# Daniel F. Carlson

Florida State University
Department of Oceanography
0102 West Call Street
Tallahassee FL
32306-4320
carlson@ocean.fsu.edu

## Education

**M.S. Physical Oceanography, 2007**
Florida State University, Tallahassee FL
Major Professor: Allan Clarke
Thesis title: “Seasonal Along-Isobath Geostrophic Flows on the West Florida Shelf with Application to *Karenia brevis* Red Tide blooms.”

**B.S. Physics, 2004**
Stetson University, Deland FL and New College, Oxford University, UK
Graduated Magna cum Laude (Stetson University)

## Research Experience

**Fulbright Scholar –** March 2007 to July 2008. ADCP, CTD, fisheries, and MODIS data are being used to examine the interplay between ocean dynamics and biota in the Gulf of Eilat (Aqaba) in the northern Red Sea.
**Advisor:** Dr. Hezi Gildor hezi.gildor@weizmann.ac.il

**M.S. Thesis –** August 2005 to January 2007. Satellite altimetry and wind data were used to calculate seasonal geostrophic currents and to determine the momentum balance on the West Florida Shelf. The results were applied to Red Tide blooms.
**Major Professor:** Dr. Allan J. Clarke, **Clarke@ocean.fsu.edu**

**North Florida Red Tide Monitoring Project Manager –** August 2006 to March 2006. I coordinated an interdisciplinary group of scientists at FSU and the FSU Coastal and Marine Laboratory to provide the first routine collection of red tide, water quality, and ADCP current data in north Florida.
**Principal Investigator:** Dr. Allan J. Clarke

**SEAMAP Summer Ground Fish Survey, NOAA Ship Oregon II –** June 14 – 30, 2006. Volunteer scientist on Leg II of a fisheries survey from Pascagoula MS to Galveston TX.
**Field Party Chief:** Kim Johnson, Kim.A.Johnson@noaa.gov

**Florida Fish and Wildlife Conservation Commission/ Florida Wildlife Research Institute –** January 2-5, 2006 and December 13-16, 2004
Laboratory assistant aboard the R/V Suncoaster during cruises on the near-shore Southwest Florida Shelf from Tampa Bay to Florida Bay.
**Chief Scientist:** Merrie Beth Neely, M.S., Merrie.Neely@MyFWC.com

**Woods Hole Oceanographic Institution Summer Student Fellow**- Summer 2004. *Laboratory Models of Hydrothermal Plumes with Applications to Europa's Liquid Interior*.
**Contact:** Dr. Steven Jayne, sjayne@whoi.edu

**Harbor Branch Oceanographic Institute**- Summer 2003, *Development of a third generation piezoelectric contact sensor for Manatee Protection Systems and remotely operated vehicles.*
**Mentor:** Mr. Larry Taylor, Taylor@hboi.edu

**Research Experience for Undergraduates - University of Florida, Department of Physics**- Summer 2002, *Development of variable path length acoustic cavity for high-resolution phase velocity measurement.*
http://www.phys.ufl.edu/REU/2002/reports/carlson.pdf
**Mentor:** Professor Yoonseok Lee, yoonslee@phys.ufl.edu

**NASA Kennedy Space Center**- Summer 2000, Supported NASA engineers in Advanced Space Transportation Projects: X-33, X-34, and X-37.
**Mentor:** Philip Bennardo, Philip.Bennardo-1@nasa.gov

**Florida Fish and Wildlife Conservation Commission/Florida Wildlife Research Institute**- Ongoing, I have provided, and continue to provide, assistance to sport-fish, sea grass, and harmful algal bloom researchers in the field on a volunteer basis.

**Contacts:** Ron Taylor, Ron.Taylor@My.FWC.com,
Dr. Karen Steidinger, Karen.Steidinger@MyFWC.com
Dr. Laura Yarbro, Laura.Yarbro@MyFWC.com
Dr. Paul Carlson, Paul.Carlson@MyFWC.com

## Conferences, Seminars, and Summer Schools

Environmental Science and Energy Research Departmental Seminar: Seasonal Along-Isobath Geostrophic Flows on the West Florida Shelf with Application to *Karenia brevis* Red Tide blooms. Weizmann Institute of Science, Rehovot Israel, March 18, 2007.

Fish and Wildlife Research Institute Invited Speaker: Seasonal Along-Isobath Geostrophic Flows on the West Florida Shelf with Application to *Karenia brevis* Red Tide blooms. St. Petersburg FL, March 9, 2007.

Collaborations in Mathematical Geosciences Modern Mathematical Methods in Physical Oceanography, Breckenridge CO, August 13 – 22, 2006.

Estuarine Research Federation, Estuarine Interactions: biological-physical feedbacks and adaptations. Poster presentation: Wind-driven coastal upwelling on the North-Atlantic coast of Florida from June – August 2003. Norfolk VA, October 16-20, 2005.

## Professional Societies

American Geophysical Union, Estuarine Research Federation, American Physical Society, Phi Beta Kappa, Sigma Pi Sigma (Physics Honor Society), Mortar Board Honor Society

## Honors and Awards

Fulbright Scholar- Weizmann Inst. Of Sci., Israel 2007-2008
Outstanding Senior in Physics- Stetson University
Visiting Student, New College, Oxford University Hillary Term 2002

Stetson University Presidential Scholarship

## Knowledge, Skills, and Abilities

**Oceanographic Data Collection:** CTD operation, YSI water quality, RDI ADCP Deployment/Recovery, Neuston/Bongo Tows, Box Core, Fluorometry, Chlorophyll Extraction, Breadboard Circuitry

**Time Series Analysis:** FFT, Spectral Analysis, Empirical Orthogonal Functions, Complex Demodulation, Data Filtering

**Scientific Computing**: Matlab, SeaDAS 5.0, Lab View, Solid Works, AutoCAD, TurboCAD, Multisim, Sigma Plot, Origin, Eco Watch, HTML/XML, MS Office

**SCUBA Certifications**:

Science/Academic Diver – FSU Academic Diving Program
Gold Master Diver – YMCA
SCUBA Life Saving and Accident Management (SLAM) - YMCA
Advanced Open Water – YMCA
Open Water - YMCA
Enriched Air Nitrox – IANTD
Cavern - IANTD
Drysuit – NAUI
Full Face Mask
First Aid/CPR/AED – Red Cross
Oxygen Administration - ASHI
24 logged science dives
75 total logged dives

**Small Craft Handling:**

Power and sail boats up to 30 ft. in length
Launch, Recovery, Towing

## Notable Information

**International Travel:** Israel, Jordan, Egypt, Costa Rica, United Kingdom, France, Italy, and Canada

**Languages:** English (native), French (proficient), Spanish (passable)