

Regional Class Research Vessels

RVOC

April, 2014
Savannah, GA



Key Features

- Variable Frequency Direct Drive
 - EM302/2040
 - ADCP/EK60
 - Flow Through
- DP-1
- Ice Class C0
- Schottel STP Twin Prop Z-Drive
- Big Back deck and Van Vestibule
- Telepresence
 - SSV for full App-B compliant OHS
 - Synthetics
 - Retractable Centerboard



RCRV Top Level Schedule

ID	Task Name	Start	Finish	2013			2014			2015			2016			2017			2018			2019			2020			2021			2022			2023		
				Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
1	Phase 1 Design Refresh	12/13/12	9/30/15																																	
2	Phase 1A: Concept Design (CDR)	12/13/12	1/31/14																																	
3	Phase 1B: Preliminary Design (PDR)	2/1/14	9/30/14																																	
4	Phase 1C: Post-PDR	10/1/14	12/31/15																																	
5	Phase 2 Shipyard Selection	01/1/16	12/31/16																																	
6	Phase 2: Final Design (FDR)	10/1/15	1/19/17																																	
7	Phase 3 Construction	1/2/17	12/31/21																																	
8	RCRV #1: DVT and Construction	1/2/17	12/31/19																																	
9	RCRV #2: DVT and Construction	6/4/18	12/31/20																																	
10	RCRV #3: DVT and Construction	6/11/19	12/31/21																																	
11	Phase 4 Transition to Operations	1/1/20	7/20/23																																	
12	RCRV #1 Transition	1/1/20	7/19/21																																	
13	RCRV #2 Transition	1/1/21	7/20/22																																	
14	RCRV #3 Transition	1/3/22	7/20/23																																	

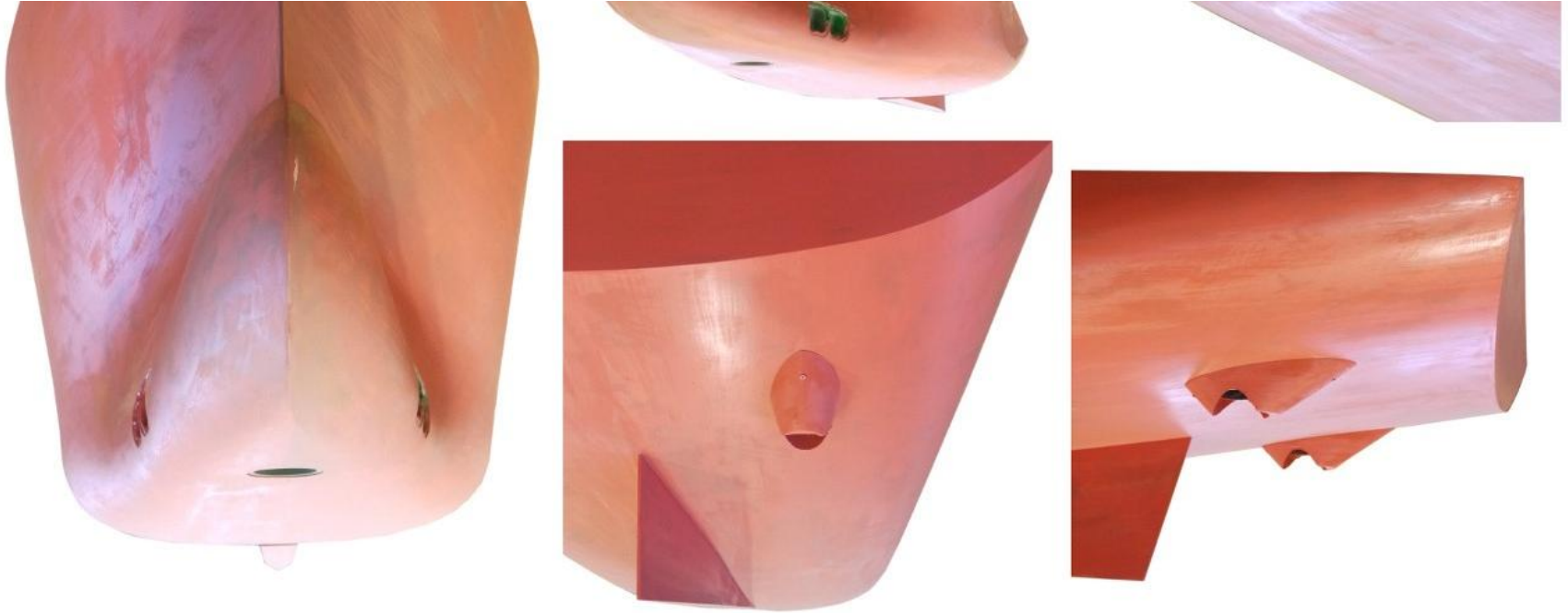
Phase 1B Key Events

- **23 January:** **Kickoff (Corvallis)**
- **31 January:** **Post CDR Baseline**
- 11 February: OCRV & Siquiliaq Visit (Anacortes/Marinette)
- 19 February: SOC GA Review (Webex)
- 21 February: Acquisition Strategy
- **28 February:** **Risk Workshop**
- 24 February: Design Review (Seattle)
- 01 April: Willis and Comar on board
- **29 April:** **IDR (Corvallis)**
- 4 July: PDR Deliverables Due (Wiki)
- **5 Aug:** **PDR (Arlington)**

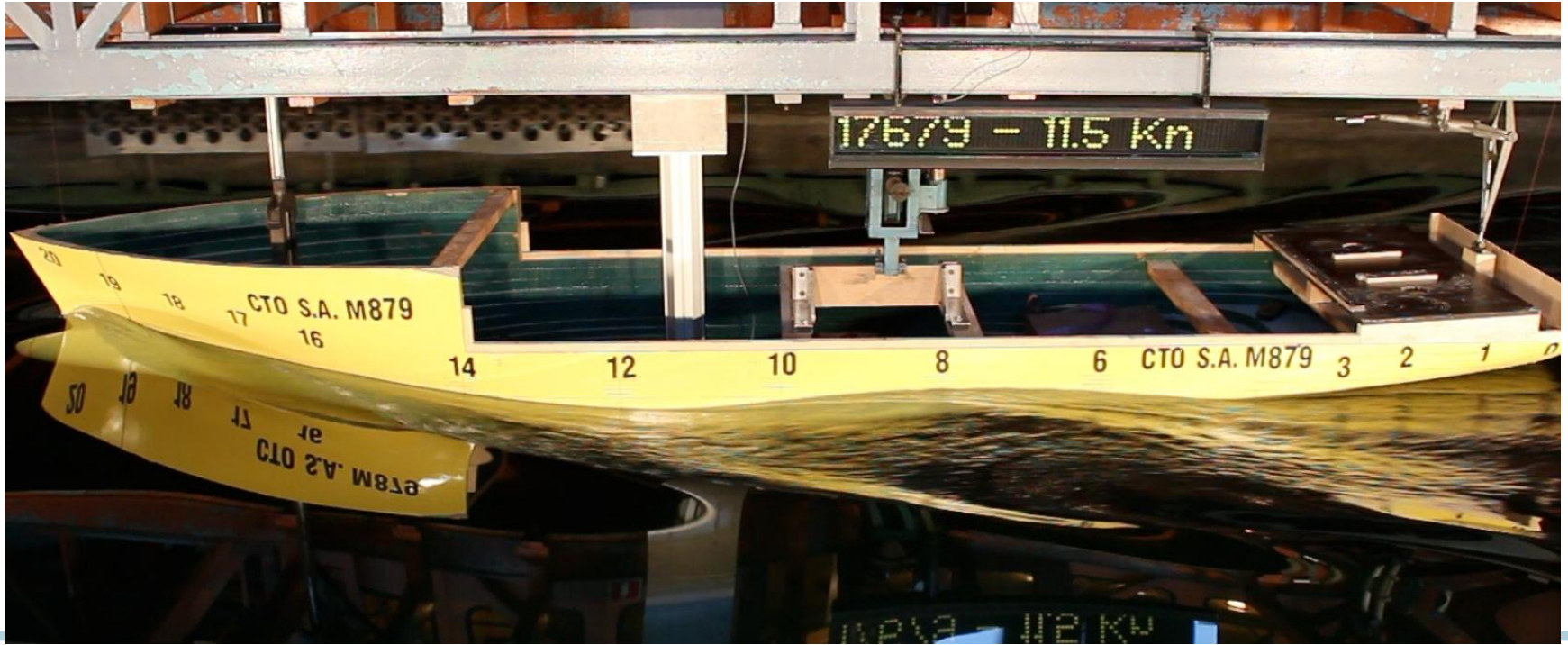
NSF Action Memo: Key Dates

- 02/15: NSF Director approval of CDR
- 03/15: Updated Acquisition Strategy Schedule
- 04/01: Revise Risk Register
- 04/01: Revise Load Handling System drawing and spec for App B
- 04/04: P3 Version of Specs Posted
- 05/01: RCRV/OCRv Mission Comparison

Model Testing



Model Testing



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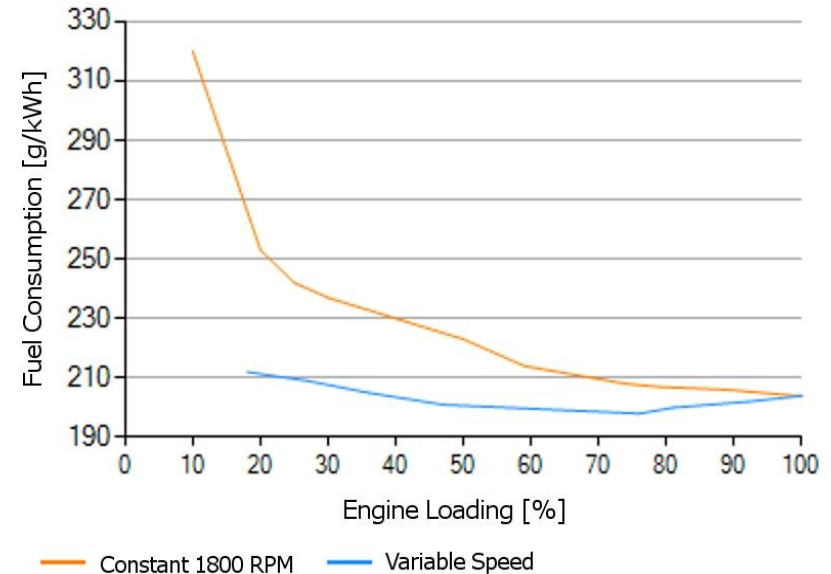


Green Ship Initiatives

Conserve Fuel

- Reduce Hull Resistance
 - Optimize Hull Form
- Increase Fuel Efficiency
 - Variable Speed Power Generation
 - Power electronics produce 60Hz power
 - Optimal operating point
 - Increased fuel economy, especially at light loads
 - 5%-15% fuel savings

CAT 3512C



Discussion.....

