



# PROJECT UPDATE

## Regional Class Research Vessels



Presented at UNOLS Annual Meeting  
by Clare Reimers 11/17/2022

# 3 Vessel Build under NSF MREFC Funding



*R/V Taani*



*R/V Narragansett Dawn*



*R/V Gilbert R Mason*

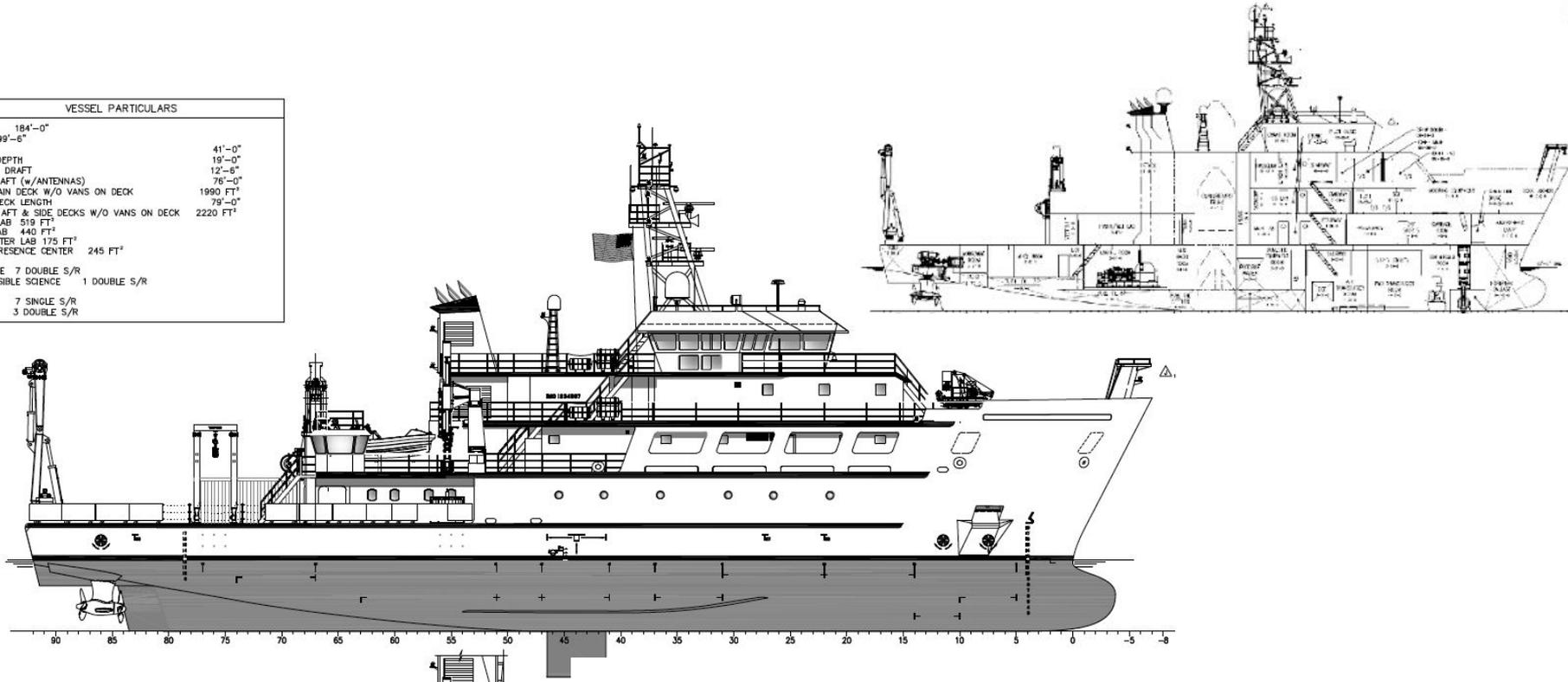


Oregon State  
University



# Design –Glosten Associates and OSU team

VESSEL PARTICULARS	
LWL	184'-0"
LOA	199'-6"
BEAM	41'-0"
HULL DEPTH	19'-0"
DESIGN DRAFT	12'-6"
AIR DRAFT (w/ANTENNAS)	76'-0"
AFT MAIN DECK W/O VANS ON DECK	1990 FT <sup>2</sup>
SIDE DECK LENGTH	79'-0"
TOTAL AFT & SIDE DECKS W/O VANS ON DECK	2220 FT <sup>2</sup>
MAIN LAB	519 FT <sup>2</sup>
WET LAB	440 FT <sup>2</sup>
COMPUTER LAB	173 FT <sup>2</sup>
DATA/RESEARCH CENTER	245 FT <sup>2</sup>
SCIENCE	7 DOUBLE S/R
ACCESSIBLE SCIENCE	1 DOUBLE S/R
CREW	7 SINGLE S/R
	3 DOUBLE S/R



# RCRV PARTICULARS

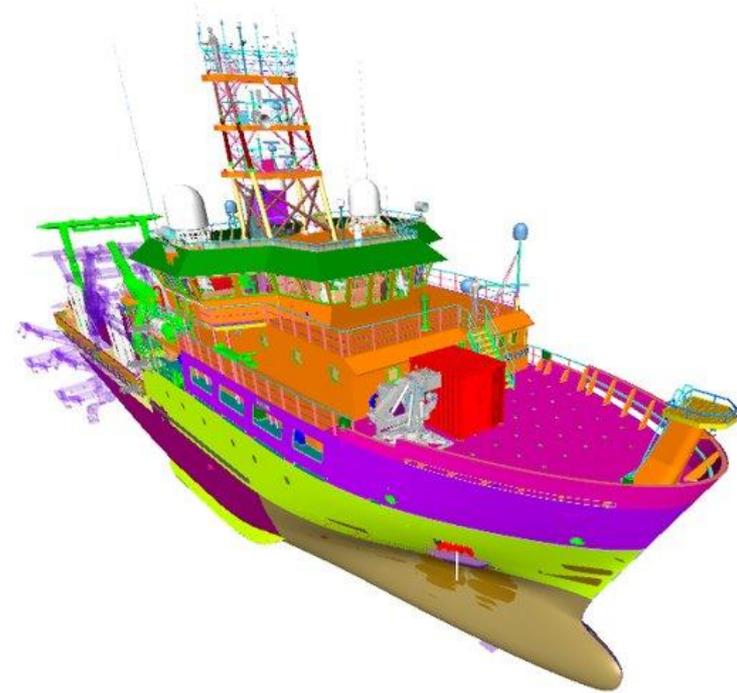
- Length overall .....199 ft
- Beam ..... 41 ft
- Draft @ amidships .....12.5 ft
- Regulatory Tonnage ...1549 GT
- Cruise speed .....11 kt
- Max speed .....13 kt
- Range .....5400 nm @ 12 kt
- Endurance .....21 days min.
- Dynamic Positioning.....ABS DP-1
- Science/Tech Berths .....16
- Crew Berths .....13
- Retractable Centerboard (drop keel)
- A-frame dimensions ....25'H x 20'W
- Multibeam SONAR....EM304, 2040
- Number winches .....3
- Ice Class .....ABS C0



"Phenomenal cosmic powers ... Itty bitty living space."

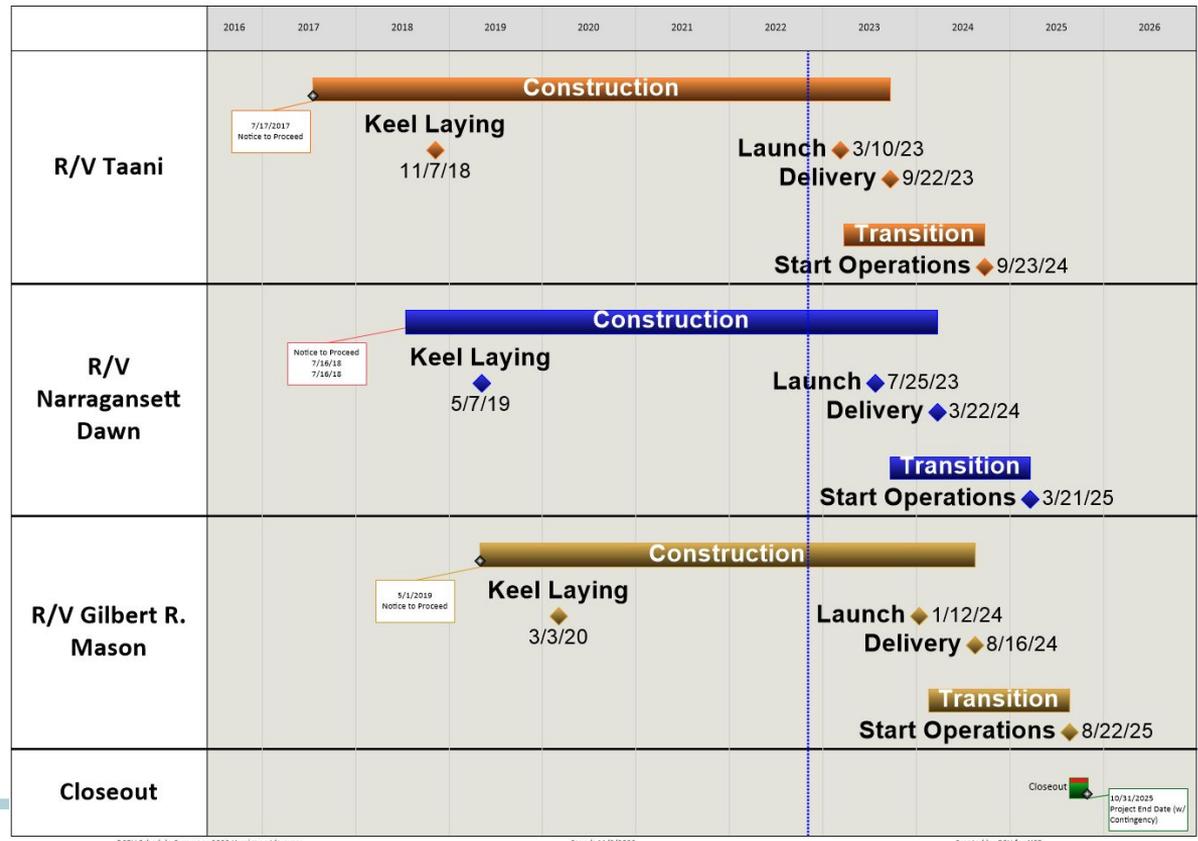
# Major Challenges since start of Construction

- Engineering & Modeling: Original engineering firm left early in project
- Shipyards Capacity / Performance: Original shipyard (Gulf Island) had little experience with gov't contract requirements
- 7 Hurricanes in 2020: multiple small force majeure events
- COVID 19: High absentee rates and engineering inefficiencies
- SY Acquisition by Bollinger in early 2021: progress delayed before during & after
- **Hurricane Ida in 2021: led to 6 months with no progress on the critical path and latest change order for cost and schedule extension**



# 3-Ship Schedule with Ida Delays

RCRV Schedule Summary



News: No launch/christening ceremonies will occur at shipyard

## Transition to Operations

- 18 mo. plans tied to delivery dates
- Crew hiring, training and familiarization
- Builder's trials (ship crewed by SY)
- Post delivery: full OI crew and technicians at SY for outfitting & start of science trials (40 days)
- Transit to home port for local outfitting, ceremonies, further science trials (86 at sea days)
- Warranty haul out at local SY
- NSF Inspection and Acceptance as UNOLS vessel

# Bollinger Houma Shipyard – Post IDA

- Have improved storage, added painting facility, building crew office and shop
- Made upgrades to drainage and flood protection- more in progress
- Labor force has grown with BHS recruiting (with project pay incentives)

OSU Project Field Office

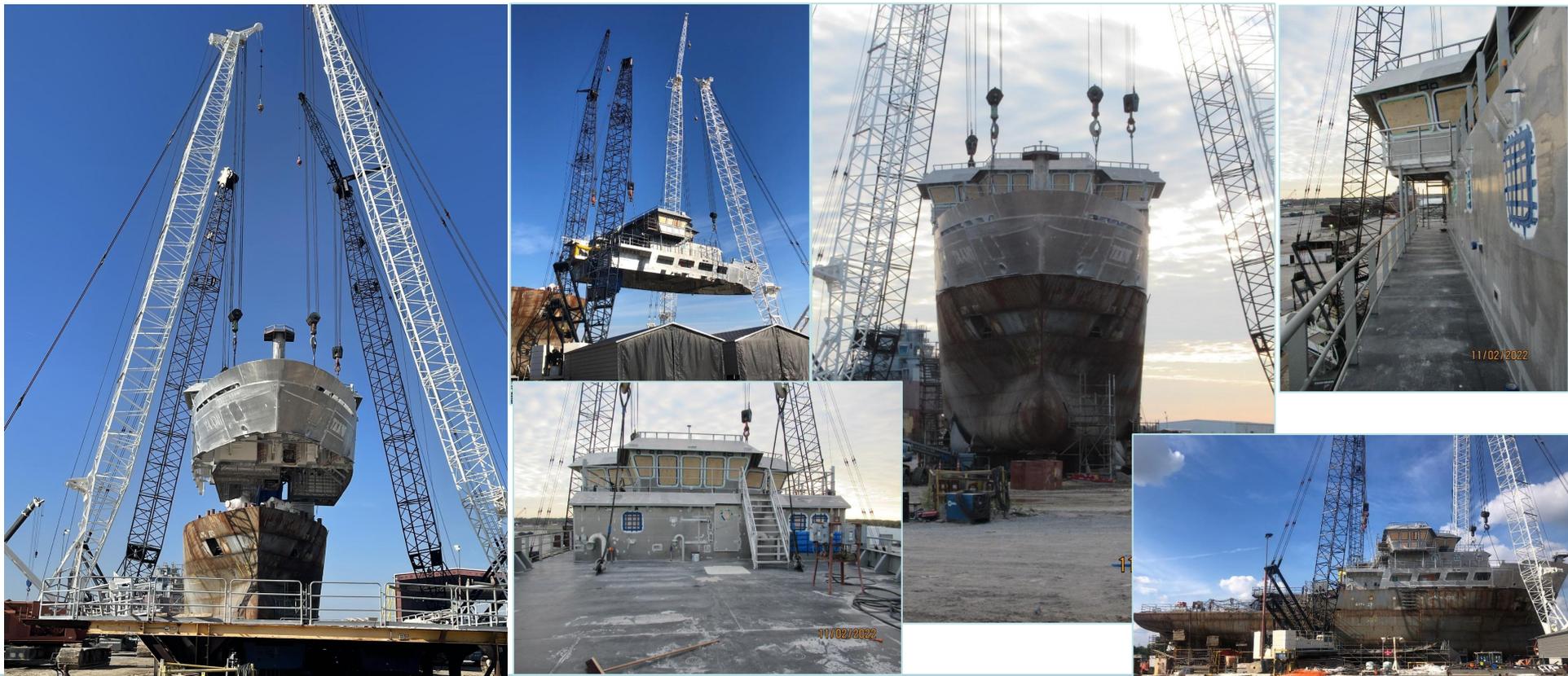


# Shipyard Tour November 16, 2022

## UNOLS and agency partners view progress



# R/V Taani Construction Photos

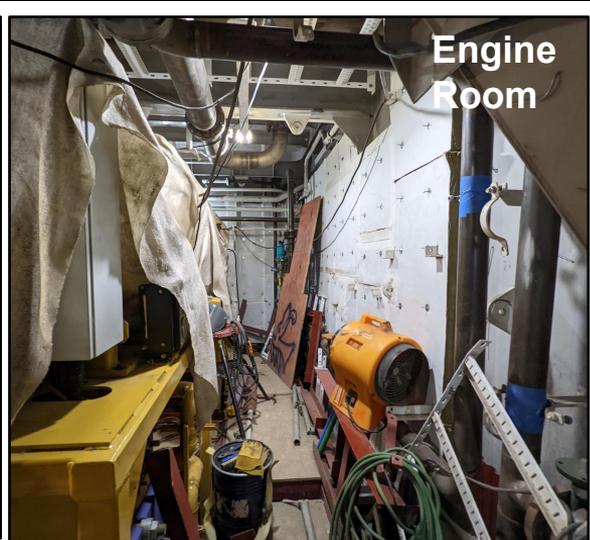


Aluminum superstructure erected onto hull Super Module 10/31/22.

Main Mast & Stack



Engine Room



Bridge Console



TAANI  
NEWPORT OR

Z-Drive Wells



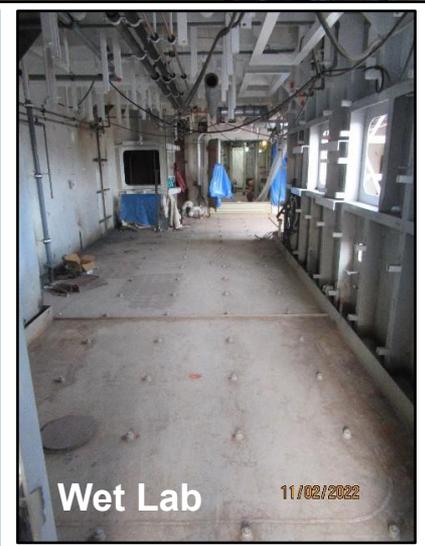
Main Lab looking forward

11/02/2022



Wet Lab

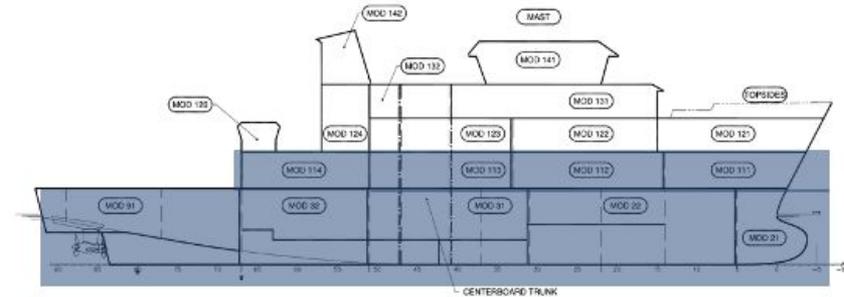
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# R/V Narragansett Dawn Progress

## STEEL AND PIPING CONSTRUCTION STATUS:

- Super Module( Mods 21,22, and 31): 84% Complete
- Module 32: 73% Complete
- Module 91: 50% Complete
- Module 111/112: 59% Complete
- Module 113: 60% Complete
- Module 114: 27% Complete
- Sonar Flat Boxes: Finishing Fabrication, then to machining



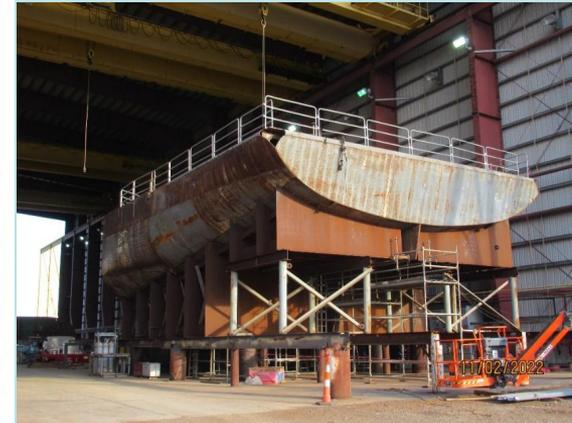
Al  
Steel



Super Module (21,22,31)



Module 32

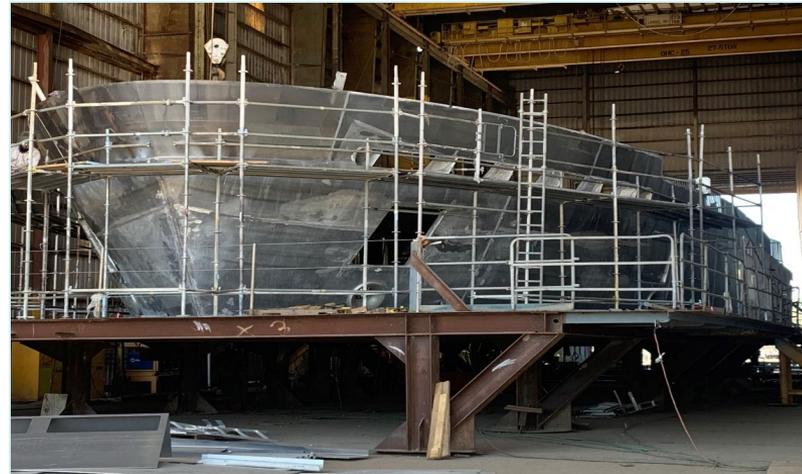
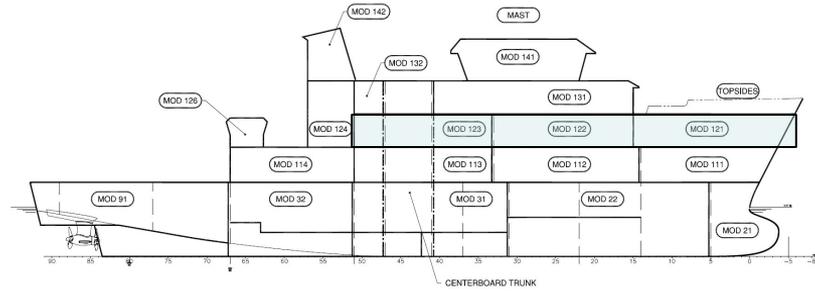


Module 91

# N. Dawn: Aluminum superstructure



Mod 121 Bow: Amelia Yard



# R/V Gilbert R. Mason –first modules



Module 21 adding shell plate



Module 22 inner bottom

## Other Phase III and IV Activities

- Science sensors and systems development (Datapresence)
- Testing programs and documentation-manuals etc
- Complete outfitting
- RFPs for special items
  - Custom CTD frames
  - Accommodation Vans
  - Piston Coring Deployment and Recovery System
  - Hazmat Locker
- populating a Computerized Maintenance Management System (CMMS) for the vessels
- Science trials planning
- Education and Outreach programs





For RCRV outreach videos visit:

[https://www.youtube.com/watch?v=bgiAU\\_b4RfY](https://www.youtube.com/watch?v=bgiAU_b4RfY)

Webcams: <https://webcam.oregonstate.edu/rcrv7>