ONR

Here we are

Secretary of the Navy

Assistant Secretary of the Navy

Research, Development and Acquisition

Research and Development

Acquisition

VCNO & ACMC

Office of Naval Research

Naval Research Lab

PEOs, Systems Commands, Warfare Centers

Basic Research

Applied Research

Advanced Tech. Development

Test & Evaluation

DEM/Val

EMD

Op. Systems Development

Warfare Centers

12 Program Executive Officers

3 Direct Reporting Program managers

6 Systems Commands

54 Major Program managers

467 Program managers

Aircraft carriers

Combat ships

Submarines

Aircraft

Weapons systems

Ammunition

Combat boots

Source: FY05 Blue Book, FY05 R-1

ONR S&T Departments

Code 31
Information, Electronics, & Surveillance S&T Department
- Mathematics
- Computers
- Electronics
- Surveillance
- C3
- Electronic Combat
- Modeling & Simulation

Code 32
Ocean, Atmosphere & Space S&T Department
- Battlespace Environments - BSE
- Undersea Warfare - ASW
- Undersea Warfare - MIW
  - NSW / EOD & Small Unit Ops
- Maritime ISR & Space Exploitation – ISR / SE
- Space S&T Office
- Countermine Program Office

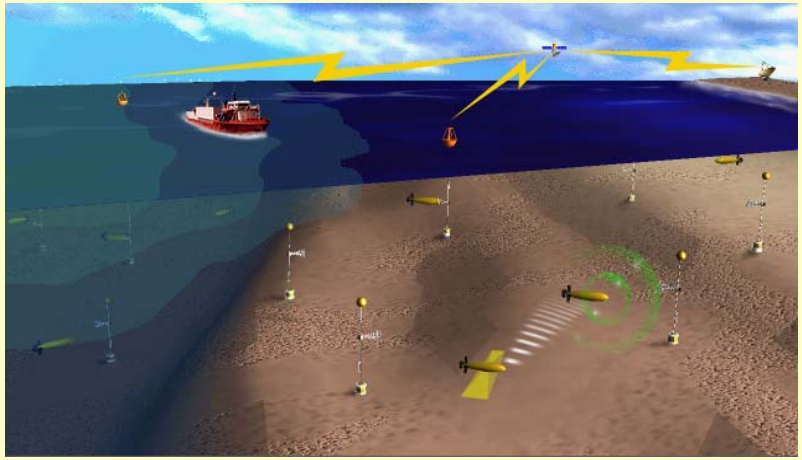
Code 33
Engineering Materials & Physical S&T Department
- Physics
- Chemistry
- Environmental Quality
- Materials
- Mechanics
- Energy Conversion & Explosives
- Ships & Submarines
- Undersea Weapons

Code 34
Human Systems S&T Department
- Biological, Health & BW / CW
- Cognitive & Neural Sciences and Human Factors
- Biorobotics
- Training & Training Devices
- Bioremediation, Biofouling
- Personnel & Clothing
- Logistics, Shore Facilities, Waterfront

Code 35
Weapons, Marine Corps & Special Programs S&T Department
- Surface / Air
- Weapons
- Aircraft
- LO / CLO
- Marine Corps S&T
- Special Programs

Code 36
Industrial Programs Department
- SBIR
- MANTECH / MANSCIENCE
- Navy Dual-Use Technology Program
- Tech Transfer/IR&D

ONR AUV S&T



Objectives

- Expand the state-of-the-art in component technologies for AUV systems
- Develop/demonstrate undersea mission adaptive behavior using networked multiple platforms

Component Technologies

- Platforms (Control and Propulsion)
- Communication
- Navigation
- Energy
- Sensors
- Autonomy / Network Control

Approach

- System-oriented multi-disciplinary basic science and engineering research *(MURI Programs)*
  - Integrated artificial muscle, high-lift bio-hydrodynamics and neuro-control for biorobotic AUVs
  - Adaptive Sampling and Prediction
- Capability-oriented innovative technology development – Basic and Applied Research *(Small Business Innovative Research, Small Business Technology Transfer)*
- Mission-oriented Applied Research and Advanced Development *(Mine Counter-measures, Anti-Submarine Warfare, Tactical Oceanography, Hydrography, Salvage)*
  - Deep Convection Experiment (Labrador Sea)
  - Frontal Dynamics Experiment (Haro Strait)
  - Organic Mine Countermeasures Future Naval Capability
  - Autonomous Operations Future Naval Capability
  - Undersea Persistent Surveillance
- Develop new generation of scientists and engineers in Autonomous Systems *(AUVSI Student Competition)*