# INTRODUCTION

## The School

To meet its educational requirements, the Navy has developed a unique academic institution at the Naval Postgraduate School (NPS) through the use of specially tailored academic programs, and a distinctive organization tying academic disciplines to naval and joint warfighting applications.

NPS is an academic institution whose emphasis is on study and research programs that are relevant to the Navy's interests, as well as the interests of other arms of the Department of Defense (DoD). The programs are designed to accommodate the unique requirements of the military, including requirements for Defense Acquisition, and the Program for Joint Education (PJE).

Although the curricula are tailored to address defense requirements, they are developed within the framework of classical academic degrees, meeting the highest academic standards. Each curriculum leads to a master's degree; however, additional study can lead to either an engineer's degree or the doctor's degree. Below is a listing of the degrees offered at NPS:

**MASTER OF ARTS DEGREES**
National Security Affairs
Civil-Military Relations and International Security

**MASTER OF SCIENCE DEGREES**
Aeronautical Engineering
Applied Mathematics
Applied Physics
Applied Science
Astronautical Engineering
Computer Science
Defense Analysis
Electrical Engineering
Engineering Acoustics
Engineering Science
Human Resource Development
Information Technology Management
International Resource Planning and Management
Management
Materials Science and Engineering
Mechanical Engineering
Meteorology
Meteorology and Physical Oceanography
Modeling Virtual Environments and Simulation
Operations Research
Physical Oceanography
Physics
Software Engineering
Space Systems Operations
Systems Engineering
Systems Technology

**ENGINEER DEGREES**
Aeronautical and Astronautical Engineer
Electrical Engineer
Mechanical Engineer

**DOCTOR OF PHILOSOPHY**
Aeronautical and Astronautical Engineering
Applied Mathematics
Applied Physics
Computer Science
Electrical Engineering
Engineering Acoustics
Mechanical Engineering
Meteorology
Operations Research
Physical Oceanography
Physics

**DOCTOR OF ENGINEERING**
Aeronautical and Astronautical Engineering
Engineering Acoustics
Mechanical Engineering

## The Mission

The Naval Postgraduate School was established to serve the advanced educational needs of the Navy. The broad responsibility of the school is reflected in its stated mission:

> Increase the combat effectiveness of U.S. and allied armed forces and enhance the security of the U.S.A. through advanced education and research programs focused on the technical, analytical, and managerial tools needed to confront defense related challenges of the future.

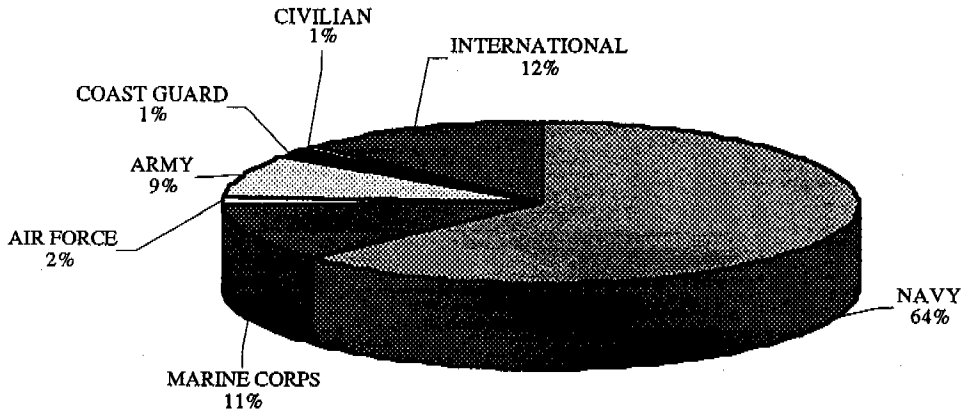
To fulfill its mission, the Naval Postgraduate School strives to sustain excellence in the quality of its instructional programs, to be responsive to technological change and innovation in the Navy, and to prepare officers to introduce and utilize future technologies.

The research program at NPS exists to support the primary mission of graduate education. Research at NPS:

- maintains upper division course content and programs at cutting edge;
- challenges students with creative problem solving experiences on DoD relevant issues;
- advances DoN/DoD technology;
- solves warfare problems; and
- attracts and retains quality faculty.

**The Students**

The student body consists of U.S. officers from all branches of the uniformed services, civilian employees of the federal government and military officers and government civilian employees of other countries. The resident degree/subspecialty student population for academic year 1997 is shown below:




**AY97 Average Enrollment: 1348**

**The Thesis**

The thesis is the capstone achievement of the student's academic endeavor at NPS. Thesis topics address issues from the current needs of the Fleet and Joint Forces to the science and technology that is required to sustain long-term superiority of the Navy/DoD.

Students, with their faculty advisors, provide a very unique capability within the DoD for addressing warfighting problems. This capability is especially important at the present time when technology in general, and information operations in particular, are changing rapidly. Our officers must be able to

think innovatively and have the knowledge and skills that will let them apply technologies that are rapidly being developed in both the commercial and military sectors. Their unique knowledge of operations, when combined with a challenging thesis project which requires them to apply their focused graduate education, is one of the most effective methods for both solving Fleet/Joint Force problems and instilling the life-long capability for applying basic principles to the creative solution of complex problems.