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# NOAA

# Fleet Update

**CAPT Emily B. Christman, NOAA**  
**Office of Marine and Aviation Operations**  
**April 2008**



# Outline

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- **Today's Fleet and Budget Update**
- **Fleet Recapitalization Plan**
- **FERDINAND R. HASSLER (SWATH)**
- **DYSON (FSV1) and BIGELOW (FSV2)**
- **PISCES (FSV3) and BELL M. SHIMADA (FSV4)**
- **OKEANOS EXPLORER**



# TODAY'S NOAA FLEET

## ● ALASKA (2)

FAIRWEATHER OSCAR DYSON



## HENRY B. BIGELOW

●  
TBD  
(1)



## DELAWARE II



ALBATROSS IV

## MILLER FREEMAN RAINIER



● MOC SEATTLE  
(4)



JOHN COBB

McARTHUR II

SAN DIEGO  
(1)



DAVID STARR JORDAN

MOC NORFOLK  
(1)

CHARLESTON (2)



THOMAS  
JEFFERSON

WOODS HOLE  
(2)

PASCAGOULA  
(2)



RONALD H.  
BROWN



NANCY  
FOSTER

## OSCAR ELTON SETTE



KA'IMIMOANA

HONOLULU  
(3)

HI'IALAKAI



OREGON II



GORDON GUNTER

April 2008



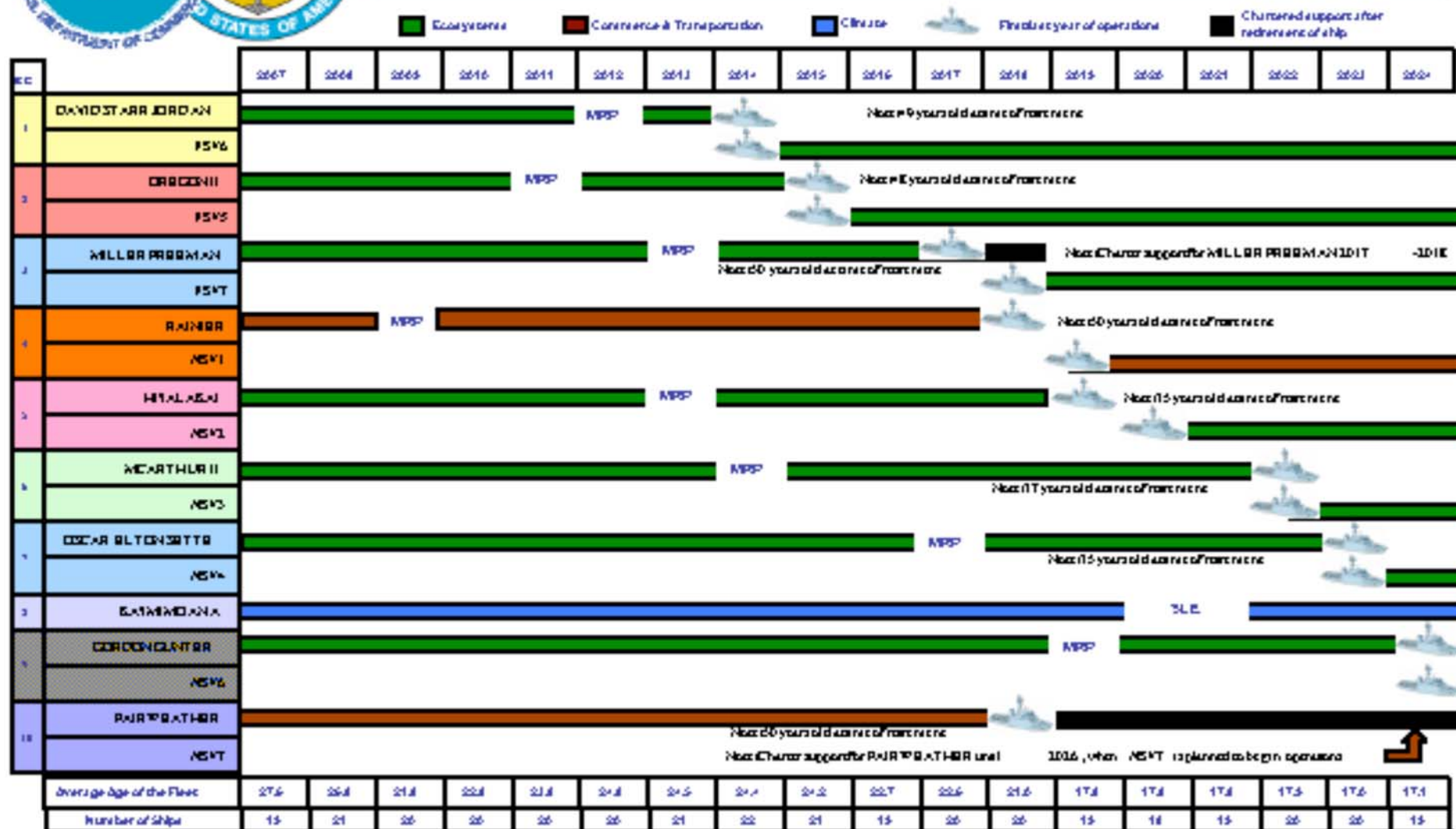
# FY08 Budget Update

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- **FY08 Enacted Budget and Higher Fuel Cost Impact Fleet Allocation Plan and Marine Services Charter**
- **FY08 Enacted Appropriation is ~\$3.3M (2.5%) below President's Budget in for ship operations.**
- **OMAO Suggested Approach to Funding Shortfall:**
  - **Charter: \$140K (2.5% of the FY08 planned charter funds of \$5.6M) – OAR = \$88K, NOS = \$52K**
  - **NOAA Ship Operations & OMAO Corporate: ~\$3.2M**
- **Fleet Council Approach to Funding Shortfall:**
  - **Charter: OAR = \$88K, NOS = ~\$670K**



# NOAA Recommended Ship Recapitalization Plan FY 2010 to FY 2024



April 2008



# FERDINAND R. HASSLER (SWATH)



April 2008



# FERDINAND R. HASSLER (SWATH)

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**Current contract delivery date is March 31, 2009**

- **Contract modification implemented to resolve two contentious issues:**
  - Delays attributable to delivery of Caterpillar C32 propulsion engines affected by EPA regulation changes
  - VTHM issues with their production engineering effort
- **Pricing for Vessel Capability Improvement engineering changes (ECPs) has been received and reviewed**
  - Negotiations with VTHM were held in December 2007
  - ECP implementation pushed HASSLER delivery to 3/09



# FERDINAND R. HASSLER (SWATH)



## HASSLER Construction April 2008



April 2008





# FERDINAND R. HASSLER (SWATH)



## HASSLER Construction 12/14/07



April 2008



# FSV Project Summary

- **Mission: Protect, restore, and manage the use of living marine, coastal, and ocean resources through ecosystem-based management.**
  - Stock assessment (including hydro-acoustic surveys)
  - Physical and biological oceanography
  - Fisheries oceanography
  - Weather and sea state observation
  - Gear development
  - Habitat studies
- **Systems Acquisition:**
  - Four ships; two delivered
  - Firm-Fixed Price Contract with acoustic incentives
- **Current Acquisition Phase: Production at VT Halter, Moss Point, MS**
  - PISCES (FSV 3) – construction ongoing; launched December 19, 2007
  - BELL M. SHIMADA (FSV 4) – construction ongoing; keel laid June 15, 2007; launch scheduled September 9, 2008





# DYSON and BIGELOW (FSVs 1 & 2)

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- **Technical Performance**

- Overall technical performance of DYSON and BIGELOW continues to be problematic
- Challenges continue...
  - DYSON generators
  - BIGELOW Switchboard/Generator instability
  - DYSON/BIGELOW Generator End Cap Banding
    - Generator banding (end cap) which holds the generator windings in place severely cracked on all four DYSON generators
      - » All four generators were removed through a hull cut while the ship was in dry dock at Todd Shipyard in Seattle
    - BIGELOW has evidence of cracks, but appears less severe
    - PISCES and SHIMADA will have different generators: Kato vs. Ansaldo



# DYSON and BIGELOW (FSVs 1 & 2)



## DYSON Generator Banding Cracks





# DYSON and BIGELOW (FSVs 1 & 2)



## DYSON Generator Banding Cracks





# PISCES and SHIMADA (FSVs 3 & 4)



## PISCES Launch 12/19/07





# PISCES and SHIMADA (FSVs 3 & 4)



## SHIMADA Construction 12/14/07





# OKEANOS EXPLORER



**Formerly  
USNS CAPABLE  
(T-AGOS Class)  
transferred to NOAA  
September 2004**

**Overhaul and conversion  
to be completed by  
May 2008**

**Commissioning Ceremony  
to be held in Seattle  
August 2008**

April 2008







# OKEANOS – MISSION

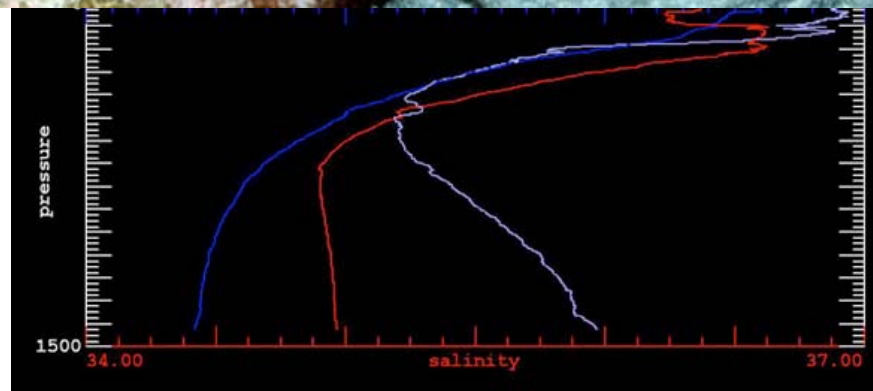
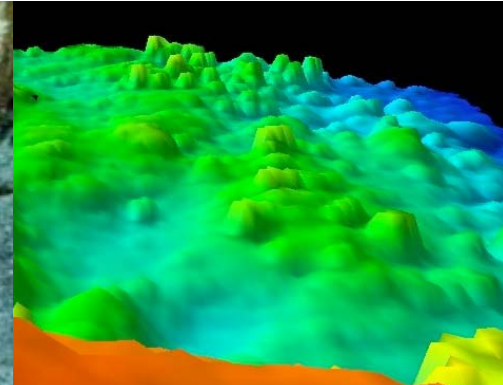
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- “Systematic Exploration”
  - Reconnaissance in unknown or poorly known areas
  - Investigate anomalies
  - Interdisciplinary site characterization
  - Set the foundation for future, comprehensive research projects
- Involving experts ashore at command centers
- Vigorous education / outreach component

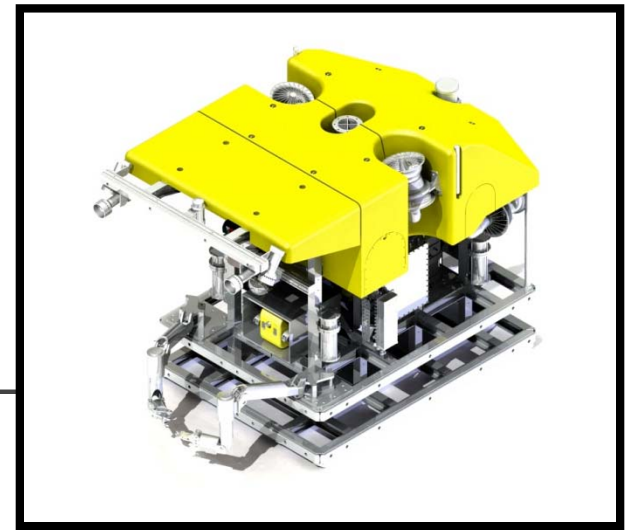


# OKEANOS - MISSIONS





# OKEANOS – ROV OPS



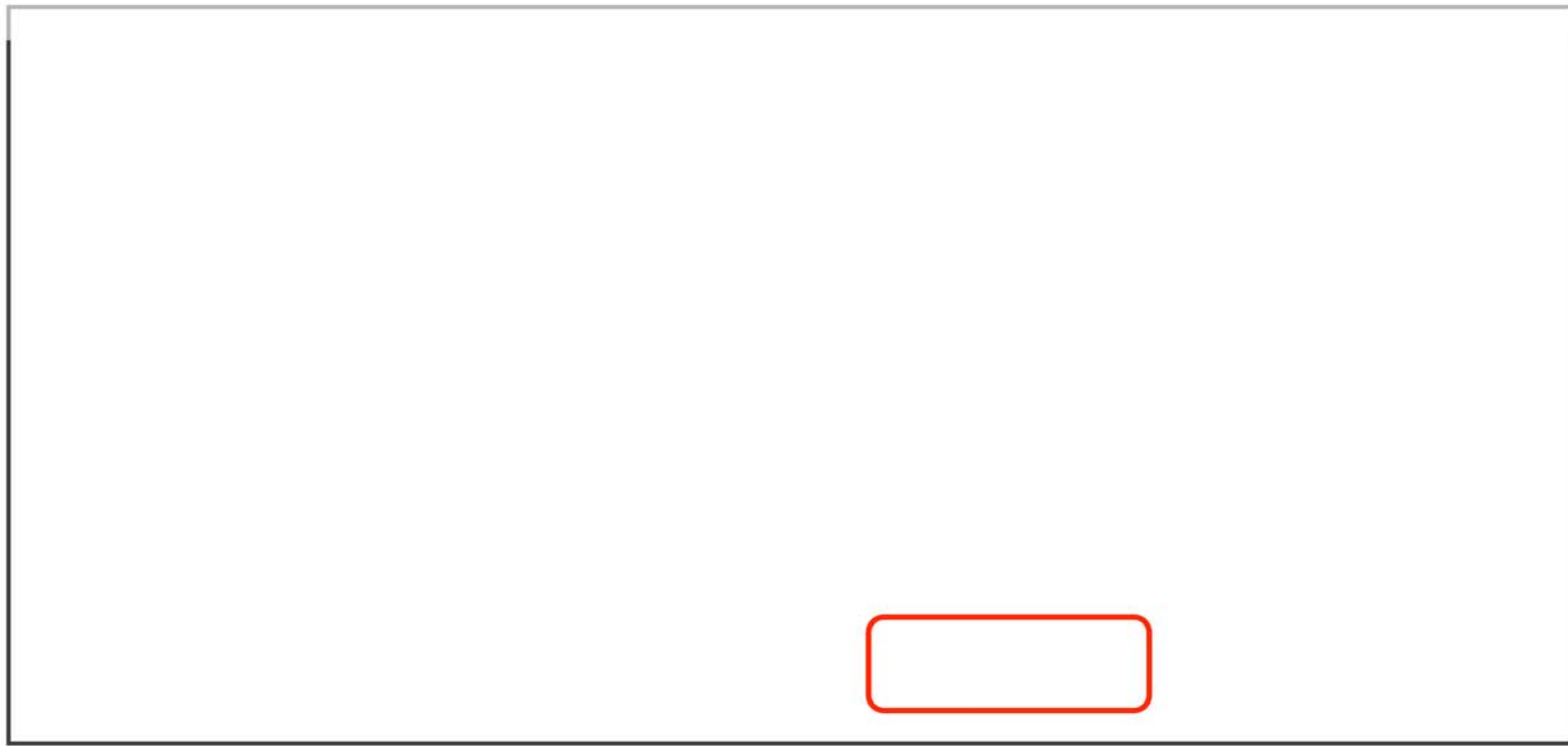
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# OKEANOS - MAPPING



- Kongsberg EM302 (30 kHz) multibeam sonar ( $0.5^\circ \times 1.0^\circ$ )
- Kongsberg EA600 deepwater echosounder
- Knudsen Model Chirp 3260 sub-bottom profiler





# OKEANOS - TELEPRESENCE



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**QUESTIONS?**