

# STARC Report AICC – Technical Issues



**SLEP Update: Science Systems**

**STARC Staffing Model and personnel**

**STARC Maintenance Requests to SLFC**

**Forward Jackstaff Issues AWS24 & AWS25**

**Cyber security, uncertainty on impacts**

# 2026 STARC Report AICC - Staffing



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# 2026 STARC Report AICC - Staffing



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# STARC Report AICC – SLEP Science Items



## Dockside 2025 - Completed

- Ice Grinder installation (LREPL/ISVS)
- Ocean/Trawl winch controllers (8) recapitalization

## Drydock 2026

- EM-304-MKII Multibeam installation
- SBP-29 Sub Bottom Profiler installation
- 30/50KW UPS installation
- Winch network wiring recapitalization (LREPL)
- Ice Grinder wiring to MPCMS (LREPL)

## Dockside 2027

- Rutter Sigma 6 Ice RADAR installation
- Polar Science Network recapitalization
- Science seawater duplex strainer installation

## Dockside 2028

- Nothing scheduled yet

## Drydock 2029

- Climate control chambers A/C equipment
- Scoreboard (2) replacement

## Dockside 2030

- Winch room cable management
- Science Lab storage/power

## Dockside 2031

- Science Berthing upgrade/reconfigure

# STARC Report AICC – Requests to SFLC



## Science Seawater System

- Pump repair
- Piping cleanout
- Pump spares on hand

## HCO Shack Overhaul

- Overhead structure preservation
- Multi-cable transits
- Antenna and sensor mount renew

## Lab Bench Renewal

- Main Lab
- Bio-analytical Lab
- Climate Control Chambers

## Science Reefers and Climate Control Chambers

- Issues holding temperature
- Problematic storing samples after the mission
- Compressors and equipment is aging
- Super Low freezers difficult to maintain

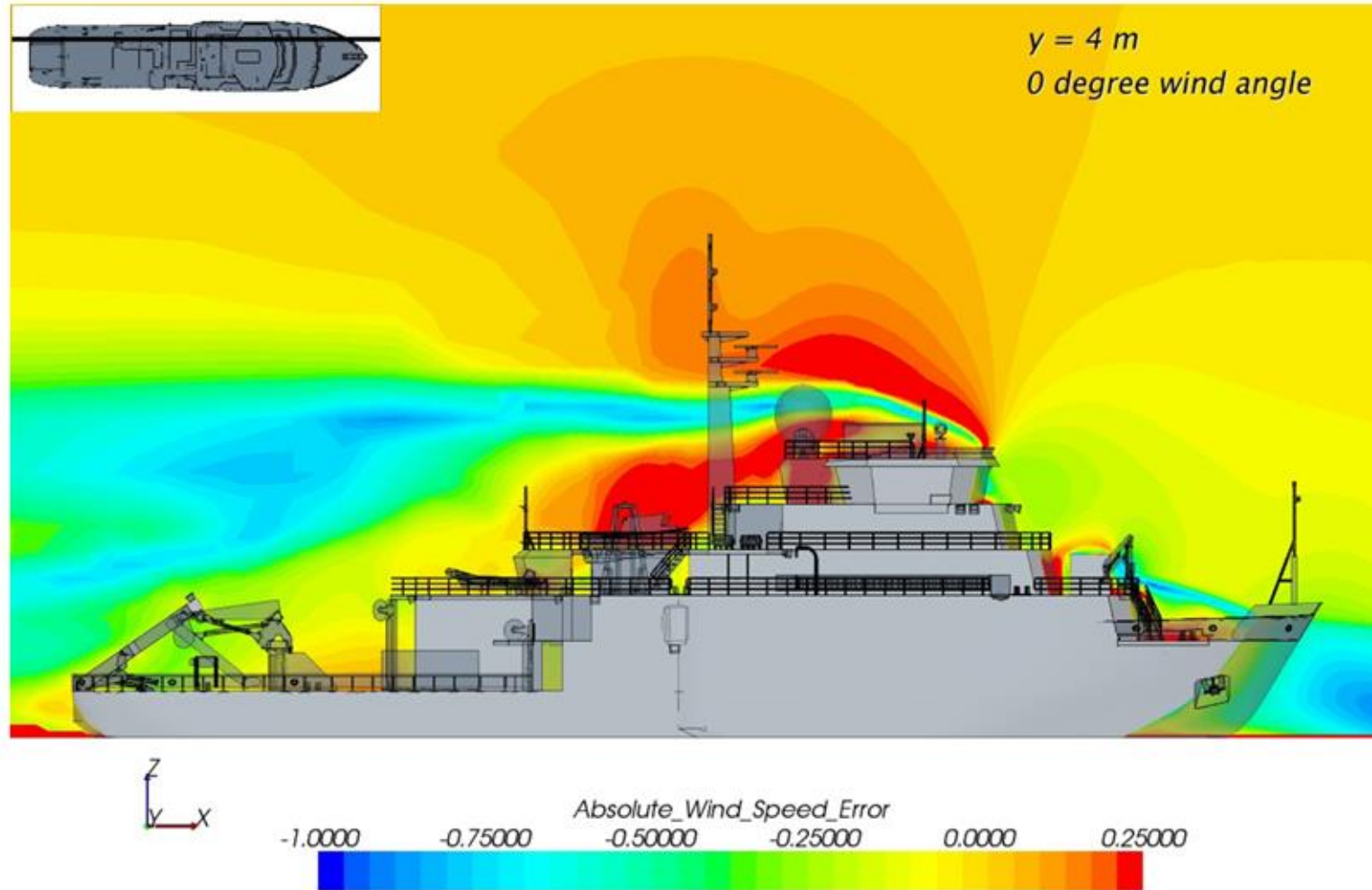


# STARC Report AICC - Forward Jackstaff



## Absolute Wind Speed Error

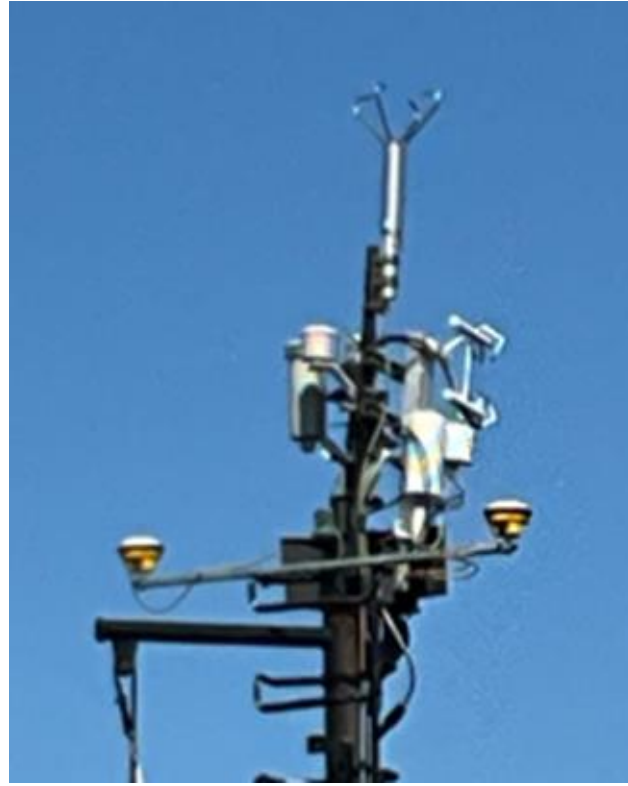
ARRV CFD Modeling CD-adapco



# STARC Report AICC - Forward Jackstaff



Multiple sensors and junction box on anemometer post



Additional junction box, and sea surface temperature sensor located on the bow.



## FWD Jackstaff

### Future Considerations:

- Increased surface area for sensors
- Mounting points
- Flanges for expansion
- Dedicated cable routing
- Approved cable pass-throughs
- Guy-wires for additional support





# STARC Report AICC - Forward Jackstaff



Current design

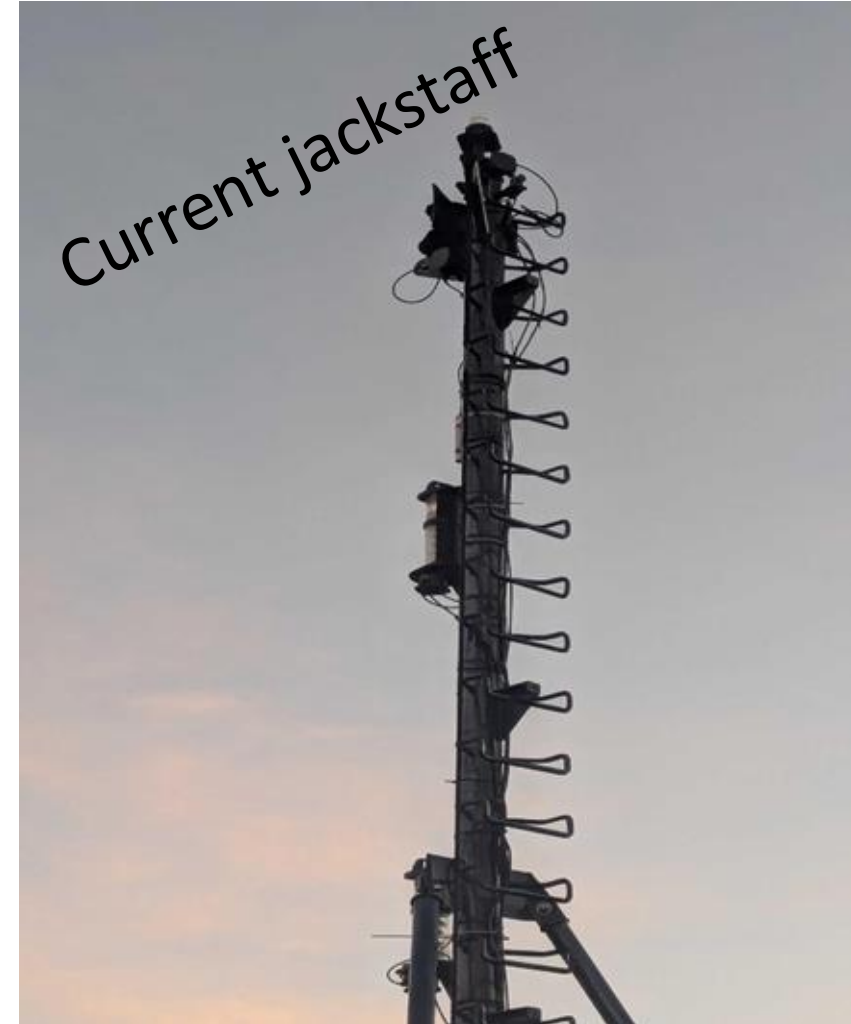
Limited space for additional sensors

Ship-induced vibration

Difficult cable management



# STARC Report AICC - Forward Jackstaff



# STARC Report AICC - Forward Jackstaff



## What happened?

One inch rebar  
snapped from  
jackstaff

## Why?

Poor design due to limited  
space.

Weakened by temporary  
sensors, vibration, corrosion



# STARC Report AICC - Forward Jackstaff



**No Design is Perfect!**





# STARC Report AICC - Original Design



Completed bow tower and catwalk



Installation in progress

# STARC Report AICC - Cybersecurity



**Data presence**

**Acquisition Hardware**

**Specialized Software**

**Remote Support**



Healy's Computing Clusters