



# **National Defense University**

## **Annual Report for Academic Year 2017**

(July 1, 2016 - June 30, 2017)

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## INTRODUCTION AND OVERVIEW

The National Defense University (NDU) operates as a Chairman's Controlled Activity under the auspices of the Chairman of the Joint Chiefs of Staff (CJCS). "The Chairman's University," NDU educates, develops, and inspires national security leaders. The current security environment has been described as volatile, unpredictable, complex, and ambiguous. History has shown that the best way to safeguard the nation's interests is by educating and developing leaders who are prepared to think critically, strategically, and creatively to produce whole-of-government and whole-of-nations solutions. Providing this uniquely valuable education and professional development has been NDU's primary purpose since the university was founded in 1976. This report covers NDU's work in preparing national security leaders during Academic Year 2017 (AY2017), which covers July 1, 2016 to June 30, 2017. The university's programs, structure, resources, and impact are presented here and in the following sections.

**Mission and Vision:** This year, NDU accomplished its mission, which is that "NDU develops joint warfighters and other national security leaders through rigorous academics, research, and engagement to serve the common defense." In so doing, the university advanced toward fulfillment of the Chairman's vision for NDU, which is that "NDU will create strategic advantage by developing joint warfighters and other national security leaders, and forging relationships through whole-of-nations and whole-of-government education programs, research, and engagement." This year, the university observed the 70<sup>th</sup> anniversary for both the National War College and the Joint Forces Staff College, and marked the 40<sup>th</sup> anniversary of NDU.

**Unique Value Proposition:** As the nation's premier institution for strategic leader development, NDU leverages a uniquely valuable combination of:

- Academic teaching and research programs focused on key national security challenges
- A student body, faculty, and staff that deliberately represents diversity of experience and perspective; this enables NDU's holistic approach by featuring:
  - A mature student that averages 43 years of age, with nearly two decades of work experience, and represents a wide range of operational perspectives in every seminar
  - A highly qualified faculty that combines traditional academic credentials with deep strategic, operational, and tactical practitioner experience in all facets of national security
  - A dedicated staff team that provides effective and efficient academic and institutional support systems to enable missions across the enterprise
- Deep partnerships across the interagency and international landscape, including with think tanks, academic consortiums, and government agencies operating in the national and international security space. Campus locations that enable key relationships and academic opportunities:
  - The Fort McNair campus is situated in the seat of government
  - The Norfolk campus is co-located with multiple operational commands
  - The Joint Special Operations Master of Arts program at Fort Bragg
  - Satellite programs rotate through Combatant Commands worldwide

- Ongoing engagement with national and international strategic leaders from across the security enterprise, using Professional Military Education as a strategic asset to build partnerships

**Mission Accomplishment:** NDU accomplished its primary mission this year by delivering targeted education and professional development programs to nearly 3,000 graduate-level students (details of these and other key accomplishments are presented throughout this report). Scholars across the university also conducted a wide range of engagement and outreach programs that informed, educated, and energized key stakeholders. Faculty continued to burnish NDU's reputation for thought-leadership by researching and publishing well over 100 scholarly articles in professional journals. In addition to publishing *Joint Force Quarterly*, *PRISM*, and multiple other research documents, NDU also published *Charting a Course: Strategic Choices for a New Administration*.

**Goals:** Throughout this anniversary year, the university continued its drive toward four strategic goals:

- Educate, develop and inspire national security leaders to meet the nation's needs.
- Create, preserve and disseminate knowledge intrinsic to advanced joint education and leader development.
- Create integrated solutions and services that support advanced joint education and focus on customer service, collaboration, effectiveness, efficiency, innovation and fiscal responsibility.
- Evolve and reform the processes, practices, structures, organization and culture to foster institutional collaboration, integration and alignment.

**Organizational Structure and Lines of Operation:** NDU operates under the authority and direction of the NDU President (NDU-P). This year saw the CJCS decision to restore the university president billet to the three-star level. The Senior Vice President, a career diplomat assigned from the Department of State (DOS), leads the university's related Engagement programs. The Provost leads all academic and research programs, which are led by a military commandant, civilian chancellor, or director. The COO leads all business operations, including financial management, facilities, human resources, information technology, current operations, events, and resource management.

NDU leadership evolved and codified the university's new organizational structure to provide a more robust graduate-level experience with staff support and processes built upon best practices of other graduate academic institutions. This reorganization is based on the Board of Visitors' recommendations in 2013 and on recommendations from the university's accrediting bodies. This new organizational structure includes university activities that are functionally aligned under two vice presidents: The Vice President for Academic Affairs, or Provost, and the Vice President for Administration, or Chief Operating Officer (COO). Both of these positions report directly to the NDU President, to ensure a nested approach toward the university's vision and mission. An example of this realignment is the Commandants, Chancellors, and

Directors are aligned under the Provost to focus on academics and engagement, while the Deans of Administration now are aligned under the COO to focus on leading the university's business enterprise. Functionally aligning the university better delineates roles and responsibilities of the different parts of the organization and will enhance efforts to improve cooperation and efficiency across NDU.

The university team comprises academic and support components at multiple campuses using a whole-of-university strategy to optimize NDU's mutually supportive lines of operation, which are:

- Teaching: Education and professional development of national security leaders
- Research: Creating and disseminating new knowledge and understanding in support of students' academic experience and across the national security enterprise
- Engagement: Outreach to, and collaboration with, strategic stakeholders, including national security leaders and organizations with whom NDU is interdependent

**Funding Realignment:** During the previous academic year, then-Secretary of Defense Ash Carter directed a funding realignment for NDU and delegated direct management control and responsibility over programming and education resources to the CJCS, effective at the beginning of fiscal year 2017. Through Resource Management Decision 700A2, the Deputy Secretary of Defense directed realignment of NDU under the Joint Staff as a Chairman of the Joint Chiefs of Staff controlled activity (CCA). This relationship with the Joint Staff was strengthened and clarified during this academic year (AY2017), aligning policy and requirements with the university's budget planning and execution. The NDU budget will continue to operate separately within the Joint Staff budget, enabling NDU to exercise management control over all aspects of university resources.

**Senior Leader Changes** across NDU this year include, in alphabetical order:

- Dr. Michael Bell, Chancellor of the College of International Security Affairs, was detailed to the National Security Council; Dr. Chuck Cushman served as the Interim Chancellor of the College of International Security Affairs
- Colonel (US Army, retired) Mike Cabrey, Dean of Administration, College of International Security Affairs
- Dr. Harry Dorsey, Dean of Faculty and Academic Programs, the Eisenhower School
- Brigadier General Paul Fredenburgh, Commandant of the Eisenhower School, was selected by Admiral Harry B. Harris, to serve as the J-6 of US Pacific Command
- Mr. David Gansz, Dean of Library and Learning Center Services
- Dr. Richard Hooker, Director of the Institute for National Strategic Studies, was detailed to the National Security Council; Dr. Laura Junor served as the Interim Director
- Mr. John "Jay" Kennedy, Dean of Administration, Joint Forces Staff College

- Dr. Amie Lonas, Dean of Faculty and Academic Programs, Joint Forces Staff College
- Brigadier General Chad Manske, US Air Force, Commandant of National War College
- Rear Admiral (US Navy, retired) Gerard “Gerry” Mauer, Director, CAPSTONE
- Mr. Mike Peznola, Dean of Administration, National War College
- Ms. Catherine Reese, Dean of Administration, Institute for National Strategic Studies
- The Secretary of Defense announced on June 27 that the President nominated Rear Admiral Frederick J. “Fritz” Roegge, US Navy, for appointment to the rank of Vice Admiral and for assignment as NDU President; at the time, RADM Roegge was serving as Commander, Submarine Force, US Pacific Fleet
- Rear Admiral Jeff Ruth, Commandant, Joint Forces Staff College
- Mr. Larry Rzepka, President and CEO of the NDU Foundation
- Dr. Mark Troutman, Dean of Faculty and Academic Programs, the Eisenhower School
- Colonel Pete Yeager, acting Dean of Faculty and Academic Programs, JFSC
- Ambassador Don Yamamoto, Senior Vice President

**Curriculum:** The university team continued to improve the core curriculum, with only minor adjustments to the timing of electives. This focus on improving all academic programs included incorporating feedback from students and faculty, along with lessons learned from the previous academic year to hone the curriculum, academic calendar, and the business processes that support the entire academic enterprise. The university benefited from curriculum changes in previous years, which required only relatively minor changes this year.

**Budget:** While working to execute the existing budget with maximum effectiveness and efficiency, and secure resources for needed infrastructure, NDU also participated in discussions on DOD-wide management headquarters reductions that were also levied on NDU. The identified cuts would further reduce funding beyond the current 32% reduction in NDU’s budget since 2013, to a 36% reduction. With the help of the Joint Staff, indications are that this additional budget reduction will be avoided and additional funding will be available to bolster NDU IT infrastructure and Academic Technology.

**Key Initiatives:** The newly renamed College of Information and Cyberspace, formerly the Information Resources Management College, conducted the second iteration of its Joint Professional Military Education II Master’s program, graduating 15 students. This program is the Department of Defense’s first Senior PME institution with a class of students focused on employing the information and cyberspace domains to achieve national security outcomes.

The Joint Forces Staff College continued offering the Joint and Combined Warfighting School (JCWS) in the traditional resident program at Norfolk, Virginia. JCWS is also delivered as a hybrid (distance learning combined with an experiential in-residence component) course



designed primarily for reserve component personnel, and in a satellite program that takes the course to the students while they serve as joint staff officer. Thus far, JCWS has been delivered to satellite locations for USPACOM, USSOUTHCOM, USCENTCOM, USSOCOM, USEUCOM, USAFRICOM, and for joint staff officers serving in the National Capital Region with classes at Ft. McNair.

NDU began development in earnest of a much-needed Learning Center by hiring a Dean of Library and Learning Center Services, assigning and realigning staff positions under the center, and beginning the design process for the Learning Center.

With the incoming administration, NDU was asked to assist with developing a National Security Decision Making Course for senior civilian employees new to the federal government. This J-7 initiative was envisioned to cover employees from presidential appointees to the senior GS-level of multiple federal departments, it will most likely start with a pilot of DOD civilians, potentially with 20% general and flag officers joining the cohort. This will not be an NDU course, but NDU will help facilitate it with subject matter expertise and classroom space. The initiative will eventually be owned by the Office of the Secretary of Defense, with the Office of the Chairman of the Joint Chiefs of Staff as a potential partner.

The International Student Management Office (ISMO) improved its American Studies elective, including its field practicum, for International Fellows studying at the National War College and Eisenhower School. This elective exposes international students to unique perspectives on American society and proves to be a tremendous bonding experience that reinforces ISMO's mission to cultivate future international security assistance cooperation. NDU completed a pilot of this elective that included four US students, with great praise by the US students who participated in the program, by college faculty who supported the elective, and by the international students who had the opportunity to forge stronger relationships with US students.

Major highlights this year were the National and International Hall of Fame induction ceremonies. After a several-year break, NDU inducted six distinguished US alumni into the National Hall of Fame, including Senator John McCain, General Eric Shinseki, General Martin Dempsey, General Ann Dunwoody, General Janet Wolfenbarger, and then-Secretary of Homeland Security John Kelly. NDU also inducted two distinguished alumni into the International Hall of Fame: Lieutenant General William Hotchkiss (24<sup>th</sup> Commanding General of the Philippine Air Force) and General Emmanuel Bautista (Chief of Staff of the Armed Forces of the Philippines).

**Business Operations:** To ensure core university business operations are executed in a standardized, repeatable, effective, efficient, measureable, and auditable way, NDU Operations chartered a Business Transformation Working Group (BTWG) in October 2016 to focus during FY2017 on identifying and documenting NDU's most-used (i.e., highest priority) business processes. The BTWG ultimately identified 21 core processes performed on a daily or weekly basis that enable and support activities that are key to NDU's mission. Examples include the procurement of supplies and services, bus transportation of students, hiring, and training and travel approval.

For each of the 21 core processes, the owners of each process worked in tandem with BTWG members to graphically chart the steps and decision points within their process; identify IT requirements, resources, forms and regulations; assign roles and responsibilities; identify risks, gaps, and issues within the process; and identify data collection points and performance metrics. For each of these processes, those elements were incorporated into new, standardized DOD-based templates and approved by the Chief Operating Officer in an NDU manual.

In FY2018, NDU will build upon this foundation of standardized process documentation to develop a Continuous Process Improvement Strategy, which will:

1. Support innovative ways to address issues, gaps, and risks;
2. Identify and enable the collection of key measurements;
3. Identify and set service support levels, metric goals, and key performance indicators that best convey the health of NDU academic support and enterprise business processes;
4. Create audit plans and internal controls to monitor the performance and health of operational processes;
5. Designate and prioritize the development of automated processes in the pending IT/SharePoint 2016 environment; and,
6. Set requirements and prioritize the development of executive-level Operations dashboards to support senior leader decision-making and planning.

**Business Transformation** at NDU represents the culmination of a multi-year effort to operationalize the NDU 2012-17 Strategic Plan and support the NDU President's whole-of-NDU approach. Ultimately, Business Transformation is focused on re-professionalizing the staff and renewing the staff's customer orientation within a functionally aligned framework of responsibility and accountability. Additionally, reviewing and validating standardized processes while ensuring they are accurately documented and accessible to the NDU community will ensure transparency in core university operations.

**Board of Visitors:** The NDU Board of Visitors (BOV), under the provisions of the Federal Advisory Committee Act of 1972, provides the Secretary of Defense, through the Chairman of the Joint Chiefs of Staff and the NDU President, independent advice and recommendations on accreditation compliance, organizational management, strategic planning, resource management, and other matters of interest to the university. The board is composed of not more than 12 members who are eminent authorities in the fields of defense, management, leadership, academia, national military strategy, or joint planning at all levels of war, joint doctrine, joint command and control, or joint requirements and development.

Several new members joined the BOV this year. In alphabetical order, they are:

- Vice Admiral Jody Breckenridge, US Coast Guard, retired, and former Pacific Area Commander
- Ms. Sue Fulton, the first female academy graduate to chair the US Military Academy's Board of Visitors
- Dr. Suzanne Logan, a member of the Senior Executive Service serving in the Office of Personnel Management, and Director of the Federal Executive Institute
- Ambassador Bismarck Myrick, CAPSTONE Senior Fellow and former Ambassador to the Republic of Liberia and Lesotho
- Mr. Ian Solomon, a former official at the University of Chicago and Yale Law School, and a former advisor to the US Treasury Secretary
- Admiral Patrick Walsh, US Navy, retired, and former Vice Chief of Naval Operations and Commander, US Pacific Fleet

## NDU BY THE NUMBERS

**Table 1. NDU Students**

Component	#	%
CAPSTONE	193	6.5%
KEYSTONE	93	3.1%
PINNACLE	24	0.8%
CIC	649	21.9%
CISA	168	5.7%
Eisenhower	301	10.1%
JFSC	1,255	42.3%
NWC	206	6.9%
PEL	78	2.6%
<b>Total</b>	<b>2,967</b>	<b>100.0%</b>

Notes:

1. This table does not include the 332 non-credit student in JFSC programs.
2. The Program for Emerging Leaders (PEL) is a program offered by CSWMD that allows students to receive credit.
3. Numbers for each component in the table are unduplicated within the component, but not across components.

**Table 2. NDU Personnel**

Personnel Category	Active	Reserve	Guard	Total
U.S. Army	55	3	0	<b>58</b>
U.S. Air Force	42	6	1	<b>49</b>
U.S. Marine Corps	8	4	0	<b>12</b>
U.S. Navy	59	2	0	<b>61</b>
U.S. Coast Guard	0	0	0	<b>0</b>
DoD Civilian (Title 5)*	--	--	--	<b>267</b>
DoD Civilian (Title 10)*	--	--	--	<b>242</b>
Interagency Civilian	--	--	--	<b>53</b>
<b>Total</b>	<b>164</b>	<b>15</b>	<b>1</b>	<b>742</b>

Note: Active and Reserve Components apply only to U.S. Military services; thus numbers may not sum to total across Active/Reserve status. \*Title 5/10 numbers include Expert Consultants.

**Table 3. Title 10 Civilian Employees' Highest Level of Education**

Degree type	Total by Degree Type	
	#	%
Bachelor's Degree	8	3%
Master's Degree	97	40%
Doctorate or Professional Degree	137	57%
<b>Total</b>	<b>242</b>	<b>100%</b>

**Table 4. FY2016 University Fiscal Resources (\$M)**

Category	Direct	Reimbursable	Total by Expenditure Category
Education/Leader Development	\$37.00	\$10.07	\$47.07
Scholarship	\$5.85	\$9.64	\$15.49
Institutional Enabler	\$41.20	\$10.90	\$52.10
<b>Total by Funding Source (millions)</b>	<b>\$84.05</b>	<b>\$30.61</b>	<b>\$114.66</b>

**Table 5. FY2017 University Fiscal Resources (\$M)**

Category	Direct	Reimbursable	Total by Expenditure Category
Education/Leader Development	\$39.48	\$13.20	\$52.68
Scholarship	\$5.12	\$5.64	\$10.76
Institutional Enabler	\$41.09	\$6.51	\$47.60
<b>Total by Funding Source (millions)</b>	<b>\$85.69</b>	<b>\$25.35</b>	<b>\$111.04</b>

**Table 6. University Facilities**

Facility Name	Building Number	Campus	Square Footage
Lincoln Hall	64	Fort McNair	210,267
Marshall Hall	62	Fort McNair	225,626
Eisenhower Hall	59	Fort McNair	130,043
Roosevelt Hall	61	Fort McNair	118,836
Okinawa Hall	SC-4	NSA-Norfolk	74,080
Marianas Hall	SC-400	NSA-Norfolk	39,382
Facilities Building	SC-401	NSA-Norfolk	17,498
Normandy Hall	SC-1	NSA-Norfolk	165,695
Grant Hall	20	Fort McNair	10,382
Davis Hall	21	Fort McNair	12,619
Building 17	17	Fort McNair	2,791
<b>Total Square footage</b>			<b>1,007,219</b>

## **EDUCATION, RESEARCH, AND ENGAGEMENT**

NDU executes its education mission via five colleges and the CAPSTONE programs, each with a distinct focus that provides uniquely valuable education and professional development opportunities. The graduate education programs across the university offer a combination of rigorous education and the ability to grant JPME II certification, a major requirement for the award of Joint Qualified Officer (JQO) status. In addition to the 10-month master's degree programs, NDU also offers short courses that prepare students to meet the unique requirements of operating in a truly joint environment. Research and partnership programs throughout the university enhance the educational experiences of NDU's students. These programs are delivered via the university's colleges and components; delivery is detailed in the following sections, which focus on each program.

### **Accreditation**

NDU is accredited by the Middle States Commission on Higher Education (MSCHE) in order to grant master's degrees. MSCHE is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation. NDU was initially accredited by MSCHE in 1997 and accreditation was most recently reaffirmed in 2013.

NDU's JPME programs are accredited by the Process for Accreditation of Joint Education (PAJE), a specialized accrediting practice facilitated by the Chairman of the Joint Chiefs of Staff. This military accreditation evaluation mirrors a civilian educational accreditation process. Within the last eighteen months, the PAJE team visited all five of NDU's colleges.

The Senior Acquisition Course (SAC) is accredited by the Under Secretary of Defense for Acquisition, Technology and Logistics through a specialized accrediting process that is recognized by the Department of Defense.

The Information Assurance (IA) programs are accredited as Centers of Academic Excellence in Information Assurance Education by the Secretary of Defense through the National Security Agency.

### **Libraries**

The NDU Libraries serve students and faculty of the five NDU colleges, the research centers, other components, and a worldwide community of external scholars via the provision of information materials directly supporting individual institutional missions and their specific classroom curricula. The Libraries at Fort McNair and the Joint Forces Staff College in Norfolk facilitate engagement with a wide range of unclassified, classified, and archival materials, with staff members in regular contact via VTC (Video Teleconferencing), Skype, phone, and email.

The combined Libraries provide access to 500,000 print volumes, and over 250 electronic databases, 48,000 eJournals, and 200,000 eBooks—links to which are embedded in Blackboard online course sites and made available virtually via the web to authorized patrons. The OneSearch EBSCO Discovery Service (EDS) allows patrons to search across multiple databases

and link directly from search results to the full-text content. The Library recently updated its website with automated citation management tools, an online ability to place holds and renew items, and mobile device compatibility.

Title 10 expert Librarians (who are responsible for areas of subject expertise) supply value-added services, which include:

- Professional research assistance
- Teaching information literacy sessions of general, subject, country, class or assignment-specific orientation
- Conducting presentations on a variety of research methodology topics
- Selecting and deselecting collection holdings for timeliness, authority, and appropriateness to the teaching and learning process
- Consultation via an online Ask-a-Librarian feature

During AY2017, Librarians from both campuses leveraged Blackboard Collaborate technology to deliver online research orientations that directly supported 275 students in the Joint and Combined Warfighting School-Hybrid (JCWS-H) program. The Librarians presented in audio, video, and chat, and demonstrated library website and database functionality in real time. Students asked questions via audio and chat, and sessions were recorded for later view or review. Additionally, the Libraries began using Skype to make information literacy classes available to a wider audience, as well as providing one-on-one desktop assistance to students and faculty on the NDU network.

In pursuit of NDU's goal to create a Learning and Technology Center, the Library began centralizing services for faculty development, to include instructional technology, pedagogical best practices, and course design. NDU's Information Technology directorate has co-located its IT Help Desk within the Library at Fort McNair, thus enhancing the collaborative hand-off of service from information professionals to their technology professional counterparts, and delivering a return on investment for students in a bring-your-own-device campus environment. Additionally, Title 10 professional writing specialists are being hired to critique and support research papers, master's theses, and faculty publications.

The Library's Special Collections holds the personal papers and other artifacts of modern military and diplomatic leaders, with emphasis on former Chairmen and Vice Chairmen of the Joint Chiefs of Staff, Supreme Allied Commanders, and other selected Combatant Commanders. Complementing the personal paper collections are Joint Publications, both current and historical.

The NDU Archives serve as a vital segment of the collective memory of the university and documents the university's curricular development. The Archives are the repository for publications, documents, visual materials, and artifacts relating to the individuals, programs, curricula, and activities of NDU and its constituent colleges, including lectures and support materials. Student papers are archived in accordance with University Instruction NDUI 5015.02, Student Scholarship Preservation and Access.

The Classified Documents Center (CDC) has improved network access and performance with SIPRnet expansion and DIA JWICS installation. CDC's classified digital archives employed a new server that quadrupled file storage and exponentially maximized performance speed for file search, retrieval, and management. Upgrades were made to ContentDM and Knowvation, searchable, digitized research collections including archives from Joint Chiefs of Staff Chairmen, as well as transcribed distinguished lectures and student papers.

## **President's Lecture Series**

NDU's President's Lecture Series (PLS) complements the JPME curricula by providing students with uniquely valuable opportunities to see, hear, and engage with distinguished senior leaders, policy makers, and innovative strategic thinkers throughout the academic year.

Invitations to engage with NDU's students are based on alignment between each speaker's expertise and the curriculum. Guest lecturers discuss with students timely issues related to national security and foreign policy in an unpredictable and complex world. Based on their unique personal experiences, NDU's distinguished speakers share their insights on strategic leadership, the development and implementation of strategy, and the challenges and importance of effectively operating in joint, interagency, and multinational environments.

The PLS program was designed to promote three common outcomes for student learning:

- **Creative and Critical Thinking:** Student comprehension leads to analysis, synthesis, and evaluation of key concepts, theories, and analytical approaches that shape strategic judgment and choice. This is accomplished through understanding of critical thinking frameworks necessary for accurately grasping and effectively dealing with the strategic environment; and the challenges associated with anticipating and managing complexity, uncertainty, change, and surprise.
- **Strategic Leadership:** Student comprehension leads to analysis, synthesis, and evaluation of key strategic leadership principles utilized in the conduct of national security affairs. This is enabled by developing understanding of decision-making that incorporates professional standards, shared values, ethical reasoning, and accepted precepts of civil-military relations; the complexities of leading organizational change; and the merits of operating on intent through trust, empowerment, understanding, and shared risk.
- **Strategic Aspects of JPME:** Student comprehension leads to analysis, synthesis, and evaluation of inter-service, interagency, and international policy planning, decision-making, and implementation processes. This is done via understanding of the content, purpose, and impact of capstone national and military strategy documents; the nature, importance, and impact of multinational relationships and capabilities; and the instruments and elements of power and their effective integration for creatively resolving complex strategic problems.

These engagements are typically held in a non-attribution, "Chatham House Rules" environment to encourage candor in the speakers' remarks and their question-and-answer engagements with the students, along with the follow-on discussions with students in the seminars.



This academic year, NDU's students from all colleges benefited from engaging with these distinguished speakers:

- General Joseph F. Dunford, Jr., CJCS, on August 23
- Senator John S. McCain III, Chairman of the Senate Committee on Armed Services, on September 7
- His Excellency, Bujar Nishani, President of Albania, on September 26
- Father J. Bryan Hehir, the Parker Gilbert Montgomery Professor of the Practice of Religion and Public Life at Harvard University's John F. Kennedy School of Government, October 13
- General Lori J. Robinson, Commander of US Northern Command (USNORTHCOM) and Commander of North American Aerospace Defense Command (NORAD), on November 2
- General (retired) Colin L. Powell, former CJCS and Secretary of State, on November 30
- The Honorable Newt Gingrich, former Speaker of the US House of Representatives, on December 14
- Admiral Michael S. Rogers, Director of the National Security Agency, Commander of the US Cyber Command (USCYBERCOM), and Chief of the Central Security Service, on February 1
- Ambassador Thomas R. Pickering, former US Ambassador to the United Nations, on March 8
- Dr. Condoleezza Rice, former Secretary of State, on May 12
- General (retired) John F. Kelly, Secretary of Homeland Security, on May 24

Distinguished speakers projected for the next academic year include:

- General Joseph L. Votel, Commander of US Central Command (USCENTCOM)
- General Tom Middendorp, Netherlands Chief of Defense
- Father J. Bryan Hehir, the Parker Gilbert Montgomery Professor of the Practice of Religion and Public Life at Harvard University's John F. Kennedy School of Government
- Admiral (retired) James G. Stavridis, former Commander of US Southern Command (USSOUTHCOM), US European Command (USEUCOM), and NATO Supreme Allied Commander Europe
- Dr. David Kennedy, the Donald J. McLachlan Professor of History, Emeritus, at Stanford University
- General John E. Hyten, Commander of US Strategic Command
- Ambassador Thomas R. Pickering, former US Ambassador to the United Nations
- Mr. Steve Forbes, Editor-in-Chief of Forbes
- General David L. Goldfein, Chief of Staff of the Air Force
- The Honorable Heather Wilson, Secretary of the Air Force

- General (retired) Colin L. Powell, former CJCS and Secretary of State
- Neil M. Gorsuch, Associate Justice of the Supreme Court of the United States
- Admiral Kurt W. Tidd, Commander of US Southern Command
- General Joseph F. Dunford, Jr., CJCS
- General (retired) Peter Pace, former CJCS
- Lieutenant General Jörg Vollmer, Chief of Staff of the German Army

## **Rising Leader Forum**

NDU supports an annual Rising Leader Forum (RLF). This CJCS-directed forum led by the Joint Staff J5 involves 12 one-star officers from both the US and UK militaries (24 participants) held alternately at NDU and the Royal College of Defence Studies (RCDS) in London. This forum enables rising leaders from these partner nations to discuss national security issues of mutual interest and network for better cooperation and communication in the future as leaders of their respective services. US participants are chosen based on well-rounded competency and their potential for promotion to three-star and four-star ranks.

This academic year, the RCDS hosted the forum in London in March. The AY 2018 forum is proposed for 15-22 June, 2018, at NDU. NDU hosts US participants for a pre-forum, two-day workshop focused on the issues to be discussed at RLF. The workshop and forum leverage experts and stakeholders from NDU faculty, JS, OSD, DOS, and think tanks. This gives participants expert perspectives on key issues from which they can develop their own perspectives and voice.

## **Center for Applied Strategic Learning**

The Center for Applied Strategic Learning (CASL) conducts experiential learning, wargames, exercises and simulations for NDU's colleges and components. In addition, CASL conducts wargames for other approved stakeholders and experiments with new gaming techniques prior to employment in the classroom.

CASL supports NDU's curricula by allowing students to test their adaptability and creativity via scenario-driven exercises. Each exercise is tailored to meet academic program curricular requirements. CASL supported more than 2,400 students by developing over 70 policy, strategy, and high-operational level exercises this year to advance student dialogue and collaboration on current and emerging national security challenges. CASL also supported 10 exercises for the Joint Staff, the Office of the Secretary of Defense (OSD), and other select partners.

High-profile exercise support included NDU-P Special Project/the Joint Land, Air and Sea Symposium – Special Program (JLASS-SP) Exercise. This exercise is an inter-senior service college event that engages and educates more than 140 students annually. Additionally, CASL supported OSD-Policy through its reimbursable mission, the National Security Policy Analysis

Forum (NSPAF) program, which enhances the national security dialogue within DOD, across the interagency environment, and internationally with coalition partners and allies. Of the NSPAF exercises conducted during this reporting period, one was conducted internationally; it included a cyber-security focus with a Middle Eastern partner nation.

In addition to providing experiential learning for students, CASL is a thought-leader on experiential education for DOD Senior Service Colleges, civilian academic institutions, and international partners. Under the Military Education Coordination Council (MECC), CASL led the organization of “Collaboration for Wargaming in Academic and Research” (CWAR), a JPME II/Senior Service College coordination group to improve the effectiveness of wargaming techniques and technology supporting Joint Education. CASL also performed as the Development Test site, and participated in pre-IOC acceptance testing of the Joint Training Toolkit, a suite of applications under development by the JS J7, Joint Training Division to support combatant command planning and wargaming requirements.

CASL outreach includes briefings at PME and civilian colleges, conferences, and for authorized international visits to the university. During this reporting period, a sample of CASL outreach includes: Afghan Ministry of Defense, Australian Ministry of Defense, Indonesian Defense College, Italian Center for High Defense Studies, NATO LNOs to JS J7 and TRADOC, Joint Staff School of Peru, Saudi Arabian Naval International Training Center, Swedish Defense University, Taiwan National Defense University, UAE National Defense College, Ukrainian National Defense College, Military Operations Research Society and Connections Wargaming Conferences, the Annual Conference of the NATO Committee on Gender Perspectives, Claremont-McKenna College, Dartmouth College, and Georgetown University.

## **Health and Fitness**

The Health Fitness (HF) Directorate supports NDU’s strategic goals by leveraging the university’s DOD-wide JPME platform to enhance Joint Total Fitness through health, fitness, and wellness interventions that optimize performance. The directorate’s goals are to:

- Assess individuals through a comprehensive Executive Health Assessment
- Provide effective intervention and prevention initiatives in wellness that encompass nutrition, tobacco cessation, exercise prescription, physical therapy, vaccination support, and mental wellness
- Educate senior leaders on personal wellness, which promotes the wellness of the forces they lead

Health Fitness (HF) coordinates a comprehensive health and wellness awareness program via sound nutrition, daily activity, and preventive medicine for more than 1,400 NDU students, faculty, and staff. This includes over 100 international students representing 70 countries.

The physical therapist and athletic trainer performed more than 1,500 on-site appointments; their on-site proximity greatly reducing time away from work and classes. The directorate’s Registered Dietician provided nutrition counseling and ongoing support to 685 students, faculty, and staff.

HF developed more than 350 personal fitness programs to lower modifiable risk factors of heart disease and performed 265 executive health assessments, identifying 3 people with abnormal findings, which required cardiology evaluation. HF performed 189 cholesterol/glucose screening.

The directorate hosted an annual Wellness Day, in which the NDU community learned about resiliency and wellness programs at NDU. This included a “Healthy Heart, Healthy Mind” program, with a renowned heart surgeon and a noted clinical psychologist specializing in human performance; this program showed links between a healthy lifestyle and cognitive performance.

HF supported the curriculum by reviewing records for 586 students and faculty, and providing 439 vaccinations and 109 prescriptions for field and industry studies trips to 46 countries.

The team coordinated medical support to 12 CAPSTONE overseas travel requirements in support of over 200 GO/FO and SES students. HF also supported 15 domestic ISMO American Studies practicums with qualified medical expertise.

HF delivered classes focusing on spiritual fitness (treating spiritual and ethical dimensions of strategic leader competencies and skills), behavioral health, Breast Cancer awareness, biking in the DC area, brain health, nutrition, martial arts, exercise, and yoga. The team also designed 2 pedometer challenges for the NDU community, which helped build, sustain, and reward healthy lifestyle behaviors as 270 participants walked a total of 202,649,154 steps or 101,324 miles.

HF also partnered with the Armed Services Blood Program to coordinate 3 blood drives, which produced 69 good units, with the potential to positively impact 207 lives. This potentially saved ASBP \$62,100.

HF partnered with the American Heart Association and the American Stroke Association to deliver the “Check Change Control” blood pressure management program to the NDU community. Participants learned of the connection between hypertension and other chronic and debilitating health concerns. The program identified multiple people as hypertensive/pre-hypertensive and increased regular monitoring of blood pressure to ensure adequate prevention and control.

With offices in each of the buildings, key strengths of the HF Directorate lies in the highly qualified providers, the proximity of the staff to the students, and the staff’s passion to discuss and fulfill the health, wellness, and fitness needs of the NDU community. HF provides senior leaders of our military and civilian agencies with the capability to maintain optimum health and fitness in a sustained, operational environment.

## College of Information and Cyberspace

June 2017 capped a year of significant transformation for the Information Resources Management College (IRMC), when Congress officially changed the college's name (via the FY2017 NDAA) to the College of Information and Cyberspace (CIC). The new name, associated coat of arms, and branding better reflect the college's commitment to its mission: Preparing its graduates to lead national security institutions and advance global security in the information environment.

The college has also adapted structurally to ensure sufficient internal support for its JPME II program, while sustaining and refining its highly-regarded non-JPME programs. In April 2016, CIC hosted a Joint Staff Assistance Visit (SAV) that provided the college with substantive feedback on the JPME II program, curriculum, and progress towards JPME II accreditation.

As a result of this feedback, the college was divided into two schools: The School of Joint Strategic Studies (SJSS) and the School of Joint Information, Strategy, and Policy (JISP).

**School of Joint Strategic Studies (SJSS):** The School of Joint Strategic Studies provides Joint Professional Military Education to a select cohort of military and civilian students. These students spend ten months in-residence at the college, participating in a rigorous course of study that prepares graduates to leverage information and technology to advance national and global security.

Core curriculum covers all of the Title 10-directed JPME learning objectives, including national security strategy, theater strategy and campaigning, joint planning processes and systems, and joint, interagency, and multinational capabilities. Within these areas, SJSS courses emphasize the cyberspace domain and the use of information as both a joint function and an instrument of national power.

In addition to core curriculum, SJSS students also write an Individual Student Research Paper on a topic of their choice, participate in an International Practicum, and in a Capstone wargame exercise.

Recent program graduates have gone on to a range of assignments, including USCYBERCOM, Joint Force Headquarters DOD Information Networks (JFHQ DODIN), Joint Staff, US Army Pacific (USARPAC), and the Defense Information Systems Agency (DISA).

**School of Joint Information, Strategy, and Policy (JISP):** The School of Joint Information Strategy and Policy has a diverse portfolio focused on national security as a function of information and cyberspace, with an emphasis on Joint Professional Education (JPE). In June 2017, more than 80 students graduated from JISP programs with the college's Master of Science in Government Information Leadership degree.

JISP currently offers approximately 40 graduate courses that can be combined into a variety of graduate certificate programs including:

- Chief Information Officer (CIO)
- Chief Financial Officer (CFO)
- Cyber Security (Cyber-S)
- Cyber Leadership (Cyber-L)
- IT Program & Project Management (ITPM)
- 14-week in-residence CIO Leadership Development Program (CIO LDP)

In spring 2017, the college began engaging strategic stakeholders to better understand their critical mission needs and how CIC can better prepare graduates to meet those needs. Throughout AY2018, the College of Information and Cyberspace will continue to seek opportunities to further support national security work in the information domain, such as in the areas of Data Analytics and Visualization.

**Table 7. CIC Student Enrollment**

Student Category	Active	Reserve	Guard	Total Enrollment
U.S. Army	55	4	6	65
U.S. Air Force	48	7	6	61
U.S. Navy	70	4	0	74
U.S. Marine Corps	12	0	0	12
U.S. Coast Guard	11	0	0	11
International Officer	--	--	--	16
International Civilian	--	--	--	3
DoD Civilian	--	--	--	316
Industry Civilian	--	--	--	10
Interagency Civilian	--	--	--	81
<b>Total</b>				<b>649</b>

Note: This table includes all CIC enrolled students who completed at least 1 course during AY2017.

**Table 8. CIC Student Educational Background**

Student Category	Bachelor's Degree*	Master's Degree*	Doctoral Degree/ Professional degree*	Total**
U.S. Army	26	37	2	65
U.S. Air Force	19	36	6	61
U.S. Navy	21	48	5	74
U.S. Marine Corps	7	5	0	12
U.S. Coast Guard	2	9	0	11
International Officer	8	8	0	16
International Civilian	3	0	0	3
DoD Civilian	186	121	9	316
Industry Civilian	4	5	1	10
Interagency Civilian	53	28	0	81
<b>Total</b>	<b>329</b>	<b>297</b>	<b>23</b>	<b>649</b>

\*Represents prior education earned upon admission to NDU program.

\*\* Unduplicated student enrollment number.

**Table 9. CIC Civilian Students by DOD Agency, Sub-Agency, and Service**

Agency	Student Enrollment
Arkansas Army National Guard	1
Defense Acquisition University	1
Defense Finance and Accounting Service	2
Defense Health Agency	3
Defense Human Resources Activity	1
Defense Information Systems Agency	35
Defense Intelligence Agency	4
Defense Logistics Agency	9
Defense Security Service	8
Defense Threat Reduction Agency	2
Department of Defense	20
Department of the Air Force	59
Department of the Army	67
Department of the Navy	69
Joint Staff	1
National Defense University	4
National Geospatial-Intelligence Agency	1
National Guard Bureau	2
National Security Agency/Central Security Agency	4
Office of the Inspector General	3
Office of the Secretary of Defense	5
Pentagon Force Protection Agency	1
United States Cyber Command	2
United States European Command	4
United States Special Operations Command	4
United States Transportation Command	3
Washington Headquarters Services	1
<b>Total U.S. Civilians from DoD Agencies</b>	<b>316</b>



**Table 10. CIC Civilian Students by Non-DOD Agency, Sub-Agency, and Organization**

Agency	Student Enrollment
Bureau of Engraving and Printing	1
City of Salem, VA	1
Department of Agriculture	4
Department of Commerce	2
Department of Energy	5
Department of Homeland Security	5
Department of Housing and Urban Development	2
Department of Interior	1
Department of Labor	1
Department of State	30
Department of Transportation	1
Department of Treasury	4
Department of Veterans Affairs	2
Federal Aviation Administration	8
Federal Communications Commission	1
Federal Trade Commission	1
General Services Administration	1
House of Representatives	2
Library of Congress	2
National Archives and Records Administration	1
Office of Personnel Management	1
Office of the Director of National Intelligence	1
Senate	1
Social Security Administration	1
Unified Port of San Diego	1
United States Secret Service	1
<b>Non-DoD Agency Total</b>	<b>81</b>
AEBI Schmidt Holding AG	1
Boeing	1
Citigroup	2
Leidos	1
Lockheed Martin Corporation	1
Microsoft Corporation	1
Northrop Grumman	1
Safe Frontier, LLC	1
<b>Industry Total</b>	<b>9</b>
<b>Total U.S. Civilian Students from Non-DoD Agencies</b>	<b>90</b>

**Table 11. CIC International Student Enrollment**

Country	Student International Civilian	Student International Officer
Algeria	0	1
Bulgaria	0	1
Czech Republic	0	1
Egypt	0	1
Indonesia	1	1
Jordan	0	1
Morocco	0	1
Oman	0	1
Portugal	2	4
Romania	0	1
Serbia	0	2
Ukraine	0	1
<b>Total</b>	<b>3</b>	<b>16</b>

**Table 12. CIC Faculty Educational Background**

Faculty Category	JQO**	SLC Graduate**	Bachelor's Degree*	Master's Degree*	Doctoral/ Professional Degree*	Total***
U.S. Army	2	1	0	4	1	5
U.S. Air Force	1	0	0	2	0	2
U.S. Navy	1	1	0	3	0	3
U.S. Marine Corps	0	0	0	0	0	0
U.S. Coast Guard	0	0	0	0	0	0
International Officer	--	--	0	0	0	0
International Civilian	--	--	0	0	0	0
DoD Civilian (Title 5)	--	--	0	0	0	0
DoD Civilian (Title 10)	--	--	0	13	21	34
Contractor	--	--	0	0	0	0
Interagency Civilians	--	--	0	2	1	3
<b>Total</b>	<b>4</b>	<b>2</b>	<b>0</b>	<b>24</b>	<b>23</b>	<b>47</b>

\*This is an unduplicated count that represents faculty highest degree earned. \*\*Note: JQO refers to Joint Qualified Officer and SLC refers to Senior Level College. \*\*\* Total unduplicated count of faculty category. Professional military experiences/highest level of education are not mutually exclusive. Professional military experiences refer to JQO and SLC.

## College of International Security Affairs

The mission of the College of International Security Affairs (CISA) is to educate and prepare civilian and military national security professionals and future leaders from the US and partner nations for the strategic challenges of the contemporary security environment. CISA is the DOD flagship institution for education and the building of partnership capacity in combating terrorism and irregular warfare at the strategic level. CISA prepares students for high-level policy, command, and staff responsibilities through cutting-edge graduate, interagency, and JPME programs. CISA fulfills this mission through a Master of Arts in Strategic Security Studies (MASSS), graduate certificate programs, and short courses.

**Counterterrorism Fellowship Program (CTF):** The CTF program is the flagship of OSD-Policy's (Special Operations/Low Intensity Conflict) worldwide combating terrorism educational portfolio and has produced more than 600 graduates from 90 countries. These fellows engage in intensive master's degree coursework, to include a thesis that addresses a specific security issue relevant to their area of operations, country, or organization. To complement their academic coursework, students take part in a practicum in which they visit government agencies to gain a better understanding of US national security decision-making. Building on the success of the CTF PAJE process, CISA increased the size and composition of US military students and is seeking additional US military students to allow for each seminar to have representation from all three military departments. CISA continued to refine the Area of Concentration curriculum for the CTF. The department conducted a comprehensive curriculum review and created ways to include insights from this year's successful PAJE accreditation visit into future iterations. CISA refined its battlefield staff ride program and academic travel to enhance the experiential nature of the CTF program as a war college equivalent. The staff rides have become foundational in providing an experiential learning experience for achieving required Joint Education outcomes.

This year, CISA initiated planning and coordination for a CTF continuing engagement 5-year plan to maximize efforts and align these with DOD and CJCS priority countries, combatant command efforts, and leverage regional defense centers. The first year of this plan is scheduled for execution in AY 2018, with focus on the USAFRICOM area of responsibility.

**South and Central Asia Program (SCAP):** SCAP was developed at the request of the Director of the Joint Staff (DJS) and Commander, US Central Command. This program supplements the on-the-ground experience of officers participating in the Afghanistan-Pakistan Hands (Af-Pak Hands) program with theoretical, analytical, and regional expertise in South and Central Asia. In this program, students hone their skills to think critically and to evaluate how local and regional challenges affect US strategy and policy, and global security. SCAP provides high-level strategic and professional military education for select members of the Af-Pak Hands program, as well as DOS and DOD civilians. The program prepares students with an analytic foundation to employ in complex environments, as they deploy as strategic advisors in theater and among partner nations in the South and Central Asia Region. During this reporting period, SCAP

developed its regional area of concentration courses with modifications in statecraft, South Asia, and Eurasia courses, to include new readings, guest lecturers, and panel discussions. In the leadership and practice component, SCAP added new locations to its DC agency visits, to include the National Security Council, Stimson Center, and the Embassy of India. SCAP has also broadened its regional and thematic coverage through NDU and Area of Concentration elective offerings in Middle East, Africa, and Countering Violent Extremism courses. Finally, SCAP and its Campaigns Operational Advising and Strategic Threats course (COAST) created videos to increase awareness of this program to a broader audience, which supports CISA's outreach efforts.

**Joint Special Operations Master of Arts (JSOMA):** Our geographically separated program at Fort Bragg, North Carolina, serves 40-50 students from across the Joint Special Operations enterprise, the interagency, and partner nations every year. JSOMA's primary mission is to provide an accredited, 10-month Master of Arts (MA) degree in Strategic Security Studies to select Special Operators from commissioned (O-3 to O-5) and senior non-commissioned officer ranks. In coordination with the John F. Kennedy Special Warfare Center and School, US Army Special Operations Command, and USSOCOM, JSOMA provides an intense, academically rigorous international security studies curriculum that emphasizes the art and science of irregular warfare at the intersection of the operational and strategic level of analysis from both historical and contemporary perspectives. JSOMA's curriculum is continually reviewed and updated to stay abreast of emerging challenges in the international system and to retain relevance for the educational needs of the Joint Special Operations warfighter.

JSOMA faculty engaged the operational force, partner nations, and scholarly communities in a wide range of forums on topics with direct strategic relevance to the Joint Special Operations Enterprise. Faculty developed operationally relevant papers and briefings for the Strategic Multilayer Assessment programs, USCENTCOM, and USSOCOM. Faculty continue to receive requests to deliver presentations on operationally and strategically relevant topics to domestic and international academic and operational symposia, including the Defense Intelligence Agency's Academy of Defense Intelligence, the Hungarian Defense Forces, research centers and think tanks in South Asia, the Indian Naval War College, NORAD, the NATO Advanced Research Workshop, and major academic conferences. This program contributes to the enhancement and enlargement of the Special Operations research agenda for the next generation of scholar-practitioners by providing subject matter expertise to the Special Operations Research Association and the Joint Special Operations University research topics workshop.

JSOMA strategic core, area of concentration, and electives provide a wide range of operationally relevant content targeted at specific areas of interest and concern for the Joint Special Operations warfighter. The Power, Ideology & Legitimacy (PIL) strategic core course was revised and updated to include contemporary Islamist doctrines and explorations of the challenges of operational ethics in irregular warfare. The American Foreign Relations (AFR) core course provides the Special Operations warfighter with a global, historical perspective on US

strategic actions in the international system, enhancing students' understanding of the challenges and opportunities created by their global operational engagements. JSOMA's electives are continually revised to reflect on-going operational contingencies, providing students with a deeper understanding of governance and counter-governance strategies, Influence Operations, the power of narrative in state-society relations (including terror and counter-terror narratives), the causes and types of conflict and conflict resolution strategies across the JIIM (joint, interagency, intergovernmental, and multinational) environment, violent networks and the ideologies that fuel them, organizational and network complexity, and both conventional and unconventional challenges in Europe, Central Asia, South Asia, and Southeast Asia. The graduates of this program, especially the senior enlisted, are immediately sought out by the Special Forces Community to serve on Commander's Initiative Groups and planning staffs for their unique grasp of the operational and strategic environment.

**MA Academic Thesis Developments:** Central to CTF and SCAP, the CISA thesis allows students to undertake an independent research project and develop their ability to evaluate and communicate complex concepts. Students apply their research and writing skills to advance a specific, focused question to be answered with arguments based on thorough, rigorous, and critical gathering and analysis of evidence. As the capstone experience of the CISA program, the thesis builds upon and integrates the full breadth of CISA classroom instruction and individual learning to address important challenges relevant to areas of study in the CISA curriculum. This process culminates with a three-day symposium, where students present and defend their theses to a panel of faculty and other subject matter experts (SMEs). Through this process, students are further developed and empowered to serve effectively as strategic leaders in a complex, high-risk, ambiguous world. Students undertake the thesis by choosing a topic with direct relevance to their professional duties and the needs of their sponsoring agency or country. Over the last year, student theses have won essay contests organized by the DOD. Students have also used their work to make specific policy recommendations to their services, agencies, and countries.

**Homeland Defense Fellowship (HDF) Program:** CISA offers a four-month HDF certificate program annually in Washington from September through December. Fellows analyze emerging threats to their respective homelands and share best practices for the purpose of organizing effective law enforcement responses and protecting critical infrastructure. Fellows also visit US military, law enforcement, and first responder organizations at all levels of government to supplement their coursework. CISA directed a review of the HDF program to align it with CTFP annual guidance and updated curriculum to include more recent scholarship and emphasis on other homeland defense issues – humanitarian assistance and disaster relief, critical infrastructure protection, and defense support to civil authorities – in addition to traditional counterterrorism issues. The HDF program also substantially increased the number of practicum visits, and participated for the first time in the CISA battlefield staff ride program to further enhance HDF students' experiential learning.

**Reserve Component National Security Course (RCNSC):** Among the original enduring missions of NDU, dating from 1976, more than 15,000 senior commissioned and non-commissioned officers have participated in this program. The primary mission of the RCNSC is to lay a foundation for Senior Reserve and civilian leaders in preparation for serving in joint command management and staff responsibilities in a multinational, intergovernmental, or joint national security setting. RCNSC has evolved into the premier, executive level, DOD seminar for Reserve Component personnel, and is now held three times a year at NDU. The course includes a robust series of lectures, panel discussions, seminars, a Capitol Hill visit, and a simulation exercise dealing with national security policy and defense resource management. Students complete a National Security Crisis Response Exercise, in coordination with and directed by CASL, and conduct a Capitol Hill engagement session with members of Congress. In addition to students from US Reserve Components, classes also include allied officers, interagency civilians, and industry fellows. US military graduates earn two joint credits toward Joint Qualification for senior officers and non-commissioned officers (E8-E9). This year, over 370 students graduated from this course, and demand is growing. CISA is working with National Guard and Reserve stakeholders to develop enduring support agreements to ensure sustainability of this program.

**Nuclear Energy Security Program (NESP):** CISA offers a 4-month, full-time program from September to December that focuses on energy security, nuclear security and statecraft, and critical infrastructure. This unique program works with the HDF to offer Department of Energy (DOE) and interagency students the opportunity to interact and learn alongside international fellows from partner nations, as they gain insight into the world's current security challenges. As evidenced by current national and international security challenges, such as the future of the Joint Comprehensive Plan of Action (JCPOA) with Iran, and continued North Korean nuclear tests and flouting of international nonproliferation norms, nuclear and energy security issues have never been so relevant to the warfighter or national security professional. In recognition of this growing need for nuclear and energy skillsets, the DOE/National Nuclear Security Administration (DOE/NNSA) cohort of visiting faculty and program administrators at CISA have significantly expanded and sharpened relevant course curricula and engagements.

The DOE/NNSA cohort ran the third iteration of the 13-week Nuclear and Energy Security (graduate certificate) Program (NESP), and piloted a new 3-week, short course of contemporary nuclear issues for the interagency. DOE/NNSA visiting faculty also provided guest lectures on nuclear and homeland security issues for the 10-month CTF and SCAP programs, and RCNSC. The DOE/NNSA faculty were instrumental in revising and updating course curriculum (e.g., Nuclear Threats and Responses, Nuclear Statecraft, and Energy Security) to reflect the dynamic contemporary security environment supporting all of CISA's programs. The course also organized and hosted a "Nuclear Negotiator Practitioner Panel" with international policy experts and negotiators, including former NNSA administrators, ambassadors, special advisors to the president, and current and former foreign policy experts. With additional faculty from CISA's DOE partner, the college doubled the size of the student body of the 13-week NESP and, for the first time, attained registration and participation of additional USAF and ES students.

**Table 13. CISA Student Enrollment**

Student Category	Active	Reserve	Guard	Total Enrollment
U.S. Army	50	2	1	53
U.S. Air Force	11	0	0	11
U.S. Navy	8	1	0	9
U.S. Marine Corps	5	0	0	5
U.S. Coast Guard	1	0	0	1
International Officer	--	--	--	45
International Civilian	--	--	--	6
DoD Civilian	--	--	--	8
Industry Civilian	--	--	--	0
Interagency Civilian	--	--	--	30
<b>Total</b>				<b>168</b>

Note: This table includes all CISA program enrolled students who completed at least 1 course during the AY 2016-17. Additionally, the total enrollment includes 3 students who withdrew from their program but completed a graduate level course.

**Table 14. CISA US Civilian Students by Executive-level Agency, Sub-Agency, Bureau, and Service**

	Agency	Total Enrollment
<b>DoD Agencies</b>	Defense Information Systems Agency	1
	Defense Intelligence Agency	2
	Joint Staff - J3	1
	National Defense University	2
	Office of the Secretary of Defense	1
	Washington Headquarters Services	1
	<b>DoD Agency Total</b>	<b>8</b>
<b>Non-DoD Agencies</b>	Bureau of Diplomatic Security	4
	Customs and Border Protection Bureau	1
	Department of Homeland Security	1
	Department of State	7
	Department of Transportation	1
	Federal Bureau of Investigation	1
	National Nuclear Security Administration	7
	Office of the Director of National Intelligence	2
	United States Embassy Afghanistan	1
	United States Secret Service	3
	Department of Energy	2
	<b>Non-DoD Agency Total</b>	<b>30</b>
<b>Total U.S. Civilian Enrollment</b>		<b>38</b>

**Table 15. CISA Student Educational Background**

Student Category	Completed ILC**	Completed SLC**	Joint Exp.**	Operational Exp.**	Command O-5 Exp.**	Command O-6 Exp.**	Bachelor's Degree*	Master's Degree*	Doctoral Degree/ Professional*	Other*	Total***
U.S. Army	20	0	20	49	5	0	44	7	2	0	53
U.S. Air Force	6	2	7	11	2	0	3	8	0	0	11
U.S. Navy	1	0	7	9	2	0	8	0	1	0	9
U.S. Marine Corps	4	0	5	5	1	0	3	2	0	0	5
U.S. Coast Guard	0	0	0	0	0	0	0	1	0	0	1
International Officer	--	--	--	--	--	--	11	17	2	15	45
International Civilian	--	--	--	--	--	--	1	5	0	0	6
DOD Civilian	--	--	--	--	--	--	3	3	2	0	8
Industry Civilian	--	--	--	--	--	--	0	0	0	0	0
Interagency Civilian	--	--	--	--	--	--	17	11	2	0	30
<b>Total</b>	<b>31</b>	<b>2</b>	<b>39</b>	<b>74</b>	<b>10</b>	<b>0</b>	<b>90</b>	<b>54</b>	<b>9</b>	<b>15</b>	<b>168</b>

\*\*Represents prior education earned upon admission to NDU program.

\*\*U.S. Military students that are counted as having attended an ILC, SLC, Joint, or as having Operational, Command O-5, or Command O-6 Experiences upon admission to their NDU program. Professional military experiences/highest level of education are not mutually exclusive. Professional military experiences refer to ILC, SLC, Joint Experience, Operational Experience, Command O-5 experience, Command O-6 Experience.

\*\*\*Unduplicated student enrollment number. This is not the sum across all columns.



**Table 16. CISA International Students**

Country	Student International Officer	Student International Civilian
Afghanistan	1	1
Albania	2	1
Azerbaijan	0	1
Bahamas	1	0
Belize	1	0
Colombia	3	0
Djibouti	1	0
Egypt	1	0
El Salvador	1	0
Georgia	1	0
India	1	0
Indonesia	1	0
Jordan	4	0
Kenya	1	0
Lebanon	3	0
The Republic of Macedonia	1	0
Malaysia	1	0
Mauritius	0	2
Mexico	2	0
Morocco	2	0
Oman	0	1
Pakistan	4	0
Philippines	3	0
Poland	1	0
Romania	1	0
Saudi Arabia	2	0
Senegal	1	0
Taiwan	1	0
Tanzania	1	0
Tunisia	1	0
Uganda	2	0
<b>Total</b>	<b>45</b>	<b>6</b>

**Table 17. CISA Faculty Educational Background**

Faculty Category	JQO**	SLC Graduate**	Bachelor's Degree*	Master's Degree*	Doctoral/ Professional Degree*	Total***
U.S. Army	1	2	0	3	1	4
U.S. Air Force	1	1	0	1	2	3
U.S. Navy	2	2	0	5	0	5
U.S. Marine Corps	0	0	0	0	0	0
U.S. Coast Guard	0	0	0	0	0	0
International Officer	--	--	0	0	0	0
International Civilian	--	--	0	0	0	0
DoD Civilian (Title 5)	--	--	0	3	3	6
DoD Civilian (Title 10)	--	--	0	2	26	28
Contractor	--	--	0	0	0	0
Interagency Civilians	--	--	0	6	1	7
<b>Total</b>	<b>4</b>	<b>5</b>	<b>0</b>	<b>20</b>	<b>33</b>	<b>53</b>

\*This is an unduplicated count that represents faculty highest degree earned.

\*\*Note: JQO refers to Joint Qualified Officer and SLC refers to Senior Level College.

\*\*\* Total unduplicated count of faculty category. Professional military experiences/highest level of education are not mutually exclusive. Professional military experiences refer to JQO and SLC.

## The Eisenhower School

The Dwight D. Eisenhower School for National Security and Resource Strategy (ES) continued to pursue the highest levels of academic excellence in accomplishing its mission, while adapting its curriculum to new strategic resource challenges and complexities in the international security environment.

With consistent focus on strengthening, sustaining, and improving the teaching mission, ES continues to comprehensively review curriculum to ensure alignment to mission requirements, stakeholder expectations, and fiscal realities. This work identified potential enhancements of curriculum content, structure, evaluation methodologies, and delivery techniques for AY17 and beyond. ES implemented a direct assessment program, through the use of standard rubrics for student deliverables, to ensure each was directly linked to the CJCS Instruction 1800.01E, Officer Professional Military Education Policy (OPMEP) Joint Learning Objectives. This greatly enhanced faculty feedback to students and provides a wealth of direct assessment data on achievement of educational objectives to support curriculum review and development. These efforts were validated during the PAJE visit in January 2017, in which experienced educators from across the JPME enterprise conducted a rigorous evaluation of the ES academic program and its adherence to OPMEP educational standards and Joint Learning Areas/Objectives. The PAJE team found the program, faculty, and staff to be exceptional, resulting in a full, 6-year accreditation to award JPME Phase II credit to ES graduates. In addition to JPME II, ES graduates also receive an accredited Master of Science in National Resource Strategy degree.

To make optimal use of faculty resources and best accomplish the school's mission to examine national-level resourcing in a constrained environment and evaluate the challenges of aligning budgets, strategies, and defense priorities, the ES is organized into four core departments, each manned with subject matter experts:

- The **National Security and Policy Studies** (NSPS) department teaches interdisciplinary courses on international relations, public policy, and macroeconomics. Core courses include National Security Policy and Strategy and Economics of National Security (ENS).
- The **Defense Strategy, Acquisition, and Resourcing** (DSAR) department teaches a two-course series on military strategy, planning, and strategic resource management, to include the acquisition and procurement of materiel and services. Core courses include Defense Strategy and Resourcing (DSR) and Strategic Acquisition and Resourcing (SAR). As a capstone to the DSAR course sequence, students are asked to synthesize the concepts of strategy and the development and resourcing of ways and means supporting strategy in the Individual Strategic Resourcing Paper (ISRP).
- The **National Security and the Industrial Base** (NSIB) department incorporates and integrates the Industry Study (IS) course with the Industry Analytics (IA) course, both taught in the spring.
- The **Strategic Leadership** (SL) department teaches core Strategic Leadership 1 (SL1) and Strategic Leadership 2 (SL2) courses on personal development and organizational change management, and manages the Executive Assessment and Development (EADP) program, described below.

These core courses are supplemented with a Strategic Leader Foundations Course (SLFC), conducted during the first five weeks of the academic program and the National Security Exercise (NSE) as a synthesis event for the fall semester. In addition, several school-wide exercises in the core courses, including a Committee on Foreign Investment in the US (CFIUS) negotiation exercise, the Nuclear Strategy exercise, and the DOD Budget exercise, promote the synthesis and integration of subject matter covered during the ES curriculum.

The Industry Study program, housed in NSIB, is a core element of the academic program that allows students to analyze and synthesize national security imperatives, along with real-world resourcing challenges in business, industry, and government. The Industry Studies field studies experience is a key enabler in creating graduates who can bridge the government-industry gap through first-hand experiential interactions with government and business leaders around the world. ES students were able to participate in domestic and international industry field studies during AY17. This kind of experiential learning provided every ES student a unique and valuable opportunity to interact with government leaders, business executives, trade associations, and interagency partners. Assessments of the industries studied by ES students are made available for public review on the NDU website; the public-release reports serve as capstone documents for the seminars that comprise the ES student body.

ES faculty scholarship is focused on the construction of the curriculum and direct preparation for the teaching mission. Every lesson in every course demands considerable research effort by the faculty member responsible for the lesson, amounting to a full literature survey on the subject, which is then built upon by faculty tasked with teaching the lesson. Many faculty also actively participate in professional associations and publish articles in their areas of expertise.

**Senior Acquisition Course (SAC) Concentration Program:** The Defense Acquisition Workforce Improvement Act (DAWIA) of 1990 authorized ES to be designated by the Under Secretary of Defense for Acquisition, Technology, and Logistics (USD (AT&L)) to conduct the Senior Acquisition Course for selected students, in partnership with the Defense Acquisition University (DAU). This designation capitalizes on a longstanding ES institutional core competency: Education in “procurement” was explicitly cited in the school’s original 1924 charter (as the Industrial College of the Armed Forces) and continues today in its mission of joint education, with special emphasis on developing senior leaders in support of national security. SAC is designed to prepare selected military officers and civilians – already highly experienced and well-credentialed – for senior leadership and staff positions throughout the defense acquisition community. As such, SAC is the preeminent course for members of the DOD Acquisition Corps.

SAC consists of the entire 10-month ES core curriculum, complemented by selected elective courses which address senior-level contemporary and future policy issues in the field of acquisition, and supported by completion of an acquisition-related research project.

Students are selected for SAC by their respective services or agencies. Military officers are selected during their senior service school selection process and designation by their Defense Acquisition Career Manager (DACM). Civilians apply and are selected by their service or agency

DACM. Along with those students selected by central boards, the DACMs typically approve the addition of a limited number of Level III-certified (Acquisition Corps) students seeking admission from the class at the outset of the ES academic year. Additionally, students from other government agencies or international students with extensive acquisition-related experience may be accepted into the program, if their experience equates to that of DAWIA Level III.

**Program Managers Course (PMT-401):** This course, executed in collaboration with DAU, has been offered to ES students enrolled in the SAC since AY2007. Students who elect into PMT-401 are automatically enrolled in courses 6152 and 6153, both of which are 'double' electives worth 4 credit hours each. These courses fulfill the students' elective and research project requirements for the ES degree program with an 'overload' of 4 credit hours. Students who complete these courses receive credit for both the Senior Acquisition Course and for DAU's Program Manager's Course (PMT-401), the latter of which is statutorily required (10 U.S.C. § 1735) for acquisition leaders selected as Program Executive Officers (PEOs), Deputy PEOs, or as Program Managers or Deputy Program Managers for ACAT I, IA, and II programs.

Following the Harvard Business School case-study method, the cases used in the course are structured around lesson areas covering 54 performance outcomes and competencies established for DAU's PMT-401. These case studies provide real-life acquisition-related challenges and dilemmas that offer students the opportunity to enhance the analytical, critical thinking, and decision-making skills required to lead large complex programs and program support organizations. The challenges and problems that program managers, PEOs, and senior stakeholders engaged in defense acquisition typically encounter – properly emulated in the classroom – provide the basis for a profound, practical learning experience. Students apply a variety of analytical tools and conceptual frameworks to evaluate defense acquisition problems from a program manager's perspective and to evaluate, synthesize, select, and defend courses of action available to the decision maker. Team projects and simulations round out and enrich the course. The cases and simulations are conducted at ES, although they are facilitated by certified PMT-401 faculty members from DAU's Defense Systems Management College (DSMC) at Fort Belvoir, Virginia. There is also a 2-day News Media Training event, hosted at DSMC, which entails local travel for students and supporting ES faculty.

**Long-Term Strategy (LTS) Concentration Program:** Launched in 2010, the LTS program's main goal is to provide selected students the opportunity to learn how to evaluate and assess the strategic implications of the trends shaping the future security environment and the link between long-term strategy and defense investments. LTS also provides a cross-disciplinary approach to strategy development and resourcing (i.e., international affairs, business strategy, and technology), with special emphasis on "competitive strategies" concepts (e.g., functional and investment categories) as related to strategy development and defense investments, with an Indo-Asia-Pacific geographic application focus. LTS has a long-standing relationship with OSD Net Assessment, providing students the opportunity to conduct research on strategic-level topics of interest to DOD leadership. The program includes the following courses:

- **Seminar in Diagnostic Net Assessment**, which is focused on the appraisal of military balances and long-term military-technological competitions, and **Defense Strategic Planning**, with emphasis on long-term defense planning methodologies.
- **Military Technology Diffusion and Asian Defense Markets Dynamics**, focused on the evaluation of military technology diffusion trends and defense market dynamics vis-à-vis US defense posture and alliance structure in the Indo-Asia-Pacific region.
- **Seminar in Long-Term Strategy Research**, in which students undertake 3 team research projects sponsored by OSD Net Assessment.

**Supply Chain Management (SCM) Concentration Program:** Supply Chain Management is a driving force behind America's economic growth, prosperity, and defense logistics. It is, therefore, important to understand the critical role supply chains play in supporting industry and national security. The SCM program is designed to prepare students with the skills to apply supply chain management concepts and practices within DOD's Logistics Transformation, and to develop a broader understanding of integrated logistics systems. SCM coordinates with DOD and supporting agencies to enhance a common understanding and appreciation for supply chain management's ability to create efficiencies, while effectively supporting the war-fighter. Seminar sessions are taught using case studies and experts from industry and government to examine the benefits of supply chain management. This classroom experience is augmented by visits to firms and DOD agencies to discuss the value of supply chain management and the need for logistics transformation. SCM students conduct field studies visits to such organizations as USTRANSCOM; Boeing; Huntington-Ingalls Ship Building; Naval Stations Norfolk, VA and Oceana, VA; Defense Depot Susquehanna, PA; and Letterkenny Army Depot.

**European Studies Concentration (within ES) and EUCOM Scholars Program (across NDU):** In response to an NDU effort to increase opportunities for study and research in important geopolitical regions, ES created the European Studies Concentration for AY2016, and the program continued this year. This concentration provides in-depth understanding of the history, politics, and economic and security dimensions of US-European relations and prepares students for leadership positions in, or related to, Europe. It consists of two courses (3 credit hours each): The European Union: Past, Present and Future (fall); and European Politics and Security (spring). The Concentration is aligned with NDU's EUCOM Scholars Program, which offers students an extraordinary opportunity for policy research on a topic of interest and relevance to USEUCOM. Competitively selected, EUCOM Scholars are enrolled in the European Studies Concentration and earn 2 credit hours to conduct independent research and field studies on policy-making and policy research agencies and organizations in the US and abroad. EUCOM Scholars, both military and civilian students who are US citizens, deliver a research paper and a concise senior-level briefing to USEUCOM leadership.

**Executive Assessment and Development Program (EADP):** The EADP is an extensive multi-instrument, integrated assessment battery used to assess the preferences, capabilities, strengths, and weaknesses of NDU students, particularly geared towards the skills they will need to succeed at the strategic level. It is an integral part of the ES curriculum for students

who are native English-speakers; a different instrument, Insights Discovery, is provided for international students who are not native English-speakers. EADP is a web-based assessment and development program that provides 360° feedback for students. An important aspect of the Feedback Report is the identification of Career Architect® competencies throughout the report, which may represent areas for personal development. ES faculty members from the Department of Strategic Leadership conduct one-on-one feedback sessions with each student to discuss the findings and implications for developmental work to be done at ES (e.g., via elective courses) and follow-on development the student will undertake on their own.

## **Strategic Partnerships**

**Institute for Higher Education in National Security (IHEDN):** The Research and Technology Policy course (ES-6104) is a key elective within the SAC program. The 6104 R&T Policy course is unique among SAC electives at ES, in that it is carried out jointly with a committee of French military officers attending the Institute for Higher Education in National Security (IHEDN), a war college managed by the French Defense Procurement Agency (DGA), located at the École Militaire in Paris. Students from both schools collaborate on research on a topic of common interest related to the effective management and sustainment of innovation and technology within the trans-Atlantic defense industrial bases. Budget permitting, each year's course also involves a week-long field study by US students to Europe for collaborative meetings, and a week-long field study by French students to the US. The deliverable at the end of each year is a joint-school policy-options paper, which students brief to senior leaders in the defense department of ministry of each respective nation.

Shortly after the inception of the SAC Concentration Program at ES as a DAWIA workforce development initiative, ES initiated a French-US collaborative SAC elective course in AY1995, by agreement between the Under Secretary of Defense and the Director of the French DGA. Course capacity varies based on budgets and other factors, but averages about 10 students. Over the course's history, acquisition professionals have enhanced their ES and SAC education by focusing on a joint collaborative research effort with their counterparts in the French DGA, creating critical senior-leader networks, and building the capacity to effectively manage and sustain innovation and technology within the trans-Atlantic defense industrial bases.

**Adaptive and Agile Leaders Network (AALN):** Launched in AY2015, this program is a concentration developed in collaboration with Ori Brafman and the Haas School of Business at the University of California, Berkeley. The focus of the program is network-building: Creating outreach opportunities for participating students and faculty that bring together diverse groups from private industry, different levels of government, and the non-profit sector, all of whom share a common interest or focus. More than simply an exercise in networking, participants are encouraged to develop approaches to sustain relationships that are forged during the academic year, and "hand off" those relationships to the next cohort of students. In AY2017, students explored two focus areas: Veteran reintegration and the environment.

**Table 18. Eisenhower Student Enrollment**

<b>Student Category</b>	<b>Active</b>	<b>Reserve</b>	<b>Guard</b>	<b>Total</b>
U.S. Army	61	3	3	<b>67</b>
U.S. Air Force	51	3	3	<b>57</b>
U.S. Navy	23	0	0	<b>23</b>
U.S. Marine Corps	13	2	0	<b>15</b>
U.S. Coast Guard	2	0	0	<b>2</b>
International Officer	--	--	--	<b>34</b>
International Civilian	--	--	--	<b>2</b>
DoD Civilian	--	--	--	<b>57</b>
Industry Civilian	--	--	--	<b>2</b>
Interagency Civilian	--	--	--	<b>42</b>
<b>Total</b>				<b>301</b>

Note: This table includes all Eisenhower program enrolled students who completed at least 1 course during the AY 2016-17. The total enrollment includes 2 students who withdrew or did not complete their program but completed graduate-level courses



**Table 19. Eisenhower Student Educational Background**

Student Category	Completed ILC**	Completed SLC***	Joint Exp.**	Operational Exp.**	Command O-5 Exp.**	Command O-6 Exp.**	Bachelor's Degree*	Master's Degree*	Doctoral Degree/ Professional*	Other*	Total***
U.S. Army	65	0	26	63	52	0	7	56	4	0	67
U.S. Air Force	36	37	15	48	54	1	0	49	8	0	57
U.S. Navy	15	1	8	20	7	2	7	16	0	0	23
U.S. Marine Corps	15	1	7	14	13	0	5	10	0	0	15
U.S. Coast Guard	2	0	0	2	2	0	0	2	0	0	2
International Officer	--	--	--	--	--	--	13	17	2	2	34
International Civilian	--	--	--	--	--	--	1	1	0	0	2
DOD Civilian	--	--	--	--	--	--	10	41	6	0	57
Industry Civilian	--	--	--	--	--	--	0	1	0	1	2
Interagency Civilian	--	--	--	--	--	--	17	24	1	0	42
<b>Total</b>	<b>133</b>	<b>39</b>	<b>56</b>	<b>147</b>	<b>128</b>	<b>3</b>	<b>60</b>	<b>217</b>	<b>21</b>	<b>3</b>	<b>301</b>

\*Represents prior education earned upon admission to NDU program.  
 \*\*U.S. Military students that are counted as having attended an ILC, SLC, Joint, or as having Operational, Command O-5, or Command O-6 Experiences upon admission to their NDU program. Professional military experiences/highest level of education are not mutually exclusive. Professional military experiences refer to ILC, SLC, Joint Experience, Operational Experience, Command O-5 experience, Command O-6 Experience.  
 \*\*\*Unduplicated student enrollment number. This is not the sum across all columns.

**Table 20. Eisenhower US Civilian Students by Executive-level Agency, Subagency, Bureau, and Service**

	Agency	Total Enrollment
<b>DoD Agencies</b>	Defense Acquisition University	1
	Defense Contract Management Agency	2
	Defense Information Systems Agency	1
	Defense Intelligence Agency	5
	Defense Logistics Agency	3
	Defense Security Cooperation Agency	1
	Department of the Air Force	12
	Department of the Army	10
	Department of Defense	2
	Department of the Navy	11
	Joint Staff - J4	1
	National Geospatial-Intelligence Agency	2
	National Security Agency/Central Security Service	2
	Office of the Secretary of Defense	4
	<b>DoD Agencies Total</b>	<b>56</b>
<b>Non-DOD Agencies</b>	Central Intelligence Agency	1
	Customs and Border Protection Bureau	2
	Department of Homeland Security	2
	Department of State	19
	Department of the Treasury	1
	Directorate for Science and Technology	1
	Federal Bureau of Investigation	3
	National Nuclear Security Administration	3
	Office of Management and Budget	2
	Transportation Security Administration	1
	United States Agency for International Development	4
	United States Government Accountability Office	1
	United States Secret Service	2
	<b>Non-DoD Agency Total</b>	<b>42</b>
<b>Industry</b>	IBM	1
	Battelle Memorial Institute	1
	<b>Industry Total</b>	<b>2</b>
	<b>Total U.S. Civilian Enrollment</b>	<b>101</b>

**Table 21. Eisenhower International Students**

Country	Student International Officer	Student International Civilian
Afghanistan	0	1
Argentina	1	0
Botswana	1	0
Brazil	1	0
Canada	2	0
Croatia	1	0
Egypt	1	0
Estonia	0	1
France	1	0
Indonesia	1	0
Israel	1	0
Italy	1	0
Japan	1	0
Jordan	1	0
Lebanon	1	0
Malaysia	1	0
Mali	1	0
Mexico	1	0
Mongolia	1	0
Morocco	1	0
New Zealand	1	0
Norway	1	0
Oman	3	0
Pakistan	1	0
Philippines	1	0
Poland	1	0
Qatar	1	0
Saint Kitts and Nevis	1	0
Saudi Arabia	2	0
Taiwan	1	0
Turkey	1	0
United Arab Emirates	1	0
<b>Total</b>	<b>34</b>	<b>2</b>

**Table 22. Eisenhower Faculty Educational Background**

Faculty Category	JQO**	SLC Graduate**		Bachelor's Degree*	Master's Degree*	Doctoral/ Professional Degree*	Total***
U.S. Army	8	2		0	9	3	12
U.S. Air Force	9	1		0	9	1	10
U.S. Navy	7	2		0	9	0	9
U.S. Marine Corps	2	0		0	2	0	2
U.S. Coast Guard	0	0		0	1	0	1
International Officer	--	--		0	1	0	1
International Civilian	--	--		0	0	0	0
DoD Civilian (Title 5)	--	--		0	0	0	0
DoD Civilian (Title 10)	--	--		0	5	30	35
Contractor	--	--		0	0	0	0
Interagency Civilians	--	--		0	12	4	16
<b>Total</b>	<b>26</b>	<b>5</b>		<b>0</b>	<b>48</b>	<b>38</b>	<b>86</b>

\*This is an unduplicated count that represents faculty highest degree earned.

\*\*Note: JQO refers to Joint Qualified Officer and SLC refers to Senior Level College. SLC Graduates also include faculty who have received JPME II credit but are not JQO.

\*\*\* Total unduplicated count of faculty category. Professional military experiences/highest level of education are not mutually exclusive. Professional military experiences refer to JQO and SLC.

## Joint Forces Staff College

The Joint Forces Staff College (JFSC) mission is to educate national security professionals to plan and execute joint, multinational, and interagency operations to instill a primary commitment to joint, multinational, and interagency teamwork, attitudes, and perspectives. JFSC is the premier military institution for educating and acculturating mid to senior level officers and selected civilians in joint operational-level planning and warfighting. Rear Admiral Jeffrey Ruth, USN is the 33rd Commandant.

JFSC celebrated 70 years of producing Joint Officers on 12 August 2016. During the anniversary ceremony, the college initiated the General Anthony C. Zinni Distinguished Lecture Series, and inducted several distinguished graduates into the JFSC Hall of Fame:

- General Lori J. Robinson, Commander of USNORTHCOM and NORAD
- Lieutenant General H.R. McMaster, currently the National Security Advisor
- General (retired) Emmanuel Trinidad Bautista, Philippine Army and Executive Director of Cabinet Cluster on Security, Justice, and Peace

The College continued to address the needs of the 21st-century warfighter by educating and graduating a total of 1,409 students this year across the four schools that comprise JFSC. This is accomplished via resident, distance, and satellite programs striving to educate officers at the appropriate times in their careers (i.e., right student at the right time”). Of all AY2017 graduates, 1,213 completed one of three JPME Phase II programs offered at JFSC, including 843 active duty US officers, 261 US reserve component officers, 67 international fellows, and 42 US civilians, ultimately producing 57% of all DOD JPME II graduates.

JFSC comprises four schools:

- Joint Advanced Warfighting School (JAWS)
- Joint and Combined Warfighting School (JCWS)
- Joint Continuing and Distance Education School (JCDES)
- Joint Command, Control, and Information Operations School (JC2IOS)

Graduates of the **Joint Advanced Warfighting School (JAWS)** earn a Master of Science degree in Joint Campaign Planning and Strategy and also JPME II qualification. The 35 graduates this year are master campaign planners, able to lead joint planning efforts in developing comprehensive campaign and contingency plans. All JAWS military graduates are assigned to designated planning billets at the Combatant Commands, where they assume critical planning staff responsibilities. Three core Fields of Study – Foundations in Theory and History, Strategy, and Operational Art and Campaign Planning – provide the developmental framework. JAWS Synthesis provides students the opportunity to discover the linkage among the other courses. The modules and courses are carefully woven together with key thematic questions to

demonstrate relationships between the subjects and improve student learning. Student individual research, analysis, and writing comes together in the thesis program, which is integrated into one of five research seminars (i.e., electives).

The **Joint and Combined Warfighting School (JCWS)** sets the standard for JPME II by preparing joint staff officers, international partners, and interagency civilians to solve complex problems within an operational planning framework. JCWS has augmented the Norfolk, Virginia in-residence program by conducting classes at satellite locations for the following Combatant Commands: USPACOM at Ford Island, HI; USSOUTHCOM at Miami, FL; USCENTCOM/USSOCOM at MacDill AFB, Florida; USEUCOM/USAFRICOM at Kelley Barracks, Stuttgart, Germany; and also for the National Capital Region with classes at Ft. McNair. Additional satellites are projected in AY2018. The 934 JCWS graduates this year provide more than half of the joint community's total number of JPME II certified officers. Approximately 33% of JCWS graduates attend en route to or within the first 12 months of their first joint tour, with the average JCWS student beginning the program having already served 22 months in joint tours.

The **Joint Continuing and Distance Education School (JCDES)** provides the **Joint and Combined Warfighting School-Hybrid (JCWS-H)** (changed by OPMEP in 2016 from Advanced JPME) designed to provide JPME-II certification to primarily Reserve Component officers who fill critical joint billets alongside their active duty colleagues. In AY2017, JCWS-H graduated 244 students, including 237 Reserve Component officers, 1 active duty officer, and 6 US civilians. JCWS-H is a 40-week, blended-learning course consisting of 2 distance learning (DL) periods and 2 face-to-face (F2F) periods. The F2F periods are conducted during week 15 and weeks 39-40. During the DL phases, students participate in synchronous and asynchronous group activities and seminar exercises. The online activities are designed to require approximately 6-8 hours per week. Students must complete assigned lessons during scheduled one-or two-week periods.

The **Joint Command, Control, and Information Operations School (JC2IOS)** continued to support the Joint Staff J6 and J39 through courses designed to deliver common understanding for Information Operations (IO) planners and information-related capability (IRC) specialists who will serve in joint operational-level IO billets. JC2IOS hosted five streamlined courses focusing on IO, operational security (OPSEC), military deception, and command and control. The recent mobile training teams (MTTs) have evolved to include real world planning with the host Combatant Command's deception and OPSEC plans. The **Joint C4I/Cyber Staff and Operations Course (JC4ICSOC)** integrates visits to DHS, USCYBERCOM, NSA, CIA, NRO, the Secret Service and DISA, designed to expose students to the complexities of managing and operating in the man-made domain, while recognizing the importance of interagency relationships to the success of DOD and national objectives in cyberspace. JC2IOS graduated 332 students across its five courses during AY2017, including 49 in the JC4ICSOC.

**Faculty Engagement and Awards:** JFSC provided Combatant Commanders and other joint entities mobile training teams (MTT) for a variety of operational-level training and education. JFSC faculty are active and recognized nationally and globally, providing support to a wide range of stakeholders; a detailed list of faculty engagements and awards is at Appendix 1. Additionally, JCDES continues to expand the JCWS-H alumni organization via the Blackboard learning management system and a discussion group on LinkedIn. This alumni organization serves as a platform for networking, discussions, and a method of communication with graduates of JCDES programs.

**Table 23. JFSC Student Enrollment**

Student Category	Active	Reserve	Guard	Total Enrollment
U.S. Army	285	86	46	417
U.S. Air Force	294	62	28	384
U.S. Navy	203	55	0	258
U.S. Marine Corps	62	21	0	83
U.S. Coast Guard	1	2	0	3
International Officer	--	--	--	67
International Civilian	--	--	--	1
DoD Civilian	--	--	--	37
Industry Civilian	--	--	--	0
Interagency Civilian	--	--	--	5
<b>Total</b>				<b>1,255</b>

Note: Active and Reserve components apply only to U.S. Military services; thus numbers may not sum to total across Active /Reserve status. This table includes students that withdrew from their program but completed at least 1 graduate credit-bearing course.

**Table 24. JFSC US Civilian Students by Executive-level Agency, Sub-Agency, Bureau, and Service**

	Agency	Student Enrollment
<b>DoD Agencies</b>	Defense Intelligence Agency	14
	Defense Logistics Agency	1
	Defense Technical Information Center	1
	Department of the Army	3
	Department of the Navy	3
	Joint Staff - J7	1
	National Defense University	1
	National Geospatial-Intelligence Agency	3
	National Security Agency/Central Security Service	1
	United States European Command	1
	United States Northern Command	3
	United States Strategic Command	4
	United States Transportation Command	1
	<b>DoD Agency Total</b>	<b>37</b>
<b>Non-DOD Agencies</b>	Federal Bureau of Investigation	1
	Department of State	3
	Department of Homeland Security	1
	<b>Non-DoD Agency Total</b>	<b>5</b>
<b>Total U.S. Civilian Enrollment</b>		<b>42</b>



**Table 25. JFSC Student Educational Background**

Student Category	Completed ILC**	Completed SLC**	Joint Exp.**	Operational Exp.**	Command O-5 Exp.**	Command O-6 Exp.**	Bachelor's Degree*	Master's Degree*	Doctoral/ Professional Degree*	Other*	Total***
U.S. Army	255	43	241	250	119	56	46	328	16	27	417
U.S. Air Force	252	92	251	246	133	29	11	344	10	19	384
U.S. Navy	119	17	159	163	85	23	12	221	8	17	258
U.S. Marine Corps	56	5	51	56	15	4	32	43	4	4	83
U.S. Coast Guard	0	0	2	1	0	1	0	3	0	0	3
International Officer	--	--	--	--	--	--	13	26	2	26	67
International Civilian	--	--	--	--	--	--	0	0	2	1	1
DOD Civilian	--	--	--	--	--	--	8	27	2	0	37
Industry Civilian	--	--	--	--	--	--	0	0	0	0	0
Interagency Civilian	--	--	--	--	--	--	3	1	1	0	5
<b>Total</b>	<b>682</b>	<b>157</b>	<b>704</b>	<b>716</b>	<b>352</b>	<b>113</b>	<b>125</b>	<b>993</b>	<b>43</b>	<b>94</b>	<b>1,255</b>

\*Represents prior education earned upon admission to NDU program.  
 \*\*U.S. Military students that are counted as having attended an ILC, SLC, Joint, or as having Operational, Command O-5, or Command O-6 Experiences upon admission to their NDU program. Professional military experiences refer to ILC, SLC, Joint Experience, Operational, Command O-5, or Command O-6 Experience.  
 \*\*\*Unduplicated student enrollment number. This is not the sum across all columns.

**Table 26. JFSC International Student Enrollment**

Country	Student International Officer	Student International Civilian
Afghanistan	1	0
Austria	2	0
Brazil	5	0
Chile	2	1
Colombia	2	0
Republic of the Congo	1	0
Czech Republic	1	0
Egypt	3	0
Finland	1	0
Germany	2	0
Honduras	2	0
India	1	0
Italy	1	0
Japan	2	0
Kuwait	2	0
Lebanon	3	0
Malaysia	2	0
Morocco	3	0
Philippines	2	0
Poland	2	0
Saudi Arabia	1	0
Serbia	1	0
South Korea	12	0
Tunisia	1	0
Turkey	4	0
Ukraine	2	0
United Arab Emirates	1	0
United Kingdom	3	0
Denmark	2	0
<b>Total</b>	<b>67</b>	<b>1</b>

Note: One Brazilian officer withdrew prior to program completion.

**Table 27. JFSC Noncredit/Program Course Enrollment**

Course/Program	Total Enrollment
Defense Operations and Security Planning Course (DOPC)	115
Joint Military Deception Training Course (JMTC)	77
Joint Command, Control, Communications, Computers and Intelligence/Cyber Staff and Operations Course (JC4ICSOC)	49
Joint Information Operations Planners' Course (JIOPC)	87
Joint Information Operations Orientation Course (JIOOC)	4
<b>Total</b>	<b>332</b>

Note: Courses in this table do not award academic credit. Enrollment is unduplicated within course/program but not across courses/programs

**Table 28. JFSC Faculty Educational Background**

Faculty Category	JQO**	SLC Graduate**	Bachelor's Degree*	Master's Degree*	Doctoral/ Professional Degree*	Total***
U.S. Army	15	4	1	18	1	20
U.S. Air Force	17	14	0	17	2	19
U.S. Navy	11	2	2	17	0	19
U.S. Marine Corps	6	3	2	5	0	7
U.S. Coast Guard	0	0	0	0	0	0
International Officer	--	--	0	0	0	0
International Civilian	--	--	0	0	0	0
DoD Civilian (Title 5)	2	--	0	3	0	3
DoD Civilian (Title 10)	21	9	0	13	14	27
Contractor	--	--	0	0	0	0
Interagency Civilians	--	1	0	1	0	1
<b>Total</b>	<b>72</b>	<b>33</b>	<b>5</b>	<b>74<sup>1</sup></b>	<b>17</b>	<b>96</b>

<sup>1</sup>Eighteen of these 74 faculty are currently enrolled in Terminal Degree programs (Ph.D. or Ed.D.) and are nearing completion of the degree requirements.

\*This is an unduplicated count that represents faculty highest degree earned.

\*\*Note: JQO refers to Joint Qualified Officer and SLC refers to Senior Level College.

\*\*\* Total unduplicated count of faculty category. Professional military experiences/highest level of education are not mutually exclusive. Professional military experiences refer to JQO and SLC.

## National War College

The National War College (NWC) continued to fulfill its CJCS-directed mission to “educate future leaders of the Armed Forces, Department of State, and other civilian agencies for high-level policy, command, and staff responsibilities by conducting a senior-level course of study in national security strategy.” That mission sets NWC apart as the only PME school that focuses solely on national security strategy. NWC’s aim remains to prepare students for the highest levels of strategic leadership by offering unparalleled education in the development of national security strategies. The college accomplishes this via a core curriculum of five sequential courses designed to significantly improve each student’s ability to think strategically – to understand and apply the fundamental elements of strategic logic:

- Insightful assessment of the strategic problem, its criticality, and its broad strategic context
- Critical analysis of the nation’s interests, and formulation of achievable strategic goals
- Realistic assessment of whether – and how – available instruments of national power can produce the desired strategic effects, either singly or in combination
- Creative design of strategic approaches employing the appropriate and available instruments of power
- Realistic judgment of costs and risks associated with the recommended strategic design

Overlaying the sequential core curriculum is a year-long national security strategy practicum. This practicum requires each student to select a contemporary national security challenge, and then apply the above strategic logic to assess that challenge and develop a national security strategy to deal with it. Each student writes a thesis-like strategy paper and defends it orally in front of two faculty members. Additionally, students tailor their studies by enrolling in three electives, or by applying for special programs, such as the NWC Research Fellow Program or the NDU Combatant Command Scholar Program.

The college delivers Title 10-directed JPME II content as prescribed by the joint learning objectives in the National War College Appendix to CJCSI 1800.01E, Officer Professional Military Education Policy. Each of the applicable objectives is shaped to address these Title 10 requirements in the context of the college’s mission, and each is incorporated in one or more of the college’s core courses.

A vital component of the NWC experience combines academics and research with outreach and networking opportunities. For example, NWC continued its annual collaborations with partner schools, such as the United Kingdom’s Royal College of Defence Studies, France’s Centre des Hautes Etudes Militaires, and Canadian Forces College. Students from each school conduct collaborative investigation of one or more national security challenges of mutual interest. NWC students also partner with non-military organizations, including Northwestern University’s Medill School of Journalism and the Department of State’s Foreign Service Institute.

Beyond the educational outcomes NWC achieved with its students, the college also made important contributions to the larger national examination of security affairs in a number of ways. First, at the request of the Director J7, Joint Force Development, NWC prepared a first-ever draft of a Joint Doctrine Note on Strategy. That draft, which centers on concepts and insights for thinking strategically, is in final coordination and editing with J7. Second, at the request of Ambassador Hugo Llorens, slated at the time to take over as the senior US civilian representative in Afghanistan, the college tasked a small team of students, under faculty supervision, to develop a proposed US national security strategy for Afghanistan. That group’s work became an important input to the current administration’s development of its own new

strategy for Afghanistan. The success of that effort has prompted USD-Policy to request the college to undertake a similar endeavor this year to assist in answering a Congressional tasking to formulate a new US national security strategy for Africa. Third, at the request of the Joint Staff and the Office of the Secretary of Defense, NWC faculty developed a short course on National Security Decision Making for incoming Department of Defense political appointees.

Finally, NWC faculty continued to develop and share expertise with the national security community. Dr. Theresa Sabonis-Helf dedicated her year-long sabbatical to traveling throughout Central Asia, where she researched water, energy, and security policy issues. Dr. Colton Campbell, a former Congressional staffer, returned to the Hill to deepen his relationships, gain insights into the evolving legislative process, and lend his expertise to the office of Senator Harry Reid. And Dr. Rich Andres spent the past spring semester detailed to a strategic advisory group working for the USCYBERCOM Commander, Admiral Michael S. Rogers.

**Table 29. NWC Student Enrollment**

Student Category	Active	Reserve	Guard	Total Enrollment
U.S. Army	36	6	7	49
U.S. Air Force	38	1	3	42
U.S. Navy	9	1	0	10
U.S. Marine Corps	14	1	0	15
U.S. Coast Guard	2	0	0	2
International Officer	--	--	--	31
International Civilian	--	--	--	0
DoD Civilian	--	--	--	19
Industry Civilian	--	--	--	0
Interagency Civilian	--	--	--	38
<b>Total</b>				<b>206</b>

Note: Note: Active and Reserve components apply only to U.S. Military services; thus numbers may not sum to total across Active /Reserve status. This table includes all NWC program enrolled students who completed at least 1 course during the AY 2016-17.

**Table 30. NWC US Civilian Students by Executive-level Agency, Sub-Agency, Bureau, and Service**

	Agency	Total Enrollment
<b>DoD Agencies</b>	Defense Information Systems Agency	1
	Defense Intelligence Agency	5
	Department of the Air Force	1
	Department of the Army	1
	Joint Staff - J3	1
	Joint Staff - J5	1
	Joint Staff - J7	1
	Joint Staff - J8	1
	National Geospatial-Intelligence Agency	1
	National Security Agency/Central Security Service	3
	Office of the Under Secretary of Defense for Policy	3
	<b>DoD Agency Total</b>	<b>19</b>
<b>Non DoD Agencies</b>	Agency for International Development	3
	Central Intelligence Agency	1
	Department of Homeland Security	5
	Department of Energy	2
	Department of State	24
	Department of Treasury	1
	Federal Bureau of Investigation	1
	Office of Director of National Intelligence	1
	<b>Non-DoD Agency Total</b>	<b>38</b>
	<b>Total U.S. Civilian Enrollment</b>	<b>57</b>

**Table 31. NWC Student Educational Background**

Student Category	Completed ILC**	Completed SLC**	Joint Exp.**	Operational Exp.***	Command O-5 Exp.**	Command O-6 Exp.**	Bachelor's Degree*	Master's Degree*	Doctoral/Professional Degree*	Total***
U.S. Army	49	0	24	48	41	2	5	40	4	49
U.S. Air Force	41	24	13	37	41	4	1	39	2	42
U.S. Navy	8	0	7	10	5	0	5	5	0	10
U.S. Marine Corps	14	0	3	15	14	0	3	11	1	15
U.S. Coast Guard	2	0	0	1	1	0	0	2	0	2
International Officer	--	--	--	--	27	19	8	21	2	31
International Civilian	--	--	--	--	--	--	0	0	0	0
DOD Civilian	--	--	--	--	--	--	7	11	2	20
Industry Civilian	--	--	--	--	--	--	0	0	0	0
Interagency Civilian	--	--	--	--	--	--	12	21	4	37
<b>Total</b>	<b>114</b>	<b>24</b>	<b>47</b>	<b>111</b>	<b>129</b>	<b>25</b>	<b>41</b>	<b>150</b>	<b>15</b>	<b>206</b>

\*Represents prior education earned upon admission to NDU program.

\*\*U.S. Military students that are counted as having attended an ILC, SLC, Joint, or as having Operational, Command O-5, or Command O-6 Experiences upon admission to their NDU program. Professional military experiences/highest level of education are not mutually exclusive.

\*\*\*Unduplicated student enrollment number. This is not the sum across all columns.

**Table 32. NWC International Student Enrollment**

Country	Student International Officer	Student International Civilian
Afghanistan	1	0
Algeria	1	0
Australia	1	0
Bangladesh	1	0
Bulgaria	1	0
Canada	1	0
Colombia	1	0
Czech Republic	1	0
Ethiopia	1	0
Finland	1	0
France	1	0
Greece	1	0
Hungary	1	0
India	1	0
Indonesia	1	0
Iraq	1	0
Italy	1	0
Korea, South	1	0
Kuwait	1	0
Nepal	1	0
Netherlands	1	0
Nigeria	1	0
Pakistan	1	0
Romania	1	0
Saudi Arabia	1	0
Serbia	1	0
Taiwan	1	0
Ukraine	1	0
United Arab Emirates	1	0
United Kingdom	1	0
Vietnam	1	0
<b>Total</b>	<b>31</b>	<b>0</b>



**Table 33. NWC Faculty Educational Background**

Faculty Category	JQO	SLC Graduate		Bachelor's Degree*	Master's Degree*	Doctoral/ Professional Degree*	Total**
U.S. Army	9	9		0	9	0	<b>9</b>
U.S. Air Force	6	8		0	8	2	<b>8</b>
U.S. Navy	4	4		0	4	0	<b>4</b>
U.S. Marine Corps	2	2		0	2	0	<b>2</b>
U.S. Coast Guard	0	0		0	0	0	<b>0</b>
International Officer	--	--		0	0	0	<b>0</b>
International Civilian	--	--		0	0	0	<b>0</b>
DoD Civilians <sup>2</sup>	--	--		0	3	22	<b>25</b>
Contractor	--	--		0	0	0	<b>0</b>
Interagency Civilians	--	--		0	5	5	<b>12</b>
<b>Total</b>	<b>21</b>	<b>23</b>		<b>0</b>	<b>31</b>	<b>29</b>	<b>60</b>

<sup>2</sup>Individuals counted in the “DOD Civilian” category include 22 Title X faculty hired by NWC/NDU and 3 individuals detailed to NWC from other DoD agencies.

\*This is an unduplicated count that represents faculty highest degree earned.

\*\*Note: JQO refers to Joint Qualified Officer and SLC refers to Senior Level College.

\*\*\* Total unduplicated count of faculty category. Professional military experiences/highest level of education are not mutually exclusive. Professional military experiences refer to JQO and SLC.

## The International Student Management Office

Since 1985, international military students (IMS) from US partner nations have attended NDU, at the invitation of the CJCS, to facilitate joint security cooperation and advance US national security interests. The International Student Management Office (ISMO) played a key role in these efforts by integrating IMS within the university's academic programs, providing sustained administrative support for IMS and their dependents, developing academic and partnership-building programs, and facilitating strategic engagement through custom education, alumni outreach, and quiet diplomacy.

**International Student Support:** During AY2017, ISMO enrolled 250 IMS from 70 countries at NDU's five colleges. ISMO also innovated and improved upon the delivery of student services. For example, ISMO designed a new database to track all student, alumni, and dependent data in a single, accessible, and connected platform. ISMO also expanded its community sponsorship program by recruiting 42 new volunteers from the local community, enabling ISMO to assign sponsors to ninety-six percent of IMS prior to their arrival at NDU. This enhanced the ability of IMS to rapidly settle into their new living and working environment in the US, and prepare for success in their challenging academic programs.

**Academics:** ISMO continued to improve pedagogy and the delivery of academic content through the fulfillment of the DOD Field Studies Program and augmentation of the American Studies elective. The Field Studies Program enabled each IMS to learn firsthand about US society, institutions, and ideals, as well as principles of internationally recognized human rights, through site visits outside of NDU and via interaction with local citizens. IMS enrolled at NWC and ES further built upon these experiences by participating in ISMO's American Studies elective. IMS participated in field studies to Montana, Philadelphia, Tennessee, Boston, New York, New Orleans, California, Michigan, and Hawaii.

ISMO also completed two highly successful pilot projects that greatly enhanced the learning and partnership-building experience for IMS both in the classroom and during field studies. These pilot projects were:

- Enrolling US students in the American Studies course for the first time, which enabled greater relationship development and information sharing between IMS and US students.
- Recruiting NDU faculty members from across campus. These NDU faculty served as Affiliate Faculty, leading discussion sections and advising on the development and integration of course curriculum.

**Strategic International Engagement:** ISMO fulfilled its strategic engagement mission by serving as the DOD agent for the Distinguished Visitor Orientation Tour (DVOT) program. During this academic year, ISMO executed four DVOTs for delegations from Indonesia, Iraq, and Mongolia. DVOT delegations visited a variety of military installations, education and training facilities, and government organizations. Participants included flag and general officers, as well as civilian leaders, who learned about the US defense establishment. This program is designed to help them address specific objectives in their own militaries and governments, and to align their militaries more closely with US systems and structures.

In addition, ISMO facilitated 54 senior-level international visits to NDU from 29 countries. A general officer or civilian equivalent led each delegation, and most visits involved IMS, who provided cultural expertise during the visit. The primary purpose for most visits was either concerning defense institution-building assistance, usually related to military education and training, or to strengthen bilateral relations through diplomatic courtesy calls. The frequency and diversity of these visits highlighted NDU's international reputation, both as an academic resource for scholars and practitioners within the military education community, and also as a diplomatic conduit for US government stakeholders and multinational partners.

ISMO's engagement also reached a thriving alumni network of nearly 3,000 former IMS. Through email, social media, and personal contact, ISMO provided continuing education resources, networking opportunities, and recognition programs for alumni, while strengthening the program infrastructure for long-term success. ISMO also inducted two distinguished alumni into the International Hall of Fame: Lieutenant General William Hotchkiss (24<sup>th</sup> Commanding General of the Philippine Air Force) and General Emmanuel Bautista (Chief of Staff of the Armed Forces of the Philippines). Finally, ISMO began planning for a major Quadrennial Alumni Seminar & Reunion for fall 2017.

## Institute for National Strategic Studies

Established in 1984 by the Secretary of Defense (SECDEF), the Institute for National Strategic Studies (INSS) is a focal point for the analysis of critical national security policy and defense strategy issues. The INSS mission is to conduct research in support of the academic and leader development programs at NDU, to provide strategic support to the SECDEF, CJCS, and unified combatant commands, and to interact with other US Government agencies and the broader national security community. INSS research is guided by the priorities provided by senior DOD and university leadership. This research is carried out by the institute's four centers:

- The Center for Strategic Research (CSR)
- Center for the Study of Weapons of Mass Destruction (CSWMD)
- Center for Complex Operations (CCO)
- Center for the Study of Chinese Military Affairs (CSCMA)

INSS research, education, and leader development activities are funded directly from the NDU budget and also on a reimbursable basis by other elements of DOD and the US Government. Some centers are primarily direct-funded, while others are exclusively funded from reimbursable sources. NDU Press, a component of INSS, publishes *Joint Force Quarterly* and INSS research.

The CJCS and senior leaders at NDU have reiterated that senior leader development/JPME is the first and most important responsibility for the research component. Accordingly, INSS research this year supported education, either directly through teaching, supervising student research projects, or curriculum development, or indirectly through developing faculty who are thought-leaders and routinely contribute to the most vexing policy solutions faced by national security leaders. Beginning in AY2018, all direct-funded research faculty members are assigned to either teach or respond to requests from NDU colleges for curriculum development products. In addition to direct teaching support, INSS researchers continue to guest lecture, provide publications in support of NDU courses, serve as student mentors, and offer elective courses.

In AY2017, INSS continued to play a leading role in implementing the Combatant Command Scholars Program. This program was pioneered by CSCMA in collaboration with USPACOM, and has expanded to include USEUCOM, USNORTHCOM, USSOUTHCOM, and USSTRATCOM. INSS also supported JPME and other DOD education programs outside of NDU; for example, CJCS has designated CSWMD as the focal point for all WMD education within the JPME system.

A high-quality research program is essential for maintaining a cadre of thought-leaders that not only contributes to a relevant curriculum, but also supports senior DOD decision makers. NDU's research must conform to challenging research standards, including rigorous peer reviews and security reviews. Research topics address many of the most difficult policy dilemmas currently facing senior leadership, as well as a variety of over-the-horizon issues that will drive future choices. Research topics prioritize the needs of the OSD, Joint Staff, and combatant commanders. The INSS research capability provides DOD an in-house think tank

capability that produces high-quality, responsive products at a fraction of the price. Research activities are also critical to the university's classroom experience by developing instructors and instructional material that bring cutting-edge policy experience and research excellence into the classroom. This academic year, INSS began an intense review of the type of projects that it accepts for reimbursable funding based on the aforementioned criteria, timely execution, and NDU research standards. As a result, INSS stood down the Center for Technology and National Security Policy (CTNSP). The highlights of the INSS research program follow.

**Decision Support for the Chairman's "4+1" Priorities:** Over the past year, a large portion of INSS research effort focused on the Chairman's top 4+1 priorities of violent extremist organizations, Iran, Russia, North Korea, and China. Highlights of this research include:

- **Violent Extremist Organizations:** INSS faculty produced four reports for the Joint Chiefs of Staff (JCS), USSOCOM, USCENTCOM, DOS, National Counterterrorism Center, and DHS on patterns of the Islamic State in Iraq and Syria (ISIS) external operations and foreign terrorist fighters. INSS also supported senior officials' decision making in a Red Teaming event, CFT+1 coordination meetings, informational sessions to support the JS prior to National Security Council (NSC) meetings, and Pre-Ministerial Conferences organized by DOS in March and July 2017 for the Defeat ISIS Coalition of 76 countries. Finally, INSS researchers' travels to Algeria, Jordan, and Russia continue to inform counterterrorism policy.
- **Iran:** INSS conducted the Iran Rising Conference and produced a report for US Government stakeholders that assessed Iran's capabilities, power projection, motives, and influence in the region since the signing of the Joint Comprehensive Plan of Action, the Syrian civil war, and anti-ISIS campaign. Ongoing trips to Iraq and reports also assessed local and regional dynamics, Iranian influence in the region, and implications for US policy.
- **Russia:** INSS researchers provided proactive subject matter expertise and lecture support to numerous US and allied warfighting units, high-level defense-interagency meetings, and intelligence communities. Researchers also attended a strategic-level Moscow conference on international security, in coordination with OSD, JS, DOS, and Defense Attaché Office Moscow, and provided research products and briefings documenting research findings.
- **North Korea:** INSS Fellows participated in a Korea-focused interagency simulation exercise and discussed North Korea issues with Chinese, Japanese, and South Korean counterparts in a range of bilateral and trilateral meetings, with insights harvested for DOD and interagency policymakers. This work focuses on challenges posed by North Korea's nuclear and missile programs, as well as issues related to contingencies arising out of internal instability and collapse, to include new concepts of eliminating North Korea's WMD program under a variety of scenarios. Research on China and North Korea produced a March 2017 policy memorandum that informed NSC Korea policy review and reached a four-star audience. One researcher was detailed to OSD Policy in 2017 to run the US–Republic of Korea Deterrence Strategy Committee.
- **China:** INSS briefed research on Chinese military reforms briefed widely within DOD and the Intelligence Community. FOUO staff analyses provided "as it happens" analysis to US Government customers. A Strategic Forum policy brief and a *Joint Force Quarterly* article on these topics were widely cited and published in the Taiwanese Ministry of National Defense

journal. A People's Liberation Army officer called it the "best analysis of reforms in English." A November 2016 conference added analytic depth and presented expert findings directly to policymakers, Intelligence Community participants, and US allies and partners. A March 2017 NDU monograph pulled details into a comprehensive, unclassified reference and added analysis of the political strategy for implementing reforms. CSCMA travel to China and Taiwan provided unique insights into cross-strait relations following the election of Taiwan President Tsai Ying-Wen; these were briefed at senior levels of the NSC and DOS.

**Countering Weapons of Mass Destruction:** INSS also provided significant support on a full range of WMD matters and interagency organizations, including nonproliferation and homeland security. Highlights of this research and support include:

- **Nuclear and Missile Defense Posture Reviews:** Research faculty facilitated OSD/J5 outreach to expert communities on key policy questions for the Nuclear Posture Review (NPR) and Ballistic Missile Defense Review (BMDR). Two expert roundtables focused on NPR, and a roundtable with former combatant commanders and other senior officials in focused on the BMDR. INSS also informed DOD development of NPR and BMDR, and provided feedback on several drafts of the BMDR. The Deputy Assistant Secretary of Defense (DASD) for Nuclear and Missile Defense Policy sponsored this work.
- **Nuclear "First Principles" Roundtables:** INSS developed and hosted three expert roundtables to identify and interrogate basic assumptions underlying various approaches to nuclear disarmament and nuclear deterrence. Faculty informed the new administration's thinking on nuclear policy. The NSC Senior Director for WMD and Counterproliferation sponsored this effort.
- **Global Synchronization Conference Senior Leader Engagements:** INSS shaped and facilitated discussions for senior leader engagements at the semi-annual Global Synchronization Conference for Countering WMD, initiated by USSTRATCOM in 2014 and continued by USSOCOM after the Unified Command Plan countering-WMD mission responsibility transitioned to USSOCOM in 2016. Two senior leader seminars (SLS) were held this year at the four-star level and included multiple combatant commanders and service chiefs. These seminars shape USSOCOM and the broader community's approach to the countering-WMD mission. USSOCOM sponsored this project.
- **Emergent Technologies and WMD:** Last year, INSS assessed the technology landscape for potential strategic impacts and possible WMD-like effects. This work identified specific technologies of concern, outlined how they could converge with other technologies, and considered possible policy options for mitigating their effects. INSS also hosted two workshops that highlighted security and privacy risks to information associated with genetic engineering, and identified risks from the convergence of technologies, such as synthetic biology, additive manufacturing, autonomous systems, and artificial intelligence. OSD (Acquisition, Technology, and Logistics/Nuclear and Chemical and Biological Defense sponsored this work.

**Technology and National Security:** INSS also facilitated a series of efforts designed to prompt technological innovation.

- **Prototyping and Experimentation:** INSS assisted the Office of Naval Research in exploring key challenges related to the use of prototyping and experimentation as a bridge between science and technology investments and those focused on product development.
- **Education for Innovation and Acquisition:** INSS supported the delivery of education programs that encourage an entrepreneurial attitude in rising military leaders. These included Hacking for Defense courses, a collaborative problem solving JPME course, and MD5 Boot Camp on the fundamentals of innovation. This effort also provided disruptive innovation workforce training for DOD sponsors from the National Guard Bureau, US Marine Corps, US Pacific Fleet, US Army Reserve, and Air Force Research Laboratory.
- **Accelerating Acquisition of Innovative Technologies:** A project supporting the Military Intelligence Professional Bulletin facilitated the development of large networks of collaborative national security problem solvers in government, industry, and academia. Frequent activities, such as hackathons, technology, and pitch events; DOD lab engagement; and enduring university partnerships helped to accelerate technologies with dual-use applications into the DOD acquisition system.

**Congressional Testimony:** INSS experts were called to support these three Congressional hearings in 2017:

- **National Security Reform:** An INSS faculty member testified before the Senate Armed Services Committee (SASC) on defense reform and briefed the current National Security Advisor. SASC adopted the recommendation and added a provision for Pentagon use of cross-functional teams in the National Defense Authorization Act (NDAA).
- **Civilian Personnel Policy Reform:** An INSS faculty member testified before the SASC on recommendations to reform civilian personnel policy in DOD. Those recommendations will likely be reflected in the 2018 NDAA.
- **Assessing North Korea's Risk to the Homeland:** An INSS faculty member testified before the House Homeland Security Committee on the risk to the US homeland presented by North Korea's nuclear, biological, and chemical programs.

**INSS Publications:** INSS is home to NDU Press, which supports the university's academics, research, and engagement mission. This year, the Press published four issues of the Chairman's flagship journal, *Joint Force Quarterly*. The Press also continued its support of the Joint Electronic Library, as all of the journal's content is resident in the library's data storage for instant access by personnel worldwide.

NDU Press remains committed to serving JPME and providing an intellectual platform for joint matters. JPME school participation in the Secretary of Defense and CJCS essay competitions increased again this year. Publication highlights follow.

In 2017, NDU Press published four books:

- ***Charting a Course: Strategic Choices for a New Administration.*** This volume provides context and understanding about the current national security environment to those in the

new administration, as they prepare to lead the nation during challenging times. The book was sent to all appointees at the DASD level and higher, Joint Staff and Service general and flag officers, and, on request, JPME institutions. It was also sent to certain DOS officials and personnel in the new administration.

- ***The Armed Forces Officer***. This book educates officers of all Services, as well as civilians, about the fundamental moral-ethical requirements of being a commissioned officer in the Armed Forces of the United States. For nearly 60 years, this book and its previous editions have provided a foundation of thought, conduct, standards, and duty for American commissioned officers. NDU Press also simultaneously published an e-book version.
- ***Beyond Convergence: World Without Order***. This research maps interactions, collaboration, and cooperation among international terrorists, transnational criminal organizations, and networked insurgencies. The book also has been the subject of symposia and seminars at the Marshall Center, William J. Perry Center for Hemispheric Defense Studies, International Institute for Strategic Studies (London), Norwegian Police Academy (Oslo), Swedish Defense University (Stockholm), Global Initiative (Geneva), and Naval Post-Graduate School (Monterey).
- ***Effective, Legitimate, Secure: Insights for Defense Institution Building***. This is an edited volume on the background, context, and experience of defense institution-building as an evolving discipline in security cooperation. This volume initiates the systematic study of, and deepens the debate about, the costs and benefits of DOD defense institution-building.

INSS also publishes two academic journals:

- ***Joint Force Quarterly*** (JFQ) informs members of the US Armed Forces, allies, and other partners on joint and integrated operations, national security policy and strategy, efforts to combat terrorism, homeland security, and developments in training and JPME to transform America's military and security apparatus to better meet tomorrow's challenges, while protecting freedom today.
- ***PRISM*** is a scholarly journal on complex operations, which aims to illuminate and provoke improvements to whole-of-government efforts to conduct reconstruction, stabilization, counterinsurgency, and irregular warfare options. Since its inaugural issue in 2010, *PRISM's* readership has expanded to 10,000 officials, service members, practitioners, and scholars from 88 countries. In FY2017, *PRISM* published three issues. *PRISM* 6.3, "Special Operations in a Chaotic World," was incorporated into training at the Citadel, Georgetown University, Joint Special Operations University, and civil affairs units within the US Army.

NDU Press also publishes the peer-reviewed work of the university faculty. In 2017, this included one case study, three policy briefs, and seven occasional papers. This year, the Press introduced a blog, *Strategic Insights*, which is a forum for concise analyses of critical policy issues that affect US national security interests and is intended for the exchange of research-informed analysis. The blog is available at <https://stratblog.sites.usa.gov/>.



**Combatant Command Scholars:** The Combatant Command Scholars Program supports the joint warfighter by providing rigorous, directed research on relevant topics, while expanding on key elements of JPME for selected US military and interagency students. Research topics included Russian nuclear narratives, defining the “Gray Zone,” adapting commercial technology for special operations forces, integrating civil and military cyber capabilities, and countering illicit trafficking and transnational criminal organizations. Altogether, 18 students participated in the Combatant Command Scholars Program:

- Three students participated as scholars at USEUCOM: A Marine lieutenant colonel, Royal Air Force wing commander, and a Joint Staff civilian.
- One Air Force major participated as a USNORTHCOM scholar.
- There were five USSOCOM scholars, two Air Force lieutenant colonels and three Army lieutenant colonels.
- USPACOM had three scholars: A Navy commander, Department of Energy civilian, and DOD civilian.
- There were two USSOUTHCOM scholars: A Marine lieutenant colonel and a DOS civilian.
- Finally, there were three USSTRATCOM scholars: Two Marine lieutenant colonels and a DHS civilian.

## Flag Officer and Senior Enlisted Education

**CAPSTONE:** The CAPSTONE course provides unique executive education for newly-appointed generals and admirals, and senior civilian national security leaders. In accordance with the Officer Professional Military Education Policy (OPMEP, CJCSI 1800.01E), CAPSTONE is the baseline General Officer/Flag Officer (GO/FO) JPME III level course. The five-week course is scheduled four times per year. All GO/FO courses, to include component commander, warfighting, and PINNACLE courses, use CAPSTONE as their foundation. In AY2017, CAPSTONE met the Learning Area objectives in accordance with the OPMEP.

Created to give new GO/FOs an enhanced understanding of service capabilities in combined military operations, CAPSTONE has evolved to include an appreciation for whole-of-government approaches to complex national and international challenges, and the interagency process that pursues such solutions. CAPSTONE receives outstanding access and support from the military services, the unified commanders and the intelligence community.

The CAPSTONE overseas field study program, in which participation is limited to US Fellows only, provides an opportunity to interact with interagency country teams and exposure to the regions of potential future engagement or conflict. This also allows combatant commanders and chiefs of mission to leverage CAPSTONE delegation visits to enhance their own engagement programs.

A total of 193 uniformed officers and senior civilians (plus 16 Allied officers from Canada, Australia, and the UK) were given a robust exposure to the joint force and military services, combatant commanders, and senior leaders in the broader US government interagency.

Additionally, 115 spouses of Capstone Fellows, including a first-ever Allied spouse, attended the week-long Executive Spouse Development Program. Curriculum included briefings on current regional issues, media relations, a panel discussion with senior service spouses, a dialogue with the spouse of the CJCS, ethics training, and a professional biography counseling session.

**Table 34. CAPSTONE Students**

Capstone				
	Active	Reserve	Guard	Total
U.S. Army	44	14	8	66
U.S. Air Force	39	7	8	54
U.S. Navy	24	4		28
U.S. Marine Corps	10	2		12
U.S. Coast Guard	8	1		9
DoD Civilians	16			16
Interagency Civilians	8			8
<b>Total Enrollment</b>	<b>193</b>			
Allied	UK	8		
	AUS	4		
	CAN	4		

**PINNACLE:** As with CAPSTONE, PINNACLE also is guided by the OPMEP. The week-long PINNACLE course runs two times per year and builds on the knowledge imparted by CAPSTONE, the Combined/Joint Force Functional Component Commander Courses, or the Joint Flag Officer Warfighting Course. It is for select two and three-star officers who are most likely to be called upon to command a joint force in a military or humanitarian assistance/disaster relief contingency. Attendees come from all five military services and the interagency. To enrich the exploration of global and transnational issues, senior military officers from partner nations are also invited to attend PINNACLE.

PINNACLE graduated 24 Fellows in AY2017 and met the Learning Area objectives in accordance with the OPMEP.

**Table 35. PINNACLE Students**

Pinnacle				
	Active	Reserve	Guard	Total
U.S. Army	4		1	
U.S. Air Force	4			
U.S. Navy	4			
U.S. Marine Corps	2			
U.S. Coast Guard	1			
International Officers	6			
International Civilians				
DoD Civilians				
Interagency Civilians	2			
<b>Total Enrollment</b>	<b>24</b>			

**KEYSTONE:** The KEYSTONE course is governed by the Enlisted Professional Military Education Policy (EPMEP, CJCSI 1805.01B) and is designed to prepare Command Senior Enlisted Leaders (CSELs) for assignment in a GO/FO joint headquarters. This course complements the GO/FO CAPSTONE course.

In AY2017, the 2-week KEYSTONE course provided 93 CSELs, who had been selected for joint billets, with an enhanced understanding of the joint military environment, the defense establishment, and the broader US interagency. The Joint Staff-executed Joint Operations Module, along with visits to several unified commands and selected Joint Task Forces, provides relevant information on joint operations.

Attendance is based upon a prioritized listing of the joint and service senior billets most likely to benefit from KEYSTONE attendance. Two KEYSTONE courses each year provide this executive education to Senior Enlisted Leaders from all five military services, their reserve components, the National Guard, and selected interagency partners. Six Allied senior enlisted students also attended Keystone this past academic year, including a first-ever student from New Zealand.

This year, KEYSTONE met the Learning Area objectives in accordance with the EPMEP (CJCSI 1805.01B).

**Table 36. KEYSTONE Students**

<b>Keystone</b>				
	<b>Active</b>	<b>Reserve</b>	<b>Guard</b>	<b>Total</b>
U.S. Army	19	2	10	31
U.S. Air Force	19		4	23
U.S. Navy	17			17
U.S. Marine Corps	10			10
U.S. Coast Guard	3			3
International WO/SGM	6			6
International Civilians				0
DoD Civilians				0
Interagency Civilians	3			3
<b>Total Enrollment</b>	<b>93</b>			

## Faculty Publications

Conducting research to create and disseminate knowledge and insight on security related topics enhances the university's education mission. It also strengthens the defense community and its ability to anticipate, understand, prepare for, and respond to security threats across the spectrum and around the world. In addition to research efforts, publications, and presentations mentioned elsewhere in this report, the NDU team added to the quality and robustness of the educational experience for all of the university's students, shed light on key strategic issues, and enhanced strategic relationships and engagement via the following publications in this bibliography.

The following list includes only publications by faculty and staff while employed at NDU. It may also include presentation materials, if the faculty or staff member presented at a conference and the conference proceedings are available for citing. Additionally, this list may include faculty or staff dissertations completed while employed by NDU. This list generally does not include Congressional testimony, "brown bag" or other informal panel materials, forthcoming publications, or editorials, except those published in scholarly journals. Each listing is verified through third party publications.

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