

STARC Report AICC Winter 2026



2026 Drydock Preparation

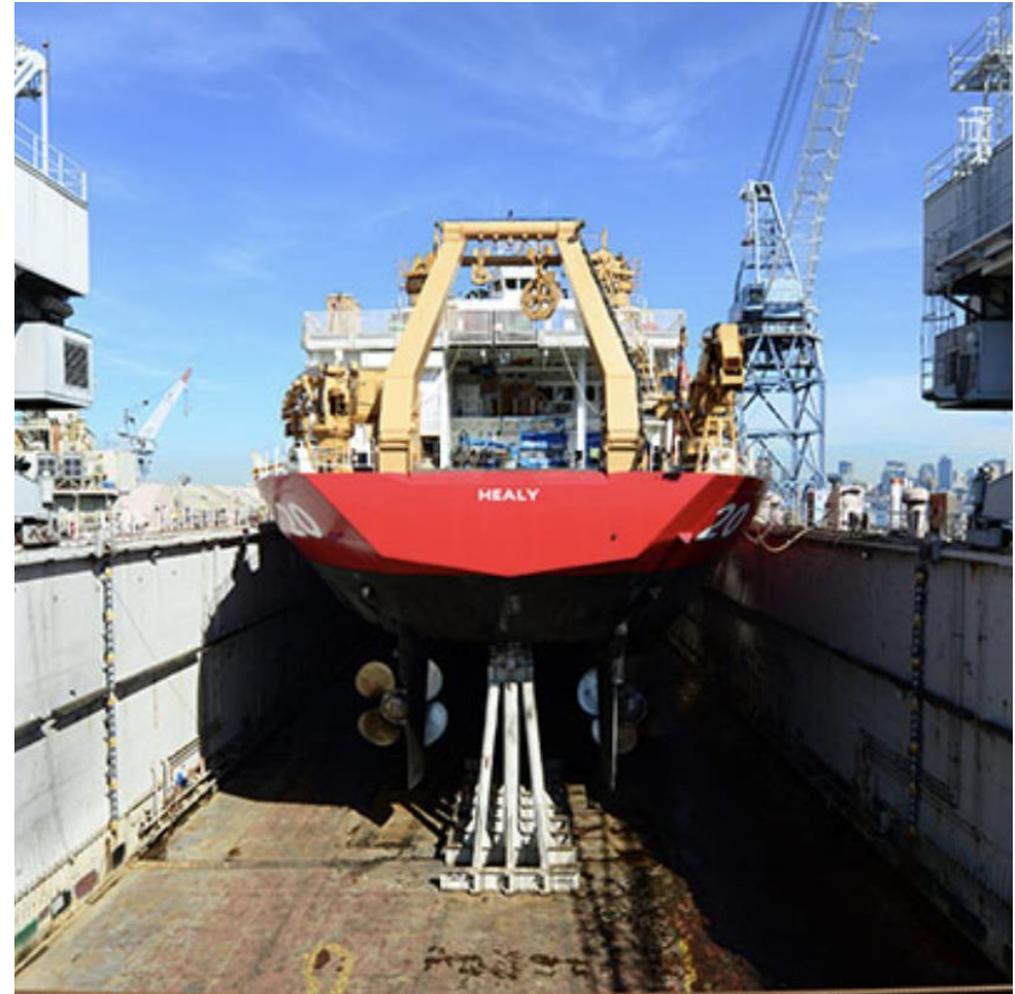
- Portland Vigor Awarded Contract

CG Yard: Kongsberg Fitment Inspection

- EM304 RX casing complete
 - Kongsberg performed test fit Nov 19-20, 2025
- EM304 TX casing near complete
 - Test fit scheduled Jan 20-21, 2026
- SBP29 TX in progress
 - Test fit scheduled Feb 21-22, 2026

STARC Staffing

- STARC staff always on site, rotating schedule
- Additional staff for installs and Shakedown



CGC HEALY in Drydock Vigor Seattle

Acknowledgements



National Science Foundation (NSF)

United States Coast Guard (USCG) Healy, SLEP, SFLC, LRE, NED

Arctic Icebreaker Coordinating Committee (AICC)

Multibeam Advisory Committee (MAC)

Shipboard Automated Meteorological and Oceanographic System (SAMOS)

WHOI Potential Fields Pool Equipment (PFPE)

STARC University Partners (SIO, OSU, UW)

2026 Drydock – STARC Staffing



STARC Leads to monitor work items and contractors

- **Work directly with SFLC and SLEP**
- **Rotating staff, two onsite, additional staff during critical milestones**
- **Daily Production meeting**
- **Weekly Progress meeting**

Shakedown Cruise Portland – Seattle

- **6-8 STARC personnel along with sonar commissioning contractors**
- **Harbor Acceptance Test (HAT) and**
- **Sea Acceptance Test (SAT)**
- **Data acquisition from all instrumentation; top side meteorological and GNSS systems, science seawater sensor walls, oceanographic winch testing, CTD deployment**

2026 Drydock Work Items



12: Voids, Preserve

21: Fathometer Transducer, General Maintenance

23: Sea valves and Waster Pieces, Overhaul or Renew

24: Seawater Stainers

28: A-frames, Annual Inspection

32: Scientific Winch Controls

33: Oceanographic Winch

2026 Drydock Work Items



34: Weather Decks

36: Underbody Preserve, Partial

37: Drydocking, Accomplish

38: Temporary Services

39: Sea Trials Performance, Support, Provide

42: Trawl / Core Winch, Inspect and Test

43: Sonars, Replace

2026 Drydock Work Item: Sonar Replace



EM304 MKII 30 kHz Multibeam

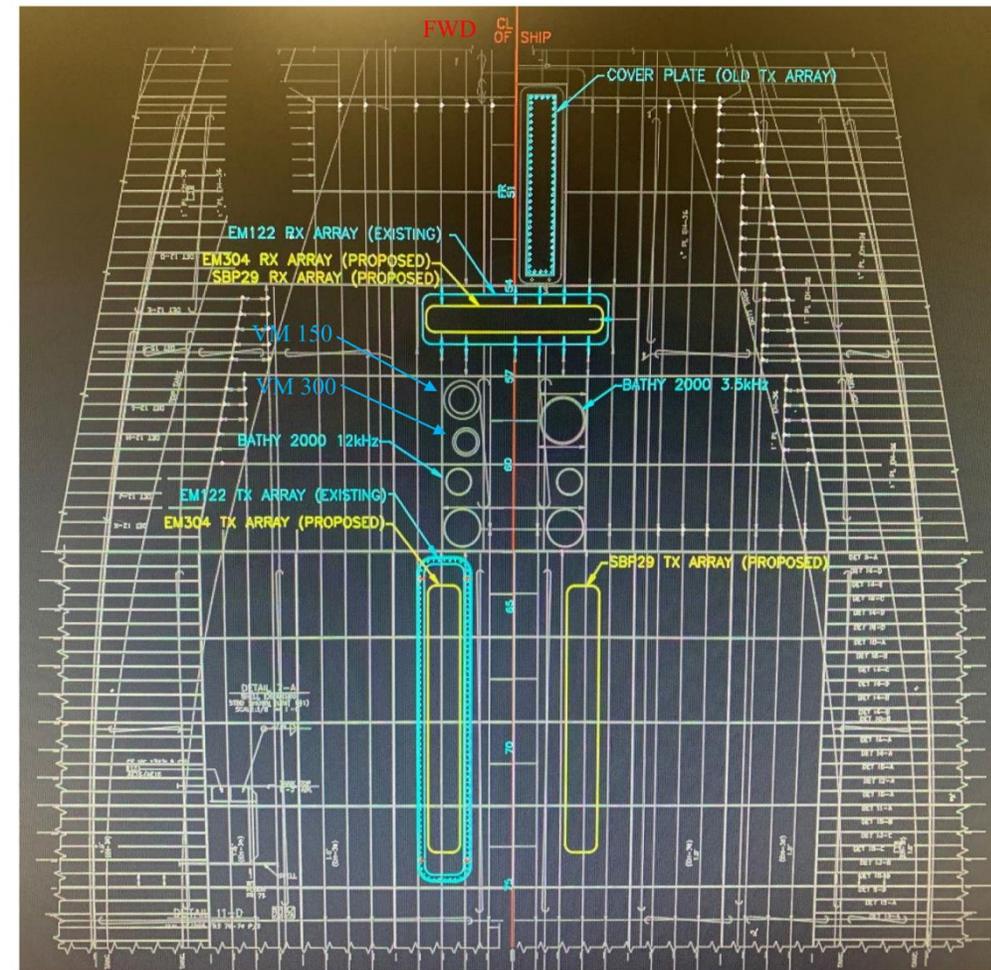
- Removing aged EM122 (.5°x1° system vs 1°x2°)
- Similar footprint within the hull as existing casings
- Requires two TX units, one RX installed in MICA
- Ice windows and frames delivered to Baltimore

SBP29 4-9 kHz Subbottom Profiler

- Requires new TX array (3°)
- Additional hull casing parallel with EM304 TX array
- TRU cabinet installed in MICA
- Ice windows and frames Delivered to Baltimore

30-50 kVA Marine UPS

- Eaton 9PHD Marine Grade 3 phase UPS
- Requires additional battery cabinet
- CG Yard finalized configuration, purchase made



CGC HEALY-SLEP WI #20
Figure 10: Transducer Arrangement

2026 Drydock Preparation – Casing Fit



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CG Yard - Baltimore: Hull Casings

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Kongsberg Engineers and CG Yard Staff Perform Casing Test Fit

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EM304 TX Casing on the Milling Machine

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2026 Drydock – GFE Procurement



EM304 Frames and Ice windows

- Delivered to Baltimore
- Used for the casing test fit

EM304 Transducers

- Cleared customs, being delivered this week

EM304 Electronics

- PO issued, waiting on export license
- Air freight quoted and to be arranged
- Estimated ready to ship early February



SBP29 Frames and Ice window

- Delivered to Baltimore
- Will be used for the casing test fit

SBP29 Transducers

- En route via ocean freight
- Estimated delivery February 2, 2026

SBP29 Electronics

- PO issued, waiting on export license
- Air freight quoted and to be arranged
- Estimated ready-to-ship early February



SBP29 TRU and Transducer Array

2026 Drydock – NSF GFE Procurement

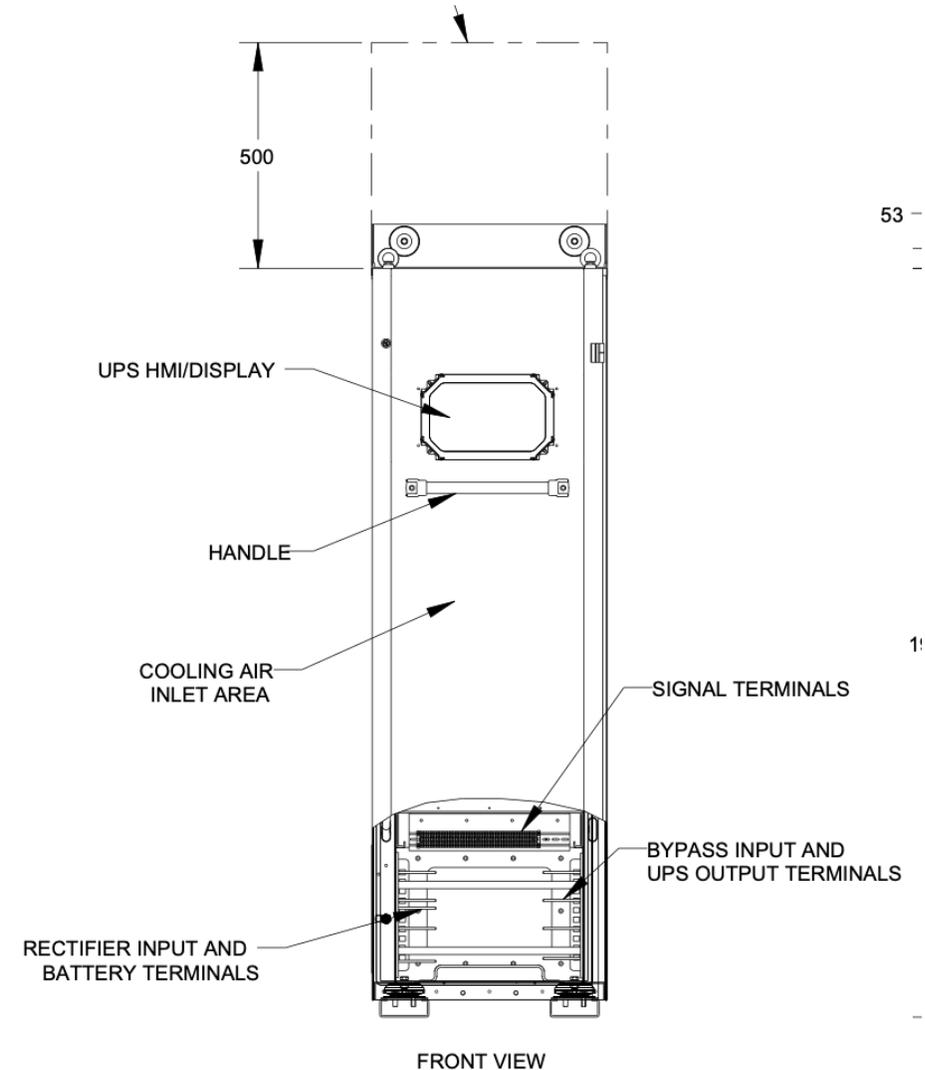


Eaton 9PHD Marine 3 Phase UPS

- 30 kVA capacity
- Upgradable to 50kVA in the future
- Battery backup for 10 minutes at 50% load
- PO issued, will schedule air freight from Finland
- Estimated ready-to-ship early February

To be installed in MICA to power all sonars

- EM304
- SBP29
- ADCP OS150 and OS75
- EK80 38kHz & 18kHz
- Knudsen 12kHz & 3.5 kHz



Eaton 9PHD Marine 30kVA UPS



Kongsberg Engineering Services (PO issued)

- **Transducer frame shimming**
- **Topside Interconnections**
- **Harbor Acceptance Testing (HAT)**
- **Sea Acceptance Testing (SAT)**

Westlake (Requested quote)

- **Dimensional Control Survey**
- **First full ship survey since 2010**
- **Also contracted by Vigor to verify installations**