

# Summer 2020 – AICC

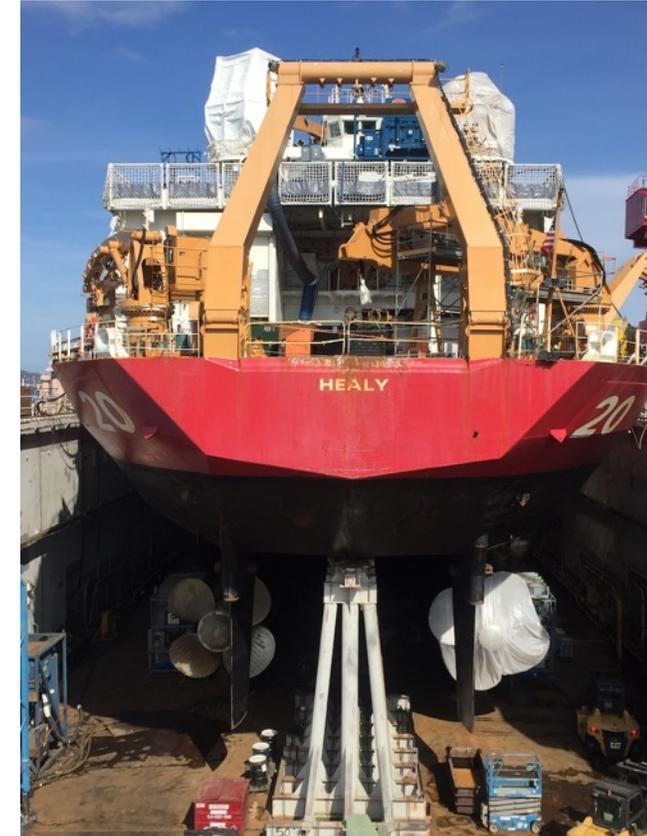


## STARC Report

22-June-2020

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- 2020 Pre-Season Activities
- Multibeam Sonar Considerations



# Science System Maintenance



## Pre-season grooming of science systems

- CTD sensors and science seawater sensors
- Meteorological sensors
- Gravimeter mobilization (PFPE) and battery replacement
- Partial UPS battery replacement (seasonal rotation)
- Autosal
- Highly purified water system
- pCO<sub>2</sub> system (LDEO)

# New or Replacement Science Systems



- SSW Fluorometers
- Metek anemometer
- Multibeam computers
- ADCP computer
- Science system displays, video over network infrastructure

# Science System Display Infrastructure



2013



2020

# Multibeam Sonar Considerations



## Kongsberg EM124

- Product evolution of the current 12kHz system
- Inadequate resolution performance in less than 1000m water depth
- Upgrade Details
  - Existing frames for RX, TX
  - TX ice window replacement
  - RX unit replaces pre-amplifier
  - TX unit replaces TRU
  - TX junction boxes are eliminated

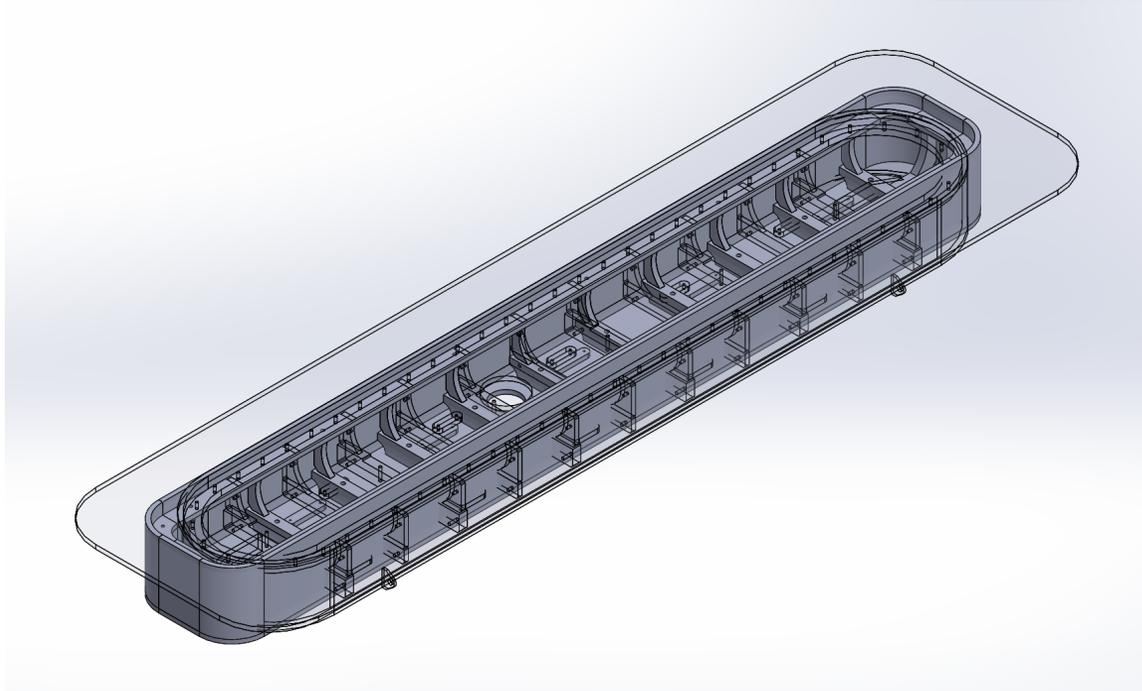
# Multibeam Sonar Considerations



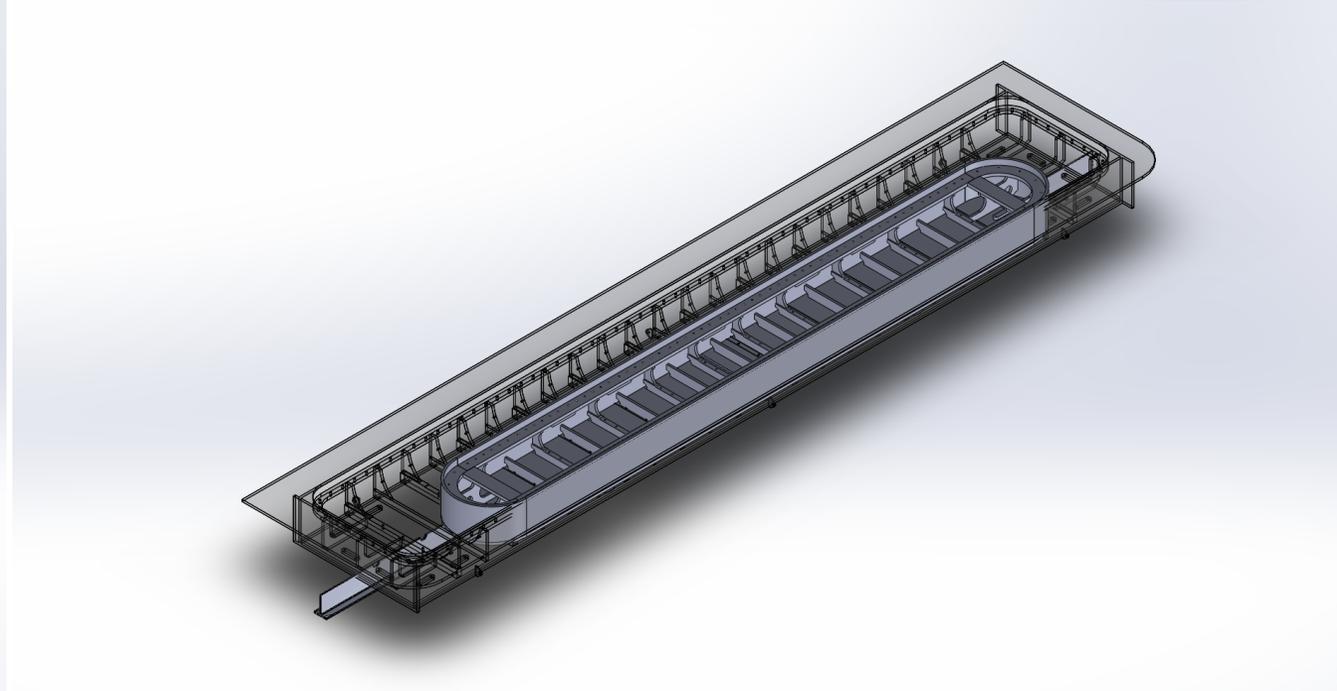
## Kongsberg EM304

- 30kHz system
- Primary consideration is higher resolution, better shallow water performance
- Upgrade Details
  - Different transducers and footprint
  - Different ice windows
  - Smaller electronics
  - TX array would fit within existing footprint
  - RX is similar size of existing array

# Multibeam Sonar Considerations



Conceptual RX Overlay



Conceptual TX Overlay

# The End



# Thank you

# Questions ?