Naval Research Laboratory (Appropriations Act, 1916)
“[Conduct] exploratory and research work…necessary …for the benefit of Government service, including the construction, equipment, and operation of a laboratory….”

Office of Naval Research (Public Law 588, 1946)
“…plan, foster, and encourage scientific research in recognition of its paramount importance as related to the maintenance of future of naval power, and the preservation of national security….”

Office of Naval Research - London Office (1946)
“…reporting on the latest developments and to assist visiting American scientists to make contact with their colleagues in Europe…”

Transitioning S&T (Defense Authorization Act, 2001)
“…manage the Navy’s basic, applied, and advanced research to foster transition from science and technology to higher levels of research, development, test, and evaluation.”
Who We Are

ONR/NRL

People: 3,900
Govn’t: 3,360
Contractor: 540
PhDs: 842
SES: 45
USNR: 212
ONR-Global

- Develop Partnerships
- Leverage Global S&T Advances
- Avoid Technology Surprise
Unique Structure

- All three S&T funding lines under one roof
- Program Officer can see a program through D&I → Applied Science → Transition

- Basic Research
  6.1

- Applied research
  6.2

- Advanced Tech Development
  6.3

From new materials
To advanced electronics
To cutting edge radar
Leadership for S&T

Guidance Comes From...

- RADM Matthew Klunder
  Chief of Naval Research

- Dr. Walter Jones
  Executive Director

- BGen Mark R. Wise
  Vice CNR

- Assistant Secretary of Defense for Research & Engineering
- Assistant Secretary of the Navy (Research, Development and Acquisition)
- Vice Chief of Naval Operations
- Assistant Commandant for the Marine Corps
**Aligning to Strategic Guidance**

**CNO Priorities**
- Build the Future Force
- Maintain Warfighting Readiness
- Develop & Support Our Sailors, Civilians and Families

**SECNAV Priorities**
- Taking care of our Sailors, Marines, Civilians, and their families
- Treating energy in DON as an issue of national security
- Creating acquisition excellence
- Optimizing unmanned systems

**Commandant Guidance**
- Provide the best trained and equipped Marines to Afghanistan
- Rebalance USMC for the future
- Better educate and train Marines
- Keep faith with our Marines, Sailors and families

**CNR 2012 Priorities**
- Take care of our people
- Strengthen, collaboration with Partners and Stakeholders
  - Align S&T initiatives to DON strategy
  - Accelerate mature technology through transition
  - Invest in / promote STEM initiatives
- Define our success through the eyes of Sailors and Marines
  - Address Warfighter needs
  - Provide innovative solutions
  - Make every dollar count
- Communicate using a solid, simple story
  - Understand stakeholder perspective
  - One unified ONR voice
  - Ensure alignment with Strategic Vision
Strategic Plan

- Cascades from National, DoD and Service Guidance
- Vetted by Fleet/Force Stakeholders
- Approved by VCNO, AMC and ASN (RDA)

S&T Plan Focus Areas:
- Assure Access to Maritime Battlespace
- Autonomy & Unmanned Systems
- Expeditionary & Irregular Warfare
- Power Projection/Integrated Defense
- Information Dominance
- Power & Energy
- Platform Design & Survivability
- Total Ownership Cost
- Warfighter Performance

Revised Sep 2011 - aligned with 2012 Defense Strategy
6.1: Basic Research

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Total: $2,012,274.00 $2,120,375.00 $1,979,725.00

Source: Exhibit R-1 of the FY 2013 Presidential Budget Request (Feb 2012)

6.2: Applied Research

6.3: Advanced Tech Development

Typical Obligations Profile During an FY
Naval S&T Strategic Plan

- Second update of the original Naval S&T Strategic Plan
- Focused on top-down guidance, informed by fiscal realities of POM13
- Strategic Context – development guided by CS-21, SECNAV Guidance, NSP, and Vision and Strategy 2025
- Focus Areas consolidated from 13 to 9; includes addition of one new area on Autonomy and Unmanned Systems
STEM is a critical enabler across all Focus Areas
Quick Reaction S&T

• Ship Identification
• Solid State Lighting
• HCO Trainer
• Food Service Software
• Automated Weather Prediction system

- Rapid solutions to problems identified by deckplate Sailors and Marines
- 1 year turnaround time
- Video: www.youtube.com/usnavyresearch
- Requests submitted online www.onr.navy.mil/techsolutions
Future Naval Capabilities

(3-5 Year) Component Technologies

Secure Networks
Innovative Naval Prototypes

(5-10 Year) Disruptive Technologies

- High Risk / High Payoff
- Innovative and game-changing
- Approved by Corporate Board
- Delivers prototype

- Tactical Satellite
- EM Railgun
- Persistent Littoral Undersea Surveillance
- Sea Base Enablers
- Free Electron Laser
- Integrated Topside
- Large Displacement UUV
- AACUS
Basic Research
Seed corn for disruptive technologies

- Diverse portfolio
- Fosters innovation
- Long-term
- Investment in people
  *60+ Nobel laureates

Semiconductors
GaAs, GaN, SiC

Graphene

1st U.S. Intel satellite
GRAB

GPS

Arctic Research

EW

Weather Modeling

Laser Cooling

Spintronics

*60+ Nobel laureates

OFFICE OF NAVAL RESEARCH
How We Execute

- 70 Countries
- 50 States
- 1,078 Companies
  - 859 small businesses
- 1,035 Universities & Nonprofit Entities
  - 3,340 principal investigators
  - 3,000 grad students
Requirements Driven Process

I have a Need!

Requirement

I have an Idea!

Capability
Innovation Driven Process

I have an Idea!  That's a Good Idea!
Communicating Success

Navy Crowdsources Pirate Fight To Online Gamers » MMOVGLI Gameplay

Navy Sets World Record With Incredible, Sci-Fi Weapon

The Navy's Free Electron Laser System Will be More Than Just a Death Ray

Communicating Success

Marines Going Green to Save Lives on Battlefield

70 Days at Sea For New Robot Sub

Navy’s Patent Portfolio #1 in World Among Government Organizations
Where to Find Us Online

www.onr.navy.mil