SPACE SYSTEMS

OVERVIEW:

The Space Systems Academic Group (SSAG) was established at the Naval Postgraduate School in 1985 in response to an increasing defense dependence on space systems for navigation, communications, and intelligence gathering. The SSAG is an interdisciplinary association providing direction and guidance for the Space Systems Engineering and Space Systems Operations Curricula. The SSAG relies on faculty and facilities support from the Departments of Aeronautics and Astronautics, Computer Science, Electrical and Computer Engineering, Mathematics, Mechanical Engineering, Meteorology, Oceanography, Operations Research, Physics, and the Information Systems Academic Group.

Ongoing projects within the SSAG provide a space-hardware-oriented environment ideal for students to gain experience in design, development, installation, systems integration, and maintenance of spacecraft and payloads. Officer students are exposed to space-related research projects as well as formal classroom instruction, and are required to complete a space-oriented thesis for the Master of Science degree.

CURRICULA SERVED:

- Space Systems Operations
- Space Systems Engineering

DEGREES GRANTED:

- Master of Science in Space Systems Operations
- Master of Science in Astronautical Engineering
- Master of Science in Electrical Engineering
- Master of Science in Mathematics
- Master of Science in Mechanical Engineering
- Master of Science in Physics

RESEARCH THRUSTS:

- Spacecraft Technology-Small Satellite Design Studies
- Satellite Communications
- Remote Sensing
- Space Warfare
- Computer Memory Technology for Space
- Space Radiation Effects on Microelectronics

RESEARCH CHAIRS:

- Navy Space Technology Program Chair
- Navy Tactical Exploration of National Capabilities (TENCAP) Space Chair
- Space Systems Academic Chair
- NASA Michael J. Smith Space Systems Chair

RESEARCH CENTERS:

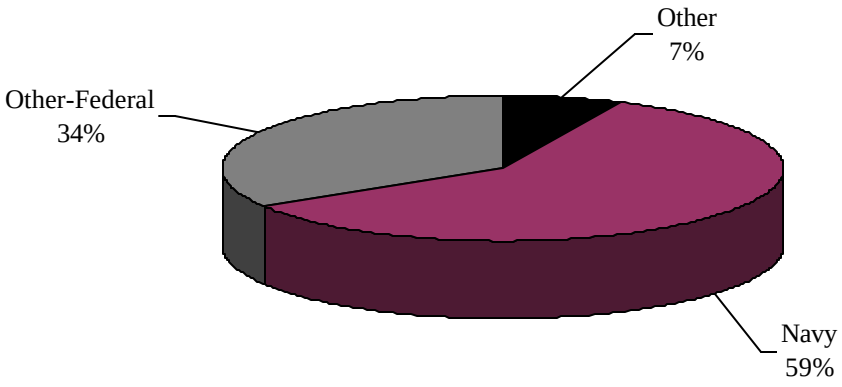
- Research Center for Military Applications for Space
- Spacecraft Research and Design Center
- Center for Reconnaissance Research
- Center for Radiation Hardened Electronics
- Center for Cryptologic Research

RESEARCH FACILITIES:

- Spacecraft Integration and Test Laboratory
- Open Site EMI/EMC Facility
- Satellite Ground Station Facility
- AIS Computing Facility
- Precision Fabrication Facility
- FLTSATCOM Satellite Operations
- Simulation and Test Laboratory
- Spacecraft Attitude Dynamics and Control Laboratory
- Spacecraft Environmental Simulation and Test Laboratory
- Radiation Effects Laboratory

RESEARCH PROGRAM-FY2000:

The Naval Postgraduate School's research program exceeded $43 million in FY2000. Over 93% of the Naval Postgraduate School Research Program is externally funded. A profile of the external research sponsors for the Space Systems Academic Group is provided below along with the size of the FY2000 externally funded program.



Size of Program: $1447K