NAVAL OCEANOGRAPHIC OFFICE

COMMAND BRIEF
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CAPT Ron Piret, Commanding Officer
CAPT Ivo Prikasky, Executive Officer
Mr. Mark Jarrett, Technical Director
AGCM Chad Goff, Senior Enlisted Advisor
Naval Oceanographic Office
History and Milestones

- 1830  Depot of Charts and Instruments established; later renamed U.S. Hydrographic Office
- 1962  Renamed U.S. Naval Oceanographic Office
- 1977  Relocated from Washington, D.C. to Stennis Space Center, Miss.
- 1987  Operational Oceanography Center established
- 1991  Supercomputer became operational
- 1994  T-AGS 60 Class military survey ships became operational
- 2004  Began daily runs of world’s only 3-D Operational Global Ocean Model
- 2005  Restructured as Oceanographic Reach-Back Center to support Naval Operations
- 2008  Began Maritime Homeland Defense surveys of U.S. Military installations
- 2011  Daniel H. Williams Oceanographic Information Technology Center Dedicated
To optimize sea power by applying relevant oceanographic knowledge in support of U.S. National Security
We will assure the Navy’s oceanographic knowledge superiority and reduce risk by providing the forecast battlespace through:

**Smart Collection**  
(Focused on ASW, MIW, NSW & EXW needs)

**Responsive Delivery**  
(Decreased turnaround time)

**Focused Analysis**  
(Direct Support)
Naval Oceanography

WARFIGHTING FOCUSED
- Maritime Operations
- Aviation Operations
- Fleet Operations
- Precise Time and Astrometry
- Navigation
- ISR
- Naval Special Warfare
- Anti-Submarine Warfare
- Mine Warfare

KNOWLEDGE-CENTRIC
- Warfighting
- Safety
- Shaping

Teamwork
Technical Excellence
Clear Communications
Manage Risk
Measure Results
Continuous Improvement
Fleet Aligned

Chief of Naval Operations (CNO)
Washington, DC

Commander, Fleet Forces Command (USFF)
Norfolk, VA

Commander, Naval Meteorology and Oceanography Command (CNMOC)
Stennis Space Center, MS

Naval Oceanography Operations Command (NOOC)
Stennis Space Center, MS

U.S. Naval Observatory (USNO)
Washington, DC

Fleet Weather Center (FWC)
Norfolk, VA

Naval Oceanographic Office (NAVOCEANO)
Stennis Space Center, MS

Fleet Survey Team (FST)
SSC, MS

Fleet Numerical Meteorology and Oceanography Center (FNMOC)
Monterey, CA

Naval Meteorology and Oceanography Professional Development Center (NMOPDC)
Gulfport, MS

Fleet Weather Center (FWC)
San Diego, CA

*Naval Information Dominance Forces, Type Commander (NAVIFOR)
Suffolk, VA

Op

Man, Train, Equip, Readiness
Highly Skilled Operational Oceanography Workforce

NAVOCEANO
Over 800 Civilian, Contractor and Military personnel

Fleet Survey Team
Over 50 Military and Civilian personnel

Total Workforce:
Over 800

NAVOCEANO Personnel

<table>
<thead>
<tr>
<th>Education</th>
<th>% Total NAVO Workforce</th>
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<tbody>
<tr>
<td>Ph.D.</td>
<td>5%</td>
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<tr>
<td>M.A./M.S.</td>
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<tr>
<td>B.A./B.S.</td>
<td>43%</td>
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<tr>
<td>Associate Degree</td>
<td>11%</td>
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<tr>
<td>Other</td>
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United States Fleet Forces
Core Competencies

- MIW
- GEOSPATIAL INTELLIGENCE
- BATHYMETRY
- HYDROGRAPHY
- GEOPHYSICS
- ACOUSTICS
- PHYSICAL OCEANOGRAPHY
- SPECOPS
- NSW
- NECC
- ISR
- ASW
- ASW
- Fleet OPS
  - CSG
  - ESG
  - USMC

United States Fleet Forces
Collection and Processing Assets

Military Survey Ships (T-AGS) w/HSL
Fleet Survey Team (FST)
Airborne Coastal Survey Program
Underwater Autonomous Vehicles (UUV) / Sea Gliders
Profiling Floats
Drifting Buoys
Naval Platforms (TTS)
Satellites
Maury Oceanographic Library
High Performance Computing (DSRC)
National and International Data Exchange Agreements
Data Warehouse
Hydrographic Survey Launches (HSL)

Length: 34 ft (10 m)
Width: 9 1/2 ft (2.8 m)
Draft: 3 ft (0.9 m)
Endurance: 200 nmi @ 16 knt
Displacement: 7.5 tons
Ocean Gliders

LBS-Glider Specifications:

- **Weight**: 60kg
- **Hull Dia.**: 22 cm
- **Length**: 1.5 m
- **Speed**: 31 cm/s
- **Max Depth**: 200/1000 m
- **Endurance**: 4-6 months
- **Range**: 4000 km
- **Energy**: Li-oxyhalide
Airborne Coastal Surveys Program
Coastal Zone Mapping and Imaging Lidar (CZMIL)

- Longer endurance aircraft
- Higher resolution sensors

10,000 Hz Pulse Rate (hydro / topo)
0.4 Hz / 25 MP Digital camera (~20 cm pixel)
CASI-1500 Hyperspectral Imager
  1500 pixels
  380 – 1050 nm wavelength
  288 possible bands
IHO Order 1 Surveys capable
Shot spacing:
  0.7 X 0.7 meter topo / shallow hydro
  2.0 X 2.0 meter deep hydro
300 - 400 m op altitude (hydro)
300 - 1200 m op altitude (topo)

Shorter laser pulse length and receiver response for increased accuracy, especially in shallow (<2m) water. Large field-of-view afforded by prism, and more sensitive receivers, increase signal-to-noise ratio. Improved depth detection in shallow turbid water.
Specialized Products

- Special Analyzed Image Littoral (SAIL)
- Bottom Sediment Chart
- 3-D Fly Thru
- DBDB-V Datasets
- NAVOCEANO DBDB-V 5.2
- Field Chart

NCOM 1/30°
DELFT3D 1/1100°
Theater Security Cooperation

Naval Oceanography Worldwide

Ecuador
Montenegro
Gabon
Philippines
Vietnam
Congo
Proactive HA/DR (Shaping)

Indonesia Tsunami Relief

Adam Air

Divi Divi Air, Netherlands Antilles

Operation Unified Response (Haiti)
Customer Support Office (CSO)

For 24/7 Customer Service, Product Information, Availability, or Status:

Classified Web:

http://nepoc.oceanography.navy.smil.mil/portal/web/navo
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To speak to a Customer Service Representative:
COMM: (228) 688-5176
DSN: 828-5176

E-Mail:
Unclassified: cso.navo.fct@navy.mil
Classified: cso@ocean.navo.navy.smil.mil

If checking on Product Status, please have your RFS number available.
A specialized team of military and civilian experts providing hydrographic and oceanographic knowledge of the littoral environment to support safety of navigation.

**Rapidly deployable teams**
- 4 to 6 personnel, 9 m RHIB or fly-away survey kit for boat of opportunity

**Rapid Littoral Surveys – Beaches and Rivers**
- Rapid Littoral Survey Vessels (RLSV), w/bolt-on sensor package for near-shore assessments.
- Deployable to Amphibious Squadrons (PHIBRONs)

**International Cooperative Surveys**
- Host country participation, boats of opportunity

**Theater Security Cooperation**
- Global partnership building through Maritime Safety, Security, and Training

**Humanitarian Assist / Disaster Relief**
- Post-hurricane surveys – Katrina, Rita, Gustav, Ike
- Post-earthquake surveys – Indonesia, Haiti, Chile
- 96 hours to departure upon tasking