

### Good Evening!

 Captain Michael H. Hulme, Director of Marine Operations
 Research Fleet Operations
 University of Maryland Center for Environmental Science (UMCES)
 R/V RACHEL CARSON

### Professional Mariner 37 years...

- Master of Steam or Motor Vessels, 1600at
  - 1600gt.
  - Master of Auxiliary Sail, 200gt.
  - Third Mate, Any Gross Tons.
  - Able Seaman, Unlimited.
  - Life long yachtsman.
  - Master of the "RC" since January 2010
  - Director of Marine Operations since 2014.

### A life afloat...









### Nice vessels, nice jobs...

















## Hard work, long months away...











# Seeing the world, meeting interesting folks! But...



### I really needed a different job!







## R/V RACHEL CARSON



### University of Maryland

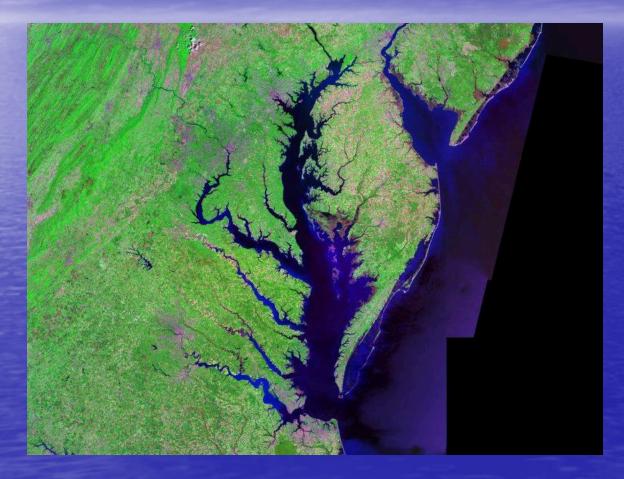
Center For Environmental Science Research Fleet Operations Solomons, Maryland <u>www.umces.edu</u>

"Rachel Carson Research Vessel" on Facebook "rvcarson" on Instagram

### We sail the RC to where the science is...



## ...but she was built to work local waters to help better understand the Chesapeake Bay!









### A quick tour of the vessel...



### Vessel Stats:

Uninspected Oceanographic Research Vessel Built in 2008 by Hike Metal Products

81' LOA
18' Beam
4'8" Draft
78 gross tons
0.1-23 knots
21 knot cruising

Twin MTU Diesel Engines 2,410 total horsepower 99 kw Northern Lights Generator 30 hp Wesmar electric Bow Thruster Twin Hamilton Water Jet propulsion

Kongsberg Dynamic Position System

Full Navigation suite: RADAR, AIS, GPS, Gyro; fluxgate; and satellite compass, Fathometer, VHF/SSB, chart plotter

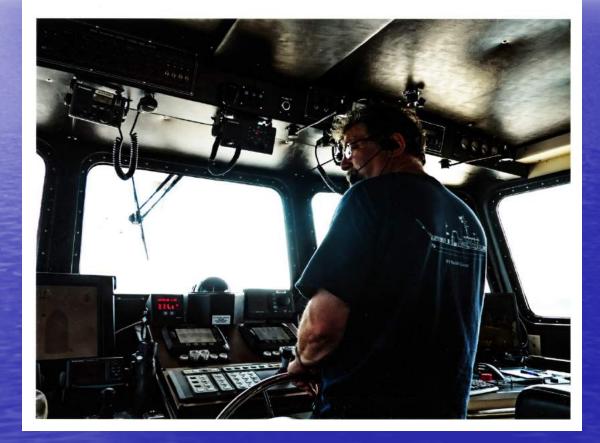
Crew: Master, Mate, up to 25 passengers Six berths in two staterooms Two heads, shower

4,200 pound capacity Aft "A" Frame 1,350 pound capacity Starboard "A" Frame Two trawl winches

Wet and dry labs

At sea "Wi-Fi" , and TV

### Hulme at helm...



### Wheelhouse and helm







### **Dynamic Positioning System**







### Galley and Mess



### Six berths in two staterooms...



## Wet Lab







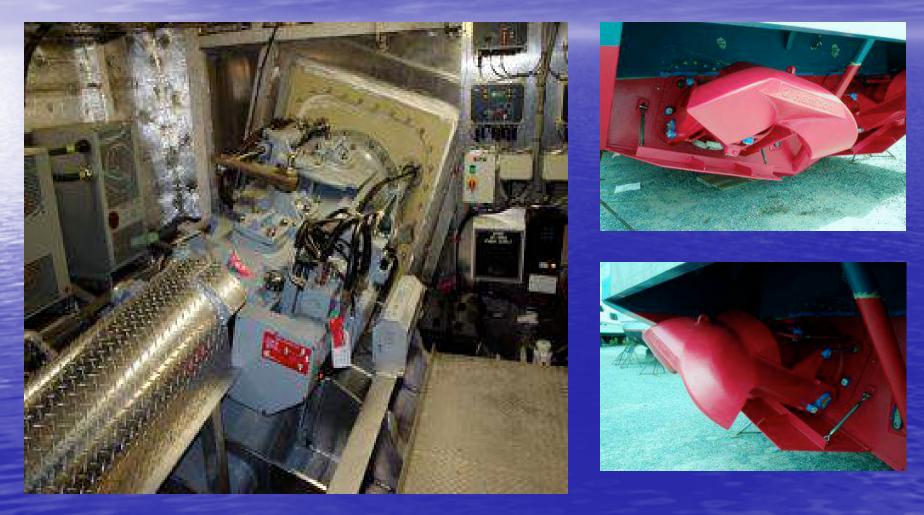
### Main Engines, water jet, and shaft;







### The Hamilton jets, inside and out...



# Yea, those jets give her some gitty-up and go!



### 20+ knots!



## On the hard...





A brief look at standard research vessel operations:

#### Scientific Mid-Water Trawling







#### Counted and returned...







#### Some of these guys really love what they do!



# Measuring the water column



# Deploying a Physical Oceanographic Mooring







#### **Mid-Project Mooring Maintenance**









# **Coring and Grabbing**



## Mud, Ooze, and Slime...





#### Videoing Plankton aloft and alow...







# Undergraduate Training trip









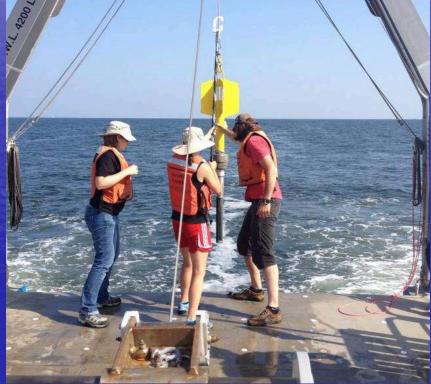
# Oyster Dredging...





## Lidar Survey and Gravity Core





## NAVAIR laser tower...

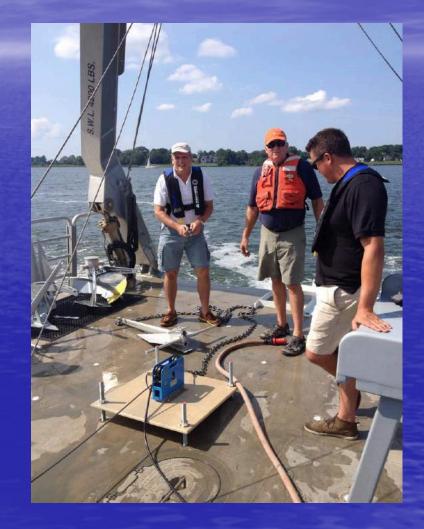


# JHU/APL and HPL...



#### Fortress Marine Anchor test...





#### We even do boat shows...



#### Horn Point Lab Oyster Restoration Pier on the Choptank River









# Doing the good work...









# So underway, making way...



# This is the future of good seamanship!





#### **R/V RACHEL CARSON**