

CAPACITY AND PREPARATORY REVIEW

WESTERN ASSOCIATION OF SCHOOLS AND COLLEGES

NAVAL POSTGRADUATE SCHOOL



100 YEARS OF RELEVANCE AND EXCELLENCE
EDUCATION AND RESEARCH SERVING NATIONAL SECURITY

CAPACITY AND PREPARATORY REVIEW

DECEMBER 2008



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100 YEARS OF RELEVANCE AND EXCELLENCE:
EDUCATION AND RESEARCH SERVING NATIONAL SECURITY

MISSION

NPS provides high-quality, relevant and unique advanced education and research programs that increase the combat effectiveness of the Naval Services, other Armed Forces of the U.S. and our partners, to enhance our national security. [CFR 1.1]

VISION

As a naval/defense-oriented research university, the Naval Postgraduate School will operate as a geographically distributed educational system that provides a broad range of high-quality graduate education in support of national and international security. [CFR 1.1]

CAPACITY AND PREPARATORY REVIEW

Submitted to The Senior Commission of the Western Association for Schools and Colleges

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I. PREFACE: NPS DESCRIPTION

The Naval Postgraduate School (NPS), considered the research university of the Navy, is an institution dedicated to providing relevant education and research to the defense and security arenas, recognizing and innovatively solving problems in support of U.S. military forces, global partners and national security. While many civilian universities provide graduate education, few are dedicated to providing substantial national security-related graduate educational programs for military officers, as well as federal, state and local government civilian employees and contractors. The Naval Postgraduate School is such a place. [CFR 1.1, 1.2]

At NPS, four graduate Schools oversee 14 academic departments supporting more than 42 master's and 18 doctoral degree programs. In addition to 1,600 resident students, including more than 200 international students, NPS serves approximately 700 distributed learning students worldwide. [CFR 1.5] Approximately 200-300 students pursue post-baccalaureate certificates. Four Institutes, multiple secure research facilities and 26 Centers of Excellence add to the wealth of intellectual resources. NPS delivers non-resident courses to students through online, web-enabled, video-tele-education (VTE) systems and/or by visiting faculty. Continuous learning, refresher and transitional educational opportunities abound. NPS also offers short-term, executive education courses and a variety of short courses in Monterey, throughout the U.S., and abroad. [CFR 1.2]

Students in residence at NPS are typically officers in one of the armed forces of the United States or civilian employees of the Department of Defense. Additionally, a substantial international student population includes military officers and defense civilians. Civilian personnel from state and local government organizations are also educated through the distributed learning programs. [CFR 1.5]

The NPS faculty is comprised of approximately 600 scholars and professionals, 10 percent of whom are military officers and half of whom are either tenured or tenure-track faculty. [CFR 3.1] To strengthen expertise and

program relevance, and to expedite research successes at NPS, a robust mix of tenured faculty, research faculty, lecturers and visiting professionals integrate teaching with research, demonstrating the immediate applicability of scholarly solutions to defense-related problems. [CFR 3.2, 3.3]

Approximately 400 staff, directly employed by NPS, provide support for both the academic and administrative functions of the School. This workforce is supplemented by contractors and other Department of Defense (DoD) employees. Staff provides a wealth of functions ranging from office, budget and purchasing to laboratory assistance to maintenance to counseling, registration and student services. [CFR 3.1]

The NPS Board of Advisors, an 18-member federal advisory committee, provides guidance and reports to the Secretary of the Navy, the Chief of Naval Operations, and the Commandant of the Marine Corps on matters pertaining to NPS and its graduate education and research programs. (1, 2)

II. INTRODUCTION: CPR PREPARATION PROCESS

The Naval Postgraduate School began preparing for the WASC accreditation review in 2006 when the School submitted its Institutional Proposal. WASC approved the proposal on December 12, 2006. (3) Since that time, NPS has made significant advances in preparing for both the Capacity and Preparatory Review and the Educational Effectiveness Review.

Established in the summer of 2006, the NPS WASC Steering Committee meets monthly to oversee the work on accreditation. (4) The committee is co-chaired by Dr. Douglas Moses, Vice Provost for Academic Affairs, and Dr. Robert Dell, Professor and Chair of Operations Research. Representatives from each of the Schools, Research, the Faculty Council, all major administrative areas and the Student Council are included in the Steering Committee. (5)

To ensure a timely progression through the accreditation process, the Capacity and Preparatory Review Task Force took the following steps:

1. April 2007:

A Learning Assessment Task Force (LATF) was formed by the NPS WASC Steering Committee to evaluate the status of learning assessment practices on the campus, including an initial review of best assessment practices. (6, 7)

2. October 2007:

The LATF reported its findings and recommendations to the Steering Committee. (8)

3. January 2008:

The NPS WASC Steering Committee appointed the Capacity and Preparatory Review (CPR) Task Force, chaired by Ms. Eleanor Uhlinger, University Librarian. The Task Force consists of the Vice Provost for Academic Affairs and representatives from the chief administrative areas: Information Resources, Human Resources, Research, Comptroller, and Institutional Research. The Task Force has met biweekly to collect and review data, and to draft the CPR report.

4. January 2008:

The NPS WASC Steering Committee appointed an ad hoc Educational Effectiveness (EE) Committee. The EE Committee is chaired by Dr. Douglas Moses, Vice Provost for Academic Affairs, and consists of faculty representatives from each graduate School, a staff specialist in faculty development, and a representative from Institutional Research. (9)

5. March 2008:

The CPR Task Force reviewed all recommendations from the 1999 WASC Commission letter and identified all necessary actions. (10)

6. April 2008:

A review of NPS written policies, procedures and regulations was conducted by the CPR Task Force to ensure that the documents are current and complete. At NPS, official policies are issued as Instructions from the Department of Defense (DoD) and the Department of the Navy (DoN) and from the campus itself. (11,12, 13)

7. June 2008:

An Academic Policies Survey was distributed to Deans and Chairs to secure complete documentation on policies and practices in the areas of faculty development, academic program review and student learning outcomes assessment. (14)

8. August 2008:

The first draft of the CPR report was distributed to the university community. In addition to the Strategic Planning Council, every administrative and faculty committee, as well as students, staff, and individual faculty, were invited to provide comments and feedback.

9. September 2008:

A second draft of the CPR Report was produced and circulated campus-wide for further feedback.

10. October 2008:

The final version of the CPR Report was distributed to the Board of Advisors at their October meeting.

In addition to these steps, the WASC process was communicated through the following venues:

- a. Presentations to the Faculty Council, Executive Board of the Faculty Council, Executive Council, Deans and Chairs, Student Council, Provost's Council and Strategic Planning Council
- b. Articles in the campus newspaper (*Update NPS*) and quarterly magazine (*In Review*) (15,16)
- c. A WASC website, located on the Intranet home page, which was developed in 2006 and updated regularly

The document that follows presents the NPS self-study as it relates to the capacity to deliver quality graduate education. The following sections detail the substantial changes that have occurred at NPS since the last accreditation visit in 1999, followed by a general overview of NPS's adherence to the four WASC standards through the Criteria for Review. The last section of the report focuses specifically on the three themes selected by NPS as they relate to capacity:

- ♦ **Theme One:**
Strategic planning for the next centennial
- ♦ **Theme Two:**
Integrating a campus-wide program of improvements
- ♦ **Theme Three:**
Supporting an evolving academic enterprise

III. CHANGES IN CONTEXT

Since the last accreditation visit in 1999, significant changes have occurred in the areas of governance, academic programs, finances and facilities at the Naval Postgraduate School.

GOVERNANCE

- **Board of Advisors**

In response to the WASC recommendations of 1999, the Board of Advisors has increased its involvement in the institution. With strong leadership in its Chair, VADM (ret.) Lee Gunn, the NPS Board of Advisors meets twice a year and is more involved with NPS's direction, particularly the four major goals documented in the NPS strategic plan: *Vision for a New Century*. (17) [CFR 1.3, 3.9]

- **School Structure**

In 2001, NPS underwent a major structural reorganization when its departments, which were loosely organized into divisions, were grouped according to academic disciplines into four separate graduate Schools. NPS now houses the Graduate Schools of Engineering and Applied Sciences, Operational and Information Sciences, Business and Public Policy, and International Studies. [CFR 1.2, 1.6]

- **Air Force Institute of Technology (AFIT) Collaboration and Relationship**

In 2002, the Secretary of the Navy and the Secretary of the Air Force signed a Memorandum of Agreement (MOA) forming an educational alliance between the services. The Alliance purpose was to ensure that NPS and AFIT meet the advanced education requirements of the Armed Forces of the United States. The MOA served as a basis to eliminate unnecessary duplication and to identify efficiencies between the two schools. As a result, the Meteorology and Acquisition Degree programs moved from AFIT to NPS, and Aeronautical Engineering moved from NPS to AFIT. In 2004, AFIT and NPS developed a

Memorandum of Understanding (MOU) to identify additional areas that support education and research collaboration. The MOU set up collaborative groups in the academic areas of Meteorology, Acquisition, Space, and Aeronautical Engineering. The groups met periodically to review these programs and made recommendations to the respective Boards. Working groups were also established in administrative areas including admissions and registrar, public affairs and resource marketing, financial affairs, and research. These working groups identified and completed 25 specific action items, resulting in streamlined processes and shared information that has increased the efficiency of both institutions. In 2008, an updated version of the MOU will ensure continued improvement of the alliance through the collaboration of faculty and staff members. (18, 19) [CFR 3.10, 4.1, 4.6]

- **Leadership**

At the time of NPS's last WASC accreditation review, the Secretary of the Navy appointed an active-duty officer, usually an admiral of the U.S. Navy, as the NPS Superintendent for a period of about two years. In 2006, legislation outlining the requirements of NPS leadership was changed to permit the former Superintendent position to be renamed President, be held by a civilian, and subject to a five-year term with the possibility of one renewal. (20) In April 2007, Daniel Oliver, a retired Vice Admiral, was appointed as NPS's first civilian president, allowing a new level of stability for NPS. [CFR 3.10]

- **GERB**

During the NPS accreditation review in 1999, the Graduate Education Review Board (GERB) was a significant influence on NPS programs. While not directly involved with the policies or daily activities at NPS, the GERB acted at the direction of the Secretary of the Navy to ensure that the various graduate programs sponsored by the Navy provided

sufficient educational opportunities for its officers and maintained a workforce with appropriate levels of graduate experience. At the time that NPS submitted its Institutional Proposal to WASC in the fall of 2006, the GERB had disbanded; however, in 2008, the Secretary of the Navy and Chief of Naval Operations re-instated the GERB to help facilitate the development of a strong and educated officer corps. (21)

- ♦ **Administrative Structure**

In 2007, the Provost initiated a review of the administrative and executive organizational structure, including analysis by an outside consulting firm. As a result, NPS has adopted an administrative structure similar to that of other research universities. This process is detailed in section IV of this document, under Theme Three. (22)

ACADEMIC PROGRAMS, STUDENTS AND FACULTY

Over the past 10 years, there have been a number of changes in the academic programs:

- ♦ **Distributed Learning (DL)**

Like many universities, NPS increased and expanded the delivery of curricula through modes other than resident, on-campus settings. Since 1999, 13 DL curricula have been added, serving a total of over 700 DL degree students. Unlike other universities, NPS delivers its degree and certificate curricula across a broad geographical spectrum including not only the entire U.S. and other countries, but also aboard naval ships in fleet concentration areas throughout the world, which requires significant technological accommodation and coordination. [CFR 2.1, 2.11, 3.6, 3.7]

- ♦ **Program Mix**

NPS's historic educational focus has been primarily on master's-level degree programs. From that base, NPS has expanded its program offerings in three

directions: doctoral-level education, graduate-level certificates, and not-for-credit education in the form of professional development, management development or executive education short-course programs. Most notable in this group are the first degree and certificate programs in Homeland Security, created in conjunction with the Department of Homeland Security.

- ♦ **Geographical Expansion**

In 2007, NPS expanded its physical presence in the Washington, D.C. area (the National Capital Region) with a program in Homeland Security (approved by WASC as a sub-change August 16, 2007). (23) NPS has long held VTE courses at sites in San Diego, California, and Norfolk, Virginia. These two sites, and others, are now being explored for possible on-site educational programs with faculty in-residence, initially with an emphasis on Systems Engineering. Appropriate application to WASC for sub-change review will be submitted as needed. A new research presence in Port Hueneme, California, the Center for Asymmetric Warfare, provides training, technology testing and evaluation for developing tactics, techniques and the effects of asymmetric warfare. These sites provide a greater expansion of NPS programs where there are concentrations of potential sponsors and students, while presenting the challenges of coordinating distributed operations.

- ♦ **Curricular Domains**

Since the 1999 accreditation visit, NPS has developed a number of new curricula in response to the needs of the Departments of Defense and the Navy, and in support of the national security needs of the United States. Examples of these curricula include Mechanical Engineering for Nuclear Trained Officers, Electronic Systems Engineering, Homeland Security, Human Systems Integration, and Executive Management. [CFR 2.2]

In the years since the last accreditation, the make-up of the student body has changed in important ways. In the mid 1990s, approximately 65 percent of resident students were naval officers. Naval officers now comprise just 45 percent of the students in residence at the Monterey campus. NPS now hosts a diverse mix of students from all the U.S. military services, as well as civilians from defense and other government agencies, and international officers. [CFR 1.5]

The past decade has also seen changes in the characteristics of the NPS faculty, with resulting impacts on the academic programs and their delivery. In particular, the composition of the faculty has significantly shifted over time with respect to numbers of practitioners vs. academics. A primary driver for the programs at NPS is the need to maintain relevance in support of the needs of the national security community. Changes in the world's political and defense situations occur rapidly, and require the latest in support and response from the programs at NPS. Officers with field experience (practitioners) provide real-life information and relevance to NPS academic programs. At the same time, the increase in doctoral programs requires strength in academic faculty dedicated to basic research. NPS strives to maintain the right balance of faculty to ensure excellence in both the more practically oriented master's degree and certificate programs and the theoretical research focus of its doctoral areas. [CFR 3.1, 3.2]

FISCAL RESOURCES

Since 1999, there has been a significant growth in funding. In addition, the source of funding has shifted from Navy-only to increasingly non-Navy; there has been a faster increase in sponsored programs for education than for research; core research is focused more on consulting; and there is an entrepreneurial thrust to seeking additional sponsorship of educational programs and research. [CFR 3.5]

♦ **Income Growth**

In terms of dollars, NPS income grew from \$110 million in 1999, to \$309 million in 2008. The fiscal year ending September 30, 2008, was over \$338 million.

♦ **Revenue Sources**

Broadly, NPS has 2 sources of funds: direct resources from the Navy based on its historical mission and reimbursable resources from a wide range of military, governmental and commercial organizations that provide sponsorship for specified education, research programs and projects. NPS has evolved from 40 percent direct Navy funds and 60 percent reimbursed funds in 1999, to 30 percent direct Navy funds and 70 percent reimbursed funds in 2008.

♦ **Sponsored Activities**

There has been considerable growth in NPS sponsored activities (340 percent since 1999). Sponsored activities include traditional basic and fundamental research, applied research, as well as educational and outreach programs. Approximately 26 percent of the activities in 2008 focused on educational or outreach programs, signaling a considerable shift from the traditional research activity. Sponsorship has shifted from primarily the Department of Defense to other federal agencies (most notably Department of Homeland Security) and NPS has an increasing number of funded relationships with non-government activities (industry, state and local government).

INFORMATION RESOURCES

The Information Technology and Communication Services (ITACS) division provides central support for voice, video, and data infrastructure and services. As the numbers of students and complexity of curricula and research has increased, data infrastructure has also increased. This includes support for a core gigabit network

for the .edu network (planned for a 10-gigabit upgrade in FY2009), but also support for six other communications networks on campus (.mil, High Performance Research, public guest access, PacBell Research, legacy wireless, lightweight access point wireless) and two classified networks. [CFR 3.6, 3.7]

- ♦ **Internet**

The Naval Postgraduate School has access to the Internet through the Defense Research and Engineering Network (DREN) and Cal-REN (California Research and Education Network). Through Cal-REN, NPS has access to Internet2 and other high-speed global networks. Remote network access is supported, as well as robust wireless capability.

- ♦ **Distributed Learning**

Both resident and non-resident curricula are supported through technology infrastructure and services. Synchronous collaboration tools are supported, as are video-tele-education classrooms and services. Streaming media services permit capture of classroom content and large-scale storage capabilities make that content available to students on demand.

- ♦ **Research Support**

High Performance Computing (HPC) includes nearly 15 teraflops of processing power on campus and support for access to other HPC centers around the country. Visualization and graphical capabilities at the 4K level are being developed now.

PHYSICAL RESOURCES

In 2004, a significant reorganization took place within the Navy concerning support. The Navy centralized ownership and responsibility for the land and buildings to Commander Naval Installations Command (CNIC), which established separate regional commands throughout the world in order to further coordinate 'landlord type activities' through respective installation commands.

This was an effort to both standardize support across all Navy bases and to find the greatest cost efficiencies. The installation command is responsible for providing all base operations for its tenants, including: real estate, facilities, public works, environmental, security, safety, recreational, lodging, food and beverage, Fleet and Family Support, and housing. Naval Facilities Command (NAVFAC) has further centralized their command to provide a better support partnership with CNIC. NPS is now a tenant to a separate Navy command organization. Since this change, NPS has experienced an increase of \$2 million to \$5 million of annual funding, with a significant increase in large-scale repair projects and infrastructure support, in order to provide an expanding academic enterprise. [CFR 3.5] Major construction projects include:

- ♦ Development of a centralized SCIF (Sensitive Compartmented Information Facility) in the basement of Glasgow Hall
- ♦ Complete renovation of Bullard Hall, home of the Space Systems Academic Group
- ♦ Renovation of Herrmann Hall basement and conversion to the Dean of Students, International Program Office, and the Student Services area
- ♦ Construction of a new Fitness Center
- ♦ Construction of the final wing to Mechanical Engineering building (Watkins Hall)
- ♦ Construction of Glasgow Wing East, 35,000 sq. ft. of state-of-the-art classrooms, offices, and conference rooms to house the growing Computer Science Department and the Cebrowski Institute
- ♦ A \$32M renovation of the historic Herrmann Hall wings converted administrative spaces into short-term on-campus housing, and visitors' quarters, and resulted in national acclaim from the National Trust for Historic Preservation
- ♦ Renovation of Halligan Hall, home of the Research Office, the Naval War College and the Defense Resources Management Institute

- Replacement of the central steam system including new efficient boilers
- Construction of Glasgow Wing West, an additional 10,000 sq. ft. facility
- Renovation of laboratories supporting engineering programs
- A \$1.4 million remodel of the Dudley Knox Library created and upgraded student study spaces and separated quiet areas from high-activity zones. Many of the Library's 19 group collaboratories and 3 conference rooms (in public and classified areas) were technology enabled with AV projection, plasma displays, and sound systems to promote and facilitate interactive student collaboration
- Current projects include: the complete renovation of Ingersoll Hall, as well as an Unmanned Systems Center in Halligan Hall, and a Free Electron Laser (FEL) Facility at the Golf Course lab area. The FEL facility will provide instructional and research support for modeling and simulation from basic FEL physics to systems design and increase ongoing collaboration with Stanford University, Naval Research Laboratory, Los Alamos National Laboratory, Lawrence Berkeley National Laboratory, Jefferson Laboratory, and the University of Maryland.

IV. GENERAL RESULTS OF SELF-STUDY RELATED TO FOUR STANDARDS AND CRITERIA FOR REVIEW

STANDARD 1: DEFINING INSTITUTIONAL PURPOSES AND ENSURING EDUCATIONAL OBJECTIVES

Institutional Purpose and Educational Integrity

The mission and the vision guide all strategic planning and decision-making processes at the Naval Postgraduate School. Both institutional capacity and educational effectiveness are measured against the backdrop of the NPS mission and vision, which serve as the basis for development and review of curriculum as well as its business practices and processes. For example, proposed curricula are reviewed, approved and funded based on the fit with mission and vision. The move to develop a substantial distributed learning program in both master's and certificates was based on the vision. [CFR 1.1, 1.2, 1.3]

Since its inception as a graduate school for the Department of the Navy in 1909, NPS has been in a unique position to provide postgraduate education in academic areas clearly supporting defense and national security. Faculty, staff and students are aware of the mission of the Naval Postgraduate School because of its immediacy to operational readiness and the service that NPS provides to all Armed Forces, our global partners, the Department of Defense and the Department of the Navy. All education and research conducted at the Naval Postgraduate School is focused on the enhancement of national security. [CFR 1.2]

At the same time, NPS is committed to academic freedom and the ability of faculty to publish and disseminate their research, as stated in the Faculty Handbook. (24) It is a hallmark of NPS faculty that they seek collaboration and multi-disciplinary research, not just across the campus, but also throughout the world. This can be seen in our many partnerships — with North Atlantic Treaty Organization (NATO) countries, as a Partnership for Peace education and training center, the distribution of

Homeland Security curricula to universities all over the U.S., and more. [CFR 1.4]

The faculty controls the planning, delivery and oversight of all curricula. Curriculum committees are found in the departments, and the Academic Council oversees final approval of new programs. Each degree awarded is also reviewed and approved by the Academic Council. Policies affecting faculty are clearly set forth in the Faculty Handbook and the Policy Regarding Appointment, Promotion, Salary, and Tenure of Office. (25) [CFR 2.4]

NPS is working diligently to operate in a more efficient and effective manner, having identified operational support both as a main WASC theme and a goal of the new strategic plan. Efforts have been underway to review functional processes, identify best practices and implement recommendations, which will result in more accountability and transparency in operations. Theme Three further highlights the importance that NPS places on its operational and institutional integrity, recognizing it as an ongoing process that takes precedence in the planning, assessment, and review cycle. [CFR 4.1, 4.2]

Diversity in faculty, staff and student populations is an area that the campus is striving to better understand and document. The academic disciplines that make up NPS were traditionally male-dominated. Over the past 10 years, however, departments and Schools have made increased gender diversity a priority in hiring. As a result, the faculty has gone from 12 percent female in 2000, to 18 percent female in 2007. Ethnic and cultural diversity among the faculty was made somewhat more problematic in the post-9/11 environment with the temporary elimination of the hiring of international faculty. That restriction was lifted and cultural diversity is expected to increase in faculty hiring, and efforts toward that goal are being strengthened. [CFR 1.5]

The NPS staff has become more diverse over time, with 54 percent females in 2007, up from 45 percent in 2000,

and 48 percent minorities in 2007, up from 33 percent in 2000. In addition, there have been shifts in the numbers of staff directly employed by NPS. Decreases have occurred for several reasons including regionalization of some functional areas and the use of contracts to hire qualified staff more quickly than possible through standard federal employment mechanisms.

One of the distinctive features that sets NPS apart from nearly all other institutions is that officers of all U.S. armed services and the armed services of many other countries come together in NPS classrooms and laboratories. The student body reflects the diversity of the military populations from which they are drawn. Graduates of NPS report that diversity in service, culture and ethnicity greatly enhanced their educational experience. NPS continues to build international programs with other institutions, such as the University of Singapore, the Korean National Defense University and the German-Jordanian University's Talal Abu-Ghazaleh College of Business. [CFR 1.5]

STANDARD 2: ACHIEVING EDUCATIONAL OBJECTIVES THROUGH CORE FUNCTIONS

Teaching and Learning

The Naval Postgraduate School is committed to providing its resident, international, distributed learning and government civilian students with an environment that reflects NPS's academic standards of excellence. To achieve this goal, the Naval Postgraduate School employs nearly 600 faculty, all of whom have a Ph.D., terminal degree and/or demonstrated expertise in their particular fields. [CFR 2.1]

There are currently 52 resident curricula leading to master's and doctoral degrees; 13 non-resident curricula leading to master's degrees; and 14 certificate curricula. These curricula originate when a need for military officers educated in a particular discipline is identified. Aca-

demetic degrees may be granted within the framework of a curriculum. For example, a Masters of Mechanical Engineering may be earned within the curricula of Undersea Warfare or Space Systems Engineering or a number of other curricula. (26) Generally, when a curriculum is designed, a set of learning objectives, the Educational Skill Requirements (ESRs), is identified. The learning objectives of each curricula are found in the online academic catalog, updated each quarter. The curricular review process, described in detail under Theme Two, is a periodic evaluation by faculty as well as senior military officers to determine the continuing relevance of the content. The Academic Program Review process, also described under Theme Two, evaluates each program for academic rigor, currency of subject matter, and adequacy of resources provided. Since students come to NPS not from undergraduate education, but directly from military service, refresher courses are provided to update key skill and knowledge sets before graduate-level work commences. [CFR 2.2, 2.3, 2.4, 2.5, 2.6]

Survey results from graduating students show that 95 percent had active interaction with and access to NPS professors, from course studies to thesis/capstone projects, and that this is one of the most valuable benefits of securing an education at NPS. (27) Teaching assistants rarely teach classes; NPS students are taught directly by the faculty, who are experts in their field. Because of the interaction between NPS and the local higher education and research community, students can also work together with scholars from the Fleet Numerical Meteorology and Oceanography Center, Monterey Institute of International Studies, the Naval Research Laboratory and more.

Scholarship and Creative Activity

NPS strives to support and encourage the creative and scholarly activities of its faculty, recognizing the importance of research in the Promotion and Tenure process.

The NPS faculty is involved in a wide range of scholarly activities beyond the classroom and the confines of their research laboratories, writing and publishing in peer-reviewed journals as well as producing patents, books and book chapters, and contributions to proceedings of professional societies. The faculty is active in national and international professional associations, and NPS faculty members belong to various national academies. Because of NPS's position within the Department of Defense, NPS faculty members are frequently called to the nation's capital to brief Congress, military officials, and the Executive Branch, including the President of the U.S. Likewise, faculty travel abroad to serve on visiting task forces and provide professional consultative services to allied nations. Members of the NPS faculty are frequently interviewed by global media because of their relevant and highly focused insight on the many issues facing the U.S. in a global environment. [CFR 2.8]

NPS provides funding to new tenure-track faculty during their first two years. Titled the Research Initiation Program (RIP), funding is provided for release time as well as equipment, supplies and travel to assist new faculty in establishing or transitioning to a research program supportive of the NPS graduate education mission. Since 2000, RIP has increased from supporting 7 faculty at a funding level of \$0.4 million, to 29 faculty supported in 2008 at a level of \$2.5 million. [CFR 2.9]

As a graduate university, professionally active faculty members are expected to extend their scholarship directly into their classrooms and research areas—providing an integrated approach to teaching that is more effective and relevant as it relates current issues to national security; therefore, scholars at NPS are actively engaged in service to the DoD through advisory boards or Integrated Project Teams. Many NPS faculty serve on National Academy of Sciences panels, and as advisors and mentors for the National Research Council, American Society for Engineering Education, and Engineer and Science Exchange.

NPS faculty members are active in their discipline societies and can often be found as organizing members for national and international conferences. While the majority of NPS-sponsored activity is for the DoD (66 percent), NPS faculty members are also successful in competitive awards from agencies such as the National Science Foundation. Collaborative research with non-government activities (industry, universities, and state governments) has increased ten-fold in recent years. [CFR 2.9]

While the Naval Postgraduate School has four graduate Schools as the supporting pillars, three institutes were established in 2001 to integrate research and learning within a multi-disciplinary focus. The initial three institutes focused on systems engineering; information superiority and innovation; and modeling and simulation. A fourth institute, formed in 2007 with partners Lawrence Livermore National Laboratory and the University of California Santa Barbara, focuses on research and education in support of national security and homeland security. NPS also hosts 26 Centers of Excellence ranging from Information Operations to Remotely Piloted Aircraft. [CFR 2.8]

Support for Student Learning

A broad range of support services to assist students with their academic programs is provided through the department and program offices across the campus. Additional offices are dedicated to the special needs of military, international and graduate students. Staff assistance is described below [CFR 2.12, 2.13]:

- ♦ **Research and Sponsored Programs Office**

The Research and Sponsored Programs Office (RSPO) provides direct support to students as they are conducting their research through:

- facilitation of a student research fellowship program
- provision of travel funding to support thesis research or conference travel (if student does not have support from a faculty Principal Investigator)

- assistance to all resident and non-resident students on achieving a publishable thesis
- provision of thesis editors for all international students and editor referrals for U.S. students
- creation of a writing center to assist students and improve written and oral communication and presentation skills. [CFR 2.13]

♦ **The International Graduate Program Office (IGPO)**

The IGPO at NPS serves as an integral link in establishing long-term, military-to-military relationships between U.S. and international officers. The IGPO is responsible for cultural, social and academic integration of the international military students and their families. IGPO staff provides information and assistance daily on a wide variety of issues and activities, ranging from medical and dental, housing, DMV, Social Security registration, income verifications, technical assistance for visa/passport renewals, ID card applications, furniture loan program, textbooks, thesis formatting and editing assistance, and English as a Second Language support. [CFR 2.13]

♦ **Student Services**

The Office of Student Services facilitates all military administrative processes and ensures that proper documentation, leave processing, promotions, etc. are carried out. Student Services provides initial student orientation and ensures a smooth transition from various duty assignments to the campus environment. Student Services assists with housing, medical issues, family advocacy issues and other areas, allowing students to concentrate primarily on their education and research. [CFR 2.11, 2.12]

To monitor and improve services in all areas, a set of student needs and satisfaction surveys have been developed. The first of these, the Graduating Student Survey, has been administered quarterly for nearly two years.

(27) The New Student Survey is due to be initiated in the first quarter of Academic Year 2009. (28) The Mid-Term Student Survey is currently under construction. (29) Students developed these last two surveys as part of a survey research course in conjunction with the Office of Institutional Research. A report series on these surveys is also currently under construction. [CFR 4.5]

Because students come to NPS primarily for graduate degrees, students participate in a rigorous and active research community. A thesis or capstone project is required to earn the graduate degree and, in keeping with its mission, student research is relevant to the defense and security arenas. In the graduating student survey, 85 percent of students see completion of the thesis or capstone project as a valuable part of their education, and 75 percent think their thesis or capstone project made a valuable contribution to a national security need. (27)

The Dudley Knox Library provides a unique combination of print and online resources and patron services that directly support the research and instructional needs of NPS students, faculty, and staff. The Library does this in both “public” as well as “classified” subject areas with a focus on 24/7 access to current and archival journals and databases. More than 85 percent of the library content is available online because, wherever possible, the Library leverages limited dollars into consortial licenses with other Department of the Navy, Department of Defense and federal libraries. Successful partnerships with campus constituents such as ITACS and the Office of Continuous Learning (OCL) also expand the reach of campus investments in systems and access to content and technology, which focus on providing a robust, information-rich environment that promotes distributed, lifelong learning. [CFR 2.13, 3.6]

Library instruction programs address the multi-cultural and multi-lingual requirements that adult learners face when they return to graduate school after years in the workforce. In 2007 alone, the Library reached more

than 2,600 students through 168 instructional sessions (“public” and “classified” versions) covering such topics as “Thesis Quick Start,” “Searching the Invisible or Deep Web,” or topical presentations like “DTIC’s STINET (Defense Technical Information Center’s Scientific and Technical Information Network).” Librarians are active participants in all aspects of the NPS student life—resident and distant, instruction and research. Librarians are invited into the classroom to talk about specific resources supporting individual curricular programs; offer general sessions in the Library; and reach distance learners in person (by traveling to the course site), via online tools and VTE, as well as through recorded sessions and presentations streamed from the Library website. The Library is fully vested in providing content, instruction, and services that meet the needs of students anywhere, anytime. [CFR 2.13, 3.6]

Information Technology and Communications Services (ITACS) provides support for student learning in education and research experience through a variety of technology and communication resources. These include support for nearly 800 software packages and technology tools, as well as support for 80 classrooms, 18 Learning Resource Centers, 7 conference rooms, 10 scheduled labs, 6 library collaboration spaces, and 5 large venue facilities. Direct support of 7 VTE classrooms is provided; this includes approximately 50 courses per quarter including more than 50 distant geographic sites. Approximately 120 hours of instructional content per week is captured and made available to students on demand. Streaming media capabilities also permit video capture of special events on campus (e.g., guest lectures, public events, etc.). The classrooms and laboratories are supported through an annual Educational Technology Inventory and Life Cycle Management Plan. (30, 31) [CFR 2.13, 3.6]

Support for student education and research is provided through the Technology Assistance Center, a help desk established by ITACS to respond to constituent needs.

ITACS also sponsors a series of short courses, with topics and agendas developed based on user requests. [CFR 2.13, 3.6]

An important component of graduate education and research in a research university involves high-speed network access and access to global educational resources. Maintaining Internet access through Cal-REN, the state’s higher education network, ensures state-of-the-art linkages with resources around the world. The special nature of research at NPS also requires the support of classified networks and technical resources. Use of High Performance Computing (HPC) is growing on campus, and support for access to those resources is increasing, both on campus and at other HPC sites around the country. NPS researchers and staff are engaged in a project with University of California campuses at Los Angeles and Santa Barbara to build a grid environment, permitting seamless sharing of HPC resources. The cornerstone of ITACS services is in its partnerships; these include partnerships with academic departments, the Office of Continuous Learning, the Dudley Knox Library, industry, and other universities, laboratories and federal and international organizations. [CFR 3.6, 3.7]

The Information Technology Plan provides a five-year framework for technology and services planning. (32) The IT Task Force, a broadly representative group of faculty, staff and students provides user input and feedback on all policies and practices considered for adoption by NPS. (33)

STANDARD 3: DEVELOPING AND APPLYING RESOURCES AND ORGANIZATIONAL STRUCTURES TO ENSURE SUSTAINABILITY

Faculty and Staff

Being responsible stewards of the Naval Postgraduate School’s fiscal, physical, human and information resources is the foundation that allows NPS to meet its

strategic goals and advance its mission. The foundation of all successful functions of NPS rests with a highly qualified faculty and staff. Recruitment and retention of both have become a primary focus for the institution. The Human Resources Office at NPS administers the hiring of staff and faculty. Potential faculty candidates are vetted through the recruitment and hiring process as set forth in the Faculty Handbook. (24) Qualified prospective staff members are referred through the Department of Navy civilian hiring and recruitment online system. All applicants are subject to interviews, often by a committee. The Human Resources Office also provides orientation for all new staff members. (34) [CFR 3.1, 3.2, 3.3]

Acknowledging that graduate programs in particular require a high level of faculty support, NPS has increased the number of faculty from 464 in 2002, to 606 in 2007 as its research and educational areas have expanded. The student to faculty ratio is 9.5:1, which compares favorably to other research institutions (e.g., the UC Berkeley ratio is 10:1). [CFR 3.2]

NPS has a rigorous faculty recruitment process. Advertisements are widely disseminated in major national publications, as well as discipline-specific publications and media. Every effort is made to recruit from as diverse a candidate pool as possible. Particular attention is given to coordinate the timing of searches with key professional association meetings in order to reach the broadest possible candidate pool. Search committees typically identify targets of opportunity and invite highly qualified candidates to apply. Likewise, NPS has a system for confirming appointments and reappointments to key positions, such as Department Chair and Dean. Some professional staff positions also undergo national searches to find the most highly qualified candidates available. The policies regarding appointment, promotion and tenure can be found in the Policy Regarding Appointment, Promotion, Salary, and Tenure of Office. (25) [CFR 3.3]

Accordingly, substantial attention is given to helping new faculty and rewarding more experienced faculty. The Research Initiation Program helps new tenure-track faculty establish research programs within the DoD. In 2006, 40 faculty received a combined total of \$2.8 million; in 2007, 35 faculty received \$2.2 million; and in 2008, 29 faculty received \$2.5 million. [CFR 3.4]

In 2007, the Staff Development Advisory Committee (SDAC) was formed to provide a framework for career and professional development opportunities. (35) One of the first activities was a staff survey regarding development needs, followed by focus groups and interviews. As a result of the data collection effort, recommendations to the President included: 1) a need for stronger orientation programs, 2) more training opportunities, 3) better communication about advancement opportunities and 4) funding for training. (36)

Fiscal, Physical and Information Resources Accountability and Resource Management

NPS continues to be financially stable, operating with appropriate internal and external budgetary controls and oversight. Financial strength is the result of a responsible planning and review process that involves faculty and administrators. NPS aggressively seeks to strengthen and increase its financial base and pursue the resources necessary to achieve its mission and to develop business models that enhance its stakeholders' return on investment. Revenue from tuition and other non-governmental sources increases annually. [CFR 3.5]

The NPS operating budget provided by the Navy, which supports the teaching mission and academic support structures, was \$102,646,000 for the fiscal year ending September 30, 2008. The total annual funding, including reimbursable research and other federal and non-federal sponsored programs, was \$338 million. It is important to note that NPS has strong sponsorship for funded research. In the fiscal year ending September 30, 2008, NPS

faculty brought in over \$175 million in sponsored activities. [CFR 3.5]

NPS is investing strategically in its classrooms, laboratories, library and technology. Operational plans support the strategic goals, and NPS is making investments and decisions that are aligned with institutional mission and vision. As an institution, NPS will monitor its performance and report to its community of stakeholders, which will allow those who invest in NPS to capitalize on their investment. [CFR 3.5, 4.2]

For example, the campus recently underwent a comprehensive revamping of the budget process, including a change in the funding model for determining the academic budgets provided to the Schools and Departments. The major change is a shift in orientation, from a model resourcing the academic units principally for teaching activity to a model that is based on funding of faculty for a nine-month academic year, consistent with other research universities. In the past, the budgeting process has been relatively informal and reactive to Department of Navy directives. Within the past year, new and more formal processes have been implemented, based on campus priorities and strategic plan goals. The budget process as it relates to strategic planning is discussed in detail under Theme One.

Facilities

NPS resides on a main campus of 133 acres, along with a 51-acre section of beachfront along Monterey Bay. The beachfront area has a number of oceanography labs; however, most of the land is natural habitat, and not easily converted for other purposes. Additional remote NPS lab facilities reside at the Monterey Pines (Navy) Golf Course, less than one mile from the main campus, while a one-acre parcel at Point Sur, 25 miles away, houses another oceanographic lab. Other leased areas, including aircraft hangar space at Marina Airport and at Camp Roberts (U.S. Army), are used for the remotely pilot-

ed aircraft program. Facilities used to house the NPS university functions number 45 separate building structures. A partnership with the U.S. Army Garrison at the Presidio of Monterey and a private developer provides more than 2,100 housing units for NPS students at La Mesa Village and the Ord Military Community on the former Fort Ord. An initiative to provide for faculty and staff home ownership in the Community Land Trust is also being planned. The first homes should be offered for sale within the next four years. This is a critical component for recruitment and retention of key faculty and staff for the NPS.

The Road Ahead describes the major base facilities initiatives within the 2006-2011 timeframe, to include construction, renovation, and major departmental moves. (37) A campus Space Management Prioritization Committee and associated working groups have a detailed process for assigning and auditing space utilization across campus. Plans in this area include additional staff to increase support for space management and the mapping of the entire campus into a GIS (geographic information system), as well as the creation of a database of CAD drawings for every space on campus. [CFR 3.5]

Organizational Structures and Decision Making

A number of key committees help govern the institution, ensuring all members of the university community are engaged and involved. (38) Faculty actively engages in proposing, drafting and reviewing curricular, program and course proposals. The structure and function of the Academic Council is described in more depth under Theme Two. Assessing student learning outcomes, and conducting program and curricular review, is also primarily the responsibility of the faculty. The NPS Research Board, with representatives from each academic department, the institutes, and Faculty Council, advises the Vice President and Dean of Research on policies affecting research. [CFR 3.8]

STANDARD 4: CREATING AN ORGANIZATION DEDICATED TO LEARNING AND IMPROVEMENT

Strategic Thinking and Planning

Prior to the recent efforts, strategic planning was last completed on an institution-wide basis in 2003. The preparation for the WASC review coincided with the need to review, evaluate and renew the institutional commitment to mission and how to accomplish this mission. The complete process is documented under Theme One.

As part of the strategic planning process, the institution developed metrics that are shared broadly and updated regularly. A new Strategic Planning Council meets regularly to discuss the process and review the latest metrics. Efforts are underway by the Office of Institutional Research to expand and enhance data availability to the entire campus in order to support decision-making. (39) [CFR 4.1, 4.2, 4.3]

Commitment to Learning and Improvement

The Naval Postgraduate School has long been committed to the ideals of continuous improvement. The curricular review process, described in detail under Theme Two, is just one example of how NPS has long engaged faculty, students and future employers in the development, review and improvement of academic programs. Indeed, fulfillment of the mission to be “relevant” and support increased combat effectiveness and to “enhance our national security” cannot be undertaken without rigorous and consistent program review. [CFR 4.4]

While all curricula undergo regular review, only a few of the academic degree programs are accredited by professional organizations. ABET (Accreditation Board for Engineering and Technology) accredits the master’s programs in mechanical, astronautical and electrical engineering, among the few graduate-level programs so accredited. (40) The business and public policy programs

are accredited by both AACSB (Association to Advance Collegiate Schools of Business) and NASPAA (National Association of Schools of Public Affairs and Administration). (41, 42) Although some departments have on occasion conducted self-initiated program reviews, an NPS system of academic program review, similar in nature to professional accreditation, was proposed and designed in 2006. The first of these reviews was completed in 2007 and future reviews continue according to a defined calendar. These efforts, which are described more fully in Theme Two, help NPS to identify and highlight planning processes, bring evidence to bear on decision-making and complete the process of continuous improvement. [CFR 4.6]

V. SELF-STUDY RESULTS RELATED TO THE THREE THEMES

During the self-review leading up to the Institutional Proposal, NPS identified several areas in which the campus was beginning to work, or needed to work more, to enhance our planning and institutional effectiveness. The increases in academic programs and student enrollment, as well as fiscal, administrative and physical factors, made a review of these critical infrastructures necessary. The review of the WASC Criteria for Review, plus the results of an institution-wide SWOT (strengths, weaknesses, opportunities and threats) survey, also helped identify three areas, which were then crafted into the main themes of the proposal. These themes are: 1) Strategic planning for the next centennial, 2) Integrating a campus-wide program for improvement and 3) Supporting an evolving academic enterprise. What follows is an examination of each of the themes from the standpoint of capacity and resources in support of the academic mission. (43)

THEME 1: STRATEGIC PLANNING FOR THE NEXT CENTENNIAL

Process for Strategic Planning, Change Management and Implementation

To achieve its goals, NPS developed a strong and coherent strategic plan that integrated important inputs from accreditation reviews; key objectives for national defense strategies, military strategies, and strategic maritime security; as well as the relevancy of stated educational and research outcomes to the defense mission. [CFR 1.2, 4.2]

The plan was informed through two major internal information collection efforts. First, an overall SWOT evaluation was initiated by the Executive Council. Each major division within the university was invited to present their most important issues, which were then combined into one document. (44) Following this effort, a survey was distributed to all faculty and staff asking

for input as well. The NPS WASC Steering Committee compiled and reviewed data from that survey. (45) [CFR 4.3, 4.5]

In 2006, a small team comprised of executive leadership at the Naval Postgraduate School began meetings to review institutional data and draft its new strategic plan for the next NPS Centennial. During 2007, the President and Provost presented a first draft of the strategic plan for review and input to the Secretary of the Navy, Donald Winter. This was followed by a series of campus presentations to the Deans, Chairs, the faculty and staff of NPS. These meetings stimulated vigorous discussion and feedback that further defined and clarified the unique mission and priorities of the Naval Postgraduate School as a flagship educational institution. Inputs from these groups were included in the final strategic plan that was presented to the Board of Advisors in April 2008. This plan, *Vision for a New Century*, was later published and made available to all constituents to serve as a framework to better align academic planning, resource allocation, and the periodic assessment of institutional processes and programs. (17) [CFR 1.2, 4.2]

Through its strategic planning process, NPS demonstrates an ongoing institutional commitment to enterprise-wide collaboration among stakeholders about short-term, intermediate, and long-term goals. Campus strategic planning was defined as an iterative process that involves periodic inputs and review by external sponsors, key military and academic administrators, alumni leaders, faculty, staff, and students. This strategic plan endeavored to integrate the findings from relevant institutional information, campus surveys and focus groups, as well as the indirect benefits derived from the experiences of peer institutions. Institutional financial data typically used for planning and evaluation were contrasted with emerging/changing indicators of both internal and external benchmarks for success. Although new processes have been initiated, the work is ongoing and overseen

by the Strategic Planning Council, a group formed by the President and Executive Vice President and Provost earlier this year. The Strategic Planning Council is comprised of the representatives from the administration and faculty. (46, 47) [CFR 1.2, 4.2]

The Strategic Planning Council held an off-site meeting on April 2, 2008, at which the finalized strategic plan was reviewed, and a new set of metrics was introduced and discussed. Initial metrics were developed for each goal. Each major area on campus then gave an overview of its planning process. It was decided that the Strategic Planning Council would meet on a quarterly basis to review progress of plan implementation and to discuss any changes in priorities based on emerging requirements or changes in the institutional resource base. Following the adoption of an institution-wide plan, each School reviewed their plans to ensure alignment with the overall plan. This process will continue throughout the campus organization structure to assure alignment at all levels. [CFR 1.2, 4.2, 4.5]

On a more macro level, the Strategic Planning Council provides quarterly oversight of the institutional strategic plan, accomplishments, barriers to progress, reviews of emerging requirements, changes in contextual conditions and resource baselines, etc. Adjustments to resource planning and allocation models are made accordingly, and will be reported to the campus through an annual report mechanism. [CFR 4.1]

Important by-products of the WASC self-study and the strategic planning processes were 1) heightened participation and communication among internal and external stakeholders, and 2) greater transparency in decision-making processes. The two institution-wide efforts informed one another and provided an over-arching framework for guiding campus plans and priorities.

Institutional self-study about strategic planning reflected upon two important research questions:

- To what extent are the appropriate stakeholders involved in strategic planning?

- Are resources properly allocated to achieve the NPS vision?

The self-study process underscores the need for a campus-wide systematic review process to ensure balance between the competing demands of academic excellence and defense relevance, and the budget allocation and assessment priorities within Schools and departments. The Strategic Planning Council has been charged with the responsibility for ensuring ongoing monitoring and oversight of those processes. [CFR 4.1, 4.2]

Communication and Alignment

NPS is attentive to responsible stewardship of its human, physical, fiscal, and intellectual resources. NPS is committed to operational excellence, which encompasses the people, tools, systems, resources, decision-making and shared governance structures of the institution. Achieving its mission and supporting relevant national, security-related, graduate education for military officers is made possible by our excellent faculty and staff, systematic planning and alignment, and investments in educational resources and technology, fiscal responsibility, and participatory and transparent decision-making processes. [CFR 1.2, 3.5, 3.6]

Critical to these processes was the implementation of a new communication strategy to encourage collaboration and alignment across the Schools in a comprehensive decision-making process to achieve the institutional goals and the academic mission of NPS. A new monthly campus newspaper, *Update NPS*, has been published since September 2007. (15) Distributed across campus, the newspaper provides a regular venue for disseminating strategic planning updates, campus news items and pertinent topics of interest to the campus community. The NPS website is undergoing transformation, including adding an institution-wide calendar, to provide a more effective online communications vehicle. In addition, the Office of Insti-

tutional Advancement provides a daily “NPS in the News” update, reporting on the various ways in which NPS has been featured in local and national media. (48) Previously published on an informal schedule, the NPS magazine, *In Review*, has been institutionalized as a quarterly publication. (16) NPS is finalizing a formal Communications Plan that will be implemented to give further institutional attention to university communications.

In past practice, budget requests were not strongly linked to the strategic plan and were handled in an inconsistent fashion. In FY2008, budget proposals were requested of all major areas. Academic Planning then compiled and reviewed budget proposals and returned a draft budget to each area. The Vice Provost for Academic Affairs and the Director of Academic Planning met with each Dean and administrative unit head to discuss how the draft budget allocation and the requests were tied to the strategic plan. Additionally, the shift from NPS’s old faculty budget model to the new nine-month model will be the basis for School budgets beginning with FY 2009. This new budget model provides funding support in alignment with strategic goals, due to its basis on workload and guaranteed support for nine months of faculty salary. [CFR 3.5, 3.6]

THEME 2: INTEGRATING A CAMPUS-WIDE PROGRAM OF IMPROVEMENT

The four primary goals in *Vision for a New Century*, upon which NPS will focus its primary efforts are:

- to sustain continuous improvement in the quality and relevance of NPS education and research programs
- extend NPS educational opportunities to the total force and our global partners
- broaden research in the areas of national security
- streamline and optimize business practices and procedures.

These goals reflect NPS’s commitment to integrating a

campus-wide program of continuous improvement. Because three goals relate directly to the academic enterprise, specific processes that support the NPS academic system — Program Review, Assessment, and Faculty Development — will be examined.

Program Review

NPS has a number of related systems through which it continuously reviews its academic programs. Central to how NPS operates is the long-standing Curriculum Review process, which focuses on the individual curricular programs of study offered at the university. NPS has additionally established an Academic Program Review process, which focuses on the academic departments within the university. In addition, most recently, NPS is institutionalizing a more systematic New Program Review process, which focuses on new academic degree, curricular or certificate programs that may be proposed for adoption. Though each review process is concerned with the quality, relevance and capacity of our academic programs, each also has its own emphasis, suggested by these central questions:

- *Curriculum Review (CR)*: Are NPS curricula of high academic quality and aligned with the mission of NPS and the needs of its sponsors?
- *Academic Program Review (APR)*: Are the academic programs (education and research) offered in NPS Schools and departments current, relevant and of high quality, as assessed by peers in the academic community?
- *New Program Review (NPR)*: Do proposed new programs meet NPS academic standards and is the NPS academic support and resource infrastructure appropriate to ensure their quality and success?

Curriculum Review

Some aspects of NPS academic systems are well established, while others are evolving through the stages from initiation to implementation. Well established is the Curriculum Review process, central to the academic enterprise, which examines the academic quality of NPS educational programs, and how well they align with the NPS mission and the needs of NPS sponsors. Each curriculum (26) at NPS serves a specific educational function that has been identified by a sponsor within the external defense community. Included in the Curriculum Review process are the Educational Skills Requirements (ESRs), which define a particular set of skills that graduates of NPS should possess to function effectively as a professional in a given area of specialization. (49) Curriculum sponsors collaborate with faculty within the relevant academic area at NPS to develop ESRs. [CFR 2.7, 4.4, 4.7, 4.8]

Because each curriculum at NPS has an external sponsor, the unique positions of Academic Associate and Program Officer — positions critical to the Curriculum Review process — were created.

Academic Associates. Once a curriculum is established, a part-time academic associate, a faculty member recommended by a School's Dean, is appointed by the Vice Provost for Academic Affairs. (50) The Academic Associate assumes the primary responsibility for managing the curriculum by developing, maintaining, and updating the curricular program to accommodate the needs and academic requirements of NPS, the Department of Navy and the Department of Defense. The Academic Associate maintains a close relationship with the curriculum sponsor to ensure Navy requirements are linked to the academic ESRs. The Associate works with specialty sponsors and consultants to define pertinent needs, including professional objectives, to delineate projected utilization of program graduates, and consults with department Chairs and faculty to propose useful courses and curricula. These

plans and projections consider the impact of developing technology, evolving bodies of knowledge (i.e., other graduate programs related to those under their purview), and the changing mission of the Navy and other military services.

Program Officers. The Program Officer, an active duty military officer typically at the rank of Lt. Colonel or Commander, who holds a military faculty appointment within a specific School or department, has administrative responsibilities for a set of curricula, including student oversight and the Curriculum Review process. The Program Officer also acts as a liaison between program sponsors and Academic Associates in overseeing the content of a School's curricula. (51)

Academic Associate/Program Officer Oversight. Although the Academic Associate and Program Officer operate as a team, the former oversees the academic quality and integrity of the curriculum while the latter represents the sponsor's interest in the content of the curriculum. Each Academic Associate/Program Officer team maintains ongoing contact with the students, faculty, sponsors and alumni of their curriculum. Shared practices may include academic advising, evaluation meetings, exit interviews, review of course evaluation data, hosting campus visits and conducting biennial and informal curriculum reviews with sponsors, maintaining contact with NPS alumni, supervising course coordinators, and reviewing course outlines with faculty. [CFR 2.12]

Curriculum Review Process. Every two years, the content of each curriculum at NPS is assessed and, if necessary, revised, following the sponsor's formal Curriculum Review, which is conducted jointly by NPS and the sponsor. (52) During this process, the sponsor validates current ESRs and proposes new ones, validates joint stakeholder requirements; reviews degree requirements that may be

independent of the ESRs, conducts an assessment of the design and execution of the curriculum, interviews students, and examines a department's foundation — including faculty, resources, and scope of research — for ensuring delivery of a mission-related, high-quality program.

Leading up to the sponsor's formal Curriculum Review, NPS initiates the following sequence of steps:

- ♦ The Academic Associate begins coordinating with sponsors and stakeholders on issues related to the curricular review, and collecting required internal data such as exit interviews, survey results, and course content for analysis.
- ♦ An external review may be conducted by the curriculum sponsor who identifies manpower, numbers of personnel needed, and the mission-related requirements for NPS students within specific areas.
- ♦ The Academic Associate conducts a curriculum self-study, identifying a set of curriculum issues to be discussed with the program sponsor that will become part of the agenda for the formal Curriculum Review. The department conducts a review to assess the curriculum's quality and relevancy to the sponsor's needs.
- ♦ The Academic Associate consults with the sponsors on the status of the review, gathers a set of expected issues, and drafts an action plan. The Academic Associate reviews and formalizes the issues and the proposed presentation to the sponsor along with the NPS President, Provost, Vice Provost for Academic Affairs, and the Director of Programs.

During the formal Curriculum Review process, items for action are identified and drafted for implementation. (52)

Academic Program Review

Under the Academic Program Review (APR) guidelines, each academic department conducts a review approximately every six years. (53) Those departments that

are reviewed by external accreditors (Mechanical, Electrical and Astronautical Engineering by ABET, Business and Public Policy by AACSB and NASPAA), are considered to fulfill their program review process through their programmatic accreditation. (40, 41, 42) [CFR 2.7, 4.4, 4.7]

The purpose of a program review is to foster academic excellence, to improve quality of every department, and to provide guidance for administrative decisions in support of continual improvement. The review focuses on the following areas:

- ♦ **Scholarship**

The overall quality and direction of the research, scholarship, and creative activity of the faculty, in comparison with departments at other nationally ranked research universities.

- ♦ **Graduate Programs**

The overall quality and direction of the department's graduate programs, including curriculum, teaching, research, laboratories, and service activities. Priorities for continual improvement are of prime concern.

- ♦ **Capacity and Capability**

The adequacy of the administrative and support functions as well as resource allocations.

- ♦ **Strategic Direction**

The progress the department has made over the previous six years, together with goals and implementation outlined in its strategic plan for the subsequent six years.

In 2006, a set of guidelines for the review process were established. During 2007, a department was chosen as a pilot to undergo and evaluate those guidelines. The subsequent review of the pilot resulted in an improved and formalized set of Academic Program Review guidelines that include [CFR 4.4]:

1. Self-study. The unit under review prepares a self-study comprising a narrative description of the department's scholarly and creative direction and

degree program, along with specified data on curricula, programs, faculty, students, administration, and resources.

2. **Departmental Strategic Plan.** Each unit drafts a strategic plan describing future directions for the subsequent six-year period. The plan should reflect a consensus view of the department faculty and document the department's strengths, shortcomings, and perceived opportunities for growth or improvement.
3. **External Review and Campus Visit.** The external review board consists of at least three distinguished scholars or experts in the relevant field(s) of study, at least two of who are not closely affiliated with NPS. A standard charge to the board requests the board to examine scholarship, education, faculty, support and resource matters. External reviewers are provided with the self-study and all relevant data.
4. **Review Board Report and Follow-up Activities.** Within a month following the campus visit, the external reviewers submit a written report with an evaluation and recommendations for the unit. This report is presented to the department and the Dean of the School with identification of action items. The department submits a follow-up report to the Dean one year later.

New Program Review

NPS's mission includes increasing the effectiveness of the Armed Services, a task that requires maintaining relevance to the current military and defense environment. The Schools and departments, administrators and faculty, therefore, are encouraged to create and develop new programs that respond to opportunities to support that mission. Leadership and initiative for new academic programs at NPS may be top-down or bottom-up and may be initiated from three general directions: 1) NPS leadership (President, Provost, Deans); 2) faculty initiating programs following from advances in their academic disciplines; 3)

sponsors from Navy and military commands identifying graduate education needs within the defense community. [CFR 4.4, 4.7, 4.8]

Once a possible new program is identified, it must undergo a review that covers these factors and answers the following questions:

- **Academic:** Does a proposed new program meet NPS academic standards?
- **Programmatic:** Is a proposed new program consistent with NPS mission and strategy?
- **Support:** What academic support requirements are generated as a result of potential approval of a new program?
- **Resources:** What are the financial, staff and faculty resource implications of a proposed new program?

The first step in new program review occurs at the department level. NPS departments have a subgroup of faculty, often called a Curriculum Committee, which has responsibility for oversight of existing curricula and review of proposed new ones. (54) While the exact process varies within departments, the following factors must all be considered:

- **Customer Need.** The program meets a well-defined stakeholder need and a student population has been identified.
- **Core Expertise.** The program should be an extension of, and related to, the department's vision and core mission.
- **Faculty Capability.** The faculty should have the capability (both expertise and capacity) to deliver the program.
- **Financial Viability.** The program pricing is expected to, at a minimum, break even on all costs (direct and indirect).
- **Academic Support.** The department must clearly identify support requirements coming from outside the department and/or School.

As new degree or education programs reach the pro-

positional stage, circulation of the program proposal among academic support elements takes place to provide visibility and communication concerning program support requirements that may arise. During this review period, the need for additional resources of any type is brought forward and possible solutions are identified. Major support elements involved include:

- ✦ Academic Administration (Registrar, Admissions, Scheduling)
- ✦ Dean of Students (Student Support)
- ✦ Director of Programs
- ✦ Accreditation Liaison Officer
- ✦ Information Technology
- ✦ Educational Technology
- ✦ Office of Distance Learning
- ✦ Library
- ✦ Academic Planning
- ✦ Comptroller

Following the completion of the review at the department level, all proposed new programs are then reviewed by the relevant Department Chair and School Dean. In addition to the academic merit of a proposed program, Chairs and Deans are particularly charged with consideration of programmatic orientation and program resource requirements. [CFR 4.4]

The final stage in the review and acceptance of a new program is by the NPS Academic Council. The purpose of the Academic Council is to establish, monitor, review, certify, and advise on policies and procedures that will ensure high and consistent academic standards of graduate education throughout the Naval Postgraduate School. It carries out this responsibility by approving new degree and academic certificate programs and major alterations to existing degree and academic certificate programs. The Council is NPS's final authority concerning the academic merits of proposed programs and its acceptance estab-

lishes proposed programs as approved offerings. [CFR 3.11, 4.4, 4.7, 4.8]

The appendices to this Capacity and Preparatory Review contain three documents; together, they provide deeper insights into aspects of NPS's new program review process.

- ✦ The NPS Academic Council Policy Manual, explaining the full workings of the Academic Council. (55)
- ✦ An example of a proposed new program document, providing an illustration of a specific program proposal currently under review. (56)
- ✦ A draft New Program Guidelines Instruction. This introduces a possible evolution of NPS's new program review process to incorporate consideration of programs proposed by NPS's Provost Council. (57)

Assessment

Information is a key element of any program assessment. Since the submission of the proposal, NPS has worked to increase the number and quality of the assessment instruments. Additionally, NPS is striving to improve the distribution and dissemination of information coming from these instruments and to create a complete system for evaluation and feedback.

NPS programs and curricula have various stakeholders, including students, alumni, faculty, program sponsors, and the broader defense and academic communities. NPS's program of assessment consists, in part, of systems designed to collect feedback from program stakeholders. To assess the institution's performance and the accomplishment of its educational mission, NPS relies on a number of procedures, both formal and informal, to obtain feedback from each of these stakeholder groups. Particular attention is paid to immediate communication with students for an assessment of their individual educational experiences. [CFR 4.8]

Formal systems, including such items as surveys and questionnaires, are routinely administered, to current stu-

dents, as well as alumni. (27, 28, 29, 58) Informal systems include the network of contacts that exist between faculty and former students, military officers, and executives within the larger defense community. [CFR 2.10, 4.5]

University-Wide Assessment Instruments

♦ **Student Opinion Forms (SOFs):**

An evaluation completed by all students, it provides quantitative and qualitative course and instructor evaluation. It is used by instructors to revise and improve courses. It is used by academic departments to evaluate faculty instructional performance and course success. SOFs are the university's principal systematic method of assessing instruction for individual courses. (59)

♦ **Graduating Student Survey:**

All students in their graduating term are requested to fill out a survey asking about their experiences and covering preparation, academics, faculty, facilities and more. The survey frames questions around the WASC Criteria for Review. Data summaries broken out at the School level are provided to Deans each term, plus an annual report. (27)

♦ **Alumni Survey:**

While NPS receives a substantial amount of feedback on its programs from the sponsors who eventually employ our graduates, only recently has input been requested directly from alumni. The survey also frames questions around the WASC Criteria for Review. In 2008, the first alumni survey was distributed to students who had graduated two, five and ten years ago. Schools were able to insert questions specific to their mission. (58)

♦ **New Student and Mid-Term Student Surveys:**

In cooperation with the NPS Student Council, the Office of Institutional Research worked together with a student survey class to develop two new instruments. Both were created using the WASC Cri-

teria for Review and sought to acquire similar data across the entire student experience. The contribution of students to this process made the surveys particularly relevant. These surveys will go into permanent, quarterly administration in the 2009 academic year. (28, 29)

Department Practices

All departments and curricula employ practices for obtaining feedback on students' experiences in their academic programs. All departments collect information from students to assess similar aspects of their programs, focusing on: 1) the quality and effectiveness of instruction, 2) the relevance and usefulness of course and curriculum content, and 3) the challenge and learning achieved. Although specific practices, instruments and processes differ across the NPS Schools and departments, all rely on similar approaches. Three common approaches include:

♦ **Program or Curriculum Surveys:**

Formal questionnaires collecting assessments of program, courses, and instruction. Such surveys may include either quantitative information, such as rating of program elements, or qualitative responses to open-ended questions. Questionnaires may be administered during students' programs, although more typically, they are done at graduation. (60)

♦ **Student Interviews and Group Meetings:**

Personal interviews or focus-group discussions with students are typical across most NPS departments. Feedback meetings with student cohorts may be held as frequently as each quarter, although periodic sessions are a more common practice. Exit interviews held with students at the end of programs are also common.

♦ **Ad Hoc Student Input:**

In some respects, one of the most effective student feedback "systems" at NPS is simply the cultural norms that exist between students and faculty. All NPS education is at the graduate level. All NPS stu-

dents are adult professionals, almost universally with several years of significant, responsible career experience. All understand that their education is NPS's core mission. All students are assigned to Academic Associates and Program Officers who act as their advisors, and have acknowledged responsibility for the students' curriculum and education. These circumstances create a culture in which student communication with faculty and advisors concerning their academic experience is expected and encouraged. Often the unsystematic, ad hoc feedback from students promoted by this culture provides the most useful insights concerning the effectiveness of the academic programs.

Towards Enhanced Educational Effectiveness

The NPS Theme Two calls for integrating a campus-wide program of improvement, directed centrally toward the enhancement of educational effectiveness at the university. This challenge has brought attention to the wide range of academic systems, processes and practices — both current and potential — that are within the control of NPS to improve the educational programs. [CFR 1.2, 4.7, 4.8]

NPS has initiated a number of steps directed toward advancing and coordinating academic assessment at the university.

1. **Learning Assessments Task Force.** As an initial step, a Learning Assessments Task Force (LATF) was established in March 2007 to provide an initial review of academic assessment practices across the university. In November 2007, the LATF reported on four broad questions with concerning our educational processes:

- ♦ How do we know we are teaching the right material?
- ♦ How do we know we are teaching it well?
- ♦ How do we know our students are learning it?

♦ Are our feedback mechanisms adequate and do they work?

The LATF provided an initial picture of the range, variety and scope of NPS's assessment practices. (8)

2. **Ad Hoc Educational Effectiveness Group.** In February 2008, NPS assembled an Educational Effectiveness group to develop the university's approach to enhancing its educational assessment systems further. The group identified additional steps for the university, with the first step being a more comprehensive inventory of NPS's current academic assessment systems and practices. An effort related to this followed with an Academic Policies Survey conducted in May 2008. Survey findings document academic practices across the NPS Schools and departments related to faculty policies, program review and learning assessment. (14)

Broad findings following from the efforts of the LATF, the EE Group and the Academic Policies survey would characterize NPS's academic assessments program as follows:

♦ **Breadth:**

Widespread use of assessment techniques and practices reaches across all Schools and academic departments in the university.

♦ **Variety:**

There is similarity across the Schools and academic departments in the sources of assessment information (from students, alumni, program sponsors, employers, faculty), but wide variety in individual assessment practices (in the breadth and depth of the effort, the processes and instruments employed, and the utilization of assessment information).

♦ **Indirect Measures:**

With respect to student learning assessment, current practices (with some notable exceptions) rely heavily on indirect rather than direct measures of learning outcomes.

- ♦ **Excellence:**

There are strong areas of excellence in assessment, most notably in those departments in the university subject to discipline-specific accreditation (ABET, AACSB, NASPAA). (40, 41, 42)

- ♦ **Distributed:**

While there is widespread practice of assessment across the university, many aspects of the assessment practices are distributed and idiosyncratic, rather than more centrally coordinated and integrated.

- ♦ **Follow-up:**

Follow-on improvement activities that are to result from assessing educational effectiveness tend to be unsystematic and not well documented.

Initiatives for Academic Year 2009: Benchmark Projects. Starting with an understanding of the existing foundation of assessment processes at NPS, the university has initiated a program, titled “Benchmark Projects” for the coming academic year. Since a wide variety of assessment practices have developed at NPS — motivated by, and tailored to, the needs of the separate Schools and departments — the Benchmark Projects will attempt to build on the particular strengths of the individual Schools. (61) The approach NPS has adopted is one of “centralized responsibility to assure that effective, decentralized assessment practices occur.” Benchmark Projects are to be conducted as a joint effort of NPS Academic Affairs with each of the NPS graduate Schools (or departments).

University objectives of the Benchmark Projects include:

- ♦ Extension of assessment best practices more widely across campus
- ♦ Progress toward additional direct assessments of student learning
- ♦ Systematize feedback and improvement activities from assessment evidence

Each School will be able to identify its particular strengths and weaknesses with respect to assessment practices and educational improvement feedback processes, and design an effort to advance. Each School will be able to identify where and how it most wishes to move forward with its assessment activities, to its greatest benefit.

Faculty Development

The NPS WASC proposal stated that the university would determine how faculty development efforts were preparing our faculty for current and future learning environments, and that an enhanced program of faculty development would result. This attention to faculty development remains a focus of NPS, but the development of NPS’s strategic plan and the institutional priorities stated by NPS leadership now reframe faculty development within a larger context. The NPS vision calls for an enhanced research orientation for the university and faculty, and support of the faculty to be successful in NPS’s unique defense/security academic domain. Moving further toward this vision requires NPS to be concerned with all aspects of faculty life, including faculty recruitment, faculty development and faculty retention. [CFR 3.2, 3.3, 3.4]

Faculty Recruiting and Retention Initiatives

During 2008, the NPS President set faculty recruiting and retention as one of NPS’s highest priorities. To provide sharper focus on faculty recruiting and retention, several programs were initiated:

- ♦ **Distinguished Professors:**

NPS has initiated a retention bonus plan to incentivize, reward and retain faculty who achieve Distinguished Professor rank.

- ♦ **Faculty Recruiting and Retention Fund:**

With resources provided by the NPS Foundation, NPS has initiated an annual fund devoted to supporting faculty recruiting and retention effort in the

Schools and academic departments. Presently a pilot program, there are plans for growth as positive effects from support efforts are realized.

- ♦ **Assistant Professors Research Support:**

As mentioned earlier, NPS has long had a Research Initiation Program (RIP) providing support for a two-year period to newly hired faculty to assist them in developing research programs. However, junior faculty, untenured assistant professors in particular, are at increased risk of departing NPS following the end of their period of RIP support. Starting in 2008, NPS instituted a program of continued support, in the form of funding for research time, for assistant professors during their years following RIP and leading up to tenure.

Faculty Workload Model

Another significant initiative during 2008 was a major re-thinking of the workload model for all tenured/tenure-track (TT) faculty at NPS. As used here, the term Faculty Workload Model really refers to two inter-related issues: Faculty Funding and Faculty Activities. Both parts of the Faculty Workload Model issue raise fundamental questions associated with the faculty's professional life at NPS.

- ♦ **Faculty Funding:** How will NPS resource the Schools and departments to provide for faculty accomplishing their academic mission? What mechanisms will be used to determine the required level of funding necessary for faculty activities within the Schools/Departments?
- ♦ **Faculty Activities:** What level of workload is expected of TT faculty during an academic year? What is the range of activities expected to be accomplished by TT faculty during an academic year?

The issue of the appropriate Faculty Workload Model for TT faculty has a long history at NPS. A significant

event was a report from an ad hoc Faculty Workload Committee in 2002. (62) The report documented that the typical teaching load for NPS faculty, per academic year of funding provided by the university, was significantly higher than at comparable universities. The report additionally noted that the NPS funding model for Schools and departments placed heavy emphasis on the volume of instructional activities.

Because funding was seen as being tied to instructional activities, the TT faculty tended to face a choice between two alternatives: accept heavy teaching loads in order to be funded by the institution for a full academic year, or seek external reimbursable funding (ideally for research activities) to reduce the teaching load required. This dynamic resulted in some unfortunate consequences: 1) academic units had incentives to increase instructional activities, perhaps unnecessarily, in an attempt to secure additional funding from the university, 2) TT faculty would carry heavier teaching loads than desirable at a research university, 3) faculty would become excessively concerned with the manner and source by which they would fund their academic year, 4) faculty would see instruction as the principal activity the university funds them to accomplish, thus dis-incentivizing participation in other academic activities.

Both the NPS vision as a research university and the President's focus on faculty recruiting and retention have called for a reconsideration of the current faculty workload model at NPS. Academic Year 2008 brought efforts and plans to transition to a new model starting AY2009. This initiative is called the Nine Month Model (9MM). (63) The name itself describes aspects of the plan:

- ♦ **Faculty Funding:**

The university will provide resources to Schools and departments sufficient for all TT faculty to be funded for a nine-month academic year, with TT faculty, on average, expected to carry a four-course teaching load

- ♦ **Faculty Activities:**

The typical TT faculty will be expected to carry a four-course teaching load during an academic year and, in addition, engage in the range of activities common to research universities, including advising, projects, administration, and, most importantly, scholarship.

The goal is to have all tenure-track faculty members on a nine-month compensation model, putting NPS faculty on a funding and workload basis similar to other major research universities. Since NPS has many non-tenure-track faculty who are significant and integral contributors to the accomplishment of the institution's mission, the 9MM addresses only part of the faculty workload issue. NPS recognizes full implementation will occur over a period of years, with AY2009 as a period of transition. (63)

Faculty Development Programs

Developing and retaining high-quality faculty is central to the NPS mission. While coming to NPS with expertise in many defense-related areas, many new faculty members also come with limited understanding of military and government structures and functions, a limited exposure to the various forms and methods of pedagogy, and limited experience in the effective use of technology to enable instruction.

To support its mission and to ensure continuous improvement and educational effectiveness, NPS recognized the role of ongoing professional development by staffing a full-time position for faculty development late in 2006. Reporting to the Vice Provost for Academic Affairs, this position is responsible for developing a variety of programs that support the effectiveness of teaching, learning, and assessment at the Naval Postgraduate School. [CFR 3.2, 3.4]

Faculty development programs provide quality resources and support services for NPS and DoD fac-

ulty to improve their teaching in face-to-face, online, and blended environments. Key areas of concentration include:

- ♦ **Instructional Practices Courses:**

Short courses that introduce best instructional practices and apply theories of adult learning in course development and the delivery and assessment of DL and blended programs. (64)

- ♦ **Education Seminars:**

An interactive, discussion-based seminar series designed around topics of educational effectiveness. (65)

- ♦ **Instructional Technology Consultation:**

One-to-one assistance in the selection and effective use of media and instructional technologies.

- ♦ **Course Development Support:**

Consultative support for course planning/development and evaluation.

- ♦ **Faculty Orientation:**

Planning and facilitating new faculty orientation programs. (66)

- ♦ **Educational Effectiveness Programs:**

Planning, coordination and resourcing of projects that validate student learning, program effectiveness, and are aligned with the educational mission of NPS.

THEME 3: SUPPORTING AN EVOLVING ACADEMIC ENTERPRISE

As outlined in the Section III, NPS has undergone many significant changes over the past decade, both in terms of structure and process. The institution has expanded — from a relatively small number of departments and research programs to an academic organization similar to what is seen at other universities — with the establishment of four academic Schools and four major multi-disciplinary research institutes. The number of students has increased, and the externally funded research program has doubled in size.

The rate of change has been substantial, and the support services have worked hard to sustain the expanding academic mission. A number of efforts have been undertaken to assess administrative support services, and provide feedback and guidance about meeting institutional requirements, customer satisfaction, staffing levels, priority setting, and generally serving the academic mission.

Assessment of Academic Priorities and Organizational Structure

In early 2006, Provost Leonard Ferrari asked a group of senior level administrators, the Ad Hoc Administrative Affairs Committee, to provide recommendations about how the institution might be better organized to serve the academic mission. (67, 68, 69) The report recommendations were accepted and an implementation task force was formed to provide a specific agenda that included the following [CFR 3.8, 3.10]:

1. The need for an academic strategic vision of NPS
2. A redefinition of meeting structure and decision making at NPS
3. A clear definition of organizational structure, management principles and practices, including a streamlined academic organizational structure
4. The development of a formal Communications Plan for NPS
5. Review of finance and administration functions required to support the academic mission
6. Development of organizational charts, position descriptions, and resource assessments for all areas reporting to the President and Provost

Since 2006, all the recommendations were addressed through a variety of actions:

1. The NPS strategic plan, *Vision for a New Century*, was developed through a broadly consultative campus process, which included sharing the draft plan with stakeholder groups before its formal adoption

by the Board of Advisors in 2007. The plan was informed by reviews of other university strategic plans, multiple campus meetings, and site visits to other institutions.(17)

2. An outside firm was engaged to provide recommendations about the executive-level structure and meetings at NPS. (70) The firm was asked specifically to include in their analysis best practices from other research universities, a review of NPS reports completed to date on the relevant topics, and a series of on-campus interviews and meetings. Completed in early 2008, the report results included:

- + An endorsement of the NPS strategic plan: *Vision for a New Century* and an acknowledgment that the plan clearly called for the definition of NPS as a research university
- + An endorsement of the report of the Ad Hoc Committee on Administrative Affairs and the subsequent report of the Administrative Affairs Implementation Task Force (67, 68, 69)
- + A redefinition of the executive administrative positions to more closely reflect the institution's positioning as a research university
- + The publication of an organizational chart to support continued transparency in administrative actions and improved campus communications. (71)

3. A formal Communications Plan for NPS, developed in 2008, will be shared with the Institutional Advancement Advisory Committee for their review and eventual endorsement. The Plan was based on best practices from other universities, interviews with Institutional Advancement professionals from other universities, and site visits to other universities. The Institutional Advancement Advisory Committee is representative of the major academic and administrative areas at NPS. The plan will then be shared with the rest of the campus, posted publicly and implemented immediately.

4. The position of Vice President for Finance and Administration was established. A recently appointed senior-level administrator will assume the position in January 2009. The results of the external organizational structure study were used to define the position and functions of the Vice President of Finance and Administration.
5. Organizational charts were developed for all major areas of the institution. (71) Position descriptions for all major administrative and academic positions were updated and posted. Strategic planning outlines for all major administrative and academic areas were requested, clearly demonstrating the alignment with the institutional plan. (39)

Assessment of Administrative Processes

In early 2006, Provost Ferrari appointed a group of faculty, directors and administrative officers from the Schools and key administrative areas to the Ad Hoc Committee on Business Practices. (72) This committee focused on one overarching proposition: “The need to rededicate the efforts of our institution in support of our core mission of graduate education and research.” This was elaborated with 15 specific action recommendations. (73) The Provost immediately endorsed the Committee’s work and established the Business Practices Implementation Task Force, which worked through 2007, completing its initial tasking by beginning major new improvements and providing additional recommendations for sustaining those improvements with a number of university-wide initiatives: (74, 75) [CFR 3.8, 3.10]

- **Web Initiative.** Many of the business practice improvements required a revamping of the institutional website, and a major university-wide initiative is now well under way. This effort will clarify the functions of the external and internal websites, increase information flow to the campus and external communi-

ties and provide a means to highlight the accomplishments of faculty, staff and students. (76)

- **Business Practices.** The Standard Operating Procedures (SOP) and Process Mapping group consisted of staff representatives from across campus. The Committee charge was to establish SOPs, process maps and flow charts for all NPS administrative processes. These efforts resulted in internal web pages that improve information sharing, automate many business-related tasks, and provide more accessible training opportunities, etc. (77, 78)
- **Financial Systems.** Many of the business practice improvements required an updating of NPS financial systems. A much-improved online reporting system was deployed to assist NPS Principal Investigators in managing sponsored funding. An initiative is underway to adopt Kualii, an open source financial system, developed by research universities for their particular needs. (79) [CFR 3.5]
- **Staff Development.** A Staff Development Advisory Committee was established and provided its first series of recommendations earlier this year. (36) As a result, the development of a training series is underway, with plans for more opportunities in the future. The Committee continues its work as a standing committee of the administration.

Ongoing Mechanisms for Improvement

As NPS works to continually review, renew and improve itself, a number of continuous assessment tools are in place [CFR 3.5, 3.8, 4.3, 4.4]:

1. The Strategic Planning Council is charged with the review of strategic plan metrics, individual department strategic plans, benchmarking information, selected survey data, and resource allocations plans.
2. Department-level strategic plans and metrics are now being summarized for presentation to the Strategic Planning Council.

3. Major administrative areas have been asked to include performance metrics in their individual department-level strategic plans.
4. Benchmarking information from other institutions was requested for effectiveness and efficiency comparisons. A peer analysis study has been commissioned to provide benchmarking information for key performance indicators.
5. The Equal Opportunity Office periodically conducts campus climate surveys that include questions about perceived fairness of treatment of individuals on campus, as well as service quality and delivery. (80)
6. A series of surveys (Graduating Student, New Student and Mid-Term Student) collect student perception and satisfaction data. (27, 28, 29)
7. Annual alumni surveys query former students about their experience at NPS, including questions about quality of services at NPS as well as academic and career impact questions. (58)
8. Administrative area external reviews are now being undertaken for major administrative areas.

In summary, the institution has undertaken two levels of assessment and continuous improvement initiatives: macro and departmental level planning. The macro-level planning is embodied in the university-wide plan, *Vision for a New Century*, and is reviewed on a quarterly basis by the Strategic Planning Council and annually by the NPS Board of Advisors. Departmental level plans clearly have more unit-based goals and objectives, but all are asked to demonstrate alignment with the larger university plan.

All planning shares a similar framework of requiring benchmarking information, customer satisfaction data, relevant peer comparisons, and ways in which assessment information is used for updating and ongoing planning efforts.

V. CONCLUSION

As stated in the institutional proposal, *“The accreditation effort will focus on NPS mission and how competing requirements are balanced while still meeting WASC academic standards. In particular, this proposal will consider the themes of integrating a campus-wide program of continuous improvement, supporting an evolving academic enterprise and strategic planning for the next NPS centennial.”*

Our three themes centered on the WASC Standards and the key findings of the 1999 Commission letter, which focused on: Inclusiveness and Diversity; Program Assessment and Educational Effectiveness; Technology and Learning Resources; and Planning, the Curriculum, and the Quality of Instruction.

As demonstrated throughout this Capacity and Preparatory Review self-study, the Naval Postgraduate School is fully prepared for the WASC reaccreditation process. The campus has engaged in tremendous internal and external dialogue and has demonstrated continuous improvements as we reviewed and addressed issues presented in the WASC Commission letter of July 1999. Both NPS and the U.S. Navy have made significant changes to and investments in NPS organizational and infrastructure support in order to facilitate and promote the continued delivery of high quality, relevant, graduate education to our unique student body. Strategic planning and open communications are moving NPS forward in new directions that support our expanding academic enterprise. This NPS Capacity and Preparatory Review report provides the foundation upon which we will set the goals and objectives for the subsequent Educational Effectiveness Review.

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