

## USCGC ICY ELFY DATA SHEET



- · Hometown: Stafford, VA
- Industry Experience:
  - Shipfitter at Austal USA; Mobile, AL
  - The Intelligence and Security Academy (ISA); Arlington, VA
  - · Serco; Alexandria, VA
- Career Plans: Graduate School for Concept Design



- Hometown: Theills, NY
- Industry Experience:
  - Shipfitter at Austal USA; Mobile, AL
  - NAVSEA Submarine Damage Stability Research
  - Naval Architect at Austal USA; Mobile, AL
  - General Dynamics Electric Boat; Groton, CT
- Career Plans: Graduate School for Nuclear Engineering



- Hometown: Fort Lauderdale, FL
- Industry Experience:
  - Shipfitter at Metal Shark Boats; Jeanerette, LA
  - Sea term on R/V Sikuliaq
  - Frank and Jimmie's Propeller
- Career Plans: Graduate School for Hydrodynamics



- Hometown: New York, NY
- Industry Experience:
  - Shipfitter at Brooklyn Boatyard; Brooklyn, ME
  - NYC Ferry Hornblower; Brooklyn, NY
  - General Dynamics NASSCO; San Diego, CA
- Career Plans: Electrical Engineering or Hydrodynamics



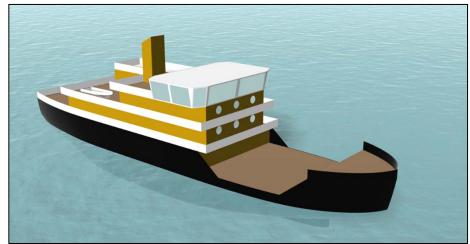


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#### Operational Profile

- Icebreaking in winter months, buoy tending in open water
- U.S. Coast Guard support
  - Maritime Law Enforcement
  - Maritime Response
  - · Maritime Prevention
  - Maritime Transportation System Management
  - Maritime Security Operations
  - Defense Operations



#### Vessel Particulars 70 LOA (m) LWL (m) 67.6 16.8 Beam (m) 4 Draft (m) Depth (m) 9.4 2946 Displacement, SW (tonnes) Propulsive, Installed Power (kW) 6236. 7970 Design Speed in Open Water (kts) 15 Complement 19 PC 6 Ice Class

# Break the Ice Without Melting the Ice!

ZERO EMISSIONS MODE for 10% of operational profile

#### **Icebreaking & Escorting**

- Hudson River, coastal New England, Great Lakes
- 3.0 kts through 0.8 m ice and 150 mm snow
- Icebreaking channel width of 16.8 m
- 15-day endurance
- Tow ships of comparable size at 6 kts in Sea State 3
- Tow by bow or stern in ice-covered waters
- DP 2 equivalent

#### **Buoy Tending**

- 20,100 kg safe working load
- 5 m reach over side P&S
- 5 m clear height over the deck, up to Sea State 3
- $160m^2$  working deck

#### **Multi-Mission Capability**

- Search and Rescue (SAR)
- On-Scene Commander (OSC) during security operations and pollution response
- Vertical replenishment (VERTREP)
- Carry, deploy, and recover a 6.5 m RHIB, four-wheel all-terrain vehicle, snowmobile





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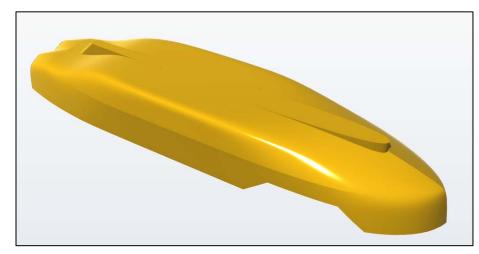
#### A Hull Form Built to Break Ice

- Spoon bow for minimized icebreaking resistance
- Ice skeg and ice wedge for icebreaking ahead and astern
- W-stern for optimal azipod performance
- 8° sloped sides to withstand compressive forces when beset









#### **Installed Machinery**

- 2 ABB DO Azipods (2775 kW) & 1 TWG Vertical Bow Thruster (686 kW) for optimal performance at 4 m draft
- 2 CAT C280-12 (3640 kW) & 2 CAT C18 (465 kW)
- 2 Corvus Blue Whale Batteries (3612 kW-hr)
  - 10 hr charging-discharging cycle time
  - 1490 kW and 10 kts on battery power
- Appleton SB 230 straight boom crane
- Appleton FPSO spread towing winch
  - 320 MT brake holding force

