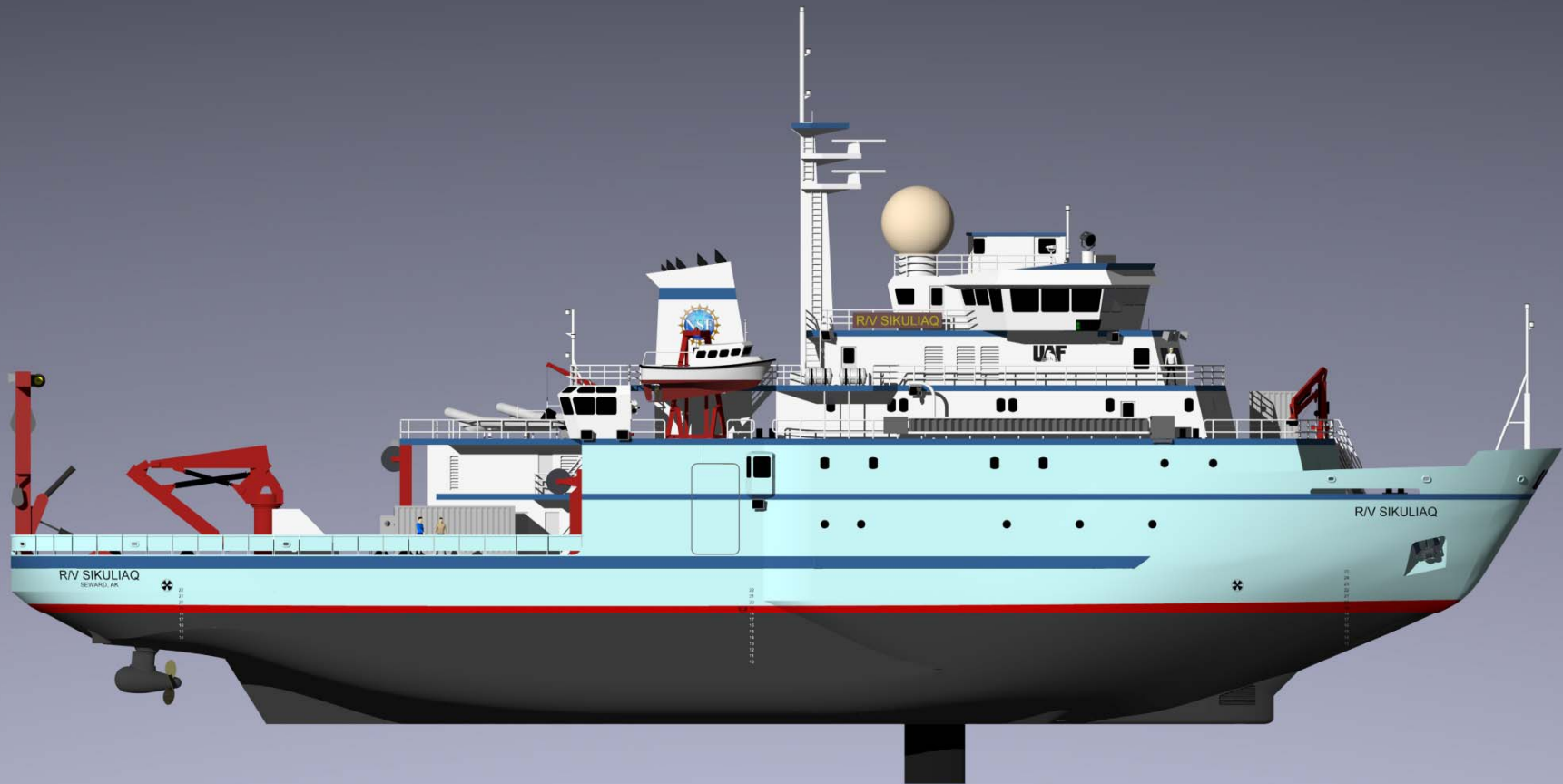


# R/V SIKULIAQ



RESEARCH VESSEL SIKULIAQ

# R/V SIKULIAQ

- Alaska Region Research Vessel (ARRV)
- Ice-capable general oceanographic research ship
  - IACS PC-5 Ice Classification – one of the first in US
  - 260 feet length
  - 4,053 LT displacement at design draft
  - 5,750 BHP
  - 45-day endurance
  - Integrated power plant with AC propulsion motors
  - Tractor style Z-drives
- Owned by NSF, being built and operated by UAF
- UNOLS Global Class
- Homeport in Seward, Alaska



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# SIKULIAQ SCHEDULE

## What has happened to date?

- October 2008 Final Design Review
- August 2009 Z-drive contract with Wartsila
- December 2009 Shipyard contract with Marinette Marine Corporation
- January 7th 2010 shipyard contract start date
- Well into design verification



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# Design Verification Weight Issues

- Shipyard estimate ~ 300LT greater than Contract Estimate
- Weight+VCG too high – design not viable

## Weight Mitigation

- Increase length 6 feet in parallel midbody (260 ft ship)
- Change from Steel to Aluminum structure above 02 deck
- Eliminate elevator service above 01 deck
- Shorten/rearrange Pilothouse
- Misc- light-weight joinery, steel reductions, electric deck heat, ...



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## Current Construction Status



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# MARINETTE MARINE CORPORATION SHIPYARD MARINETTE, WISCONSIN

Shipyard engineering and management offices

Where our shipyard office trailer is

Shipyard shipping/receiving and warehouse

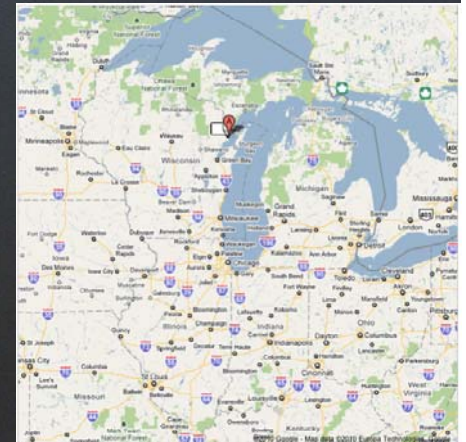
Blast and paint building

Where the modules are put together to make the ship

Where steel is cut

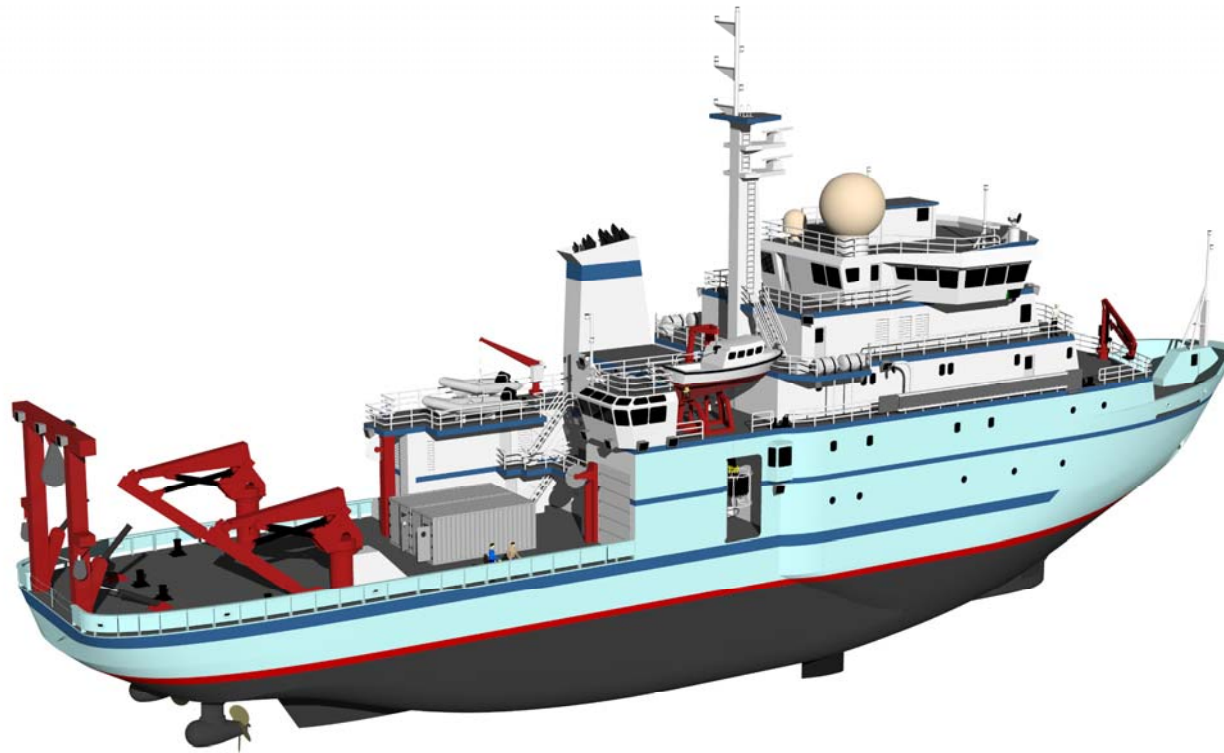
Where modules are built

Side launch ways



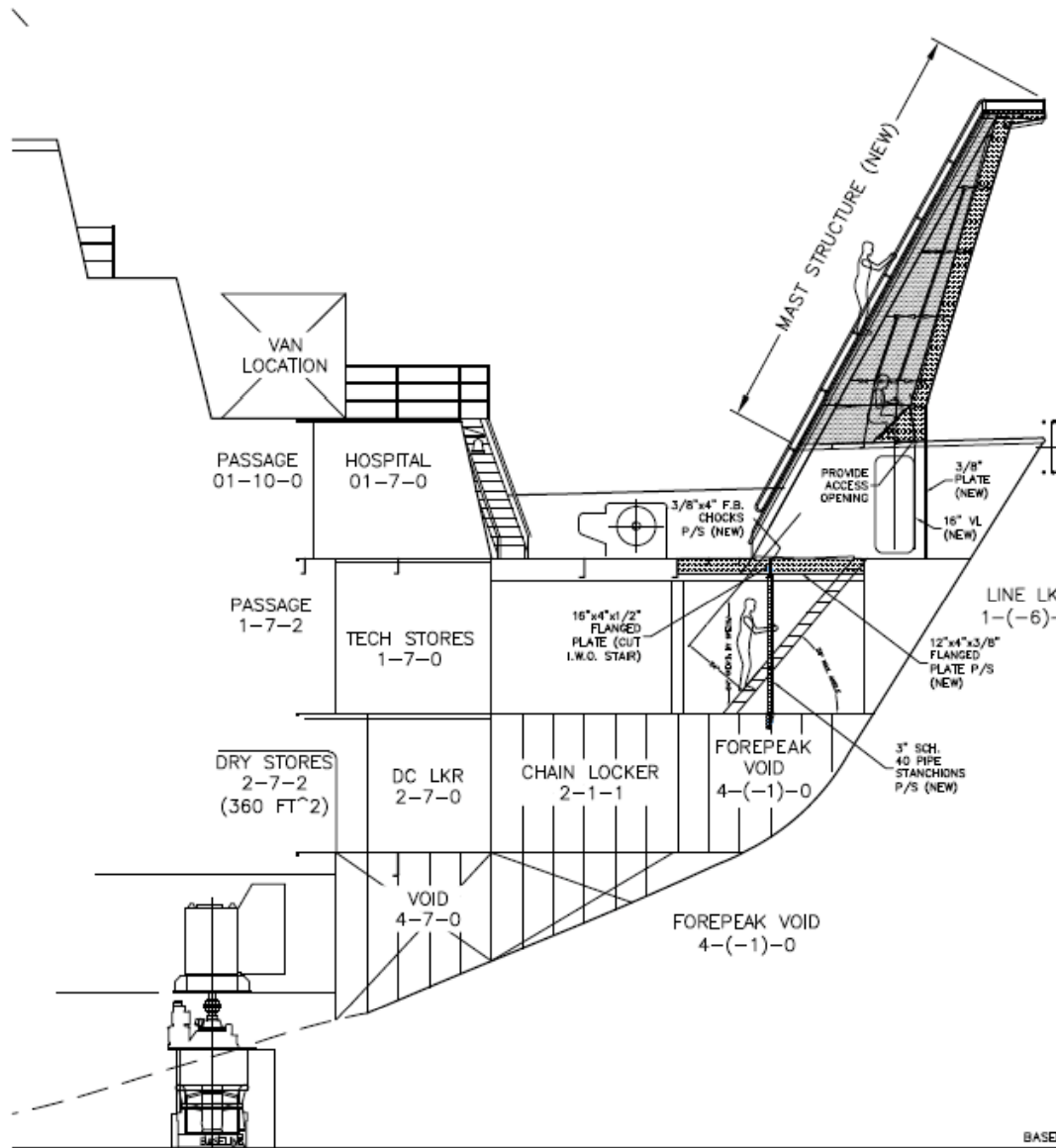
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Stern view with tractor Z-drive units and ice stops



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Bow form and detail of the ice wedge showing the bow thruster.



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Detail of the ice reamer



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# SIKULIAQ SCHEDULE

## What Does the Future Look Like?

Design Verification and Transfer	January to December 2010
Start Fabrication	2011
Keel Laying	2011
Z-drives Delivered to Shipyard	2011
Move from assembly building	2012
Launch	2012
Builder's Trials	2012
Acceptance Trials	2012
Delivery	2013
Post Delivery Dockside/Training	2013
Transit and Science Trials	2013
Inport Seward	2013
Ice Trials	2013
Inport and Drydock	2013
NSF Inspection	2013



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