### NOAA and Deep Submergence Science

Presented By:

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NOAA's Undersea Research Program (NURP)

December 2002



### About NOAA



(National Oceanic and Atmospheric Administration)



### Department of Commerce



- NOAA's Mission:
  - Describe and Predict Environmental Changes
  - Stewardship of Coastal and Marine Resources to ensure sustainable economic opportunities



### Research Conducted by NOAA

- Covers a wide range supporting:
- Weather forecasting
- Climate prediction
- Fisheries management
- Coral management
- Understanding living resources



## NOAA Programs that carry out Deep Submergence Science:

#### NOAA's Undersea Research Program (NURP)

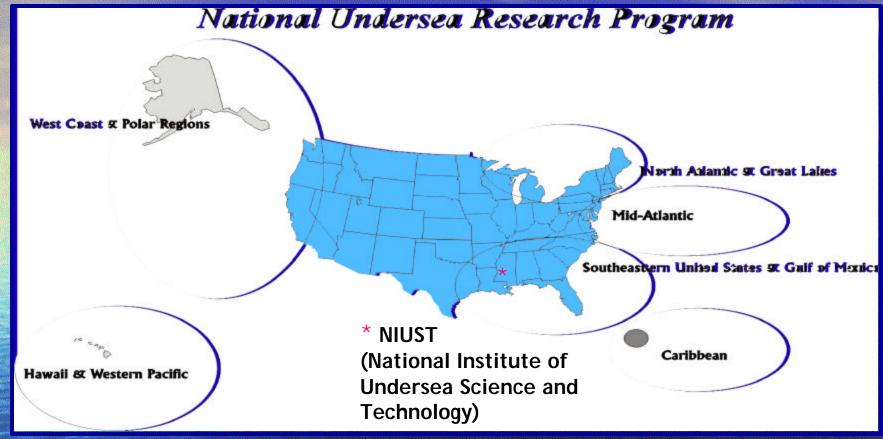


Ocean Exploration



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### **About NURP**



- NURP is an extramural program with
  - Peer-reviewed projects; and
  - Cutting edge research.

See <a href="https://www.nurp.noaa.gov">www.nurp.noaa.gov</a> for more information.



NOAA's Ocean Exploration



- Funds internal and external programs.
- For more information see: http://oceanexplorer.noaa.gov

# NURP's Infrastructure includes access to a wide variety of vehicles and tools

- Some owned
- Some leased
- Many with longterm MOUs













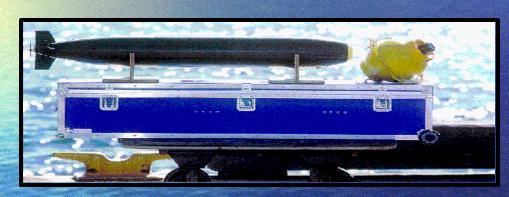






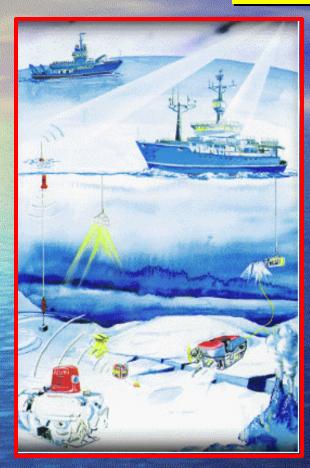


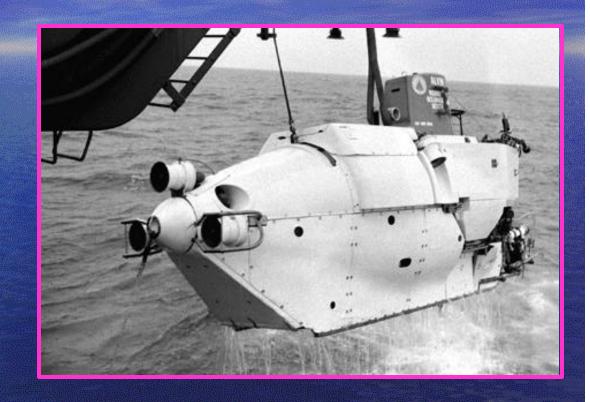
# Autonomous Underwater Vehicles (AUVs)





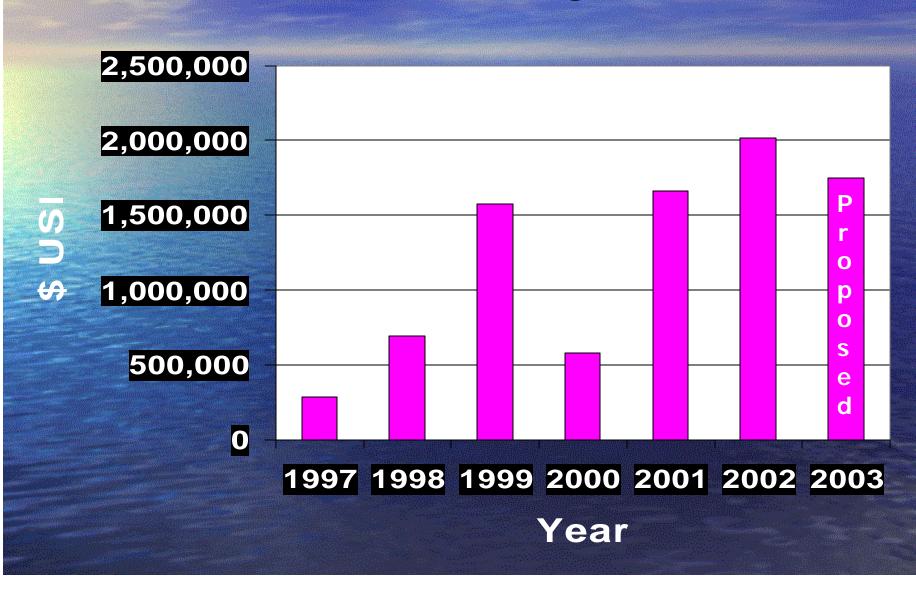
### ALVIN & DESSC



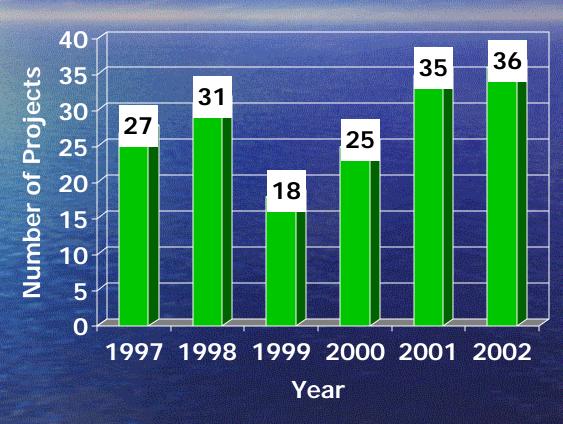


 NOAA, Navy, and NSF fund the DSRF through an MOU.

### NOAA's Funding of Alvin



### NOAA Funded Deep-Science Projects



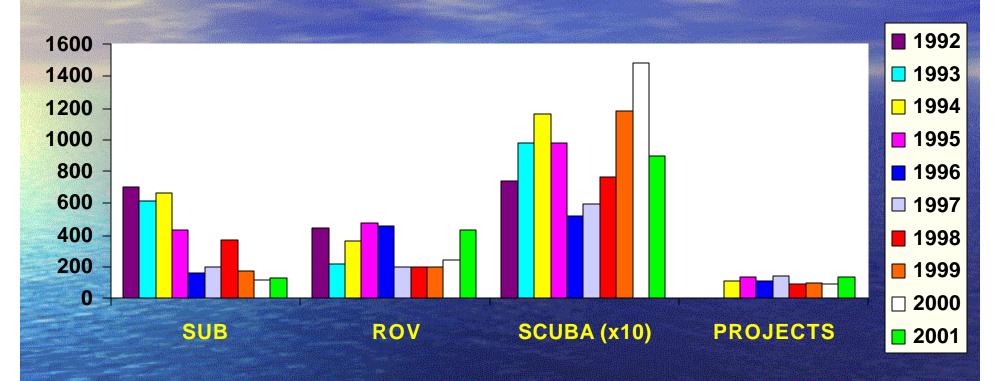
### Primary PIs for 1997-2002 NOAA Deep Science Projects

Alphin, Troy Ambrose, William Auster, Peter Baco-Taylor, Amy Batiza, Rodev Benfield, Mark Broadwater, John Brodeur, Richard D. Brooke, Sandra Brown, Kevin M. Bush. Kendal Butler, John Butterfield, David Cahoon, Lawrence B. Cavanaugh, Colleen M. Collier, Bob Cooper, Richard Cowen, James Dayton, Paul K. Donaldson, Paul **Dunbar**, Robert Duncan, Robert Eisen, Jonathan Embley, Robert W. Fisk, Martin Fisher, Charles R. Fornari, Dan Foster, Michael Frank, Tamara Fredericg, Suzanne Garcia, Michael Gieskes, Joris Goldfinger, Chris Grassle, Fred

Grau. Gordon Grigg, Richard **Guilderson, Thomas** Halley, Robert Haskell. Benjamin Hendon, Reed Hickerson, Emma Hight, Tim Jagielo, Tom Kadko, David Kelley, Christopher Laster, Stephen Capt. Lee, Raymond W. Levin. Lisa A. Lindholm. James Lonsdale, Peter Love. Milton MacDonald, lan R. Martin, Jonathan B. Martin. William McClain, James McMurtry, Gary McMurtry, Gary Moffitt, Robert Morse, Daniel Naish. Kerry Nelson, Douglas C. Nittrouer. Charles O'Clair, Charles Parrish, James Powell, Eric Reimers, Clare Rittschof, Dan Sansone, Francis J.

Schaeffer, Stephen Scheel, David Sen Gupta, Barun K. Shepard, Andrew N. Shirley. Thomas Sibert, John Smith, Craig R. Sobecky, Patricia A. St. Aubin, David Starr. Richard M. Staudigel, Hubert Steneck. Robert Stevens, Bradley G. Sulak. Kenneth J. Tivey, Margaret **Torres. Marta Urban. Noel** Van Dover, Cindy Lee Voight, Janet R. VonDamm, Karen Wakefield, W. Waldo Watling, Les Weaver, Doug Weaver, Doug Wheat, Geoff Worobey, Nick Worobey, Nick Yoklavich, Mary Young, Craig Youngbluth, Marsh J. Zhang, Chuanlun Zierenberg, Robert

### Trends in Deep Diving Funded by NURP



- Trend less deep diving; more wet diving as result of decreased budgets
- additional \$ will be directed to change this

