SPONSORED PROGRAMS
ANNUAL REPORT
Naval Postgraduate School • Fiscal Year 2006

PROGRAM OVERVIEW

The Naval Postgraduate School has a strong sponsored program that has grown steadily to provide the faculty and staff required for a strong, viable graduate school. In FY06, NPS had available over $112M in sponsored program funding. Total expenditures in FY06 exceeded $81M.

Sponsored programs (research, education, and services) are integral to the Naval Postgraduate School (NPS) mission. The research program supports graduate education by providing militarily relevant thesis topics that address issues from the current needs of the Fleet and Joint Forces to the science and technology required to sustain long-term superiority of the Navy/DoD. Research varies from the very fundamental to the very applied, at all levels of classification. Sponsored research includes:

- Basic and Applied Research
- Individual and Interdisciplinary Group Projects
- Fleet Support
- Cooperative Research and Development Agreements

Integrated graduate education and research in space systems, total-ship systems engineering, combat systems, systems engineering and homeland security and defense, supplemented by off-campus graduate and certificate programs and short courses, are a few offerings of the sponsored education program.

PROGRAM EXPENDITURES

1 October 2005 - 30 September 2006
Total Expenditures: $81.4M

By Type of Activity

- Education (29%) $23,395K
- Research (67%) $54,875K
- Service (4%) $3,091K

By Sponsor

- Navy (40%) $32,858K
- NSF (3%) $2,702K
- Industry (2%) $1,944K
- Other (2%) $1,377K
- Other Fed (28%) $21,862K
- Joint (3%) $2,489K
- Defense (11%) $8,624K
- Army (5%) $4,407K
- Air Force (6%) $5,100K

By NPS Organization

- GSBPP (6%) $5,238K
- Institutes (15%) $11,807K
- Other (4%) $3,510K
- SIGS (22%) $18,039K
- GSEAS (34%) $27,437K
- GSOIS (19%) $15,331K

Leonard Ferrari, Acting President and Provost
Dan Boger, interim Dean of Research
Danielle Kuska, Director, Research and Sponsored Programs Office

Published by the Research and Sponsored Programs Office
Halligan Hall • Naval Postgraduate School
Monterey, California 93943-5138
831.656.2099 • research@nps.edu
SIGS provides graduate-level education to U.S. and international students and conducts research on current and emerging security concerns of the United States and allies. The SIGS mission is to educate the next generation of U.S. and international leaders and prepare them for assignments in defense and foreign policy, international relations, and security cooperation. SIGS organizational elements include the Department of National Security Affairs (NSA), Defense Resources Management Institute (DRMI), Center for Homeland Defense and Security (CHDS), International Graduate Programs Office (IGPO), and Center for Civil-Military Relations (CCMR). CCMR comprises the Center for Stabilization and Reconstruction (CSRS), International Defense Acquisition Resource Management (IDARM), and Leadership Development and Education for Sustained Peace (LDESP). Note: Statistics are for NSA, CHDS, and DRMI only.

Total Expenditures: $18,040K

By Type of Activity
- Research (11%) $2,033K
- Service (1%) $4K
- Education (>88%) $16,003K

By Sponsor
- NSF/Other (<1%) $10K
- Air Force (1%) $173K
- Defense (7%) $1,260K
- Joint (2%) $397K
- Navy (2%) $448K
- Other Federal (>87%) $15,752K

By Department
- Defense Resources Management Institute (<1%) $7K
- National Security Affairs (>99%) $18,032K

GRADUATE SCHOOL OF OPERATIONAL AND INFORMATION SCIENCES

Total Expenditures: $15,331K

By Type of Activity
- Research (>90%) $13,872K
- Service (9%) $1,433K
- Education (9%) $1,433K

By Sponsor
- NSF (3%) $401K
- Other (>11%) $1,766K
- Air Force (4%) $613K
- Army (6%) $879K
- Defense (23%) $3,539K
- Other Fed (<1%) $74K
- Joint (5%) $762K
- Navy (45%) $6,976K

By Department
- Operations Research (24%) $3,647K
- Computer Science (24%) $3,715K
- Defense Analysis (6%) $980K
- Information Sciences (46%) $6,984K

GSOIS includes graduate resident programs consisting of sixteen technical curricula and awards master of science and Ph.D. degrees across four academic departments. In response to the needs of naval and military customers, graduate-level education and cutting-edge research are focused in four non-traditional knowledge domains: information science and technology; military computer science; military operations analysis and research; and special operations and related defense analyses.

The emphasis of sponsored activities is on mathematical, scientific, and technical skills needed to understand current advances and foster improvement in military systems and operations, integration of subject matter contained in classical academic disciplines in militarily relevant ways, and subject matter suited to the corporate university’s military customer.
GRADUATE SCHOOL OF ENGINEERING AND APPLIED SCIENCES

GSEAS provides graduate education leading to the master of science, engineer, doctor of philosophy, and doctor of engineering degrees. GSEAS is composed of seven technical academic departments (applied mathematics, electrical and computer engineering, mechanical and astronautical engineering, meteorology, physics, oceanography, systems engineering) and one interdisciplinary academic group (space systems). These entities offer degree programs tailored to the specific needs of the Navy and defense community at large, at the same time providing the technical foundation for student theses and interdisciplinary projects of faculty and students. Research centers and unique laboratory facilities (e.g., the Spacecraft Research and Design Lab, Rockets and Combustion Lab, Signal Enhancement Lab, Ocean Acoustics Observatory, Interactive Digital Environment Analysis Lab, Secure Space-Systems Research Lab, Secure Computer-Network Research Lab, and Directed Energy Lab) add rigor to the resident academic and sponsored programs.

GRADUATE SCHOOL OF BUSINESS AND PUBLIC POLICY

GSBPP offers a unique resident defense-focused MBA program, plus master’s degrees in five other DoD-relevant areas. Faculty research is an important component of the school and strives to support military decision making, problem solving, and policy setting; improve administrative processes and organizational effectiveness; contribute knowledge to academic disciplines; and advance the mission of graduate education. The research program is integrated to the greatest possible extent with the educational process. Students are encouraged to participate in faculty projects, and faculty research results are typically incorporated in classroom instruction. Topics and issues can be grouped into five broad functional areas: acquisition and contracting; budgeting and financial management; logistics and transportation; manpower-systems analysis; and policy formulation, analysis, and management.

Total Expenditures: $27,437K

By Type of Activity

- Research (79%) $4,157
- Education (20%) $1,059
- Other (1%) $26

By Sponsor

- Navy (65%) $3,415
- Industry (15%) $799
- Other (4%) $1,202
- Other Fed (2%) $26
- Army (1%) $228
- Air Force (1%) $551
- NSF (5%) $1,432
- Defense (3%) $725
- Space Systems Engineering (8%) $2,258
- Mechanical Engineering (14%) $3,843
- Oceanography (27%) $7,322
- Meteorology (6%) $1,631
- Applied Math (8%) $2,258
- Joint (2%) $551
- Electrical and Computer Engineering (21%) $5,721
- Systems Engineering (4%) $1,164
- Physics (19%) $5,230
- Service (2%) $485
- Other (12%) $3,210
- Defense (4%) $725

Total Expenditures: $5,238K

By Type of Activity

- Research (61%) $11,893
- Education (12%) $3,233
- Service (2%) $485

By Sponsor

- Navy (61%) $11,893
- Industry (3%) $725
- NSF (5%) $1,432
- Other (4%) $1,202
- Other Fed (2%) $26
- Army (1%) $228
- Air Force (1%) $551
- Defense (3%) $729
- Other (4%) $1,202
- Other Fed (12%) $3,210
- Space Systems Engineering (8%) $2,258
- Mechanical Engineering (14%) $3,843
- Oceanography (27%) $7,322
- Meteorology (6%) $1,631
- Applied Math (8%) $2,258
- Joint (2%) $551
- Electrical and Computer Engineering (21%) $5,721
- Systems Engineering (4%) $1,164
- Physics (19%) $5,230
- Service (2%) $485
- Other (12%) $3,210
- Defense (4%) $729
The research and education institutes were established to utilize knowledge found in the graduate schools to provide focus for interdisciplinary education and research into current and emerging military challenges. The institutes offer or facilitate degree programs, executive education, continuing education, student interaction with senior naval leadership, and opportunities for student thesis and faculty research ranging from basic to applied. The twenty-plus research centers, reporting to the Dean of Research, provide concentrated expertise, normally with an emphasis on application.

The Wayne Meyer Institute for Systems Engineering Analysis provides education and research to military officers and the supporting civilian workforce in systems engineering, analysis, technology, joint professional education, and large-scale experimentation. Recent research has focused on maritime security, and has included studies, wargaming, and field experimentation in areas of maritime security operations, port security, force protection, and maritime-domain awareness.

The Cebrowski Institute for Innovation and Information Superiority sponsors cross-discipline investigations into ways that information processes and technologies, organizational development, and personal skills can strengthen stability, transition operations, crisis response, warfighting, and defense in support of national and global security.

The MOVES Institute investigates modeling, virtual environments, and simulation, with projects in 3D visual simulation, networked VE, computer-generated autonomy, computational cognition, human-performance engineering, immersive technologies, game-based simulation, and combat modeling and analysis.

By Sponsor

- **Navy** (26%) $5,766K
- **Army** (18%) $3,941K
- **Joint** (8%) $1,721K
- **Industry** (1%) $157K
- **Other Fed** (23%) $5,064K
- **NSF** (5%) $989K
- **Air Force** (4%) $790K
- **Defense** (12%) $2,481K
- **Other** (3%) $628K
- **CDTEMS** (4%) $463K
- **Cebrowski** (18%) $2,367K
- **MOVES** (27%) $3,549K
- **Education** (12%) $2,704K
- **Service** (1%) $32K

**Total Expenditures: $21,536K**

By Institute/Center

- **CIRPAS** (21%) $2,782K
- **CDTEMS** (4%) $463K
- **Meyer** (30%) $3,839K
- **Cebrowski** (18%) $2,367K

**By Type of Activity**

- **Research** (87%) $18,800K
- **Education** (12%) $2,704K
- **Service** (1%) $32K

**Additional Research Facts in FY06**

- Eighteen new Cooperative Research and Development Agreements were executed: PerceptiVu, Inc • Juniper Networks, Inc • Qualcomm, Inc • Kestrel Technology Group • MCC Computer Company LLC • Identix, Inc. • Rotomotion LLC • Fortress Technologies, Inc • Redline Communications • Wintec Arrowmaker, Inc. • Mississippi State University • UCSD/Scripps Institute of Oceanography • Raytheon Company • Prosensing, Inc • Applied Visions, Inc • Xslent LLC • San Francisco State University • Colorado State University

- 1,122 degrees were conferred, including:
  - 10 Advanced Degrees (Ph.D., Engineer)
  - 271 Masters of Business Administration
  - 651 Masters of Science
  - 178 Masters of Arts

- Six Space and Naval Warfare Systems Center fellowships were awarded to NPS students.

- Fourteen National Research Council Research Associates were on tenure at NPS.

- Five visiting faculty members from the Engineer and Scientist Exchange program were hosted.

- One new patent was issued.