

# AND FACT BOOK// 2018

NAVAL POSTGRADUATE SCHOOL

## 2018 ANNUAL REPORT & FACT BOOK

A REVIEW OF THE 2018 **CALENDAR YEAR AND** AY2018 FACT BOOK

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MISSION: The Naval Postgraduate School provides relevant and unique advanced education and research programs to increase the combat effectiveness of commissioned officers of the naval service to enhance the security of the United States. In support of the foregoing and to sustain academic excellence, NPS will foster a program of relevant and meritorious thesis and research experiences for NPS students that informs the curricula, supports the needs of Navy and Department of Defense, and builds the intellectual capital of NPS faculty. To support the core Navy mission, NPS' programs are inherently joint, inter-agency, and international.

### NAVAL POSTGRADUATE SCHOOL

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### **A MESSAGE FROM THE PRESIDENT**

By Ronald A. Route, Vice Admiral, USN (Ret.)

The students and faculty of Naval Postgraduate School (NPS) experienced a strong 2018, making great strides in creating knowledge, progressing science and technology, and advancing the capabilities of the U.S. Armed Forces. The university awarded 1,260 advanced degrees to our nation's top military and civilian defense leaders, and those of our allies. But our most significant value to the Navy continued to be our commitment to the unique, transformational education of military officers and civilians equipping them to think critically and innovate as they continue to The value of NPS was also demonstrated outside of the university execute their mission of defending and securing the United States.

Early in 2018, Secretary of the Navy Richard V. Spencer visited NPS and shared his vision for the future of the university. His call to

action was clear, bold and challenging drive innovation and change within the DOD, grow the reputation of NPS, and become a hub of vibrant partnerships across the DOD, academia and industry.

Our faculty and students are the right people to accomplish this, and in many ways have been laying the foundations to do just that. The NPS Industry Internship Program experienced significant growth in 2018, with leading industry and technology partners such as Amazon, Lockheed Martin, Raytheon and others participating. NPS sent 20 students to these companies for short internships covering diverse science, tech and leadership concepts, and forming a bridge between the university and these innovative organizations.

In addition, faculty in NPS' Department of Applied Mathematics have also partnered with a diverse cohort of leading institu-

tions. Led by Caltech, and in collaboration with MIT and NASA's Jet Propulsion Laboratory, the Climate Modeling Alliance consortium, or CliMA, seeks to deliver a more predictive and actionable global climate model within an ambitious five-year timeline, capitalizing on the latest advancements in machine learning.

NPS continued to engage with both military and academic professionals in critical defense-focused areas. NPS hosted nearly 1,000 operations research practitioners during the 86th Military Operations Research Society Symposium, with both students and alumni participating alongside our leading faculty. And NPS' Energy Academic Group hosted the Office of Naval Research NEPTUNE Challenge Summit, with students and faculty from universities across the country exploring new ways of solving critical energy security issues through the Stanford-developed Hacking for Defense (H4D) model.

NPS students were also provided several opportunities to engage with distinguished leaders across the private sector, government and military through the university's stellar Secretary of the Navy Guest Lecture Series, all of whom are in positions to lead and influence change. Google Vice President Vint Cerf, considered by many to be a "Father of the Internet," offered candid discourse on a wide-range of topics including cyber hacking, cryptocurrency and artificial in-

telligence. Later in the year, NPS also hosted former Google CEO Dr. Eric Schmidt who discussed how NPS can help the DOD solve innovation challenges. Congressman Jimmy Panetta (CA-20), former Chairman of the Joint Chiefs retired Adm. Mike Mullen, and Deputy Fleet Forces Commander Vice Adm. Bruce Lindsey are just a few of the other seasoned leaders who lectured during the year, connecting NPS to the operational needs of the Navy.

campus. NPS' Department of Oceanography completed a five-week deep arctic expedition placing buoys that will help analyze shifting in the polar ice. Additionally, NPS' Center for Autonomous Vehicle Research, in collaboration with the Consortium for Robotics and

Unmanned Systems Education and Research (CRUSER), conducted the university's first Multi-Thread Experiment (MTX) that successfully tested autonomous networked control of multiple unmanned vehicles across air, surface and undersea domains.

The NPS Department of Operations Research continued to advance efforts in developing the analytical skills of its students through an active wargaming program. One of this year's efforts matched Navy and Marine Corps student teams with visiting Royal Australian Navy officers, exploring the logistical issues of joint U.S.-Australian littoral operations. Wargaming at NPS continues to augment traditional learning experiences, stimulating advanced critical thinking skills.

We were also well represented in the SEC-NAV Innovation Awards - then Director of the NPS Center for Cyber Warfare, Navy Cmdr. Zac Staples and his team were named

winners in the Innovation Catalyst category for their work on the competitive cybersecurity event HACKtheMACHINE. In addition, NPS graduate Maj. Michael Conte was awarded an honorable mention in the Innovation Scholar category for his work on mobile device management of combat aircraft.

NPS furthered its engagement with the local community through its popular Discover NPS Day, opening the campus to more than 2,200 school children, teachers, parents and the greater Monterey Peninsula community to reintroduce these partners to NPS. In the process, this dyamic experience provided countless opportunities for inspiration through STEM-related activities and demonstrations.

As my five years as the President of this university comes to a close, it has truly been an honor to serve with one of the most talented, dedicated and critically-important teams that I have ever been a part of. Throughout my career on active duty, I witnessed graduates from this university return to their demanding jobs well prepared to be leaders and experts. And it has been my privilege to witness first-hand how this institution levied such an incredible impact. As President Ann Rondeau, Vice Admiral, USN (ret.) takes the helm of the university, I look forward to seeing this institution continue to thrive in the years ahead.

### THE NAVAL POSTGRADUATE SCHOOL

Overview

**T**PS was established as the School of Marine Engineering at the U.S. Naval Academy in 1909. In 1919, the school was renamed the Naval Postgraduate School. In 1949, as part of reorganization within the Department of Defense, Congress authorized the move of NPS from Annapolis, Maryland to Monterey, California. In 1951, NPS officially opened its doors in Monterey. Since its beginning, when the School was chartered to focus on science and technology, NPS has evolved into an institution that serves naval, defense and national security related interests by providing current and future readiness, advances in technology, and educational and operational programs that directly support all facets of national defense and homeland security.

At NPS, four world-class schools oversee 14 academic departments and over 35 research and education centers that provide 80 master's and 16 doctoral degree programs and 60 academic certificates to approximately 1,460 resident students, including more than 111 international students, as well as to 853 distributed-learning students worldwide. Non-resident courses are delivered to students through online, web-enabled, video-tele-education systems and/or by visiting faculty.

### THE NAVAL POSTGRADUATE SCHOOL

A Short History

he Naval Postgraduate School was established on June 9, In its 100-year history, the Naval Postgraduate School has evolved 1909, when Secretary of the Navy George von L. Meyer into an institution that serves America's joint military services. signed General Order No. 27, establishing a school of homeland security officials, and dozens of nations. The School's marine engineering at the United States Naval Academy in Aneducational and research programs continue to evolve to meet napolis. The Navy Secretary's order placed the small program changing Navy goals and national requirements: its innovative under the direction of the Naval Academy superintendent, who academic programs such as Operations Research and Space placed the 10 officer-students and two Navy instructors in an Systems have significantly influenced academe, the defense attic which served as a classroom and lab. community and civilian sector. The more recent development of the cyber academic group and the energy academic group have

On October 31, 1912, Meyer signed Navy General Order No. 233, which renamed the school the Postgraduate Department of the Naval Academy. The order established courses of study for its 25 officer-students in ordnance and gunnery, electrical engineering radio telegraphy, naval construction, and civil and marine engineering.

In early 1944, more than a year before the first peace accord of World War II was signed, the Navy convened a board of respected senior officers and scholars to plan for post-war growth of the Naval Postgraduate School. The board's actions set the stage for landmark legislation in the 79th and 80th Congresses that transformed the Naval Postgraduate School into a degree-granting university with expanded research facilities, and its recommendations led to the purchase of the world-famous 627-acre Hotel Del Monte in Monterey. In December 1951, under the supervision of Rear Admiral Ernest Edward Herrmann, the 500 students, 100 faculty and staff and thousands of pounds of books and research equipment of the Naval Postgraduate School moved lock, stock and wind tunnel from Maryland to Monterey.



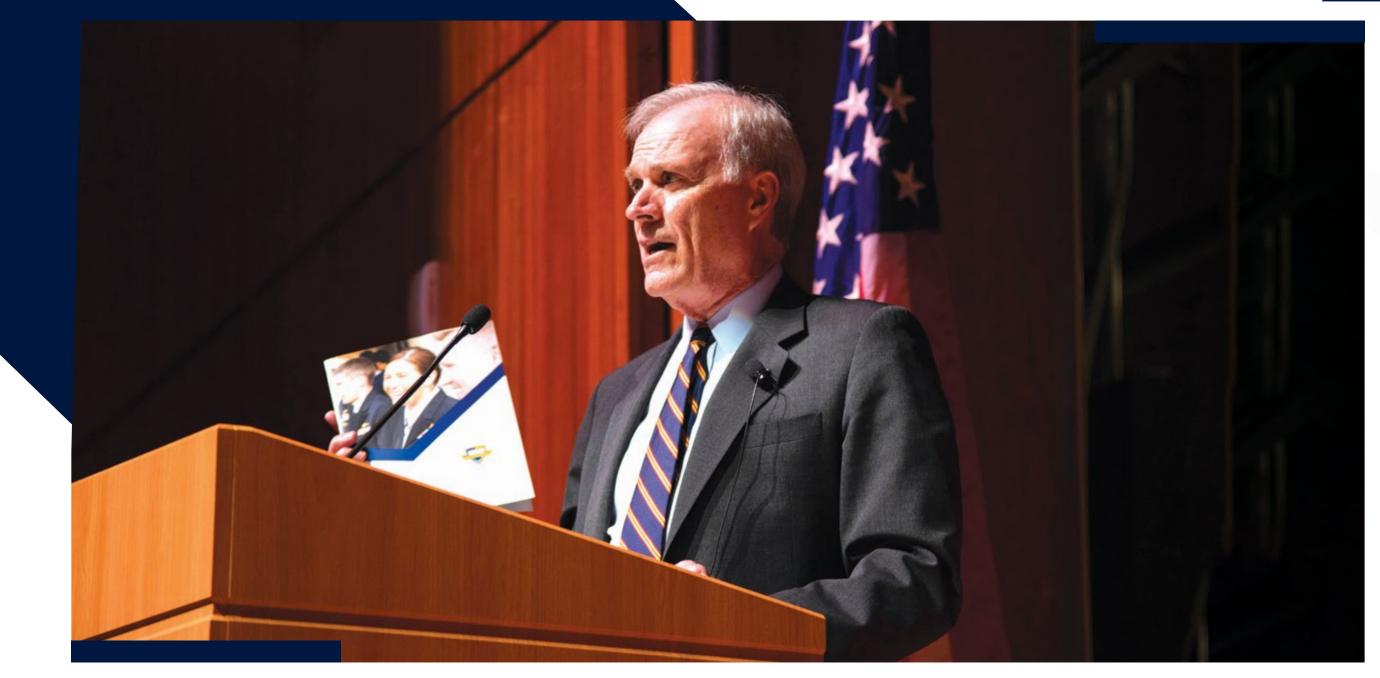
Continuous learning, refresher and transitional educational opportunities abound, and short-term executive education courses and a variety of short courses are also offered by NPS, both in Monterey and abroad.

Over 610 scholars and professionals, five percent of whom are military officers and approximately one-third of whom are tenured or tenure-track, comprise the NPS faculty. To strengthen expertise and program relevance, and to expedite research successes at NPS, a robust mix of tenured faculty, lecturers and visiting professionals integrate teaching with research, demonstrating the immediate applicability of defense-related theories to defense-related problems, many times resulting in patent-eligible technologies.

The 10-member Naval Postgraduate School advisory board functions as a sub-committee under the Boards of Advisors to the Presidents of the Naval Postgraduate School and the Naval War College. The board reports to the Secretary of Defense via the Secretary of the Navy and the Chief of Naval Operations on matters pertaining to the school and its graduate education and research programs.

greatly enhanced the Naval Postgraduate School's traditional technical programs while preparing officers for new strategic commitments. Today's Naval Postgraduate School is both an accredited university and a national asset that helps to prevent wars and to preserve global security





## a Clear **VISION**

W hen Secretary of the Navy Richard V. Spencer made his first visit to the Naval Postgraduate School in early 2018, after only a handful of months on the job, he was already well versed in the university's unique mission of graduate education and research. And he was equally clear and concise in his call to action, detailed during an all hands call to the campus community.

"This institution is a primary incubator for the capabilities that we need now," said Spencer during his presentation to a packed

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We are open to those organizations, both public and private, who want to come to NPS to build, innovate, develop, test and improve ideas, products and solutions alongside us ... Major advancements in technology and policies are never the result of conservative intellectual spirit, we must expand our view and our reach.

> *The Honorable Richard V. Spencer Secretary of the Navy*



house of students, faculty and staff. "It's all about time and urgency, from the railgun to unmanned systems, power solutions to business and public policy generation, information science to international studies, NPS is at the forefront of improving our capabilities. Having junior officers fresh from tours who have seen what their organizations need, and matching them with the expertise of the professors here, is a force multiplier to develop solutions."

Spencer also commented on NPS' location in California, and its close proximity to one of the world's leading centers of gravity in technology and innovation, representing an untapped drove of potential partners in industry, academia and government.

"We are open to those organizations, both public and private, who want to come to NPS to build, innovate, develop, test and improve ideas, products and solutions alongside us," said Spencer. "We must enhance the culture here at NPS to promote entrepreneurial and risk-taking spirit. Major advancements in technology and policies are never the result of conservative intellectual spirit, we must expand our view and our reach."

When Spencer returned to the university in October to announce the selection of Dr. Ann E. Rondeau, retired Vice Adm., as the institution's next president, he celebrated the release of NPS' 2018-2023 Strategic Plan and the foundation it provided to achieve his vision for the school.

"I am proud to have this premier institution within the Navy-Marine Corps team," Spencer noted during his October visit. "And I'm excited about working to ensure that NPS continues to grow its reputation as an elite institution by attracting the best faculty, the best students, the best research opportunities, and the best industry and academic partnerships."

## Excellence in TEACHING RESEARCH

cross the Naval Postgraduate A cross the Naval Postgraduate School's academic departments reside some of our nation's foremost leading authorities in their respective disciplines. Every day, these experts share their knowledge and expertise directly with the men and women of the U.S. Armed Forces and our allies.

Accolades for our first-rate faculty are commonplace, and 2018 was no different.

In the physics department, Dr. Emil Kartalov received three patents for research while at the University of Southern California (USC). The research details a new way to more efficiently read DNA taken from

blood samples to rapidly detect pathogens.

Space Systems chair professor Dan Bursch was presented with the Haley Astronautics Award by the American Institute of Aeronautics and Astronautics. NPS Distinguished Professor Emeritus Robert E. Ball was honored by the National Defense Industrial Association (NDIA), renaming its award for new expertise in the field the Robert E. Ball Young Professional Award.

In addition, the institution recognized four of its top faculty by conferring the honored title of Distinguished Professor in recognition of their exceptional and sustained scholarly,



And while it would be impossible to recognize every accomplishment by the university's premier faculty, two Distinguished Civilian Service Awards (DCSA) presented in June 2018 offer in microcosm exactly what makes NPS faculty so impactful, to both the effectiveness of the force and its people.

Operations research (OR) professors Gerald Brown and Nita Shattuck were recognized with this significant honor during the 86th Military Operations Research Society Symposium.

Shattuck's extensive research of the human body's natural circadian rhythms, and the effects of fatigue and sleep deprivation on performance, have led to significant changes in manning and how the Navy schedules when Sailors should stand watch. In fact, the Navy's entire surface force has been directed to implement circadian-based watch schedules, based on Shattuck's research to improve performance and crew endurance.

For Brown, an icon in the field, this is his second DCSA. His vast and wide-ranging corpus of academic research has had a direct and sig-

### I have visited many other universities and laboratories world-wide, and have found nothing to compare with the professionals I work with at NPS and our mission.

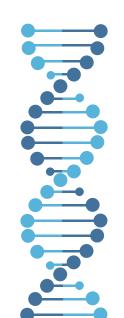
Distinguished Professor Emeritus Gerald Brown Member, National Academy of Engineering **NPS** Department of Operations Research

teaching and service accomplishments – Drs. John Arquilla, Moshe Kress, John McEachen and Clifford Whitcomb.

nificant impact across the Navy and the U.S. military at large. Since 2013, both Fifth and Seventh Fleets have utilized software Brown developed to optimally schedule daily logistical replenishment operations, and his capital-planning modeling has influenced billions of dollars in procurement across all services.

"I have visited many other universities and laboratories world-wide, and have found nothing to compare with the professionals I work with at NPS and our mission," Brown said.

Brown's research also greatly improved the resiliency of the energy supply chain across the Pacific, and his basic and applied research into attacker-defender modeling has changed how the U.S. plans its defense against terrorism.



## the End **RESULT**

When leadership empower an institution to be successful, and the individual components of that organization meld into a unified force, something significant happens. Across the university campus, the term often proposed to identify this powerful force is synergy.

Long gone from the mouths of the beltway bandits in the District, or the DINKs of Silicon Valley closer to home, synergy is a term not poised to inspire. But it's embodiment of the tried and true adage, that the "whole is greater than the sum of its parts," cannot be undervalued.

At NPS, the confluence of a senior leader's concise vision and a detailed strategic plan joins forces with the resident expertise of some of our nation's finest scholars. And the results lead

to unmatched opportunities for our students, who truly represent the critical catalyst. Seasoned military officers from across the DOD with multiple tours behind them bring an experience level in the student body that is simply unmatched, anywhere.

The end result of this amalgam is an environment that truly empowers our students to apply their experience, education and innovative spirit to real-world defense challenges and issues. An impromptu participation in the Army Futures Command's first hackathon is a perfect example.

Two weeks out from the November 2018 event, A Hack of the Drones, Army Col. Michael Richardson, NPS SOF Chair, caught wind of the event from a colleague.

"He told me if we didn't show up with a team, we'd be missing an opportunity to showcase the value proposition of what our officers are doing at NPS," Richardson noted. "So I said, 'You're right. I'm going to get a team together and we're going to Austin.""

Within a handful of days, Richardson's base team – defense analysis students Air Force Lt. Col. Clay Schuety and Maj. Lucas Will, Army Maj. Jon Munson, Marine Corps Capt. Caliph Lebrun from electrical engineering, and Navy Lt. Todd Coursey from the physics

department – was in Austin, briefing Hackathon judges on an impressive solution to countering unmanned systems.

"Only at NPS can you get an ad hoc team of highly experienced, capable and intelligent career military professionals together who, on short notice, can fuse together, work through a solution, and present it to the most senior levels of the service and get buy-in," Richard-son said.

And he was right ... They won. But, as Schuety notes, their results are not necessarily unique on a campus like NPS.

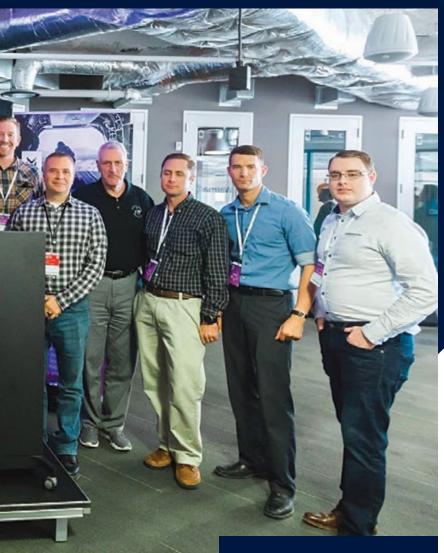
"I think this reflects really, really well on NPS as a research institution," Schuety explained. "We're primarily here at NPS for research opportunities and to go back to the force more lethal and ready to solve our nation's problems, but our victory also highlights a really interesting part about NPS.

"That's what really enabled us [to bring] a unique perspective down there in Austin," he continued. "I think it highlighted everything that NPS is doing, and that is incredible."

He told me if we didn't show up with a team, we'd be missing an opportunity to showcase the value proposition of what our officers are doing at NPS.

> Army Col. Michael Richardson NPS SOF Chair

### INTRODUCTION // 2018 ANNUAL REPORT & FACT BOOK





### 2018 YEAR REVIEW

### **JANUARY** 18

NPS alumnus and former Chairman of the Joint Chiefs of Staff retired Adm. Mike Mullen addresses NPS students, faculty and staff, emphasizing the vital contributions NPS makes to promote national security and to prepare future leaders to meet global challenges.

Afghan ambassador to the United States Dr. Hamdullah Mohib visits NPS to discuss the social, political, cultural efforts underway in rebuilding Afghanistan after four decades of war, the continuing presence of terrorists, and the nation's massive devastation.

### **FEBRUARY** 18

Recognizing their strategic importance to the DON, the university's Energy Academic Group and Center for Infrastructure Defense hosts a **Critical Energy Infrastructure** Protection Course at the NATO Istanbul Corporation Initiative Regional Centre in Kuwait.

The Graduate School of Business and Public Policy collaborates with the U.S. Air Force in conducting an in-depth analysis comparing purchases between Amazon Business and the General Services Administration, the latter of which offers lower prices and faster, less costly shipping from 241 of the 300 vendors tested.

### MARCH 18

NPS launches a data standardization pilot program, "Compile -to-Combat in 24 Hours," that will free vital communications links from both ships afloat and shore to ship by speedily transferring updates within 24 hours.

NPS awards 250 advanced degrees, including three doctorates, on its winter quarter graduates, who are addressed by Acting Assistant Secretary of the Navy, Manpower and Reserve Affairs Robert L. Woods as the ceremony's keynote speaker.

### **APRIL** 18

NPS Dept. of National Security Affairs, in partnership with the NPS Foundation, continues its Global Connection lecture Series with Dr. Mia Bloom, who shares her extensive research on political violence and youth, and the exploitation of victims in terrorist propaganda.

Systems Engineering researchers and students successfully conduct an exercise at the **'Impossible** City,' a Military Operations in Urban Terrain facility near **NPS**, to test and evaluate ad hoc networking and autonomous control of unmanned systems.



Dr. Hamdullah Mohit

Critical Energy Infrastructure Protection Course

### **MAY** 18

The university recognizes 30 years of support to the Navy and DOD through the evolution of virtual reality technology offered through its Modeling, Virtual Environments and Simulation Institute.

An NPS Bowman Scholar continues efforts he started as a USNA Midshipman in researching a way to efficiently deploy robotic CubeSats into space to service orbiting satellites or other craft.

### **JUNE** 18

Subject matter experts and researchers from the Office of Naval Research, the Navy's Office of Expeditionary Warfare and NPS' Consortium for Robotics and Unmanned Systems Education and Research, discuss the fleet's current issues during the NPS-hosted 13th **International Mine Warfare Technology Symposium**.

NPS hosts the NATO Science and Technology Organization Information Systems Technology-129 (IST-129) Board, which consists of cybersecurity experts from varied NATO member countries, who identify and develop predictive methods and analyses in cyber to defend or thwart adversarial attacks.

MOVES celebrates 30 years of VF

NPS

### 2018 YEAR IN REVIEW

### **JULY** 18

NPS launches its interdisciplinary Data Science and Analytics Group to streamline development, teaching and sharing of data science at the institution and within the DOD.

NPS hosts the Office of Naval Research funded NEPTUNE Challenge Summit where researchers and students from leading universities collaborate on developing a new model for solving H4D, Hacking for Defense related problems.

### AUGUST 18

**Rear Adm. Jean Mendoua, Chief of Staff of the Cameroon Navy**, and the Senior Defense Attache for the U.S. Embassy in Cameroon visit NPS, tour research labs, and discuss the university's ongoing security-related programs.

Faculty in the NPS National Security Affairs department mark a milestone in scholarly achievement as they publish their 100th book. Students and faculty, representatives from various U.S. military commands and specialists from cutting-edge technology firms test a range of new unmanned aerial vehicles during the weeklong **Joint Interagency Field Experimentation**.

**SEPTEMBER** 18

The NPS Department of Operations Research hosts its second annual "Day of Data, Decisions and Defense" workshop for a nationwide cohort of doctoral students who convene to share their latest findings in data science and analytics.

### **OCTOBER** 18

Representatives from the eight nations of the **NATO Forces Sensor and Weapon Accuracy Check Sites (FORACS)** Steering Committee gather at NPS to discuss their 2018 Strategic Plan and key administrative and budgetary decisions.

NPS Department of Oceanography chair Dr. Peter Chu becomes the Chairman of the Global Temperature-Salinity Profile Program of the Intergovernmental Ocean Commission, part of the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the only UN body specializing in ocean science and services.





Rear Adm. lean Mendoua

Joint Interagency Field Experimentatio



NATO Forces Sensor and Weapon Accuracy Check Sites

### **NOVEMBER** 18

In support of new directives, NPS creates a four-course, graduate-level certificate program including course-work in space technology and applications, military satellite communications, and a two-part NC3 systems course for U.S. Air Force Nuclear Command, Control and Communications professionals.

NPS researchers and students complete a five-week voyage to the eastern Beaufort Sea aboard the polar icebreaker USCGC Healy, to deploy a series of NPS-developed Autonomous Ocean Flux Buoys which will continuously monitor the delicate balance between ocean, ice and sun.

### **DECEMBER** 18

A consortium of researchers from Caltech, MIT, JPL and NPS partner in the **Climate Modeling Alliance**, to develop a climate model that projects future changes in critical variables such as cloud cover, rainfall, and sea ice extent more accurately – with uncertainties at least two times smaller than existing models.

Researchers from NASA's Armstrong Flight Research Center tour NPS and attend briefings with faculty to explore future collaborations in critical technology related challenges and in emerging technologies.

aker USCGC Healy

Climate Modeling Alliance

Report

## AY2018 NPS FACT BOOK

### **LEADERSHIP**

President: Vice Admiral Ronald A. Route, USN (Ret)

Incoming President (2019): Vice Admiral Ann E. Rondeau, USN (Ret)

Provost: Dr. Steven R. Lerman

Chief of Staff: CAPT Mike Ward, USN

Dean of Students: CAPT Markus J. Gudmundsson, USN

Dean of GSBPP: Dr. William Gates

Dean of GSEAS: Dr. Clyde Scandrett

Dean of GSOIS: Dr. Gordon McCormick

Dean of SIGS: Dr. James Wirtz

Dean of Research: Dr. Jeffrey Paduan

Vice Provost: Dr. Douglas Moses

### **2018 STUDENT ENROLLMENT**

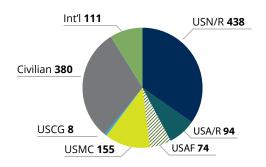
average on board

1,459 RESIDENTIAL 853 DISTANCE LEARNING **327** CERTIFICATE

### **2018 DEGREES AWARDED**

1,247 MASTER DEGREES 'OU II DOCTORATE 2 POST MASTERS

### **NPS GRADUATE DEGREES CONFERRED BY SERVICE**



### FACULTY & STAFF

231 Tenure Track Faculty 379 Non-Tenure Track Faculty **34** Military Faculty 341 GS/Wage Grade staff members

### RESEARCH

- Approx \$100 million in sponsored research funding
- Research programs are aligned to NPS curricula
- NPS research is valuable to improving the security of the U.S.

### **FINANCES**

- **\$414** million Operating budget: including military salary
- **\$111** million Direct Authorization: without military salary • \$106 million Reimbursable Income

### **ACADEMIC FACILITIES**

**102** Classrooms that offer media technology

**19** Classrooms with video-teleconferencing

19 Classified facilities

166 Labs

### **ACCREDITATION**

- WASC Senior College and University Commission (WSCUC)
- Accreditation Board for Engineering and Technology (ABET)
- Association to Advance Collegiate Schools of Business (AACSB)
- Network of Schools of Public Policy, Affairs, and Administration (NASPAA)

Source: Office of Institutional Research, Reporting and Analysis

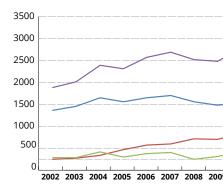
### INSTITUTIONAL RESEARCH, REPORTING, AND ANALYSIS

NAVAL POSTGRADUATE SCHOOL IRRA@nps.edu • I University Circle, Monterey, CA 93943

## **STUDENTS & PROGRAMS**

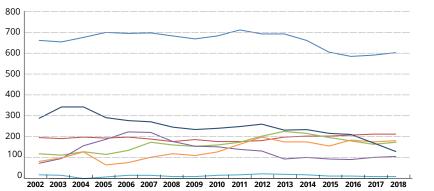
### **GRADUATE PROGRAM STUDENTS**

By Type of Enrollment



	2002	2003	2004	2005	2006	2007
Full Time Resident Degree	1,366	1,464	1,660	1,563	1,649	1,707
Part Time Distributed Learning (DL) Degree	238	264	336	467	566	599
Graduate Certificate and Non-Degree	287	289	410	293	368	398
Total	1,891	2,017	2,405	2,324	2,584	2,704

### **Resident Students by Service**



2.531

2.496

2.789

2.944

3.031

3.018

2.979

- USN/R

- USMC/R

- USA/R

- USAF/R

 Other Services — Civilian

- International

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
USN/R	648	636	671	709	702	708	685	660	681	731	700	698	666	606	581	582	600
USMC/R	195	186	198	192	201	183	163	178	164	165	173	199	207	205	213	223	222
USA/R	115	106	126	110	134	179	163	157	165	182	216	242	231	207	187	169	179
USAF/R	43	80	172	217	274	269	201	167	166	145	133	74	86	74	73	88	105
Other Services	13	9	7	5	9	П	10	10	10	15	19	19	15	14	14	П	10
Civilian	63	86	126	41	56	92	114	103	127	174	223	192	191	166	204	192	199
Int'l	289	361	360	290	274	266	230	213	224	235	248	211	222	222	207	167	144
Total	1,366	1,464	1,660	1,563	1,649	1,707	1,565	1,487	1,536	1,647	1,712	1,633	1,616	1,494	1,479	1,432	1,459

### STUDENTS & PROGRAMS // 2018 ANNUAL REPORT & FACT BOOK

<u> </u>							Total			
					}		Full Tim	e Reside	nt Degre	ee
							Part Tim Learnin			
				_			Graduat and Nor			
09 2010 201	1 2012 20	013 2014 2	2015 2016	5 2017	2018					
007 2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
,707 1,565	1,487	1,536	1,647	1,712	1,633	1,616	1,494	1479	1432	1459

2.767

2.794

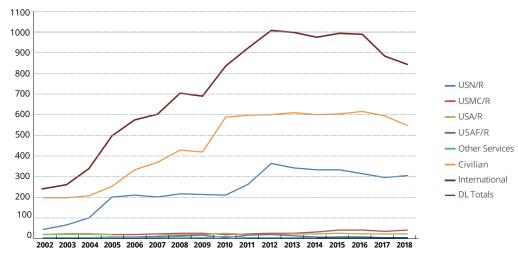
2.697

2.639

2018 NPS Fact Book

### **DISTANCE LEARNING DEGREE STUDENTS**

By Service



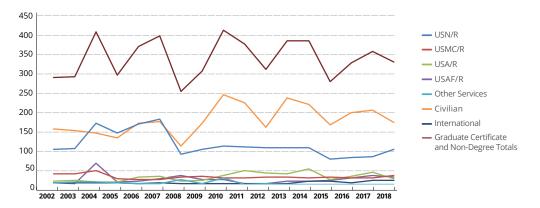




	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
USN/R	44	68	124	199	226	220	234	232	226	291	366	343	335	335	306	277	291
USMC/R	3	7	7	6	7	П	12	13	4	9	16	17	26	39	39	31	37
USA/R	4	5	3	2	0	2	4	3	17	4	5	7	8	12	П	8	8
USAF/R	0	0	0	3	5	10	15	18	0	20	22	14	6	I	I	I	0
Other Services	0	I	0	0	I	I	2	I	П	0	0	0	0	0	0	0	0
Civilian	186	184	202	257	328	355	451	438	582	597	605	620	601	608	630	592	517
International	0	0	0	0	0	0	0	0	0	0	0	0	I	2	2	0	I
Total	238	264	336	467	566	599	718	705	839	920	1,013	1,000	977	997	989	909	853

AVERAGE ON BOARD STUDENT POPULATION

Graduate Certificate and Non-Degree Students by Service



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
USN/R	93	96	163	137	161	175	80	93	103	100	99	97	98	68	72	74	94
USMC/R	27	28	37	14	12	13	20	22	17	18	20	20	17	20	18	17	24
USA/R	9	П	7	6	20	22	8	П	24	36	31	27	40	12	22	32	15
USAF/R	3	I	58	6	9	16	24	13	13	2	I	8	9	10	17	24	19
Other Services	3	6	5	3	3	I	13	2	17	I	I	0	0	0	0	0	0
Civilian	148	144	137	124	164	167	103	163	241	219	153	231	214	158	192	199	166
International	4	4	5	4	I	5	I	I	I	2	2	2	7	8	5	10	П
Graduate Certificate and Non-Degree Totals	287	289	410	293	368	398	249	304	414	377	307	385	385	276	326	356	327

<b>GSBPP</b> (total 569)	
Full-time resident 253 <b>44%</b>	Distance Learning 301 <b>53%</b>
<b>GSOIS</b> (total 732)	
Full-time resident 494 <b>68%</b>	/ Distance Lear 117 <b>16%</b>



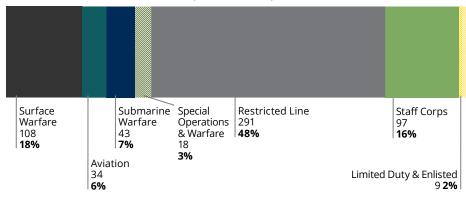
### STUDENTS & PROGRAMS // 2018 ANNUAL REPORT & FACT BOOK

### **GRADUATE PROGRAM STUDENTS**

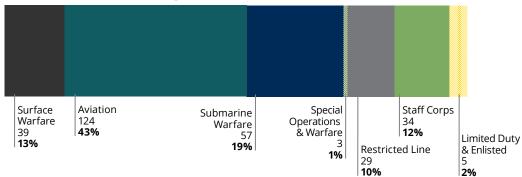
By USN/R Community Average On Board 2018

### TOTAL USN/R Communities (total 980) Aviation 170 **17%** Surface Warfare 157 **16%** Staff Corps 155 **16%** Restricted Line 361 37% Limited Duty & Enlisted 15 **2%** Submarine Warfare 102 **10%** Special Operations & Warfare 21 2%

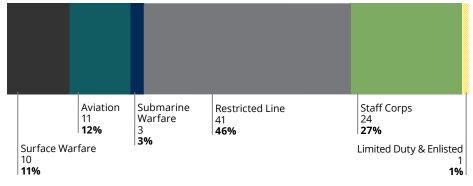
### Full-time Resident (total 600)



### Distance Learning (total 291)

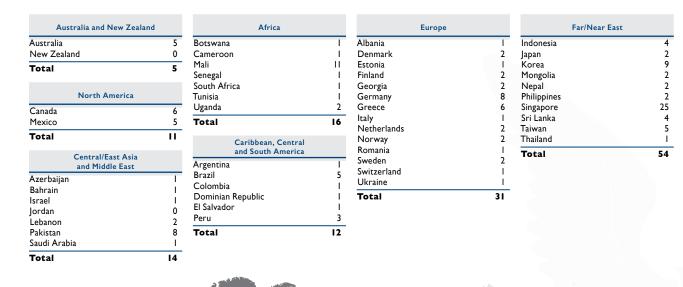


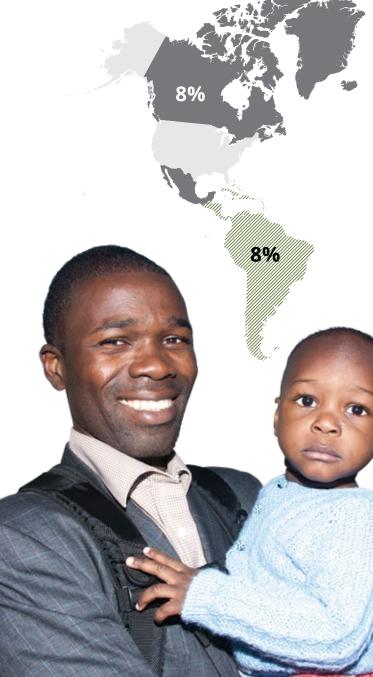
### Certificates (total 90) .....

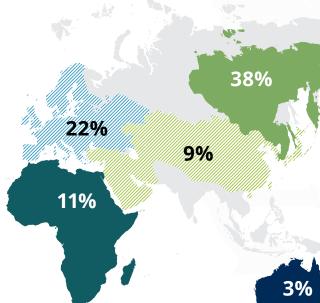


**INTERNATIONAL RESIDENT DEGREE STUDENTS** 

By Region – Average On Board 2018







De	gree Students	
	Australia & New Zealand	5
	Central/East Asian & Middle East	14
	Africa	16
	Caribbean, Central & South America	12
	North America	П
	Europe	31
	Far/Near East	54
	Total	143

Military officers from more than 110 allied nations have studied at the university, often bringing their families with them. The cultural exchange builds lifelong relationships between NPS' U.S. students and their international colleagues.

### **GRADUATE DEGREE ENROLLMENT**

All degrees by Curricula

Reside	nt Programs	Curriculum Number	USN	USMC	Other Services	Intl Military & Civilian	U.S. Civilian	Grand Total
GSBPP								
	Acquisitions & Contract Management	815	23	10	31	1	0	65
	Defense Business Management	809	0	0	0	0	3	3
	Defense Systems Analysis	817	0	12	1	1	0	15
	Defense Systems Management (International)	818	0	0	0	1	0	1
	Financial Management	837	48	9	2	2	0	61
	Financial Management (Energy Specialty)	838	4	0	0	0	0	4
	Information Systems Management MBA	870	5	0	2	1	0	8
	Manpower Systems Analysis	847	24	16	0	6	0	46
	Materiel Logistics Support Management	827	8	9	0	1	0	17
	Supply Chain Management	819	13	0	2	0	0	15
	Systems Acquisition Management	816	2	0	16	0	0	18
	Transportation Management	814	1	0	1	0	0	2
GSBPP Total			126	56	55	14	3	253
GSEAS								
	Aerospace Engineering	609	1	0	1	0	0	2
	Applied Mathematics	380	1	0	6	1	1	8
	Applied Mathematics (PhD)	381	0	0	1	1	1	3
	Applied Physics (PhD)	537	2	0	0	0	1	3
	Combat Systems Science & Engineering	533	27	4	2	9	0	42
	Electrical Systems Engineering - Energy Focus	593	0	0	1	0	0	1
	Electronic Systems Engineering	590	39	12	1	9	0	60
	Electronic Systems Engineering (PhD)	594	6	0	0	1	0	7
	Engineering Acoustics (PhD)	536	0	0	0	1	1	2
	Meteorology	372	0	0	6	0	0	6
	Meteorology (PhD)	387	1	0	1	0	0	1
	Meteorology and Oceanography (METOC)	373	34	0	0	2	0	36
	Naval/Mechanical Engineering	570	37	0	0	3	0	40
	Naval/Mechanical Engineering - Energy Focus	563	8	0	0	0	0	8
	Naval/Mechanical Engineering (PhD)	573	2	0	0	0	2	4
	Oceanography	440	0	0	0	3	0	3
	Oceanography (PhD)	443	2	0	0	0	0	2
	Space Systems Engineering	591	15	1	0	0	0	16
	Space Systems Engineering (PhD)	597	0	0	1	0	2	3
				_			0	
	Space Systems Operations	366	15	8	3	0	0	26

Systems Engineering Systems Engineering (PhD) Systems Engineering Analysis Systems Engineering Management-System Acquisition Undersea Warfare Undersea Warfare (International)

	Applied Cyber Operations
	Computer Science
	Computer Science (PhD)
	Cyber Systems and Operations
	Human Systems Integration
	Information Sciences (PhD)
	Information Strategy and Political Warfare
	Information Systems & Technology
	Information Warfare
	Joint Cmd, Cntrl, Comm, Comp/Intel (C4I) Sys
	Modeling, Virtual Environments & Simulation
	Modeling, Virtual Environments & Simulation (PhD)
	Network Operations and Technology
	Operations Analysis
	Operations Analysis (PhD)
	Operations Research Logistics Analysis
	Software Engineering (PhD)
	Special Operations
al	

	Civil-Military Relations
	Combating Terrorism: Policy and Strategy
	Europe and Eurasia
	Far East, Southeast Asia, Pacific
	Homeland Defense and Security
	Homeland Security and Defense
	Middle East, South Asia, Sub-Saharan Africa
	Security Studies (PhD)
	Strategic Studies
	Western Hemisphere
-	

Numbers may not sum to total due to rounding.

### STUDENTS & PROGRAMS // 2018 ANNUAL REPORT & FACT BOOK

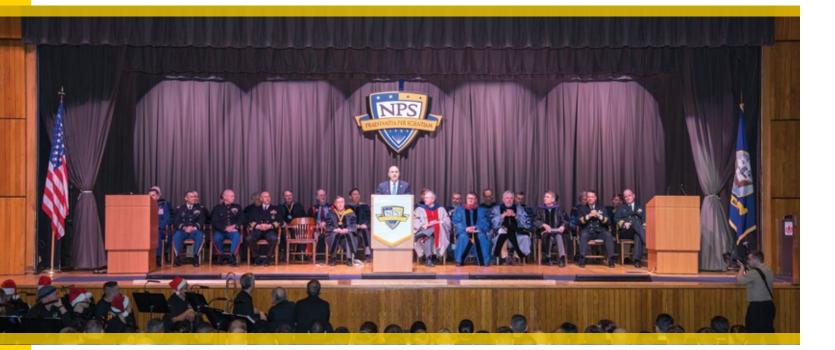
	600	222	295	144	199	1459
	77	31	66	41	130	344
683	11	5	15	0	0	31
688	4	0	3	14	0	22
694	3	0	1	0	2	5
681	11	7	20	0	0	38
691	13	0	2	1	0	15
692	0	1	9	0	128	138
682	23	9	6	1	0	39
684	13	10	11	3	0	36
693	0	0	0	15	0	15
685	0	0	0	7	0	7
	100	110	114	-11	-11	171
055	17 155	1 <b>110</b>	05 142	23 <b>47</b>	1 41	<b>494</b>
385 699	0 17	0	83	23	1	125
361	0	0	0 0	0 0	0	0
382 361	0 19	1			0	1 19
360 382	31 0	27 1	16 0	10 0	1 0	85 1
386	20	0 27	1	0	0	21
398	1	0	1	0	2	3
399	2	10	4	3	0	18
365	0	4	0	1	0	5
595	0	18	0	0	0	18
370	0	29	1	3	1	34
698	0	0	25	3	0	28
474	0	2	2	0	18	22
362	0	0	3	0	0	3
326	27	0	4	0	0	31
384	0	0	0	0	1	1
368	34	20	2	4	18	78
336	6	0	0	0	0	6
	242	25	33	42	26	367
526	0	0	0	4	0	4
525	20	0	0	0	0	20
522	0	0	8	0	0	8
308	13	0	0	1	0	14
581	2	0	0	0	18	20
580	21	0	4	8	0	33

2018 NPS Fact Book

Source: Office of Institutional Research, Reporting and Analysis (IRRA)

### GRADUATE DEGREE ENROLLMENT continued

Distanc	e Learning Programs	Curriculum Number	USN	USMC	Other Services	Intl Military & Civilian	U.S. Civilian	Grand Total
GSBPP								
	Contract Management (DL)	835	0	4	1	0	42	47
	Executive Master of Business Administration (DL)	805	119	12	0	0	0	131
	Executive Master of Business Administration(DL-Civ)	807	0	0	0	0	68	68
	Program Management (DL)	836	1	0	0	0	54	55
GSBPP Total			120	16	1	0	164	301
GSEAS								
	Aviation Systems Engineering (DL)	312	14	5	4	0	5	28
	Electronic Systems Engineering (DL)	592	0	0	3	0	63	66
	Mechanical Engrg for Nuclear Trained Officers (DL)	572	53	0	0	0	2	55
	Naval Test Pilot/Mechanical & Aerospace Engineering Program (DL)	613	8	0	0	0	1	8
	Reactors - Mechanical/Electrical Engineering (DL)	571	10	0	0	0	0	10
	Systems Engineering (DL)	311	24	5	0	0	180	209
	Systems Engineering Manage- ment-PD21 (DL)	721	4	0	0	0	33	37
	Underwater Acoustic Systems (DL)	535	0	0	0		22	22
GSEAS Total			112	11	7	0	306	434
GSOIS								
	Cost Estimating and Analysis (DL)	379	1	3	0	1	36	40
	Human Systems Integration (DL)	359	16	2	1	1	4	22
	Systems Analysis (DL)	363	43	6	0	0	7	56
GSOIS Total			59	11	1	1	47	118
DL Total			291	37	8	1	517	853



### **GRADUATE DEGREES CONFERRED ACADEMIC YEAR 2018**

Graduate School of Business and Public Policy
EMBA Executive Master of Business Administration
MBA Master of Business Administration
MS Contract Management
MS Management MS Program Management
Graduate School of Engineering and Applied Scier
EAAC - ENGINEERING ACOUSTICS ACADEMIC COM
M Engineering Acoustics MS Engineering Acoustics
ECE - ELECTRICAL AND COMPUTER ENGINEERING
MEng Electrical Engineering
MS Electrical Engineering
MS Engineering Science (Electrical Engineering)
PhD Electrical Engineering
MA - APPLIED MATHEMATICS
MA - APPLIED MATHEMATICS MS Applied Mathematics
PhD Applied Mathematics
MAE - MECHANICAL AND AEROSPACE ENGINEERIN
Ast E Astronautical Engineer
MS Astronautical Engineering
MS Engineering Science (Aerospace Engineering)
MS Engineering Science (Astronautical Engineering)
MS Engineering Science (Mechanical Engineering)
MS Mechanical Engineering
PhD Astronautical Engineering PhD Mechanical Engineering
MR - METEOROLOGY
MS Meteorology and Physical Oceanography
OC - OCEANOGRAPHY
MS Meteorology and Physical Oceanography
MS Physical Oceanography
PhD Physical Oceanography
PH - PHYSICS
MS Applied Physics
MS Physics
PhD Applied Physics
MS Combat Systems Technology
SE - SYSTEMS ENGINEERING
MS Engineering Systems PhD Systems Engineering
MS Systems Engineering
MS Systems Engineering Management
SP - SPACE SYSTEMS ACADEMIC GROUP
MS Space Systems Operations
PROVOST OVERSIGHT (OTHER)
MS Systems Engineering Analysis
Graduate School of Operational and Information
CS - COMPUTER SCIENCE
MS Computer Science
MS Modeling, Virtual Environments and Simulation
PhD Modeling, Virtual Environments and Simulation
DA - DEFENSE ANALYSIS
MS Defense Analysis (Irregular Warfare)
MS Defense Analysis (National Security Affairs)
MS Defense Analysis (Terrorist Operations & Financing)
MS Information Strategy and Political Warfare
IS - INFORMATION SCIENCES
MS Applied Cyber Operations

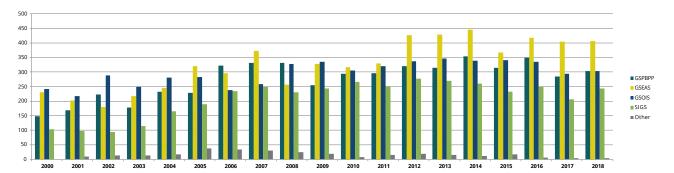
Numbers may not sum to total due to rounding.

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### **GRADUATE DEGREES CONFERRED ACADEMIC YEAR 2018** continued

MS Cyber Systems and Operations	7
MS Information Technology Management	20
MS Information Warfare Systems Engineering	9
MS Network Operations and Technology	II
MS Systems Technology (Command, Control, and Communications)	3
OR - OPERATIONS RESEARCH	103
M Cost Estimating and Analysis	19
M Human Systems Integration	7
M Systems Analysis	27
MS Applied Science (Operations Research)	3
MS Human Systems Integration	2
MS Operations Research	45
School of International Graduate Studies	243
NSA - NATIONAL SECURITY AFFAIRS	243
MA Security Studies (Civil-Military Relations)	4
MA Security Studies (Combating Terrorism: Policy and Strategy)	II
MA Security Studies (Europe and Eurasia)	22
MA Security Studies (Far East, SE Asia, the Pacific)	32
MA Security Studies (Homeland Security and Defense)	105
MA Security Studies (Middle East, South Asia, Sub-Saharan Africa)	32
MA Security Studies (Strategic Studies)	14
MA Security Studies (Western Hemisphere)	22
PhD Security Studies	I
NPS TOTAL	1260

### Degrees Conferred by Academic School (since 2000)



SCHOOLS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
GSBPP	148	169	223	177	233	229	322	331	331	255	293	295	321	315	354	315	351	285	303
GSEAS	231	202	179	217	245	320	295	372	257	328	317	329	426	428	446	366	418	404	407
GSOIS	241	217	289	249	280	282	237	259	327	335	305	321	337	346	338	340	335	294	303
SIGS	103	98	93	115	165	190	234	249	230	243	265	250	277	269	261	232	249	206	243
Other	-	10	14	13	17	38	34	30	25	18	8	15	18	15	12	16	5	4	4
Total	723	696	798	771	940	1,059	1,122	1,241	1,170	1,179	1,188	1,210	1,379	1,373	1,411	1,269	1,358	1,193	1,260

## **EXECUTIVE EDUCATION** & **PROFESSIONAL DEVELOPMENT**

### **NPS EXECUTIVE EDUCATION**

The Naval Postgraduate School (NPS) extends world-class executive education and professional development (EE/PD) programs to mid- and senior- grade professionals who are unable to take the time out of their careers to attend degree programs, or who need targeted information at their locations on their time schedules. In addition to degree and certificate courses offered for credit, Schools, Centers, Departments, Institutes and other organizations of NPS provide executive education, numerous short courses, seminars, fly-away teams and conferences to meet specific sponsors' needs. NPS' short courses do not award academic credit, but selected short courses may award continuing education units (CEUs). The majority of EE/PD programs are provided by five separate units at NPS, with additional smaller EE/PD programs within several of NPS' academic departments.

### CEE

The Center for Executive Education (CEE) designs and delivers a wide variety of executive education programs as part of the Navy Executive Development Program (NEDP) for Flag Officers, SES's, Captains, GS-15's and select Command/Fleet/ Force Master Chiefs. CEE programs address the strategic-level executive needs of senior Navy leaders and are designed to provide the knowledge, skills, and tools needed to manage and lead effectively in complex DoD organizations.

### CCMR

The Center for Civil-Military Relations (CCMR) provides unique executive education and advisory programs that meet US and partner mutual interests, build partner capacity, and advance interagency and international cooperation. CCMR is a primary security cooperation provider, with efforts focused on civil-military relations, policy and governance, management and acquisition, peacekeeping, combating violent extremism, disaster preparedness and response, and supporting the security cooperation community.

### DRMI

The Defense Resources Management Institute (DRMI) conducts professional education programs in resources management and analytical decision making for military officers of all services as well as civilian officials from the U.S. and over 170 partner nations. This provides a unique opportunity for U.S. students to collaborate, share, and learn with international participants.

### RSEP

The Regional Security Education Program (RSEP) provides deploying Naval Forces with information regarding security challenges for the regions in which they will deploy and operate. The training is given to Carrier Strike Groups (CSG) and Amphibious Readiness Groups (ARG) staffs to provide them with a better understanding of the cultural and security challenges they face on deployment.

### CHDS

The Center for Homeland Defense and Security (CHDS) develops and offers an array of educational resources to the national homeland security enterprise that significantly advance the strategic and critical thinking abilities of its emergency management leadership.

### ACADEMIC DEPARTMENTS

While the majority of EE/PD activity at NPS occurs in the five programs mentioned, many of the academic departments within the four Graduate Schools also provide EE/PD courses that complement their academic programs.

### 2018 QUICK FACTS:

### STUDENT ENROLLMENT

After a multi-year increasing trend, total attendance in EE/PD was relatively stable in 2018, with 525 courses offered to over 29k students.

### **EE/PD FUNDING**

2018 EE/PD funding overall was over \$26mil, a \$5mil decrease over 2017. This marks the third consecutive year of decreasing costs and increasing or stable student/course numbers.

### STUDENT TYPES

The largest group of EE/PD students, at 55% overall, was from non-US military forces in 2018.

### CCMR

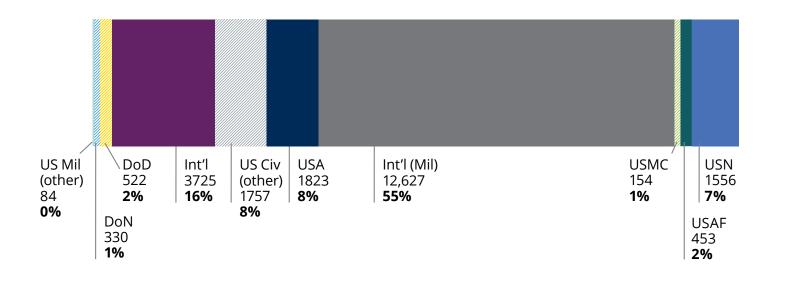
60 percent of all EE/PD funding was utilized by CCMR in support of 369 courses and over 19k students.

### LOCATIONS

63% of NPS' EE/PD courses were conducted abroad, another 6 courses at sea and 14 courses online or via distance learning.

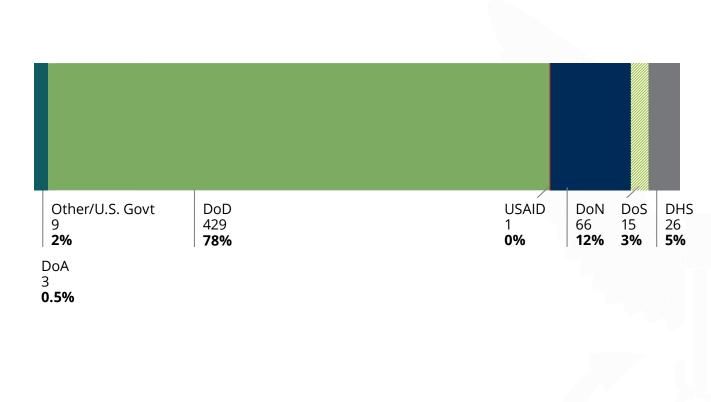
### TOTAL STUDENTS ENROLLED

By Affiliation – 23,031 total students with known affiliation The largest group of EE/PD students, at 55% overall, was from non-US militar forces in 2018.



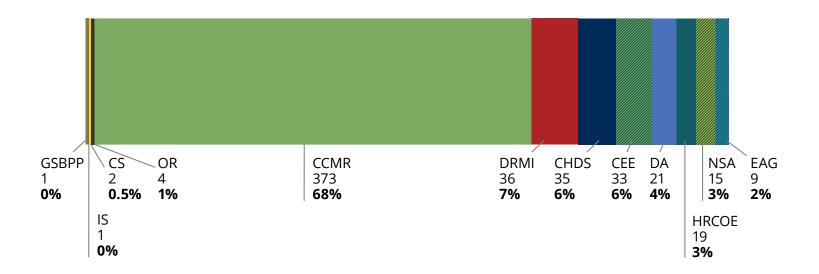
### **TOTAL COURSES EXECUTED**

By Sponsor – 549 total courses Nearly 80% of NPS' EE/PD funding in FY18 was reimbursable.



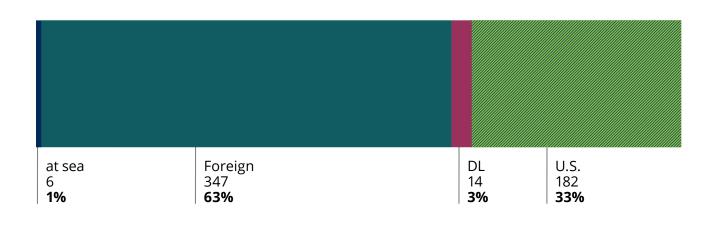
### TOTAL COURSES

By Organization – 549 total courses 68% of NPS' EE/PD courses occur within CCMR, with the remainder spread throughout the four schools.



### TOTAL COURSES EXECUTED

By location – 549 total courses 63% of NPS' EE/PD courses were conducted abroad,



2018 NPS Fact Book

63% of NPS' EE/PD courses were conducted abroad, with another 6 courses at sea and 14 courses online or via distance learning.

## NPS FACULTY

### FACULTY BY RANK

### Tenure Track

RANK	GSBPP	GSEAS	GSOIS	SIGS	RESEARCH	ADMIN	TOTAL
PROFESSOR	14	47	28	7	I	2	99
ASSOCIATE PROFESSOR	22	27	24	13	0	2	88
ASSISTANT PROFESSOR	12	13	14	5	0	0	44
TOTAL	48	87	66	25	I.	4	231
Non-Tenure Track							
RANK	GSBPP	GSEAS	GSOIS	SIGS	RESEARCH	ADMIN	TOTAL
SENIOR LECTURER	20	13	25	25	0	4	87
LECTURER	10	П	8	21	0	10	60
PROFESSOR OF THE PRACTICE	3	9	2	0	I	0	15
RESEARCH PROFESSOR	0	7	2	0	2	0	П
RESEARCH ASSOCIATE PROFESSOR	2	П	6	I	3	0	23
RESEARCH ASSISTANT PROFESSOR	0	6	2	I	0	0	9
ADMINISTRATIVE FACULTY	0	I	2	4	I	8	16
ASSOCIATE FACULTY	10	50	52	24	19	3	158
TOTAL	45	108	99	76	26	25	379

195

165

101

27

29

610

93

Graduate School of Business and Public Policy (GSBPP) Graduate School of Engineering and Applied Sciences (GSEAS) Graduate School of Operational and Information Sciences (GSOIS) School of International Graduate Studies (SIGS)

Source: Office of Institutional Research, Reporting and Analysis (IRRA)

Numbers may not sum to total due to rounding.

GRAND TOTAL

### NPS Faculty Distribution

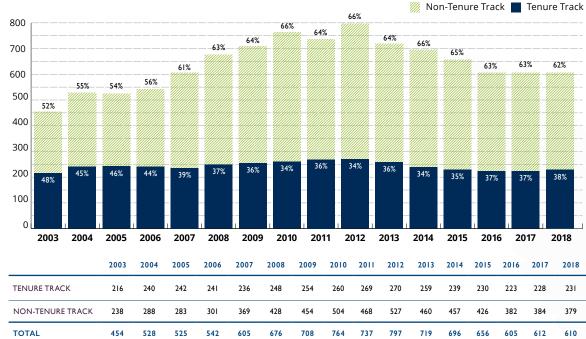
	GSBPP	GSEAS	GSOIS	SIGS	RESEARCH	ADMIN	TOTAL
TENURE TRACK	48	87	66	25	I	4	231
NON-TENURE TRACK	45	108	99	76	26	25	379
TOTAL	93	195	165	101	27	29	610

### NPS Faculty Distribution

	GSBPP	GSEAS	GSOIS	SIGS	RESEARCH	ADMIN	TOTAL
	93	195	165	101	27	29	610
PERCENTAGE	15%	32%	27%	17%	4%	5%	100%

### **TENURE TRACK/NON-TENURE TRACK FACULTY**

Trend since 2003



	2003	2004	2005	2006	2007	200
			Sc	ource: Of	fice of Ir	nstitut
TOTAL	454	528	525	542	605	67
NON-TENURE TRACK	238	288	283	301	369	428
TENURE TRACK	216	240	242	241	236	248
	2003	2004	2005	2006	2007	200

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
TENURE TRACK	48%	45%	46%	44%	39%	37%	36%	34%	36%	34%	36%	34%	35%	37%	37%	38%
NON-TENURE TRACK	52%	55%	54%	56%	61%	63%	64%	66%	64%	66%	64%	66%	65%	63%	63%	62%
TOTAL	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

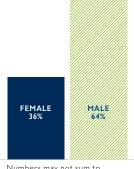
### **FACULTY AND STAFF 2018**

By Ethnicit	Y Black/African American	American Indian/Alaskan Native	Asian	Native Hawaiian/ Pacific Islander	Hispanic	White	Two or More	Total
NPS GS/WG	36	2	47	5	33	215	3	341
NPS FACULTY	4	6	47	2	25	533	I	618
TOTAL	40	8	94	7	58	748	4	959

### By Gender

2			
	FEMALE	MALE	TOTAL
NPS GS/WG	182	159	341
NPS FACULTY	159	459	618
TOTAL	341	618	959
	FEMALE	MALE	_
NPS GS/WG	53%	26%	_
NPS FACULTY	47%	74%	_
			-
TOTAL	100%	100%	

tutional Research, Reporting and Analysis (IRRA)



Numbers may not sum to total due to rounding. Source: Human Resources Jan 2019

### **NPS RESOURCES**

### **INFORMATION TECHNOLOGY AND COMMUNICATIONS SERVICES**

Quick Facts – NPS Systems

Networks	Provider	Site
EDU	CENIC	nps.edu
HPR	CENIC	hpr.nps.edu
MIL	DREN	nps.navy.mil
Public (for guests)	CENIC	Public.nps.edu
DoDNet	NPS	Monterey DoD Interconnect: DMDC, PERSEREC, DLIFLC, NRL, FNMOC, NPS
"PACBell" Commercial ISP	AT&T	Research Network
Classified Networks	Various	Various

### **Ouick Facts – User Accounts**

Туре	FY15	FY16	FY17*	FY18
Resident Students	1,860	1,686	1,427	1,608
DL Students	1,383	1,556	1,623	1,645
Faculty	754	730	550	553
Staff	810	794	1,168	1,234
Contractors	292	272	468	514
Total Accounts	5,099	5,038	5,236	5,554

### Quick Facts – Education Technologies

Description	FY15	FY16	FY17	FY18
Learning Resource Center application	289	274	274	277
Video Bridge Ports	80	80	80	80
ISDN Channels available to Video Bridge	0	0	0	0
ISDN Gateway Channels	253	253	253	253
VTC Equipped Spaces	42	36	57	53
VTC Meeting Rooms	28	14	18	18
VTE Specialized Classrooms & Studios	15	24	39	39
Multimedia presentation systems	133	130	130	130
Class hours recorded & streamed via the Internet	6,012	6,416	6,302	6,359
Participant hours attended via web-conferencing system (beginning FY14)	102,341	104,211	106,641	108,287
Logins to the learning management system (not distinct users)	1,692,040	1,013,306	1,037,324	1,111,503
Sites (courses and projects) hosted on the learning management system	9,308	10,787	11,956	13,536

### **INFORMATION TECHNOLOGY AND COMMUNICATIONS SERVICES**

High Performance Computing (HPC) Description

HPC supercomputer processors

HPC supercomputer users

HPC disk space

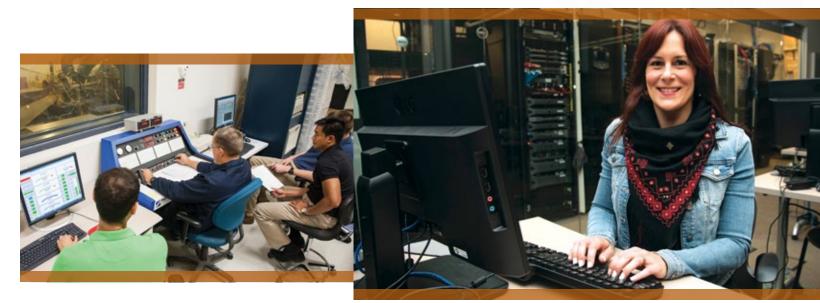
### **UNIVERSITY EDUCATION PARTNERSHIPS**

### Corporation for Education Network initiatives in California (CENIC)

State research and education network (CalREN) links University of California campuses and system, California State University campuses and system, University of Southern California, Cal Tech, Stanford University and the Naval Postgraduate School, as well as providing connectivity to other national high-speed networks such as LambdaRail and Internet2.

### Defense Research Engineering network (DREN)

DOD's recognized research and engineering network. Robust, high-capacity, low-latency nation-wide network that provides connectivity between and among the HPCMP's geographically dispersed high performance computing (HPC) user sites, HPC Centers, and other networks.



Source: Information Technology and Communications Services \*Data source changed to student information system

FY15	FY16	FY17	FY18	
4,290	4,698	5,166	4,516	
356	327	180	474	
2 PB	3.2PB	3.2 PB	3.2PB	

### Monterey Peninsula Department of

Defense Net

Regional DoD consortium with physical infrastructure linking Fleet Numerical Meteorology and Oceanography Center (FNMOC), Defense Manpower Data Center (DMDC), Naval Postgraduate School (NPS), Naval Research Lab, and Defense Language Institute - Foreign Language Center (DLI-FLC).

### University and Defense Partnership Navy Higher Education IT Consortium

Naval Postgraduate School, Naval War College, and Naval Academy CIO's working to develop higher education-based collaborations to maximize effectiveness of technology use at each of the three institutions.

2018 NPS Fact Bo

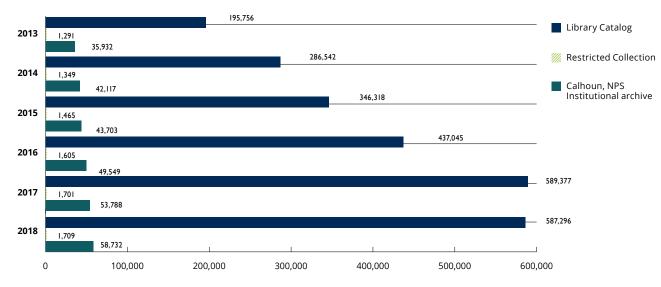
### **DUDLEY KNOX LIBRARY**

### Quick Facts

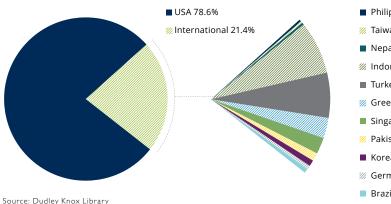
DESCRIPTION	2018	2017	2016	2015
Library staff FTE	25	26	27	28
Average weekly hours (Sunday-Saturday); extended hours during finals weeks	78	78	78	78
eResources available (books, journals, reports & more)	587,296	589,377	377,192	391,486
eResources available in Restricted Collection	1,709	1,701	1,605	1,465
eResources in NPS Archive: Calhoun	58,732	53,788	49,549	43,703
On-site Library visits	272,037	281,393	280,376	313,199
Average daily library visits (on-site)	829	842	808	909
Average daily library visits (virtual)*	1,746	4,813	4,737	
Hours students used collaborative study spaces	28,267.25	24,051.75	8,164	>8,200
Students receiving library instruction	2,432	2,501	2,435	2,746
Library instruction sessions offered (face-to-face and virtual)	149	138	126	146
*2018 changed to Google Analytics Sessions for counting virtual vists				

\*2018 changed to Google Analytics Sessions for counting virtual vists

### Number of Electronic Resources



### NPS Alumni Registered for FY2018 Library Access Top Countries (N=3,530)



ilippines 0.4%
iwan 0.4%
epal 0.3%
donesia 0.6%
rkey 5.6%
eece 2.1%
ngapore 1.9%
kistan 1.5%
orea 0.8%
ermany 0.6%
azil 0.8%

Alumni

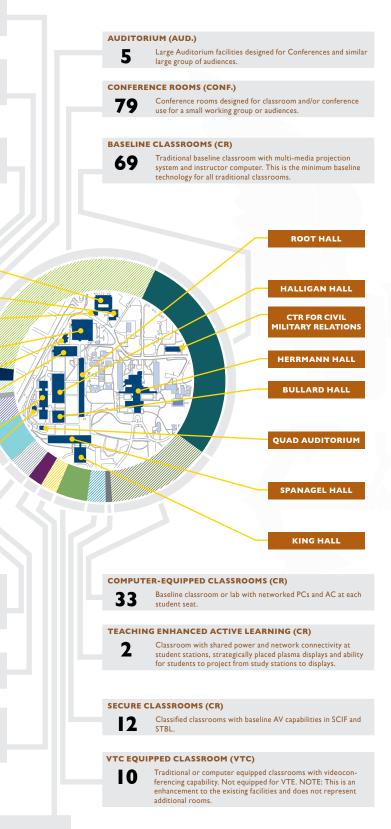
TOTAL

YEAR

TIES
stand-alone computers students and faculty whic dual boot Mac OS and Win
stand-alone computers fo nts and faculty where mult ns and hardware are possi
stand-alone computers fo Idents and faculty using Uf
115
rs. Equipped with network uctor computer, networke mputer classroom on an
udio. Enhanced version of seats for local students. Us ote students. Includes larg



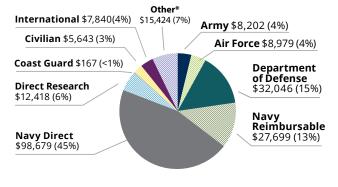
Source: Facilities Management (2014)

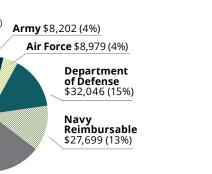


## FINANCIALS & PROGRAMS

NPS FY2018 Revenue By Source – Direct and Reimbursable \$217 Million

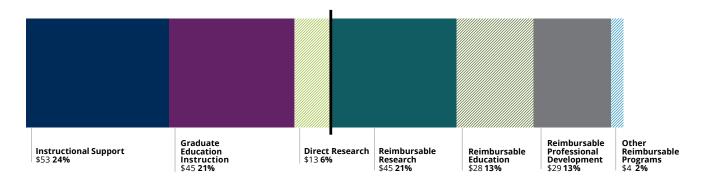
PERCENTAGE	\$K
45%	\$98,679
6%	\$12,418
4%	\$8,202
4%	\$8,979
15%	\$32,046
13%	\$27,699
0%	\$167
3%	\$5,643
4%	\$7,840
7%	\$15,424
	45% 6% 4% 4% 15% 13% 0% 3% 4%





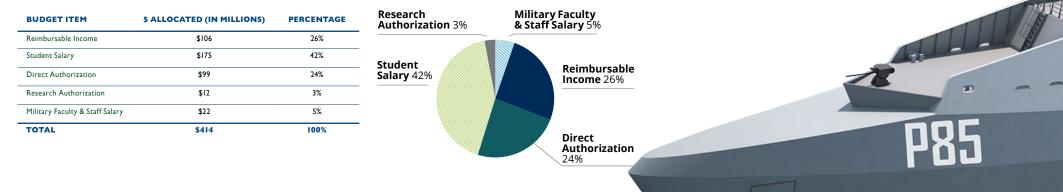
\*Other = Dept. of Energy, Homeland Security, Dept. of Justice, Dept. of State, Dept. of Veterans Affairs, Executive Office of the President, NASA, National Science Foundation

### NPS FY2018 Expenditures By Category – Direct and Reimbursable \$217 Million



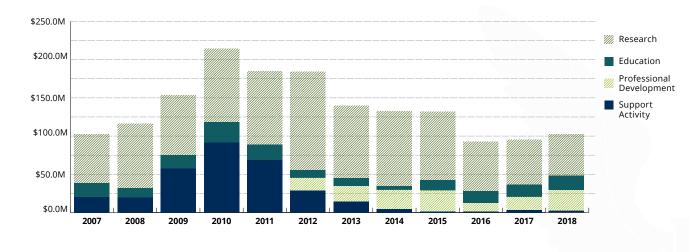
### **NPS TOTAL FINANCIAL RESOURCES**

Total Operations & Military Salary – Budget by Source, FY2018



### NPS SPONSORED PROGRAM FUNDING

Sponsored Program Funding Execution By Product Line (In Millions of Dollars) – Trends since FY2007



	2007	2008	2009	2010	2011	2012	2013*	2014*	2015"	2016*	2017*	2018*
Support Activity	\$20.3	\$19.6	\$57.6	\$91.2	\$68.3	\$28.4	\$14.5	\$4.7	\$1.4	\$.854	\$3.3	\$2.6
Professional Development	-	-	-	-	-	\$17.2	\$20.1	\$24.9	\$27.6	\$11.5	\$17.6	\$24.6
Education	\$18.3	\$12.0	\$17.3	\$27.4	\$20.6	\$9.9	\$10.2	\$4.9	\$13.2	\$15.4	\$15.8	\$16.4
Research	\$63.8	\$84.5	\$78.6	\$95.4	\$95.9	\$128.3	\$95.1	\$98.0	\$89.9	\$64.9	\$58.8	\$57.2
Total	\$102.4	\$116.1	\$153.5	\$214.1	\$184.7	\$183.8	\$139.8	\$132.5	\$132.1	\$92.6	\$95.5	\$100.8

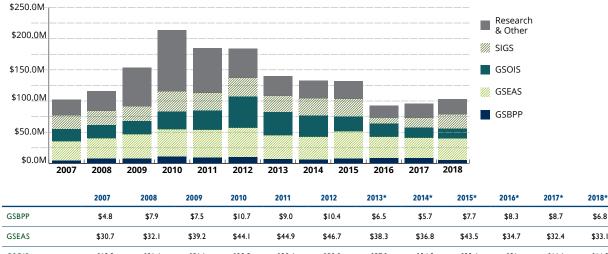
\* Includes Naval Research Program execution under Reimbursable Researc

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2018 NPS Fact

### **NPS FINANCIAL OPERATIONS**

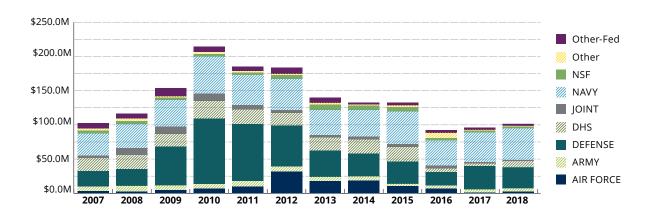
Sponsored program Funding Execution By Division (In Millions of Dollars) - Trends since FY2007



Total	\$102.4	\$116.1	\$153.5	\$214.1	\$184.7	\$183.8	\$139.8	\$132.5	\$132.1	\$92.6	\$95.5
Research & Other	\$25.4	\$31.9	\$62.I	\$98.4	\$71.5	\$46.5	\$31.7	\$28.4	\$28.3	\$19.8	\$22.6
SIGS	\$22.0	\$22.7	\$23.6	\$32.7	\$28.7	\$30.2	\$26.3	\$27.3	\$28.9	\$8.7	\$15.7
GSOIS	\$19.5	\$21.4	\$21.1	\$28.2	\$30.6	\$50.0	\$37.0	\$34.3	\$23.6	\$21	\$16.1
GJLAJ	450.7	ψ32.1	ψ37.2	ψττ.ι	ψηη.ν	<b>Ψ</b> +0.7	450.5	<b>\$30.0</b>	ψτ3.5	ψυπ./	ψυ2.4

\* Includes Naval Research Program execution under Reimbursable Research

Sponsored program Funding Execution By Sponsor (In Millions of Dollars) - Trends since FY2007



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
AIR FORCE	\$3.5	\$2.9	\$4.4	\$7.1	\$9.9	\$31.7	\$17.8	\$18.4	\$10.4	\$7.3	\$.958	\$2.2
ARMY	\$6.3	\$7.8	\$7.4	\$6.3	\$7.9	\$7.4	\$6.I	\$6.2	\$3.5	\$3.8	\$4.9	\$4.7
DEFENSE	\$22.4	\$24.3	\$56.5	\$95.6	\$83.3	\$59.9	\$38.3	\$33.2	\$32.7	\$19.6	\$34.1	\$31.9
DHS	\$19.3	\$20.6	\$18.6	\$26.0	\$21.4	\$18.5	\$19.9	\$20.8	\$21.3	\$6	\$3.7	\$6.7
JOINT	\$3.4	\$10.2	\$10.3	\$10.5	\$6.4	\$3.9	\$3.2	\$4.0	\$3.9	\$3.9	\$1.7	\$1.9
NAVY	\$32.8	\$36.0	\$39.6	\$54.8	\$43.8	\$45.8	\$36.6	\$39.2	\$48.1	\$36.5	\$43.2	\$46.I
NSF	\$3.7	\$4.0	\$3.2	\$3.5	\$3.6	\$5.8	\$7.6	\$6.I	\$6.0	\$3.3	\$2.9	\$3.0
OTHER	\$3.1	\$3.2	\$1.7	\$2.5	\$2.4	\$1.6	\$2.6	\$1.8	\$2.4	\$8.3	\$1.2	\$1.4
OTHER-FED	\$7.9	\$7.2	\$11.8	\$7.7	\$6.0	\$9.2	\$7.8	\$2.8	\$3.8	\$3.9	\$3	\$2.9
Total	\$102.4	\$116.1	\$153.5	\$214.1	\$184.7	\$183.8	\$139.8	\$132.5	\$132.1	\$92.6	\$95.5	\$100.8

### **NPS HALL OF FAME HONOREES**

The NPS Hall of Fame recognizes the accomplishments of NPS' most distinguished alumni and friends who, through the attainment of positions at the highest levels of public service, have made the greatest contributions to society, their nations and to the Naval Postgraduate School.

### The Honorable Jack R. Borsting (Posthumous induction presented 27 Apr 2017)

Cmdr. Everett Alvarez, Jr. (Ret.) (Presented 27 March 2015)

General Keith B. Alexander, USA (Ret.) (Presented 21 June 2013)

Colonel Walt Havenstein, USMCR (Ret.) (Presented 30 Nov 2012)

Admiral Eric T. Olson, USN (Ret.) (Presented 30 Nov 2012)

Admiral Stanley Arthur, USN (Ret.) (Presented 2 Dec 2011)

Dr. J. Phillip (Jack) London (Presented 2 Dec 2011)

\$6.8

\$33.I

\$14.8

\$22.6

\$23.5 \$100.8

### **BOARD OF ADVISORS TO THE PRESIDENT, NAVAL POSTGRADUATE SCHOOL**

Non-Federal Membership

Board Member	Title	Affiliation
Mr. Walter Anderson	Co-Founder/President	NOVIUM Learning
Mr. Donald R. Dixon	Co-Founder	Trident Capital, Inc.
Vice Adm. David E. Frost, USN (Ret.)	President	Frost and Associates
Vice Adm. Lee Gunn, USN (ret.)	Chairman	The Gunn Group
Dr. Elisabeth Paté-Cornell	Professor	Stanford University
Dr. Kiron K. Skinner	Professor	Carnegie Mellon University
Honorable G. Kim Wincup	Senior Advisor	Center for Strategic Intl. Studies

### Federal Ex-Officio Membership

Board Member	Title	Affiliation
Brig. Gen. William J. Bowers, USMC	President	Marine Corps University
Vice Adm. Robert Burke, USN	Chief of Naval Personnel	OPNAV (N1)
Lt. Gen. Anthony J. Cotton, USAF	Commander and President	Air University
Rear Adm. David J. Hahn, USN	Chief of Naval Research	Office of Naval Research
Maj. Gen. John S. Kem, USA	Commandant	U.S. Army War College

In 2010, a new committee comprised of the Board of Advisors for both the Naval Postgraduate School and the Naval War College was established. The committee formerly referred to as the NPS Board of Advisors is now a permanent subcommittee of the new joint committee

Source: Research Sponsored Programs Office (RSPO)



Vice Admiral Pat Tracey, USN (Ret.) (Presented 3 Dec 2010)

Admiral T. Joseph Lopez, USN (Ret.) (Presented 3 Dec 2010)

Vice Admiral Thomas J. Hughes, USN (Ret.) (Posthumous induction presented 3 Dec 2010)

General Apichart Penkitti, Permanent Secretary for Defense, Thailand (Ret.) (Presented 30 July 2010)

Admiral Michael Mullen, USN (Ret.) (Presented 11 Aug 2009)

General Michael Hagee, USMC (Ret.) (Presented 23 May 2009)

The Honorable Dan Albert, Mayor of Monterey (Ret.) (Presented 23 Feb 2007)

