

University-National Oceanographic Laboratory System ~UNOLS~

UNOLS Fleet Improvement Committee Meeting University of Rhode Island March 26-27, 2019



2016 - 2030 Projected UNOLS Fleet Capacity (updated: 03/13/2019)

		 Design Life Extended Life Retired														Ship Age	Retire Year	Year Built	LOA m (ft)	Sci. Berths	
Ship/Class	Owner	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030					
Global Class																					
<i>Thomas G. Thompson</i>	NAVY																28	2036	1991	84 (274)	36
<i>Roger Revelle</i>	NAVY																23	2026	1996	84 (274)	37
<i>Atlantis</i>	NAVY																22	2027	1997	84 (274)	37
<i>Marcus G. Langseth</i>	NSF																28	2020	1991	71 (235)	35
<i>Sikuliaq</i>	NSF																5	2045	2014	80 (261)	26
Ocean/Intermediate Class																					
<i>Kilo Moana</i>	NAVY																17	2032	2002	57 (186)	29
<i>Endeavor</i>	NSF																43	2021	1976	56 (185)	18
<i>Oceanus</i>	NSF																43	2020	1976	56 (184)	19
<i>Atlantic Explorer</i>	BIOS																37	2026	1982	51 (168)	20
<i>Neil Armstrong</i>	NAVY																4	2045	2015	73 (238)	24
<i>Sally Ride</i>	NAVY																4	2046	2015	73 (238)	24
Regional Class																					
<i>Hugh R. Sharp</i>	UDel																14	2035	2005	44 (146)	14
<i>RCRV1</i>	NSF																	2052	2022	60 (199)	16
<i>RCRV2</i>	NSF																	2053	2023	60 (199)	16
<i>RCRV3</i>	NSF																	2054	2024	60 (199)	16
Coastal/Local Class																					
<i>Robert Gordon Sproul</i>	SIO																38	2023	1981	38 (125)	12
<i>Pelican</i>	LUMCON																34	2020	1985	36 (116)	14
<i>Walton Smith</i>	U.Miami																19	2030	2000	30 (96)	16
<i>Savannah</i>	SKIO/UG																18	2031	2001	28 (92)	19
<i>Blue Heron</i>	UMINN																34	2025	1985	26 (86)	6
<i>Rachel Carson</i>	UW																16	2033	2003	22 (72)	9
<i>Clifford Barnes</i>	NSF																52	2018	1966	20 (66)	6
Ships		18	18	18	18	18	16	15	16	16	16	15	13	12	12	12					

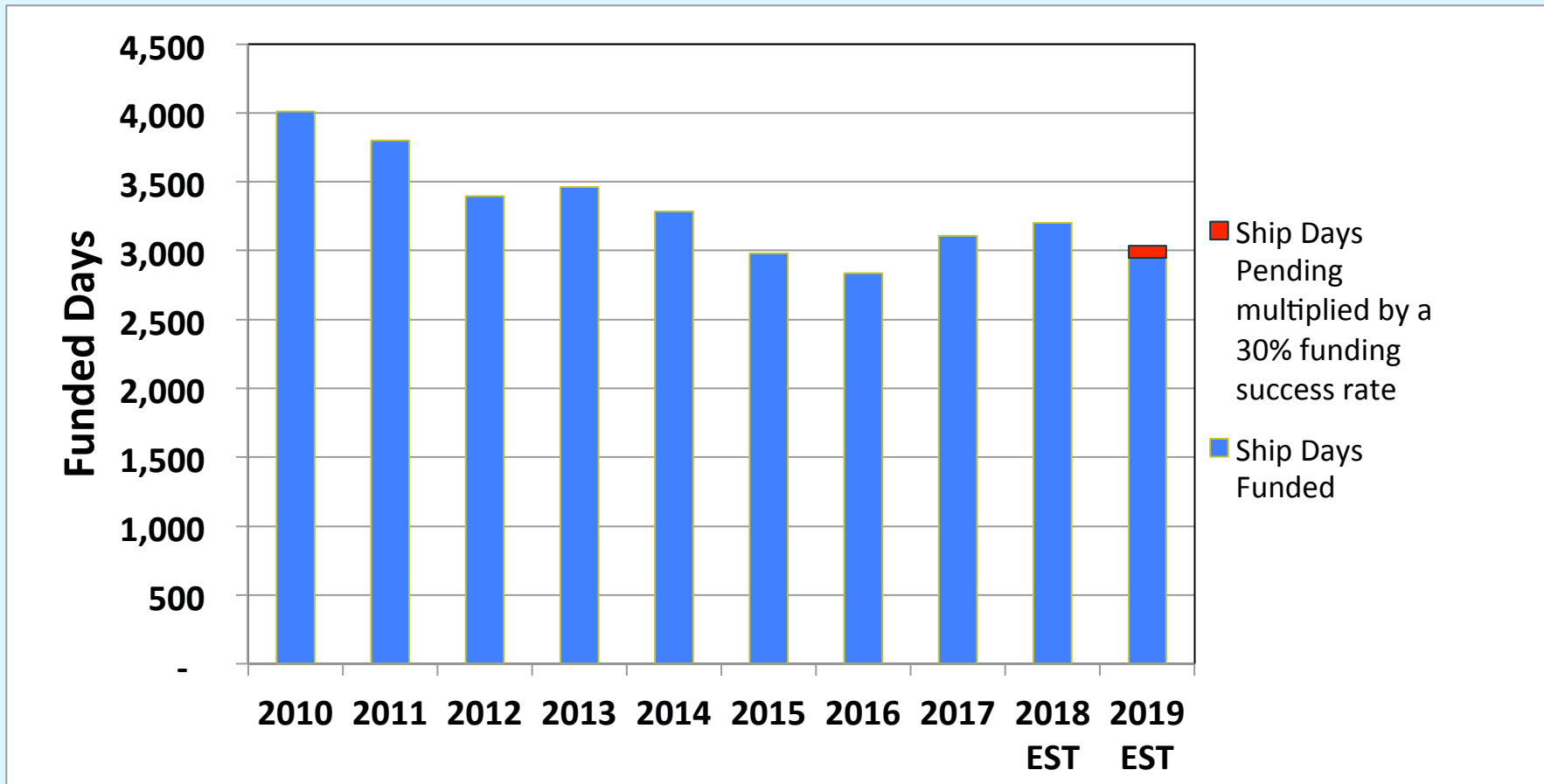


Revision Notes

Revision (5/20/16)	Service Life Extensions for Global AGORs contingent on successful completion of mid-life refits.
Revision (5/24/17)	RCRV3 added to chart.
Revision (11/15/17)	Service Life Extension to 2030 for Thompson on completion of mid-life refit.
Revision (4/26/18)	Barnes retired Feb 1, 2018.
Revision (5/7/18)	Langseth retires in 2020. Extended Endeavor and Oceanus by 1 year.
Revision (5/9/18)	Sproul will continue to operate through 2023.
Revision (10/8/19)	Sharp, W.Smith, and Savannah - No known plans for a mid-life; service life is 30 years.
Revision (10/18/19)	Rachel Carson enters service in Spring 2018
Revision (3/13/19)	Thompson SLE extended to 2036. RCRVs start date 1 year later.

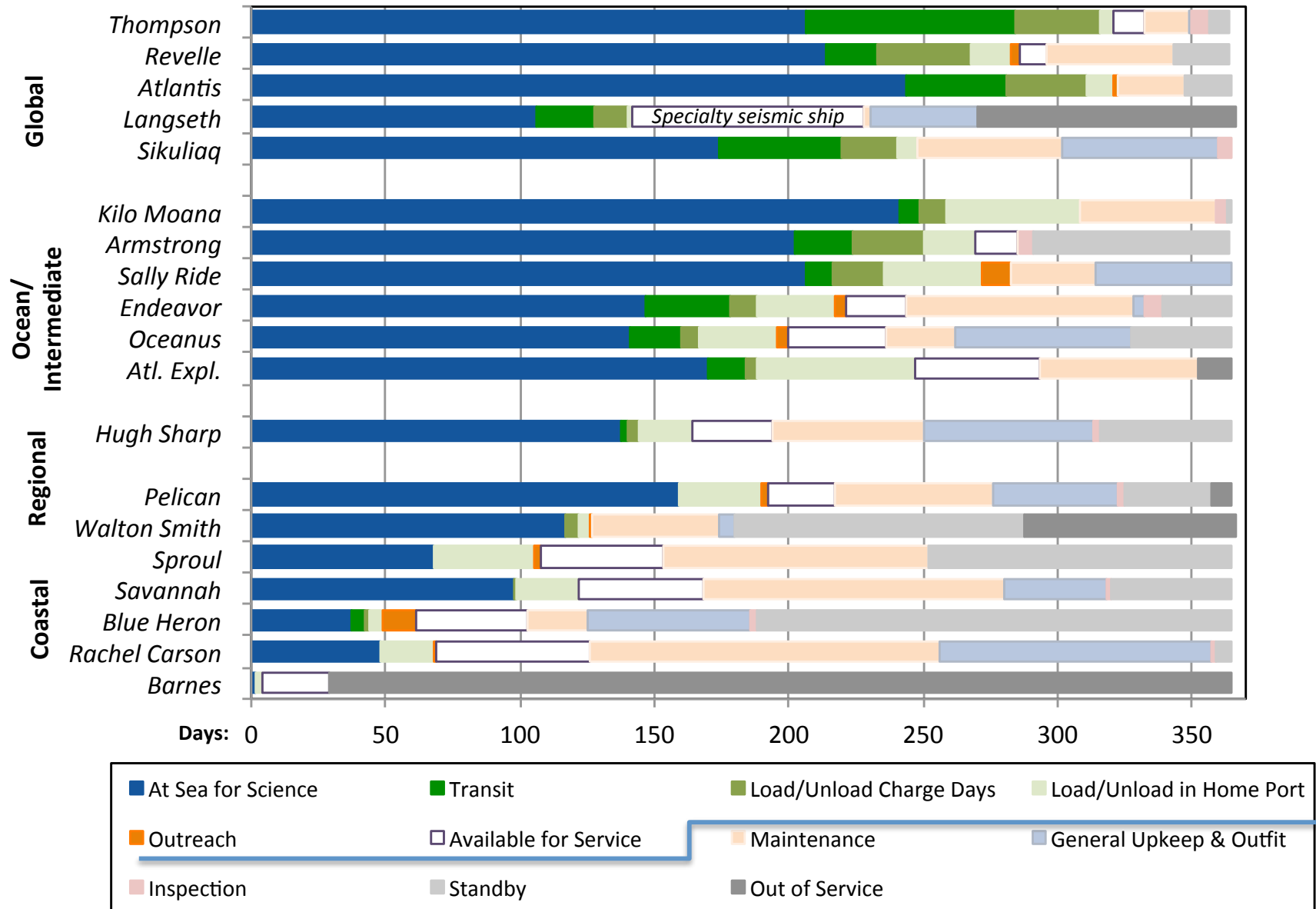


Fleet Operating Days: 2010 - 2019

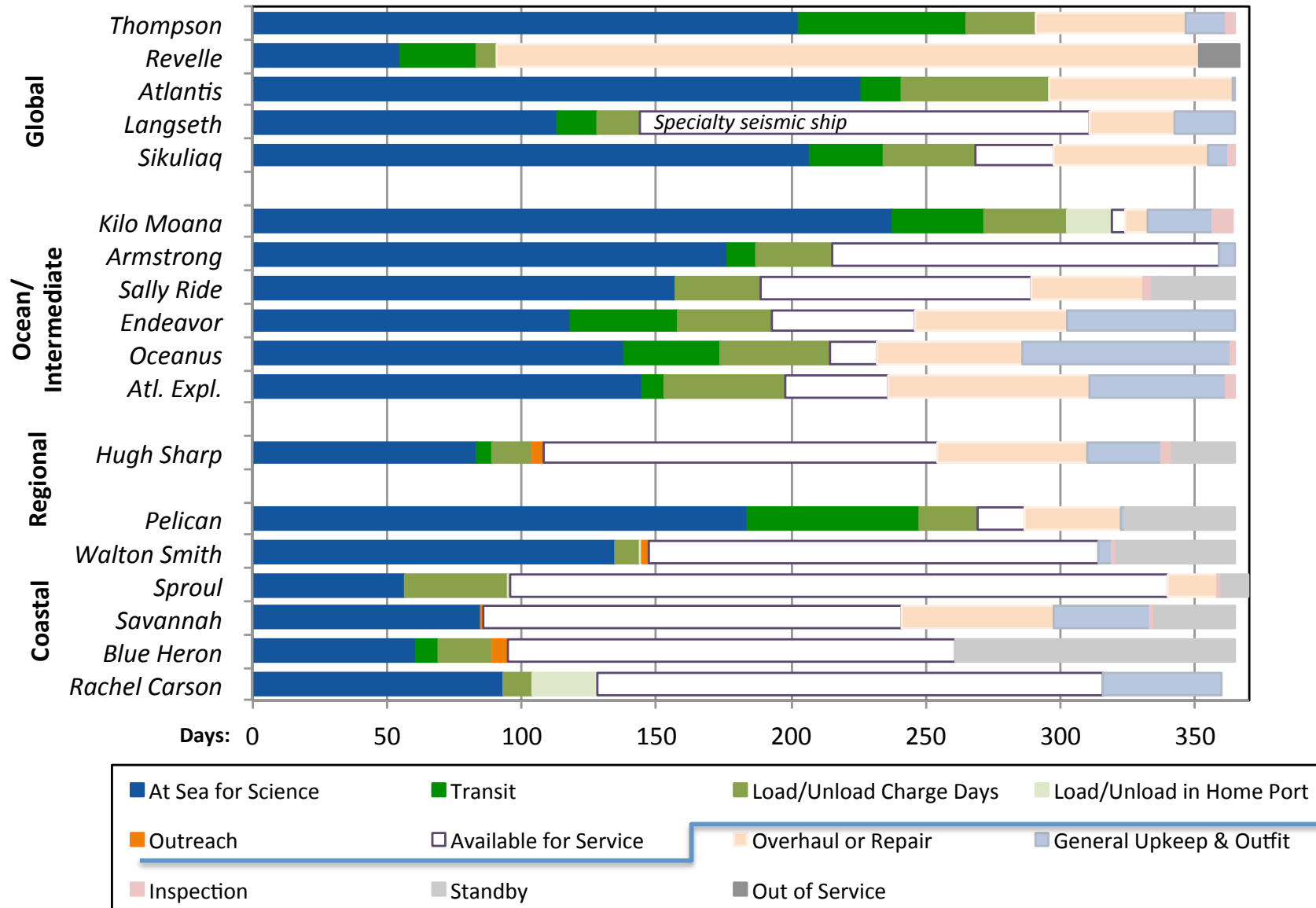


Note: 2019 Operating Days = funded days plus 30% of pending days

CY 2018 Ship Utilization - Full Calendar Year Academic Research Fleet



CY 2019 Ship Utilization - Full Calendar Year Academic Research Fleet





Full Optimal Year (FOY) Definition

- Excerpt from the 2015 Fleet Improvement Plan:

"In 2014 the UNOLS FIC worked with vessel operators to revise the target number of days per year of vessel operations that are considered optimal for retaining crew, maintaining vessel equipment and mobilizing for diverse science missions during peak periods of science demand. It was recognized that these Full Optimal Year (FOY) targets should be ranges that reflect not just vessel class, but also vessel age, homeport, and differences in at-sea utilization caused by regional weather constraints."



Full Optimal Year Range Definitions

	A	B	C	D	E	F	G	H	I	J
1	Updated: 11/20/2017									
2										
3		Standard Definition		2016 Adjusted FOY		2017 Adjusted FOY		2018 Adjusted FOY		
4		Minimum FOY	Maximum FOY	Minimum FOY	Maximum FOY	Minimum FOY	Maximum FOY	Minimum FOY	Maximum FOY	Notes
5	ATLANTIS	270	300	270	300	270	300	270	300	
6	R. REVELLE	270	300	270	300	270	300	270	300	
7	LANGSETH	270	300	180	210	240	270	270	300	2016 & 2017 - adjusted (shipyard & maintenance).
8	T.G. THOMPSON	270	300	108	120	10	10	270	300	2016 & 2017 adjusted by D. Russell (mid-life)
9	SIKULIAQ	270	300	270	300	270	300	270	300	
10										
11	ARMSTRONG	250	280	166	186	250	280	250	280	2016 adjusted based on Service start date
12	SALLY RIDE	250	280	42	47	250	280	250	280	2016 adjusted based on Service start date
13	KILO MOANA	250	280	170	200	250	280	250	280	2016 adjusted - A. Hilton 6/22/16
14	ENDEAVOR	200	230	200	230	200	230	200	230	
15	OCEANUS	180	210	180	210	180	210	180	210	
16	ATLANTIC EXPLORER	170	200	150	180	150	180	180	210	Standard and 2018 adjusted - Q. Lewis 11/14/17
17										
18	HUGH R. SHARP	165	195	165	195	165	195	165	195	Standard and all years adjusted - J.Swallow 11/15/17
19										
20	PELICAN	180	210	180	210	180	210	180	210	
21	WALTON SMITH	150	180	150	180	150	180	150	180	
22	R. SPROUL -	90	120	90	120	90	120	90	120	
23	SAVANNAH	90	120	90	120	165	195	140	170	2017 adjusted - J. Bichy 6/22/16, 2018 adjusted - Jbichy 11/14/17
24	BARNES	90	120	90	120	90	120	90	120	Barnes will transition to R/V Carson in 2018



Full Optimal Year Range

- The range of the FOY typically equals 30 days.
- FOY calculation:
 - At Sea for Science Days
 - + Transit
 - + Load/Unload Days
 - + Outreach
 - + Available for Service
 - = Maximum value of FOY range

Note:

- In the chart legend box, the day-types above the blue line should equal the maximum FOY value

2018: Average Days per Activity by Ship Class vs Average FOY Range

