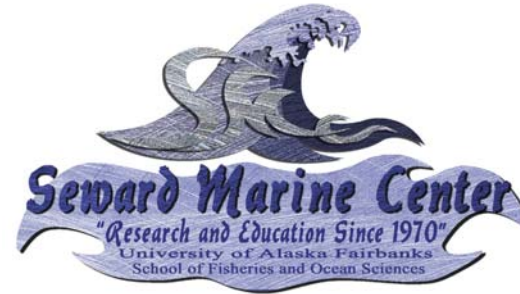


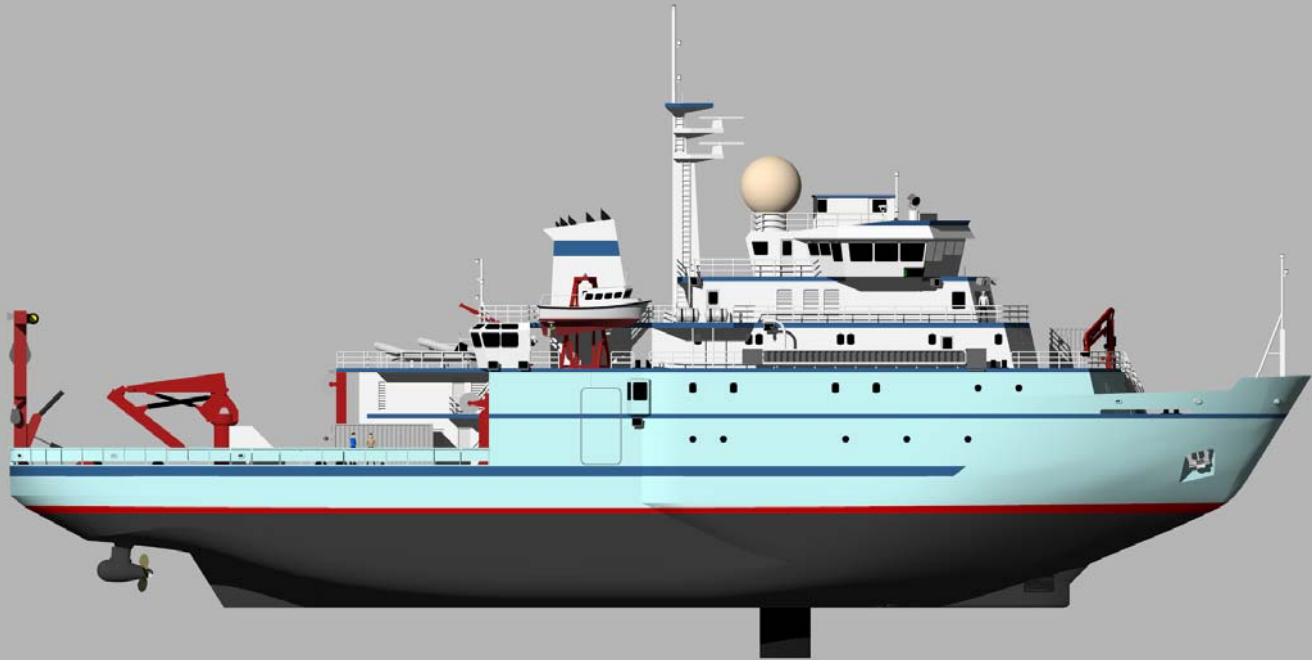


ARRV Project Update

RVTEC – November 2009



Marc Willis, OSU-COAS; Steve Hartz, UAF
ARRV Project
willis@coas.oregonstate.edu



254' ALASKA REGION RESEARCH VESSEL



Current Status

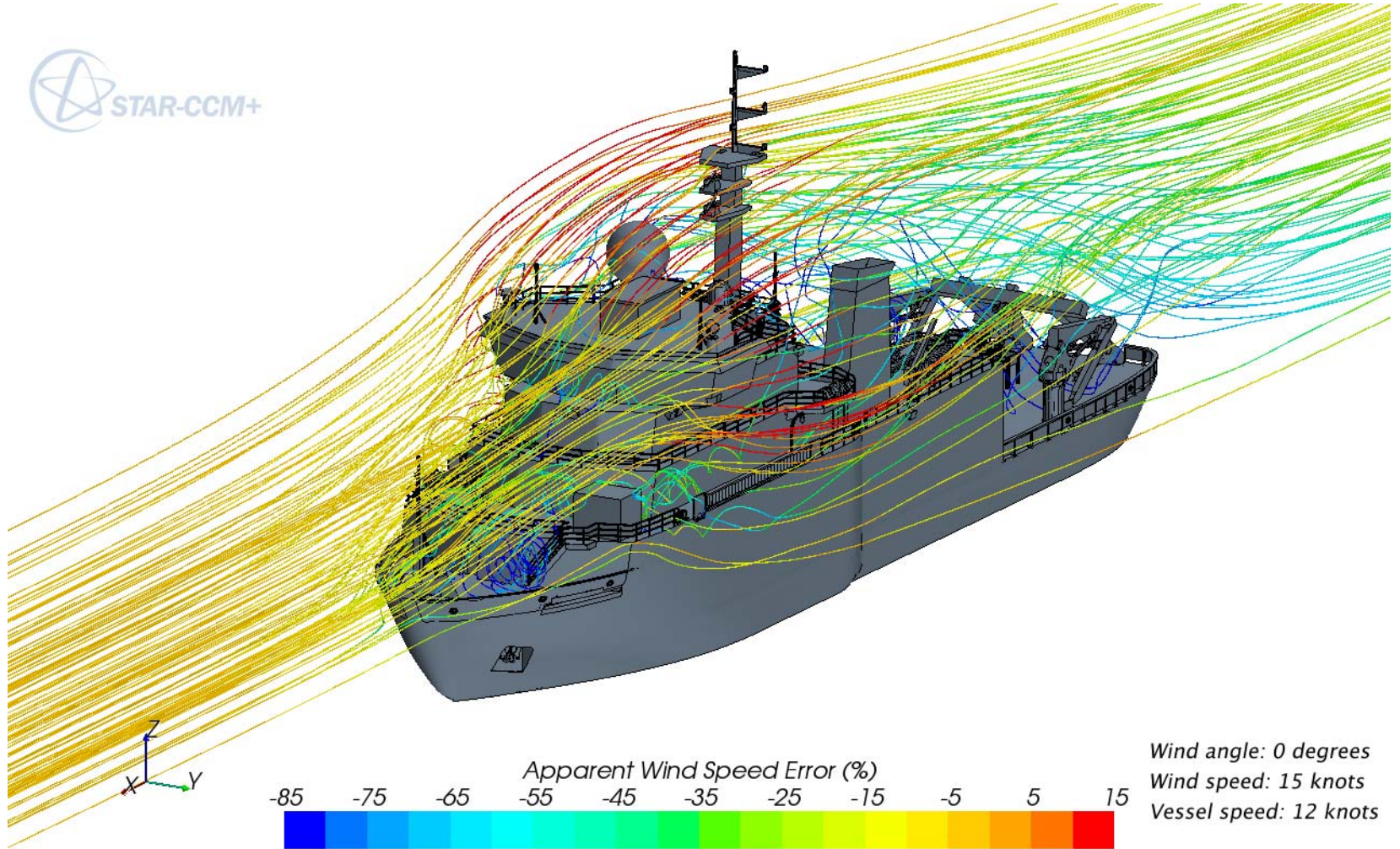
- **Z-drive Contract in place,
Modeling and design work underway**
- **Model tests completed, open water and ice**
- **Completed CFD studies, hull and air flow**
- **Cost Proposals Received 28 October**
- **Shipyard Selection Board met 2-6 November**
- **NSF briefed on Shipyard Selection 17 November**
- **Award announcement within the next few weeks**
- **Projected Project Start \approx January 2010**
- **Naming Committee sorting through suggestions**

Model Testing



- Model tests done at VTT and Aker Arctic, Helsinki
- Model runs in both open water and ice
- Runs with both 242 ft and 254 ft variants

CFD Streamlines

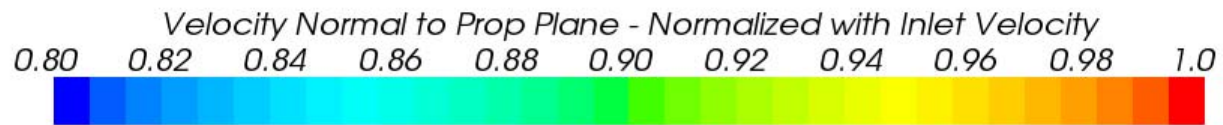
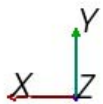
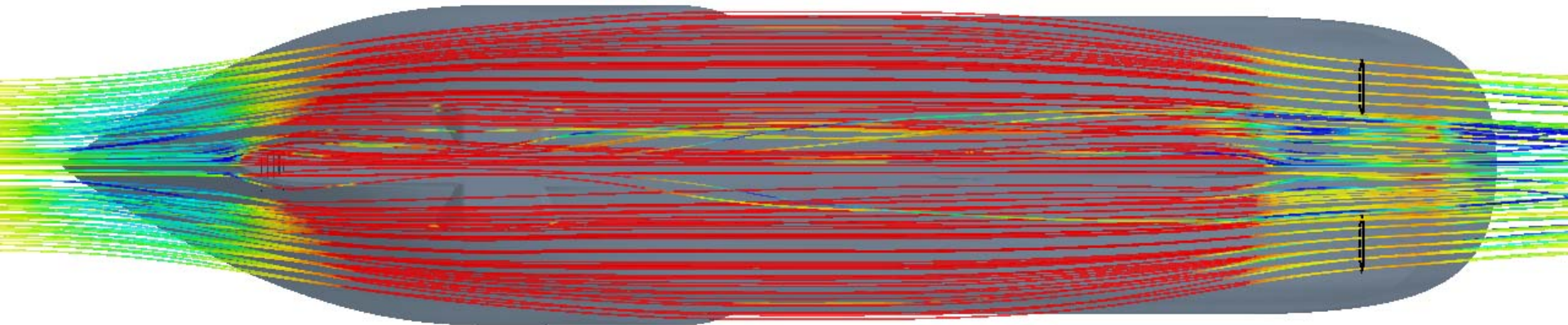


0° Wind Angle Results

Hull Flow CFD Model



Case: Mod 01
Full scale 1:1
Full scale speed: 12 knots





Initial Shipyard Work

- **Establish Shipyard Office**
 - **Shipyard Project Director (Gary Smith, UAF)**
 - **Technical Director (Dirk Kristensen, Glostent)**
 - **Marine Science Tech. Dir. (Marc Willis, OSU)**
 - **Contract Manager (TBH)**
 - **Office Assistant (TBH)**
 - **Additional Inspectors (TBH later)**

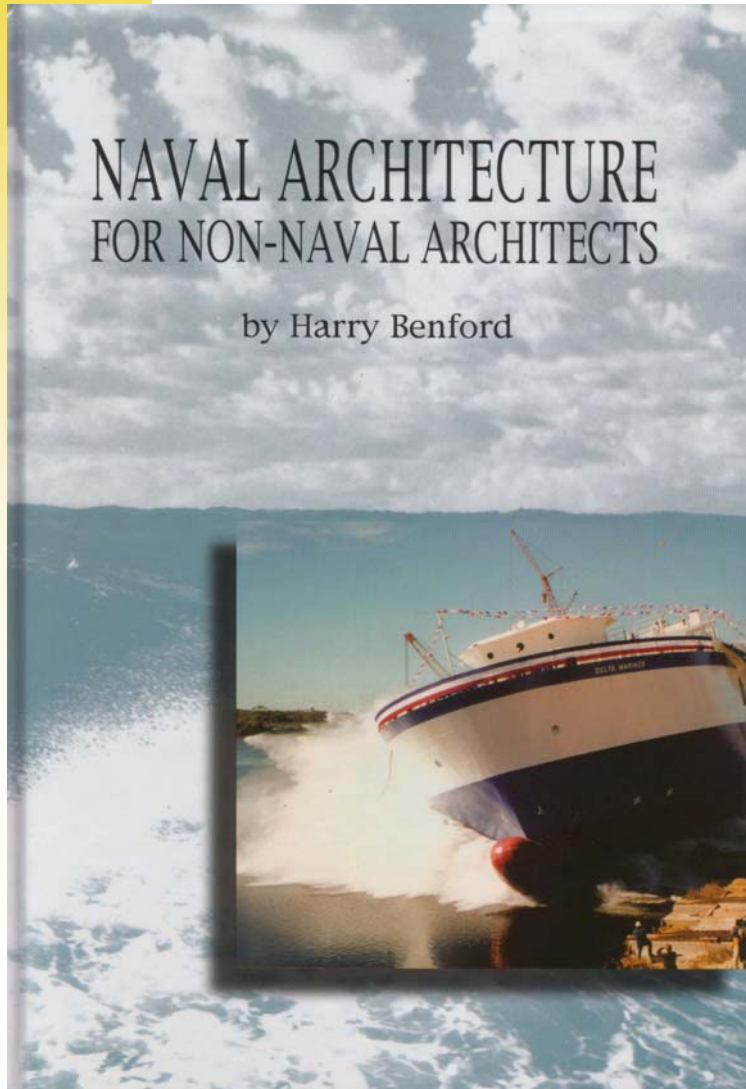
- **Design Verification and Transfer**
 - **7 months planned**
 - **Transfer of UAF contract design to shipyard**
 - **Detail Design**
 - **Mock-ups**
 - **Long lead-time orders**



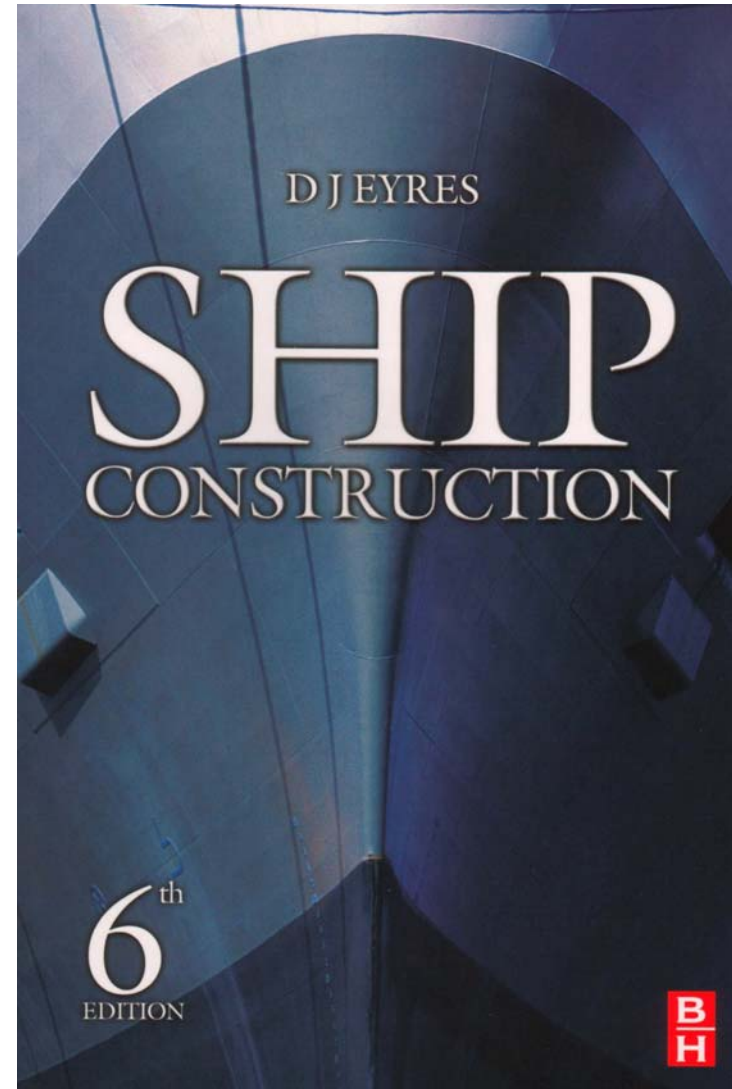
Milestones and Projected Dates

- **Start of Fabrication: ~ September 2010**
- **Z-drive Delivery: ~ December 2012**
- **Ship Delivered: ~ January 2013**
- **Post-delivery outfitting complete: ~ March 2013**
- **Warm-water trials and arrival in AK: ~ July 2013**
- **Cold-water and ice trials complete: ~ Sept 2013**
- **ARRV ready for funded science: ~ October 2013**
- **End of Warranty: ~ January 2014**

Recommended Reading

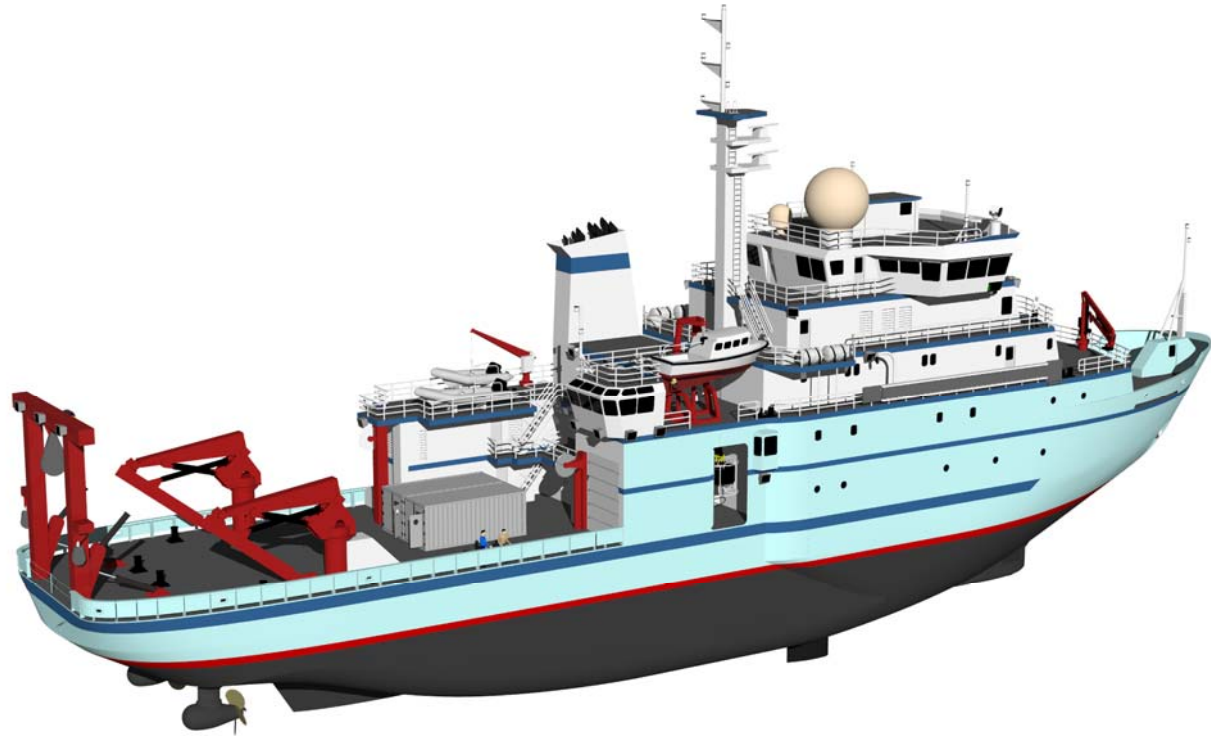


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QUESTIONS?



[No, I can't tell you where or how much]