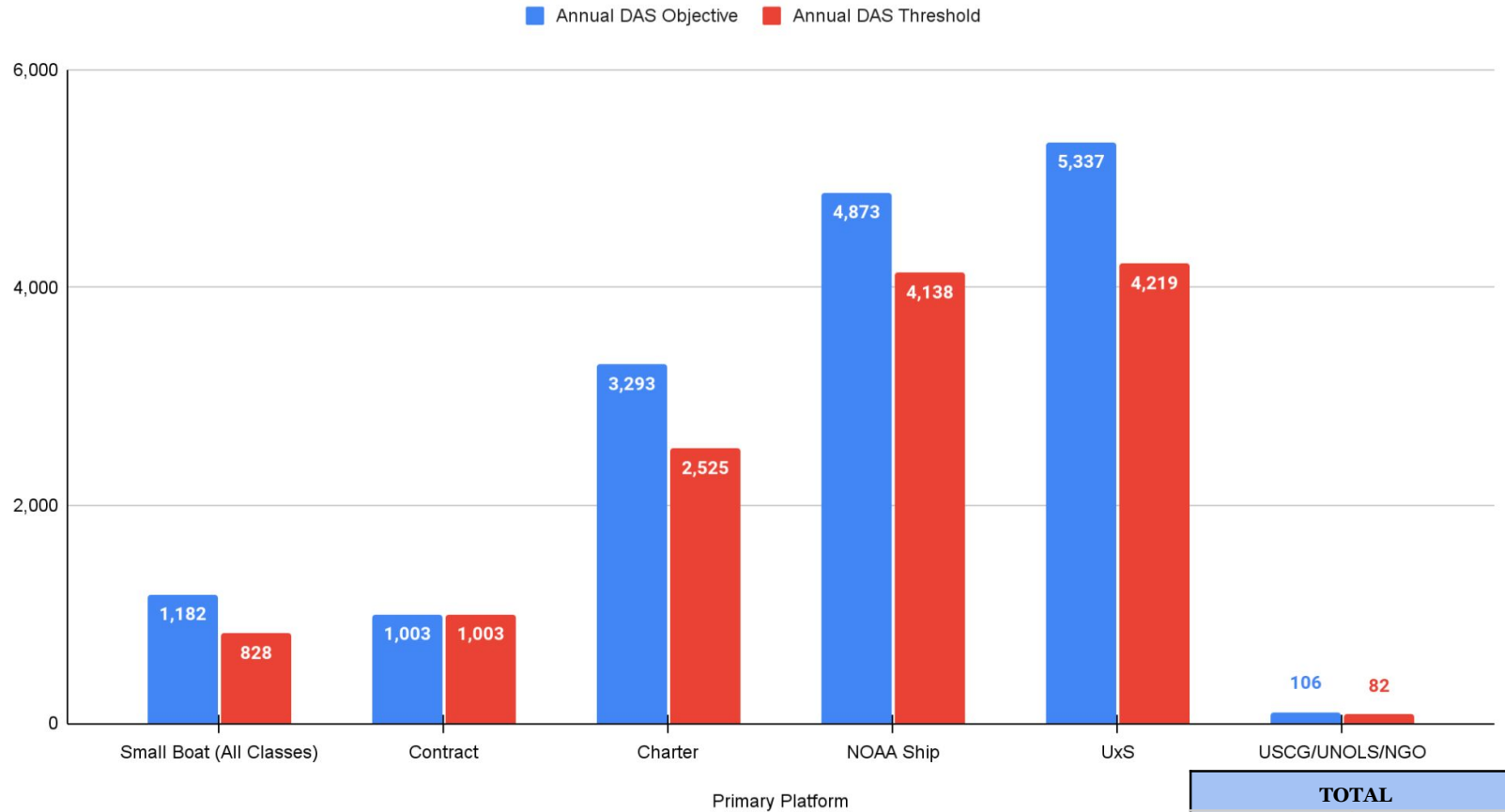


**EIGHT**  
UTILIZE NOAA  
SMALL BOATS



# Days at Sea Requirements

Annual Days At Sea Objective and Threshold



TOTAL	
Annual DAS Objective	Annual DAS Threshold
15,794	12,795

# Recapitalization



Ship	Primary Mission	Secondary Mission(s)
<b>N/V CLASS A</b> <b>Under Construction</b>	Oceanographic Monitoring, Research & Modeling	Assessment and Management of Living Marine Resources (no trawl), Charting and Surveying
<b>N/V CLASS B</b> <b>Contract Awarded</b>	Charting and Surveying	Assessment and Management of Living Marine Resources (no trawl), Oceanographic Monitoring, Research & Modeling
<b>N/V CLASS C</b> <b>Internal Planning</b>	Assessment and Management of Living Marine Resources (trawl-capable, shallow-draft)	Charting and Surveying
<b>N/V CLASS D</b> <b>Internal Planning</b>	Assessment and Management of Living Marine Resources (trawl capable, near-shore and deep ocean, longer endurance)	Charting and Surveying, Oceanographic Monitoring, Research & Modeling

# Fleet Capitalization Strategy



NOAA Ship	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	
Oscar Elton Sette			2025-2029																					
Oregon II	2022-2030																							
Gordon Gunter								2030-2034																
Okeanos Explorer						2027-2031																		
Discoverer (2026)																								
Fairweather					2026-2030																			
Class B1																								
Hi'ialakai	2019																							
Oceanographer (2025)																								
Rainier					2026-2030																			
Class B2																								
Thomas Jefferson												2034-2037												
Nancy Foster																		2039-2042						
Ferdinand R. Hassler																		2039-2041						
Ronald H. Brown																					2042			

White = Online | Gray = Offline



# Maintenance and Midlife Repairs



## *Ronald H. Brown* Single-Phase Midlife Repair

- Leverages UNOLS MRP experience
- Increases Engine Efficiency for TIER-4 compliance
- Increases sustainability through technology refresh
- Jun 2023 – Aug 2024



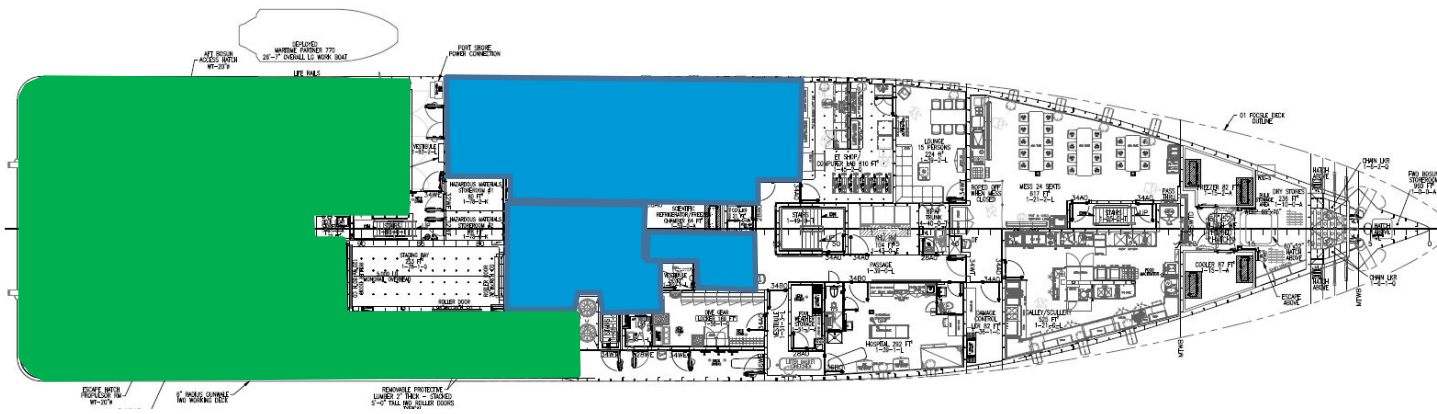
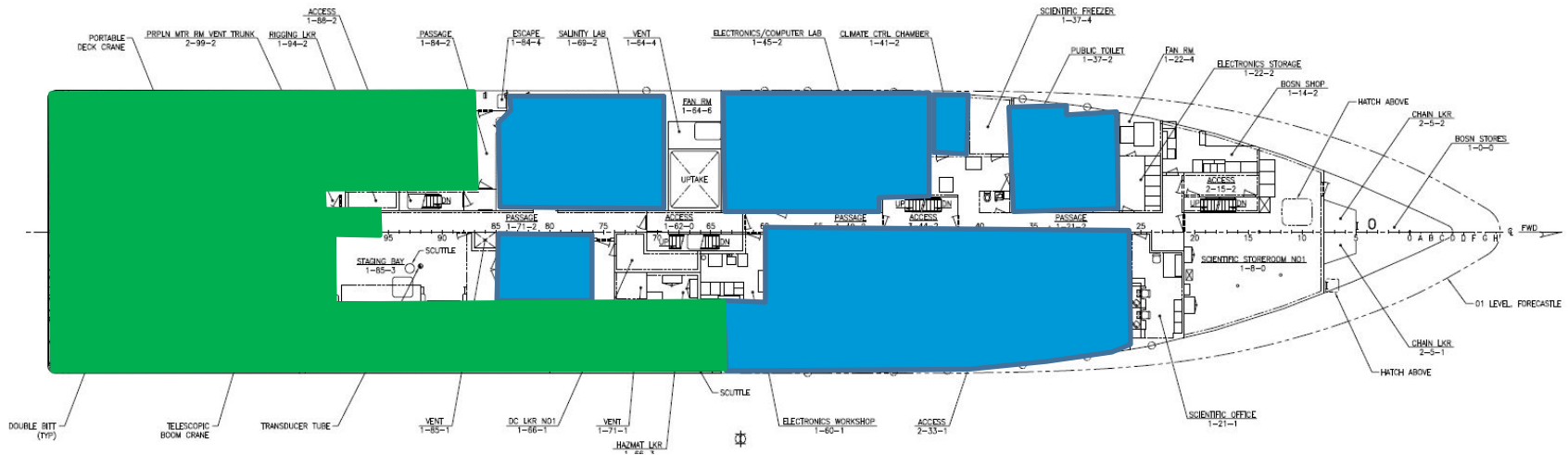


# Ronald H. Brown (RB) and NOAA AGOR Variant (NAV), by the numbers

	RB	NAV	Comment
Length (ft)	274	245	
Beam (ft)	52	51	
Displacement (LT)	3,250	3,100	
Endurance (days)	60	40+	40 required by specification, yard estimating ~65, food limited in both cases.
Range (nm)	11,300	10,900	
Speed, cruise (kts)	12	12	
Crew Bunks	29	27	final NAV crew will depend on mission
Science Bunks	30	21	final NAV science will depend on crew #



# Ronald Brown and NAV, to scale





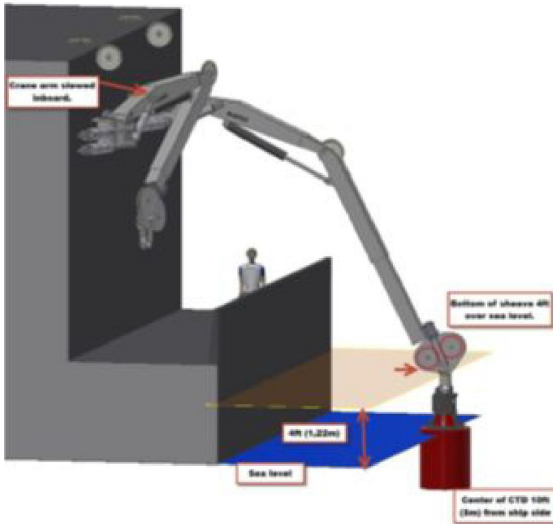
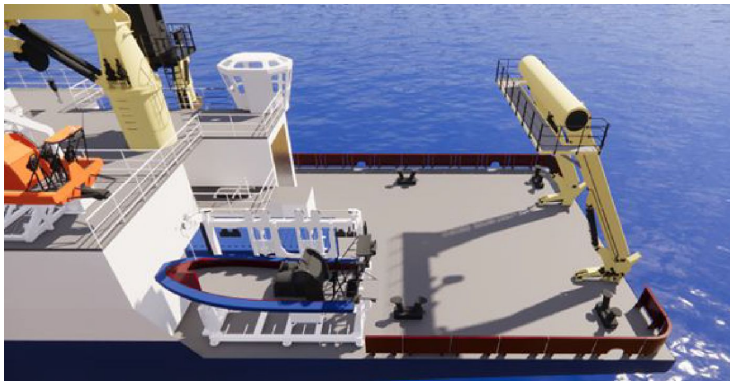


# Ronald Brown and NAV, by the numbers

	RB	NAV	Comment
A-Frame Capacity (LT)	9.8	11.3	
Main Crane Capacity (LT)	18.7	10.2	
CTD winch capacity (km)	10	10	with 0.322" cable. NAV has 2 CTD winches
Traction Winch Capacity (km)	10	10	with 0.68" cable
20' Van Spots	5 aft, 2 fwd	5 aft, 2 fwd	
Aft Working Deck (ft <sup>2</sup> )	3,260	2,724	
Side Working Deck (ft <sup>2</sup> )	932	800	
Main Lab (ft <sup>2</sup> )	1,730	1,030	
Wet Lab (ft <sup>2</sup> )	230	423	
Other Lab Space	1,420	-	



# NAV Capabilities



## Uncontaminated Seawater System

- Sea-Bird SBE-21 and SBE-45 TSG
- Sea-Bird ECO-FLNTU-S fluorometer

## Environmentally Controlled Room

- 2 Autosal 8400B

## Mapping Systems

- 12 kHz EM124 1°x2°
- 100 kHz EM712 0.5°x1°
- 300 kHz EM2040 0.7°x0.7°
- SBP 29-6 sub-bottom (integrated w/ EM124)

## Water Column/ Fisheries Systems

- EK80 (18, 38, 70, 120, 200, 333 kHz)
- 100 kHz ME70 fisheries multibeam

## ADCPs

- 38, 75, 150, 300 kHz

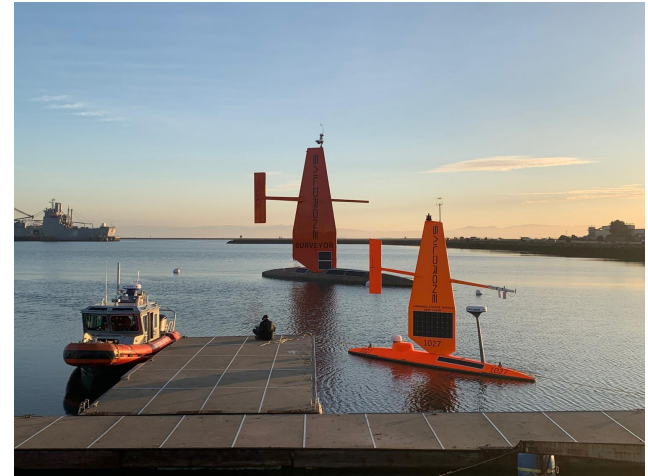
## Tracking

- HiPAP 502 USBL



# Integrating Emerging Uncrewed Tech -

- **Operationalize NOAA Ships and UMS working in tandem**
  - Force multiplier
  - Preparation for Class B ships with UxS
  - Partnership with NOAA Fisheries and Office of Coast Survey on trials
  - Working with commercial industry on data buys from Saildrone
- **Schedule**
  - ✓ **2021:** Acquire UMS
  - ✓ **2022:** Hydrographic survey (*Thomas Jefferson*)
  - ✓ **2023:** Alaska pollock survey (*Oscar Dyson*)
    - **2024:** If feasible, expand operations





# Professional Mariner Workforce

- Largest Federal Research Fleet with 15 ships and a budget of over \$220 Million.
- Fleet operated by Commissioned Officers as well as ABs, Skilled Fishermen, Stewards, and Licensed Engineers.
  - Over 429 Professional Mariner positions
  - Presently, 50+ open positions
- Improving quality of life aboard ships is critical to attracting and retaining professional talent.
  - Rotational Assignments
  - Greater connectivity through fleetwide Starlink integration
- Critical to successful operations of the NOAA Fleet
  - Recruitment
  - Retention





# Questions?

