

2017-18

CENTER FOR  
NAVAL WARFARE STUDIES

RESEARCH PLAN  
ALMANAC AND YEARBOOK



U.S. NAVAL WAR COLLEGE  
NEWPORT • RHODE ISLAND



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# Message from the Dean

In the fall of 2015, the Center for Naval Warfare Studies (CNWS) published its first *Almanac and Yearbook*. The first edition (2016–17) reported on the research, analysis, and gaming accomplished in the previous year and provided a forward-looking research plan that projected the focus of the Center’s efforts to inform key stakeholders of the ongoing work of the Center.

This second edition (2017–18) has the same core goals and mirrors the format and structure of the first edition. First, the “yearbook” section outlines all of the research and other analytic activities completed by the faculty over the past twelve-month period with descriptive information along with a point of contact for each to learn more about that work and obtain the related analytic products and reports. Second, the “almanac” section of this document is intended to outline both scheduled and anticipated games, events, and projects so that interested internal and external educators, researchers, and gamers can identify potential venues and projects for collaboration and cooperation and can plan their own efforts accordingly. This section also provides points of contact for these efforts. Lastly, the “almanac” section will also enable the OPNAV, fleet, and functional staffs to see what research is planned for the coming twelve to twenty-four months so that they can tap into this research when it becomes available as needed.

The Center for Naval Warfare Studies has been in a period of rapid adaptation, strengthening the faculty and establishing and enhancing research programs in a number of areas. Most notable are the Center’s efforts to establish a Russia Maritime Studies Institute, intensify our research in cyber-related issues through the Center for Cyber Conflict Studies, and deepen our bench with naval and national strategy expertise. In addition, a renaissance in war gaming within the Department of Defense has prompted and enriched our actions to adapt and fortify the war-gaming activities at the College through the establishment of the war-gaming Virtual Community of Practice, the adoption of a naval enterprise approach to select and prioritize the war games to be conducted, and lastly, an expansion of gaming in the College’s academic curriculum—most notably in the Joint Military Operations Department.

The expertise of the CNWS faculty spans a very broad range of subjects and research skills and they are uniquely poised to apply this array to conduct comprehensive analyses of challenges and opportunities facing the naval services. With this, our plan in the coming year will be to undertake one or two significant cross-departmental projects focused on areas where a strong interdisciplinary approach would yield creative and innovative ideas. Moreover, we will place a priority on projects that anticipate the knowledge needs of the naval leadership. The identification and research planning for these projects will commence during the first quarter of fiscal year 2017.

As the fiscal year proceeds we will use this document as the primary guide to focus our research—but the Center will remain flexible to adjust individual research efforts, adapt to emerging analytic findings, and respond to clear tasking from the Chief of Naval Operations and the fleet commanders.

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# Overview

The Center for Naval Warfare Studies (CNWS) is the research, analysis, and war-gaming arm of the Naval War College (NWC), with about 140 personnel and an annual budget of approximately \$7 million.

The mission of CNWS is to produce focused, forward-thinking, and timely research, analysis, and gaming that anticipate future operational and strategic challenges; to develop and assess strategic and operational concepts to overcome those challenges; to assess the risk associated with these concepts; and to provide analytic products that inform the Navy's leadership and help frame key decisions.

CNWS comprises the following:

## Strategic and Operational Research Department

- Center for Cyber Conflict Studies
- China Maritime Studies Institute
- Russia Maritime Studies Institute
- Gravelly Research Group
- Halsey Alfa Research Group
- Halsey Bravo Research Group
- Mahan Scholars Research Group

## War Gaming Department

## Stockton Center for the Study of International Law

## Museum and Maritime History Department

## Naval War College Press

In addition, the Office of Naval Intelligence Detachment (ONI Det) is assigned as a department under CNWS. It provides integrated intelligence expertise essential for war gaming, research, warfare analysis, and advanced operational planning.

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# Research Plan

*The Center for Naval Warfare Studies creates practical knowledge and shares it across the Department of the Navy and beyond in pursuit of national and naval service strategic and operational goals. A diverse organization with several component parts, including historical research, student advanced studies, strategic analysis, operational research, and war-game development and execution, the Center publishes reports and studies that serve as an enduring and significant contribution to not only the Naval War College and the profession of arms but the broader naval enterprise.*



## Prioritization

Our research plan is built around carefully analyzed core components organized along both geographical and functional lines. The importance of prioritizing the Center’s broad research focus is twofold. First, with limited bandwidth, resources, and facilities, the Center cannot address all areas of interest, however important, because doing so would dilute the depth and quality of the research and the resultant analysis would be less rigorous and only marginally useful. Second, with faculty and staff members who possess specific individual skills and knowledge, a deliberate, focused approach that

takes these talents into account when prioritization occurs will reap the highest-quality information and knowledge.

The challenge with this prioritization is that the Center may miss something of crucial interest or impact. A continual and deliberate review process ensures that gaps are identified in a timely manner, which allows the Center to adjust its research priorities. Moreover, the Center has to balance continually work that is “directed or requested” on the basis of demand signals from key stakeholders with the need to anticipate the needs of the Navy beyond the immediate concerns of the leadership and related staffs. Given the often long lead times for creating quality information through dedicated research, the Center must continually nurture its ability to anticipate the issues and challenges the naval services will face in the future and put into place tailored and appropriate programs of study and research.

The Center’s priorities are structurally segmented into geographical and functional categories, each with primary and secondary subcategories. Listed within each of these are specific topic areas. Note that topics researched and analyzed in one category nearly always inform or contribute to an understanding of another issue or topic. For example, while China and Russia are listed as separate topics under geographical areas, examination of deterrence, listed as a secondary element in the functional category, will contribute to a greater understanding of both countries. This builds a holistic, comprehensive assessment of a wide range of challenges and problem sets and adds to the overall knowledge base available to the Center’s key customers and stakeholders.

### **Geographical Category**

We will sustain our focus on East Asia, China in the South and East China Seas, Taiwan, and the implications of China’s “Silk Road and Belt” ambitions for U.S. strategy. As a near-peer competitor, China will remain a country of significant interest. We also will increase our focus on Russian maritime issues, with particular emphasis on activities in the European and Pacific theaters of operation. The Center will devote time and attention to understanding the implications for the naval services of the intrinsic capacity and capabilities of a resurgent Russia. While China and Russia will receive our primary focus and attention, we will also continue our research into better understanding the evolving dynamics in Iran, the Indian Ocean, and the Korean Peninsula.

We are cognizant that by focusing on individual countries we might give the impression that we are ignoring the larger regional issues in play; however, we will assess each country in terms of both its regional context and its global impact.

### **Functional Category**

Through a variety of activities, most prominently scheduled and ongoing war games, we will research and analyze tactical and operational warfighting in both joint and combined environments. These games and activities will address broad elements, including but not limited to hybrid/asymmetrical naval warfare; offensive/defensive undersea and surface warfare; theater antisubmarine warfare (ASW); integrated air and missile defense and ballistic missile defense; electronic warfare; and the netting sensors, including the issues attendant to degradation of this network.

We will investigate both national and maritime strategy at multiple levels of analysis, with special emphasis on NWC's long-standing research focus examining maritime strategy both regionally and globally. Our ultimate goal is to create knowledge for the Chief of Naval Operations (CNO) and the OPNAV staff to aid in Title 10 decision making, as well as aid in fleet commanders' operational decision making.

We will strengthen our work in the area of information warfare in both the cyber and space domains, as these types of issues will affect all aspects of warfighting and deterrence. Our Center for Cyber Conflict Studies (C3S)—established earlier this year at the direction of the President of the Naval War College—will spearhead this effort. Housed within the Center for Naval Warfare Studies, with a codirector from the staff of the Dean of Academics, C3S serves as an NWC resource for advancing research, education, and analysis on the strategic and operational challenges of cyberspace for the Navy and in the defense of the Nation. Specifically, C3S research and analysis of cyberspace will help the Navy and the Nation meet systemic challenges and opportunities in the future as well as support NWC's educational function through curriculum enrichment and mainstreaming an advanced understanding of cyberspace, cyberspace conflict, and cyberspace operations.

CNWS is currently establishing a war-gaming Virtual Community of Practice (VCoP), as directed by the Secretary of the Navy in 2015. Specifically, to further America's warfighting strategy, this directive mandates the use of war gaming as a tool to "assess new ideas, question existing practices, stimulate innovation, and develop new operational concepts in a risk-friendly environment." The CNO identified NWC's War Gaming Department within CNWS as the appropriate entity to organize and house this VCoP. Once fully established, it will facilitate collaboration and accelerate learning throughout the naval enterprise.

CNWS will also devote research efforts on the following functional priorities: international law; deterrence (nuclear and conventional) issues and policies; gray zone conflict and war escalation and termination; and maritime history.

Lastly, CNWS has a unique role in contributing to a primary mission of the Naval War College, that of educating naval leaders for the future. In contributing to this mission, the Center will continually seek to expand educational opportunities, working in conjunction with other elements of the College (notably the academic teaching faculty) to develop games and other activities that support the educational mission of the College. Moreover, CNWS will continue to leverage the unique and specific expertise of its faculty in building and teaching courses for the electives program.

## Strategic and Operational Research Department

The Strategic and Operational Research Department (SORD) is composed of faculty members who conduct and collaborate on research and analysis projects at the intersection of the strategic and operational levels of strategy and warfare. SORD faculty members also guide student advanced research groups. SORD has been an area of growth within CNWS, hiring seven new faculty members in calendar year 2016, thereby providing greater breadth and depth of expertise in focus areas that include Russia, China, the Middle East, cyber conflict, and strategy. The department contains a number of centers, groups, and institutes with specific research focus areas, but the faculty of the department work both within and across these organizations, with the other departments within CNWS, and with the NWC faculty as a whole to produce a range of research and analytic products.

SORD conducts research and analysis designed to support the ongoing development of the Navy's strategic-level documents at both the unclassified and classified levels. In addition, the faculty researches specific issues that affect U.S. maritime strategy in the key regions of the East Asian littorals, the Indian Ocean, the Persian Gulf / North Arabian Sea, and Europe. Another strategic-level area of research and analysis is transcultural wars: examining the dynamics of two "culturally distant" societies going to war, each having its own norms and ideas regarding the organized deployment of military force. Finally, SORD faculty, in conjunction with other Center departments and faculty across NWC, conduct investigations into the strategic and operational maritime implications of Russian military reassertiveness.

As part of this NWC-wide effort, this year SORD has established a Russia Maritime Studies Institute. The institute's research program will focus on Russian maritime capabilities, strategy, and operations. The program will combine unclassified academic research with classified U.S. government (USG) assessments so as to provide the Navy with a deeper understanding of Russian approaches to maritime operations, *scenario-specific* military net assessments of U.S. and NATO capabilities and tactics against Russian maritime capabilities, and a deeper understanding of how to approach the Russian challenge in the maritime domain. It will focus primarily on the operational level of war, although research foci also will include political-military issues, strategy, and tactics.

SORD faculty also will conduct research on naval and maritime strategy. One area of focus will be the effectiveness of bilateral and multilateral naval exercises and exchanges to support global and regional strategies. In addition, SORD faculty, as part of a CNWS-wide effort, also will expand on issues of war de-escalation and conflict termination, particularly considering the role of naval forces during these stages of conflict and the impact of such conflict on those forces. SORD faculty also will begin a project on military geography, which will examine how non-Western states conceptualize territorial domination (whether cyber, sea, or land).

- **Maritime, National, and Grand Strategies:** This overarching project includes research, analysis, and gaming support for the U.S. Navy, specifically N3/N5 and the Navy Strategic Enterprise Group. Faculty will participate on teams supporting key naval stakeholders inside and outside the Naval War College and the Navy. Internal deliverables will include research and games design, memos, white papers, red-team inputs, and other written and oral products

deemed useful by the CNWS leadership. External (public) and outright deliverables will include research and commentary on key public policy issues as well as enduring academic scholarship, including a book—“Turbulent Seas: U.S. Grand Strategy and Maritime Operations”—and a series of articles on U.S. strategy: grand, military, naval, and maritime (e.g., “The Strategy of Sponsorship,” published in *Survival*, October 2015). This year the focus will be on funding, organizing, and implementing the project “Comparative Grand Strategy” with Dr. Simon Reich (Rutgers University) and Dr. Thierry Balzacq (Institut de Recherche Stratégique de l’Ecole Militaire, IRSEM). The project will involve two workshops and result in an edited volume.

- **Multilateral Maritime Exercises:** Despite the oft-acknowledged importance of multilateral military exercises for improving military effectiveness in peacetime and wartime, and for promoting sound relations among allies, friends, and potential coalition members, the academic literature is modest. Even more important for the practice of U.S. national security policy, there is an absence of data and analysis about the overall effectiveness and utility of multilateral military exercises for building partner nation capacity, winning “hearts and minds,” or improving diplomatic ties. This project will help remedy these shortfalls by increasing the quality and quantity of data available for both civilian scholars and government officials, analysts, and policy makers and analyzing these data to improve the theory and practice of incorporating military exercises into U.S. maritime and grand strategy. This year, two chapters/articles will result from this project (working titles): (1) “Multilateral Naval Exercises in Europe: The Case of BALTOPs,” commissioned for PROJECT EXERCISE, organized by Dr. Beatrice Heuser; and (2) “The Dynamics of Multilateral Military Exercises in the Indo-Pacific: Malabar, RIMPAC, and Cobra Gold.”
- **The Third Offset Strategy: The Political Economy of Security, Naval Transformation, and Innovation:** At the widest possible framing, SORD is interested in all topics at the intersection of economics and security, with a particular emphasis on technology and strategy. This overarching project includes cooperating with the Watson Institute for International Studies and Public Policy as well as the new and growing Boston-region community of interest in the political economy of security (PES). Activities this past year included helping to design and lead a workshop on PES with the Honorable Sue Eckert at the Watson Institute, as well as helping the national and international communities of scholars interested in these areas to form a research agenda and network of faculty and government officials. Scholarly publication in this area will include work on the Third Offset Strategy, as well as military/naval innovation and the defense industrial base. This project will result in authoring a single book, “Deja Vu All Over Again: The Third Offset Strategy and American National Security.”

### **Advanced Research Project Groups**

The Advanced Research Project (ARP) groups within SORD are aligned with the basic focus of CNWS research objectives, with a focus on developing deep thinking on operational and tactical innovation. The research is conducted collaboratively with selected students, and designed to enhance special knowledge and skills sets.

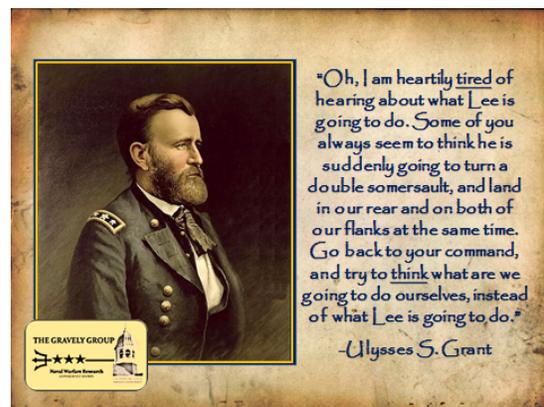
***Halsey Alfa and Bravo Groups:*** In the coming year, the Halsey groups will continue to focus on researching operational-level scenarios in regions of focus, including the Fifth, Sixth, and Seventh Fleet areas of operations, which correspond to the regional areas of focus in the CNWS research plan. The Halsey groups involve students directly in core research, analysis, and gaming. Halsey Alfa has built a broader capability, consisting of permanent faculty and contract support, based on Halsey group methodologies of detailed continuous war gaming, in order to game more scenarios in greater depth and fidelity, and produce shorter-notice analytic results for emergent issues. In addition, the growth of Halsey Alfa will allow greater research and improvement in game design and execution for the two Halsey groups. Specific Halsey Alfa initiatives for the coming year include the following:

- Continuing to conduct internal iterative war games focused on East Asian littoral contingencies in support of the near-term 201X East Asia program
- Conducting war games for Commander, Seventh Fleet (COMSEVENTHFLT) task force commanders
- Developing master combat assessment templates to support free-play war-game adjudication and operational planning
- Continuing to develop refined methodologies for free-play war gaming and analysis
- Supporting the OPNAV Future Force Architecture study project
- Directly supporting the Global War Game, Deterrence and Escalation Game and Review (DEGRE), and other gaming initiatives
- Conducting analysis and war gaming in support of the 202X East Asia futures program

Halsey Bravo will continue its focus on operational-level maritime challenges in the Fifth and Sixth Fleet areas of operations, using the Halsey methodology of continuous gaming. The relative balance of research and gaming in these two areas will be based on fleet requirements, and on department and College-wide analysis that identifies particular challenges that are suited to Halsey research methods and faculty and student areas of expertise and experience.

***VADM Samuel L. Gravely Jr. Group:***

- The VADM Samuel L. Gravely Jr. Group grew out of the success of the Halsey Charlie ARP. Halsey Charlie research supported development of integrated air and missile defense (IAMD) and undersea warfare (USW). Halsey Charlie graduates helped to form the initial cadre and global network of Navy missile defense and USW officers.
- The group is dedicated to evolving nascent technologies, operational planning, and command and control concepts while educating a cadre of Navy and joint warrior-scholars.



- Joint IAMD (JIAMD), USW, information warfare (IW), distributed lethality, command and control, and decision superiority are focus areas that will enable significant advances in the future.
- Research is focused on these functional areas, with a view toward developing potential operating concepts in response to Navy and joint challenges.
- Research and concept development continue in support of the Undersea Warfighting Development Center and the Surface and Mine Warfighting Development Center.
- The group provides research and development support for the Deputy Assistant Secretary of the Navy for Unmanned Systems, Unmanned Systems Division (OPNAV 99), Naval Sea and Air Systems Command, and other Navy organizations.

The Gravely Group continues work on a series of naval capabilities and concepts threads. Of particular note, the group supported development of the distributed lethality concept by conducting a series of workshops and tabletop exercises, and supported development of the future surface combatant and the roadmap for Navy development of unmanned systems. Gravely-led concept development projects and student research projects that were completed in recent years are being seen in programs now being advanced for deployment in the fleet. Gravely support for Commander, U.S. Pacific Command and Commander, U.S. Pacific Fleet (COMPACFLT) continues, providing consultation and advice on innovative solutions. Finally, the Gravely Group continues its direct support to advancing IAMD and ASW through its warfighter summits and workshops. Students completed twenty-five research projects over the academic year.

Over the next year, Gravely Group research and collaborative engagements will focus on an expanded concept for distributed lethality; JIAMD; component commander–level command and control; strategic and theater ASW; USW capabilities; IW; unmanned systems; and emerging technology-based concepts. Each of these research areas incorporates student research through workshops and summits,



**Figure 1.** *Left to right:* RDML James Kilby, Commander, Surface and Mine Warfighting Development Center; Dr. Will Bundy, Director, Gravely Group; and RDML Jeffrey Tressler, Commander, Undersea Warfighting Development Center, exchange ideas during the first SMWDC-UWDC workshop.

tabletop exercises, or both. These venues enable collaboration among students, warfighters, acquisition program managers and resource sponsors, type commanders, and warfighting development centers.

***Mahan Scholars:*** The Mahan Scholars ARP has been reestablished under Dr. T. Negeen Pegahi. Students will be recruited starting in the fall of 2016. Mahan Scholars focus on conventional and nuclear deterrence, escalation control, and other issues regarding weapons of mass destruction (WMD). During calendar year 2016, SORD faculty met with Navy, Department of Defense (DoD), and interagency stakeholders to ascertain the key research and analysis needs the group should address on its restart in the fall of 2016. The group will further develop a relationship to support U.S. Special Operations Command and service components to address WMD issues.

### **China Maritime Studies Institute**

The 2017 research focus for the China Maritime Studies Institute (CMSI) will be to continue to develop an understanding of the geostrategic, legal, military, and political dynamics of China's accelerated entry into the maritime domain. Specific research projects include the following:

- The changing security dynamics as the People's Liberation Army (PLA) Navy moves into the Indian Ocean, focusing on common interests in sea-lane security, competing approaches to national security and economic interests, and pressure on existing international law and mechanisms of maritime governance. In support of this topic, CMSI will conduct a workshop in Honolulu in November 2017, to be hosted by COMPACFLT.
- The East and South China Seas as zones of heightened competition between the United States and China. Special attention will be given to China's nonmilitarized coercion and gray zone operations, involving Chinese maritime militia activities and Chinese coast guard and international law developments, as well as other related capabilities and activities.
- China's growing technological capabilities to project power into the maritime domain, including undersea and surface warfare capabilities, and air and missile power.
- The geostrategic, cultural, historical, and political influences on Chinese perceptions of China's national security interests in the maritime domain, and how these influences affect Chinese attitudes toward current maritime security dynamics, policies, and perspectives on international law of the sea.
- The development of Chinese nuclear doctrine from its beginnings in the early days of the development of the Second Artillery and its impact on current PLA nuclear doctrine.
- Opportunities for U.S.-China maritime cooperation to achieve sea-lane security and to de-escalate maritime tensions in the East Asian littorals. Both core and affiliate CMSI faculty also will continue to support China-related strategic- and operational-level research and gaming elsewhere in the department and within CNWS.

Faculty from CMSI also support the educational mission of the College by providing lecture support to the core curriculum and teaching electives in the Asia-Pacific area of studies. Those electives include these courses:

- Governing China

- China’s Century of Humiliation: History and Political Narrative
- U.S.-China Relations: Past, Present, and Future

## Center for Cyber Conflict Studies

With the signing of its charter, the Center for Cyber Conflict Studies becomes a more formal organization within SORD, CNWS, and the College as a whole. C3S has codirectors from both CNWS and the staff of the Dean of Academics; the latter supports research, analysis, gaming, and teaching within NWC as a whole. Research on cyber issues in the coming year will focus on the following areas:

- **Comparative Cyber Commands:** a study of lessons emerging from differences in the creation and evolution of U.S. and allied cyber commands, or their equivalents.
- **Implications of a Future Cyber “Westphalia”:** a continuing study of the systemic changes brought about by a cybered<sup>1</sup> world, and how those changes affect U.S. and allied assumptions and abilities to operate.
- **China and Systemic Cyber Power:** studying how China is using its cyber capabilities in combination with other elements of its national power to pursue its national interests.
- **Gaming Systemic Cybered Conflict:** identifying tools and techniques to create game-based simulations for research and classroom use that allow experimentation on and examination of emerging and future cyber-conflict scenarios.
- **C3S Shared Database Project:** selection of software and creation of a shared unclassified database to capture all the qualitative, quantitative, and gray (e.g., brochures, websites) data related to cybered conflict and national evolutions in the creation of cybersecurity systemically—including cyber commands, computer emergency response teams, industry developments, incidents, agreements or strategies, and technological breakthroughs. The goal is to link the various data that are now being collected and residing in NWC and other USG unclassified databases plus other online sources for data mash-up, to use in research, teaching, and gaming.
- **Correlates of Cybered War and Conflict:** using the established Correlates of War database as a control to segue into modeling an updated version for a cybered world. The project is to build the model, code it, and use it on case studies such as Estonia, Georgia, and Ukraine as proof of concept.

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<sup>1</sup> Cybered conflict differs from cyber war. The latter is normally a component of cybered conflict. A cybered conflict lies along a spectrum from peace to traditional war. A cybered conflict is any conflict of systemic national significance in which key events determining the path to the generally accepted outcome of the conflict could not have proceeded unless cyber means were nonsubstitutable and critically involved. Cyber war lies at the far right of the spectrum, where cyber and kinetic means are jointly used. “Cybered is the adjective indicating the wider systemic effects of cyber means (i.e., the underlying technologies composing the ‘substrate’ that spread across and throughout the modern societies’ critical functions).” (Chris C. Demchak and Peter Dombrowski, “Rise of a Cybered Westphalian Age,” *Strategic Studies Quarterly* 5, no. 1 [March 2011]: 31–62.)

- **Portable Cyber Game Project:** design of a proof of concept over the next academic year. C3S will work with the New England Institute of Technology to see whether its students can, through a game competition method already used successfully by the U.S. Air Force, design an iPad-usable basic cyber game engine with expansion possibilities. If successful, this would culminate in a proof-of-concept test of a small game in an NWC cybersecurity spring elective.

## Russia Maritime Studies Institute

The mission of the Russia Maritime Studies Institute (RMSI) is to conduct research into Russian maritime issues on behalf of the U.S. Navy and NATO partners. In consultation with appropriate U.S. Navy elements such as U.S. Naval Forces, Europe; COMPAFLT; Commander, Sixth Fleet (COMSIXTHFLT); COMSEVENTHFLT; and others, it develops and executes a broad research agenda and then disseminates finished research to Navy leadership and the fleet.

The goals for this institute are to

- Inform Navy, fleet, joint force, and NATO decision making with regard to Russian maritime issues
- Provide analysis to support U.S. planning and engagement efforts
- Educate U.S. Navy personnel on Russian maritime issues
- Develop new knowledge that contributes to scholarship and a deeper understanding of the issues associated with Russia from both a theater and a global perspective

To achieve these goals, RMSI conducts research into a wide variety of issues, including naval policy, strategy, and operations; maritime technologies; shipbuilding; maritime law; deterrence; and naval diplomacy.

## War Gaming Department

The mission of the War Gaming Department is to conduct high-quality research, analysis, gaming, and education to support the Naval War College mission; prepare future maritime leaders; and help shape key decisions on the future of the Navy. The department faculty is composed of civilian professors with diverse backgrounds in the military, operational planning, and war gaming, as well as active-duty Navy and Marine Corps officers with experience in aviation, surface warfare, undersea warfare, and amphibious operations. They are augmented by contractors who are subject matter experts and analysts, and who are skilled in the art of qualitative analysis.

The fiscal year (FY) 2017 research plan for the War Gaming Department is being driven partially by the new process that the Navy is instituting for war gaming. In January 2016, the Naval War College hosted the Chief of Naval Operations' Fleet Synchronization Conference. As a result of this conference, the Navy has directed a service-wide process to request, prioritize, and schedule war games. The Navy has recognized that war gaming is a valuable method to assess new ideas, question existing practices, stimulate innovation, develop new operational concepts, and examine warfighting concepts of operations and plans. This formalized process intends to best utilize the Navy's war-gaming resources,

led by CNWS's War Gaming Department. The process will include a call for war games, which will then be assessed by OPNAV N3/N5 and the War Gaming Department. They will then provide a recommendation to the Navy's Strategic Enterprise Group (SEG) for a decision on which war games will be conducted during the following fiscal year. To increase the dissemination of the war-game results, the War Gaming Department will provide a quick-look summary of the player-derived results and initial game themes. This will occur within ten days of the game's completion. Following this, the War Gaming Department will provide a detailed game report that will include in-depth analysis of the game results and insights derived from the game play. This report will be provided to the game sponsor within sixty days after game completion, and, once endorsed, it will be posted on the Navy's Virtual Community of Practice website by the War Gaming Department. If the report is classified, the VCoP will contain directions on where the report is contained on the appropriate classified network.

The War Gaming Department has the capacity to support a major war game once a month, if the games are scheduled to allow sufficient time to design, develop, test, set up, and execute. Other requests for smaller war games, workshops, and focused war-gaming events will be addressed and supported on an as-available basis. The following is a proposed research plan that will be adjusted once the priorities are established by the Navy's SEG:

1. **Global War Game Series.** This series of war games will continue to build on the previous Global War Games conducted for U.S. Pacific Fleet (PACFLT). Currently, two games are scheduled, using existing guidance. The Global 6 War Game—Logistics is scheduled for October 2016, with Professor Mike Martin as the game director. The Global 7 War Game—Joint Operations is scheduled for December 2016, with Professor Leif Bergey as the game director. Both games will be conducted at the operational level of war using a two-sided, free-play design. Further games in this series will be determined by the SEG. Although PACFLT is the lead staff and sponsor for these Global War Games, the warfighting results are applicable across the Navy, and as such, we will use players from multiple organizations to participate in the games.
2. **Naval Services Game.** The Naval Board is the overall sponsor for this annual war game. It is designed, executed, and analyzed in partnership between the Naval War College War Gaming Department and the Marine Corps Warfighting Laboratory's Wargaming Division. This past year's topic, littoral operations in a contested environment, generated significant interest, influenced the release of the initial concept developed by the Navy Warfare Development Command (NWDC), and may produce a follow-on topic for examination in FY 2017. The risk to this game is its uncertainty, of both topic and timing. The other area of risk with this game can be attributed to the direction that it be designed, executed, and analyzed jointly by two geographically separated organizations. This risk is mitigated in that we have done this for four war games.
3. **Deterrence and Escalation Game and Review War Game Series.** The Commander, U.S. Strategic Command has sponsored this war game, held every year since 2009. The game is developed with close coordination between the War Gaming Department and the Strategic Command staff. The primary focus is to address the issues of nuclear deterrence and escalation management; however, to address these issues realistically, the game includes nuclear, conventional, space, cyber,

diplomatic, informational, and economic instruments of national power. It is normally played as a multisided, free-play war game at the strategic level of war, and within a top-secret / sensitive compartmented information (TS/SCI) security environment.

4. Other Fleet Games. One of the main objectives of the Fleet Synchronization Conference was to advertise the capabilities of war gaming to the fleets, and afford them the opportunity to request war games to assist their planning efforts. Initial inquiries have been from Sixth Fleet, Seventh Fleet, and Fleet Forces Command to address some of the current problems they face. The SEG will prioritize these games.
5. Northwest Pacific (NWPAC) War Game. This game has been played annually in Newport for the past twenty-seven years. However, FY 2016 marked the first time it was played as a two-sided, free-play war game. The game will continue with that format, with the major change this year being that Seventh Fleet will be the U.S. Navy sponsor vice Commander, Naval Forces Japan. The War Gaming Department will work closely with the Japanese Maritime Command and Staff College to design, execute, and analyze the war game. This past year's war game was a significant change for the Japanese players, but they adapted to the free-play environment as the game progressed.
6. Major Educational War Games. Both the College of Naval Warfare (CNW) and the College of Naval Command & Staff (CNC&S) hold Joint Military Operations (JMO) capstone events in the War Gaming Department spaces of McCarty Little Hall. These events come at the end of the trimesters in which the students are taking the JMO course. Owing to the number of student participants and the length of these capstone events, both are considered major war games for the War Gaming Department.
  - a. CNW JMO Capstone Event. The CNW capstone event for JMO occurs in November. This event is run as a joint-planning, group-style session, in which the students conduct operational design for a problem in a country they have been studying throughout the semester. While the event requires coordination during the academic year with the JMO faculty, the main effort for the War Gaming Department comes from the building of the game tools, the administrative and room setup, and the teardown after the event. A small team assists the JMO faculty in conducting the event.
  - b. CNC&S JMO Capstone Event. The CNC&S capstone event changed in FY 2016, and was conducted as a two-sided war game. While the timing of the event will remain in June, the event will occur over a three-week period. Ten JMO seminars will submit their operations orders, which will be used as their input for Move 1 of the war game. The War Gaming Department faculty will conduct ten simultaneous war games in support of these seminars. The War Gaming Department will serve as competent supporting commanders, with each student seminar playing the role of the joint force maritime component commander (JFMCC). The War Gaming Department will ensure the orders submitted by the student seminars are executable. Then, the War Gaming Department will serve as the Red Cell, which will play a predetermined Red strategy. Finally, the War Gaming Department faculty will adjudicate the interactions made by Blue and Red, provide results of the combat interactions back to the students, and

continue this for four moves during the war game. This war game will require nearly the entire War Gaming Department faculty to provide this support during workups and the execution phase.

- c. JFMCC Flag Officer Course. The War Gaming Department portion of the JFMCC course consists of using a practical exercise to enable the participants (who are one- and two-star flag officers and who have the potential to serve as future JFMCCs) to better understand, examine, and discuss the complex issues they might face in a high-intensity conflict. This event is totally integrated with the Global War Game series and provides multiple research and education lines of effort to address these key warfighting issues. The course is held once a year at the end of July, and the practical exercise occupies three sessions during the course. While this is an educationally focused course, a significant amount of coordination is required to prepare for the practical exercise. A large-scale floor map is used to enable the course participants to better visualize the scope and complexity of the conflict. Each year the practical exercise is updated to present the most current information for the participants' consideration.
  - d. International Programs War Games. For the past two years, the War Gaming Department has developed and executed war games for the Naval Staff College (NSC) students. This educational game was requested by international students, who wanted more exposure to war gaming. The game involved planning and execution events and was well received. Given the high ratings, this game will continue to be offered to the NSC class once per year in the May–June time frame.
  - e. International Surface Warfare Officers School (ISWOS) Course. The War Gaming Department teaches a weeklong course on planning and war gaming to ISWOS students twice a year. This course is supported by two to four faculty members and provides an excellent opportunity for our military officers to design, update, and present a course to international students.
7. Other War Games. The War Gaming Department conducts other war games that do not require as much research as the previously discussed war games. Yet personnel from the faculty, enlisted, and technical divisions are required to design and conduct these games. Further, these games require War Gaming spaces, meaning they have to be deconflicted from other events. These events have impacts not just during the actual execution of the games but during the preparation, setup, and teardown of the rooms/technology as well. The events in this category are the Korea United War Game and the Inter-American War Game.
- a. The Korea United War Game takes place every year in July. Since this event is focused on Reserve support to the United States Forces, Korea, the event occurs over four days, including a weekend. The event is of significant importance to the Reserve Detachment that drills at the Naval War College, and is of equal importance to the larger Reserve audience of over three hundred personnel who participate in the game. The Korea United Reserve Detachment also drills one weekend each month, which requires War Gaming Department support from a faculty member and an enlisted person.



provide a virtual environment in which war-gaming professionals can interact collaboratively and others with a general interest in war gaming can further their knowledge, exchange ideas, and expand their war-gaming competencies. This VCoP also will serve as the repository of war games and the vehicle to improve their dissemination across the Department of the Navy.

11. High-Security Research Facility. Owing to the increased demand for top-secret war gaming that is informed by Navy programs, the Naval War College has developed a four-phase program to add permanent top-secret / special access program (TS/SAP) spaces for war gaming and research. Phase 1 is complete, providing a complete SAP facility in the Sims Hall sensitive compartmented information facility (SCIF). This was done with the assistance of OPNAV N8g. Phase 2 is renovating offices in the SCIF to provide more space for faculty to research and analyze the TS war games. Phase 3 will renovate the classroom in the SCIF, providing three configurable spaces that will be certified for TS/SAP. Finally, the plan for Phase 4 is to expand the SCIF so as to provide an additional five to six permanent TS war game cells. These renovated spaces will not only support seven to eight large-scale TS war games conducted annually at the College but will provide the permanent TS/SAP facilities to enable the Halsey Alfa ARP faculty and the JFMCC Flag Officer Course to perform their missions better. The High-Security Research Facility will provide the Navy a unique capacity and capability to conduct research and war gaming at the highest classification level.

## Stockton Center for the Study of International Law

The Stockton Center for the Study of International Law has developed research priorities consisting of three broad categories of international law. The following provides a brief description of each category as well as details on particular efforts the Stockton Center will pursue.

1. Complex Conflicts. This category includes research into the legal aspects of ongoing international and noninternational armed conflicts, and those yet to be classified, as well as situations and areas currently under dispute where conflicts could intensify. This category directly supports enhanced deterrence and defines the future Navy and associated roles and missions and combat readiness. Efforts and projects include the following:
  - a. International Law in Complex Battlespaces. The Stockton Center will partner with the U.S. Military Academy at West Point in FY 2017 to conduct a workshop exploring the legal issues presented when warfare is conducted in complex battlespaces. These include operations conducted in cyberspace, megacities, and failing or ungoverned territory.
  - b. Russia. Efforts will include building on the Ukraine workshop hosted in February 2015 as well as maritime jurisdiction and territorial disputes in the Arctic region.
  - c. Iran. A potential research project is an in-depth analysis of the recent international agreement involving Iran's nuclear program and its international law implications.

2. Emerging Technology. This category strongly aligns with supporting all-domain access and deterrence as well as the NWC mission pillars of defining the future Navy and supporting combat readiness. Efforts and projects include the following:
  - a. Professor Michael Schmitt's ongoing work regarding international cyber law, which includes revising the *Tallinn Manual*.
  - b. Research by a team of Stockton Center members on the underlying law of armed conflict (LOAC) issues regarding the development and employment of autonomous weapon systems. The effort will produce a publishable report of findings, which may serve as a springboard for a larger project.
3. Threats to Freedom of Navigation. This category is focused primarily on ongoing issues in the Asia-Pacific region. It directly supports the functions of deterrence and sea control as well as defining the future Navy and combat readiness while also strengthening global maritime relationships through collaboration. Efforts and projects include the following:
  - a. Maritime Migration. In FY 2017, the Stockton Center will conduct a workshop on the subject of maritime migration. It will bring together scholars and military practitioners from around the world to examine how international law can help the United States and its partners deal with this complex problem.
  - b. Maritime Confidence-Building Measures. The Stockton Center is examining international agreements that are designed as confidence-building measures to create a compendium and legal analysis of such agreements.
  - c. Combating Illicit Maritime Networks. This category is focused primarily on strengthening peacetime maritime security by building partner capacity.

Additionally, the Stockton Center is leading the multiservice effort to revise *The Commander's Handbook on the Law of Naval Operations*, NWP 1-14M, and will give significant attention to analyzing and interpreting the recently published (June 2015) DoD *Law of War Manual*. It is also planning to partner with the International Committee of the Red Cross (ICRC) to roll out the ICRC's new *Commentary on the Geneva Convention for the Amelioration of the Condition of Wounded, Sick and Shipwrecked Members of Armed Forces at Sea*. These efforts will contribute to the education and development of leaders and will support combat readiness.

4. Means and Operational Tempo. The Stockton Center will pursue its priorities by a number of methods.
  - a. Workshops. For planning and budgeting purposes, the Stockton Center will submit for approval a request to conduct or participate in three workshops addressing maritime and LOAC issues annually. We desire to partner with outside entities (e.g., ICRC) in hosting these events. The output of these workshops is always published in *International Law Studies*.

- b. Research Projects. Members of the Stockton Center must conduct in-depth research and analysis, resulting in publication.
  - 1) Individual Research Projects. Members of the Stockton Center are highly encouraged to pursue individual research projects in areas of international law in which they possess a strong interest.
  - 2) Collaborative In-House Research Projects. The Stockton Center will continue in-house collaborative research projects that it commenced in FY 2016, one maritime-focused and one LOAC-focused, with the goal of publication. There is no set timeline or deadline for conducting or completing these projects. We desire to have two such projects under way at all times, starting a new project once the first one reaches completion.
  - 3) Collaboration with Outside Entities. It is extremely important that the Stockton Center seek opportunities to collaborate with outside governmental and nongovernmental organizations. We desire to establish formal agreements with outside entities to establish and solidify long-term relationships for future collaboration.
- c. Stockton Center Publications.
  - 1) *International Law Studies (ILS)*. *ILS* will continue to serve as a pillar of the Stockton Center and the publication venue for works resulting from hosted workshops. This venue is open to anyone to submit papers for consideration.
  - 2) *Online Stockton Center Research Report*. The *Research Report* is a new concept in which the Stockton Center will explore the possibility of publishing internally written articles for consumption and comment by others.

## Maritime History Department

Between 2016 and 2023, the Maritime History Department will sponsor a series of scholarly conferences and educational programs that will coincide with the centennial of key events surrounding the First World War era. Our first major event in this series occurred on 10 May 2016: a replication of the battle of Jutland. During this inaugural event, the President of the Naval War College (PNWC) faced the director of naval history on the historic war-gaming floors of Pringle Hall. Participants under their command maneuvered the warships of the British Grand Fleet and imperial German High Seas Fleet, in the same manner as students attending the Naval War College in the 1920s and 1930s.

The Maritime History Department and CNWS's War Gaming Department collaborated with the Naval History and Heritage Command (NHHC) to stage the battle of Jutland war game in Pringle Hall, bringing faculty and students together in an event reminiscent of the war games conducted in the same room nearly a century ago. The contemporary lessons derived from examining historic battles, such as Jutland, enabled Naval War College graduates to create the "navy second to none" that achieved decisive victory during the Second World War and through the Cold War era. We will continue using key centennial opportunities to highlight the rich history of the Naval War College. These will also serve as



Figure 2. The historic battle of Jutland war game on the floor of Pringle Hall, May 2016.

future milestones for the Maritime History Department to continue supporting the contemporary mission of our Navy through the twenty-first century and beyond.

### **“2023” Strategy**

The centennial of the First World War provides the Maritime History Department firm foundations for educating future naval professionals to understand the central strategic role of the Naval War College in understanding critical lessons of history. In these efforts, we are working in close conjunction with NHHC to pursue a forward-leaning strategy, in step with recent observations from the CNO, Admiral John Richardson. “The United States emerged from the Civil War and laid the foundation to become a global power, but its course to continued prosperity was unclear.” Richardson observed that “Alfred Thayer Mahan helped to chart that course, arguing that American growth required access to overseas markets, which in turn required a preeminent navy to protect that access.” Given our mission and the vision articulated by our CNO, the Maritime History Department is aggressively executing a strategy designed to highlight the historical role of the Naval War College in framing American concepts of “sea power” and the U.S. Navy of the twenty-first century.

Among other initiatives projected for the future academic calendar, the Maritime History Department is organizing a series of educational programs and scholarly conferences. For example, we will mark the centennial of a secret mission performed by the former President of the Naval War College Admiral William S. Sims. After the spring of 1917, Sims pioneered American efforts to collaborate with foreign

allies, essentially becoming the first regional combatant commander as well as the first combined/joint force maritime component commander (C/JFMCC) in the history of the U.S. Navy. Having derived lessons from service as Commander, U.S. Naval Forces Europe and as the ranking naval strategist for the American Expeditionary Force (AEF) during the First World War, Sims returned to Newport for a second tour as PNWC in 1919.

Sims completely overhauled the Naval War College curriculum, focusing the strategic educational mission to prepare U.S. naval professionals for success in future maritime operations in both peace and war. He recruited members of his "London Flagship" headquarters to serve on the faculty and staff of the Naval War College, including Commodore Dudley W. Knox and U.S. Marine Major General Lewis McCarty Little. Graduates under Sims's revised curriculum after 1919 helped frame American neutrality strategy before 1941. Among others, Sims directly influenced the strategic thinking of Ernest J. King, Harold R. Stark, Chester W. Nimitz, William F. Halsey, and Raymond Spruance. These officers then played leading roles in framing the Anglo-American "special relationship" that served as the foundation for victory during the Second World War, through the Cold War era, and into the twenty-first century.

Under development for 2017, the Maritime History Department is planning to deliver a series of similar programs marking the centennial role of the Naval War College in creating the contemporary U.S. Navy after the First World War. For example, we will organize a scholarly conference to coincide with the anniversary of the 1917 deciphering of the "Zimmermann Telegram" by cryptographers, the German terrorist campaign inside the United States, and the emergence of the U.S. Navy "second to none" after the First World War. Among other initiatives under discussion, we are also examining opportunities to highlight the historical contributions of the Naval War College along the following lines:

1. PNWC address, highlighting the development of the Anglo-American "special relationship," to be delivered on the centennial of the arrival of Admiral Sims in London during the spring of 2017.
2. Commemorative events focusing on the First World War era that highlight the historical influence of NWC in joint and coalition strategy and operations. The proposed events are intended to appeal to the broader audience, including NWC faculty, students, families, and the surrounding community. For example, we are in the early planning stages of organizing a baseball game between "Army and Navy," to be staged at Cardines Field in Newport. This program is intended to educate contemporary audiences about the challenges of coalition warfare, which are social in focus. Admiral Sims used baseball as a means to foster closer ties among the Anglo-French Allies of the First World War through a series of exhibition matches conducted across the European front that he organized in 1917 and 1918 and that continued through 1921.
3. The Maritime History Department is in the process of planning a series of educational programs inspired by the centennial of the First World War, culminating in 2023 with the centennial of the graduation of Chester W. Nimitz. In so doing, we are following the CNO's vision, by leading the U.S. Navy historical programming strategy into the twenty-first century.

Our strategy for the future of the Maritime History Department is to exploit the centennial of key turning points in the history of the U.S. Navy. Between 2017 and 2023, the Maritime History

Department will coordinate the activities of the Naval War College Museum, archives, and academic departments to stage a series of elective courses and museum programs and produce publications from original archival research. The central role of the Naval War College in executing during the First World War the first true coalition war in U.S. naval history provides an excellent strategic foundation for focusing our future campaign plan for maritime history, culminating in the centennial of the 1923 graduation of Chester W. Nimitz. In essence, our future historical approach will emphasize a broadly humanistic focus on contemporary issues of future naval strategy. In so doing, our future research in American maritime history directly carries forward the model provided by our founders.

### **Historical Research with a Contemporary Focus**

The Maritime History Department remains the basic cornerstone of the Naval War College. In keeping with the original vision of the College's founder, Stephen B. Luce, the Maritime History Department is the *only* activity that is fully capable of engaging and equipped to engage the American public in understanding the central role of our Navy in executing the military policy of the United States. The mission provided to us by Mahan remains clear. He warned fellow American naval professionals (on page 11 of his 1890 classic, *Influence of Sea Power upon History*) to avoid focusing too heavily on scientific or procedural approaches. Mahan warned us to avoid indulging in a "vague feeling of contempt for the past, supposed to be obsolete, [that] combines with a natural indolence to blind men even to those permanent strategic lessons which lie close to the surface of naval history."

Nearly 130 years since Mahan offered this important observation about the importance of history in framing maritime strategy, the faculty and staff of the Maritime History Department are deeply committed to serving our students in uniform and the taxpaying American public. We are deeply committed to our educational mission of providing insights derived from fresh historical research to sustain the strategic function of the United States in contemporary global maritime affairs. Among other projects planned or in progress, the Maritime History Department is actively engaged in projects and educational initiatives specifically designed to support the CNO's vision for the twenty-first century, "Design for Maintaining Maritime Superiority."

# Year in Review

*The first half of this document is informed by the second half; our research plan and prioritization are framed in the context of what we have seen and learned from our extensive activities over the last few years. Specifically, laid out below, by department, are the actions, activities, and accomplishments of the full Center for Naval Warfare Studies. It concludes with a bibliography of the unclassified portion of our published work. The benefit to the Naval War College, the Department of the Navy, and the naval enterprise cannot be more clearly laid out than in the work of our professionals chronicled here.*

## Strategic and Operational Research Department

### Advanced Research Projects

***Halsey Alfa and Bravo Groups:*** The Halsey ARPs placed emphasis on educating warfighters and informing future Navy and joint forces capabilities while advancing combat readiness. In the last twelve months, the Halsey Research Groups routinely engaged with senior leadership in COMPACFLT; Commander, Submarine Force, U.S. Pacific Fleet (COMSUBPAC); COMSIXTHFLT; Commander, Fifth Fleet; Defense Advanced Research Projects Agency; Office of the Secretary of Defense; members of the House Armed Services Committee; OPNAV staff; and the CNO. Additionally, the Halsey groups presented operational intelligence briefings to future ship department heads, prospective executive officers, and prospective commanding officers. Over thirty students have graduated from the Halsey groups in the last twelve months and moved to positions capitalizing on their expertise. Specific Halsey ARP accomplishments included these:

- War Gaming Adjudication Workshop (March 2016): a first-ever attempt to establish standards and norms across disparate war-gaming centers for determining results of tactical interactions between forces in war games.
- Halsey students participated in Massachusetts Institute of Technology Lincoln Laboratory (MIT LL) A2/AD Systems and Technology conferences and collaborative research exchanges.
- The Halsey Alfa leadership conducted two war games for the COMSEVENTHFLT senior operational leaders in conjunction with the task force commander's symposiums, and participated in the AGILE DAGGER 15 (COMSUBPAC) exercise, the PACIFIC SENTRY Senior Leader Seminar (U.S. Pacific Command—USPACOM), the Global War Game series (COMPACFLT), and the Center for Naval Analyses (CNA) Commander, U.S. Naval Forces, Europe (COMNAVEUR) / COMSIXTHFLT war game.
- Halsey Alfa conducted more than two dozen senior-level briefings, including the annual Naval Aviation Warfighting Development Center meeting of senior aviation flags and the CNO Advanced Strategy Panel.
- Halsey Bravo leadership participated in the CNA COMNAVEUR/COMSIXTHFLT war game.



**Gravelly Research Group:** In academic year 2015–16, Gravelly Group individual and student group research, warfare area workshops, tabletop exercises, and seminars advanced emerging concepts, contributing to combat readiness and the future force structure. Thirty-seven Naval War College students completed graduate-level research and warfare innovation papers. The Gravelly Group is in its eleventh year of naval warfare research and concept development. The group contributed to development of capabilities through the following individual research projects and workshops:

- Smart Mining Workshop.
- U.S. Navy Ballistic Missile Defense Pathfinders Meeting.
- Advanced Warfighters Summit.
- Maritime Precision Engagement Workshop (at NWDC).
- Integrated Air and Missile Defense Workshop.
- Counter–Unmanned Undersea Vehicle Workshop—this workshop supported Office of Naval Research–directed research into concepts for countering unmanned undersea vehicles.
- Future Surface Combatant I and II Workshops.



- Unmanned Systems Workshop.
- Distributed Lethality III Workshop and Tabletop Exercise.
- UWDC-SMWDC Anti-submarine Warfare Workshop.
- Data Fusion Workshop.
- Next-Generation Countermeasures Workshop—supported Naval Sea Systems Command Program Executive Office Submarines—directed research into concepts for evolving next-generation countermeasures.

### **China Maritime Studies Institute**

CMSI faculty participated in over twenty major presentations on China at the U.S. Department of State, Princeton University, Columbia University, Johns Hopkins School of Advanced International Studies, Center for Strategic and International Studies, Council on Foreign Relations, Chatham House, and the Naval War College, among others. Members of the institute provided direct support to Commander, Pacific Fleet and his staff, including roundtable discussion, briefs to the commander, research presentations to the staff, and support for war-gaming events. Professor Goldstein lectured at China's National Defense University in Beijing in November 2015. These presentations helped further CMSI research and provided insights from his research on China. Professor Dutton supported the State Department's public diplomacy efforts to advance respect for international law in East Asia.

In January 2016, CMSI held a two-day workshop entitled "Naval Power in the Indian Ocean: 21st-Century Opportunities and Challenges."

This was no ordinary academic event. Sponsored by USPACOM, it brought together major thinkers from four important stakeholders in the Indian Ocean region—Australia, China, India, and the United States—to discuss and debate issues of mutual concern. Participants comprised both civilian analysts/scholars and military officers (active duty and retired), including Admiral Scott Swift, Commander, U.S. Pacific Fleet. This created a productive mix among those who study and those who implement national policy. The event, which took place in Honolulu, comprised three panels. Panel 1 examined maritime cooperation and sea-lane security. Panel 2 delved into the more divisive topic of national security interests. Panel 3 looked at maritime governance. Representatives from each of the four countries delivered keynote addresses. To encourage a frank and substantive exchange of views, workshop proceedings were strictly off the record. Workshop participants, joined by Naval War College Foundation member Mr. Wayland Wong, gathered for a formal dinner at the Hale Koa Hotel after the first day of discussions.

The NWC cohort included Dr. Peter Dombrowski, CMSI director Mr. Peter Dutton, Dr. Andrew Erickson, Mr. Ryan Martinson, and the chair of the Strategic and Operational Research Department, Dr. Andrew Winner. Admiral Nirmal Verma (Ret.), former Chief of Naval Staff of the Indian Navy and currently the U.S. Chief of Naval Operations Distinguished International Fellow at NWC, gave the first keynote speech. Other Indian participants included Dr. Probal Kumar Ghosh, a senior fellow at the Observer Research Foundation; Vice Admiral Anup Singh, IN (Ret.); and Dr. Bimal N. Patel, director of the



Figure 3. ADM Swift and CMSI workshop participants, January 2016.

Gujarat National Law University. The Australian keynote address was delivered by Rear Admiral James Goldrick, RAN (Ret.). Other Australian participants included Captain Justin Jones, RAN; Dr. Lee Cordner, University of Adelaide; and Dr. Matthew Stubbs, Dr. Melissa de Zwart, and Dr. Dale Stephens from the University of Adelaide Research Unit on Military Law and Ethics (RUMLAE), which cosponsored the event. The Chinese keynote was presented by Senior Captain Ge Yinlin, director of the Naval Research Institute (NRI). Three other NRI analysts also took part: Senior Captain Zhang Junshe, Commander Chen Xuesen, and Commander Liang Wei. Senior Colonel Xu Qiyu of China’s National Defense University represented the Chinese army.

Admiral Swift gave the American keynote address. In his speech, he spoke favorably of the security situation in the Indian Ocean, where maritime disputes are few and tend to be resolved “peacefully and in accordance with international law” and where the nature of most security challenges “favors cooperation over competition.” He contrasted the Indian Ocean region with other parts of what he called the “Indo-Asia-Pacific,” which may be witnessing a return of international politics in which “might makes right.” Admiral Swift followed his speech with a lengthy and very candid Q&A session.

This workshop was made possible by the generous support of the U.S. Naval War College Foundation.

### **Center for Cyber Conflict Studies**

Third Biennial NWC/C3S–Brown / Watson Institute Workshop on Cybersecurity, Conflict, and Governance: The assembled group of twenty-five international cyber subject matter experts discussed three possible twenty-year futures for global cyberspace: one that carries on the current muddled

structure (the status quo), one in which each nation creates and defends its own cybered jurisdiction (cyber Westphalia), and one in which nations group into alliances or are forced to coordinate through a cyber hegemon (cyber alliance/hegemon). The group felt the first was most likely and the most unpredictably conflictual, while the alliance of consolidated democratic civil societies was the hardest to achieve but offered the best chance to preserve a remnant of the open Internet. A subsequent U.S. military-only session addressed the difficulties of achieving such an alliance owing to exceptional trust and other institutional-strategic issues and the implications for the U.S. Navy, DoD, and the Nation.



Figure 4. The third biennial NWC/C3S–Brown / Watson Institute Workshop on Cybersecurity, Conflict, and Governance.

### **Other SORD Conferences and Workshops**

Proliferation Security Initiative Exercise MARU (November 2015)—Andrew Winner supported the government of New Zealand in the design and execution of Exercise MARU, the second in the Proliferation Security Initiative Asia-Pacific Exercise Rotation series.

## **War Gaming Department**

The War Gaming Department executed its FY 2016 plan on schedule. As the world’s premier war-gaming organization, the War Gaming Department conducts approximately fifty events annually in support of internal College needs and externally generated requests from various branches of the Department of Defense and the Department of the Navy, combatant commands, and civilian agencies. To attain the objectives of each game, the War Gaming Department employs a wide variety of

techniques, ranging from complex, multisided, computer-assisted games to simpler, single-sided, seminar games. Games can range from broad national strategies to operational plans to the specifics of tactics. Most games take place at the College, but some are conducted off-site.

1. War-Gaming Academics and Professional Development. Advancing the art of professional war gaming is an enduring priority for the War Gaming Department. The recent emphasis by high-level officials, including the Assistant Secretary of Defense, on the need for and the utility of war gaming confirmed this priority. The War Gaming Department has a robust professional development program for assigned faculty, conducted on a weekly basis. Additionally, the department presents a weeklong course of instruction for Navy, joint, and international partners to educate a wide variety of people and organizations on war-gaming processes and methodologies. Course participants included
  - a. PACFLT (October 2015): course director—Professor Mike Martin
  - b. Indian Naval War College (December 2015): course director—Professor Hank Brightman
  - c. Special Operations Command (May 2016): course director—Commander Chris Baker
2. Combined Force Maritime Component Commander (CFMCC) Courses (Multiple Dates). These courses provide executive-level professional military education / joint professional military education (PME/JPME) for U.S. and international flag and general officers. The courses are designed to prepare them for leadership of a large-scale, multinational or coalition force and to provide insights into the broad range of issues that take place at the operational level of command. The CFMCC courses are held within a specific area of responsibility and use geographically relevant case studies to enhance the learning experience. Specific courses included
  - a. CFMCC—Pacific (February 2016)
  - b. CFMCC—Bahrain (March 2016)
  - c. CFMCC—Naples (April 2016)
3. Global 3 War Game—Maritime Alternatives (October 2015). Game director—Professor Don Marrin. This game was the third of four games in the CNO-directed Title 10 war-game series for 2015. It was designed to provide small groups of creative thinkers the opportunity to ponder potential alternative maritime-focused approaches to conflict within the USPACOM area of responsibility. Each of three Blue Teams was given the same objective, but a different operational approach to guide the respective discussions. The groups brainstormed potential lines of efforts and associated tasks and presented them to a Red Cell and Strategic Cell for initial critique, after which the Blue Teams refined and expanded on their ideas before outbriefing them to the Red Cell and Strategic Cell for final discussion. This event was conducted at the TS/SCI level at COMPACFLT and involved approximately forty participants. The postgame outbrief is available on Joint Worldwide Intelligence Communications System (JWICS).

4. U.K.-U.S. Combined Operational War Game 2016 (May 2016). Game director—Professor Don Marrin. This game was the third in a biennial series intended to address operational integration between the Royal Navy and the U.S. Navy. The 2016 game focused on the ability of a U.K. carrier strike group (CSG) to integrate with a U.S. CSG and other U.S. naval forces, including embarked Marine F-35B aircraft. The four vignettes were used to enable the players (assigned to either the U.K. CSG or U.S. CSG cells) to examine the issues associated with a U.K. CSG operating with a U.S. CSG in phase 1 ops (Vignette A1) and phase 2 ops (Vignette A2) and as an independent task force in phase 1 ops (Vignette B) and phase 2 ops (Vignette C). There was also an adjunct Policy Cell that observed game play and briefed out the resulting policy issues at the flag outbrief on the final day of the game. The game was conducted at the SECRET//REL USA, GBR classification level and involved approximately 120 participants, including approximately 60 from the United Kingdom.
5. Joint Military Operations Final Planning Exercises (November 2015 for CNW and May/June 2015 for CNC&S). Game director—Professor Robin Babb. The JMO final planning exercises are the final, synthesizing events of the JMO trimester. Students are expected to employ problem-solving concepts in leading a multidisciplinary and multinational planning team addressing ill-structured problems in a volatile, uncertain, complex, and ambiguous environment. They must demonstrate the leadership skills necessary to sustain innovative and agile organizations in a joint environment. Theater strategic and operational objectives must support theater campaigns and national military strategies across the spectrum of conflict and synchronize efforts at the operational level with the national strategic, national military strategic, and theater strategic levels of war. They must be able to revise planning processes to balance the competing objectives of the interagency effort, including intergovernmental organizations and nongovernmental organizations, in achieving stated objectives, and plan the integration and synchronization of information operations in joint operations.
6. Global 4 War Game—Joint Operations (December 2015). Game director—Professor Leif Bergey. This war game was the fourth of the 2015 Global War Game series and supported Commander, U.S. Pacific Fleet and the Chief of Naval Operations. The game provided a vehicle for PACFLT, its task forces, and component planners to conduct an operational-level, multisided war game to assist in current and future planning. Game play supported data collection by NWC and helped develop deeper understanding of areas of interest to PACFLT as well as its task forces and supporting components. Most of the two-hundred-plus participants came from PACFLT or USPACOM components or had western Pacific experience or expertise. Over seventy-five military commands and government agencies sent participants.
7. Fleet Synchronization Conference (January 2016). Event director—Commander Jeffrey Adams. A cooperative effort between the War Gaming Department and the CNO's executive agent, U.S. Fleet Forces, the Fleet Synchronization Conference brought together the Navy's most senior decision makers to examine service-wide, four-star-level issues. A major topic for this year was how to institutionalize and prioritize fleet war games.

8. Naval Services Game (February 2016). Game director—Commander Chris Baker. The Naval Services Game (NSG) is a joint services war game, conducted annually by the War Gaming Department of the Naval War College and the Wargaming Division of the Marine Corps Warfighting Laboratory, to examine issues relating to the future of an integrated naval force. NSG-16 focused on littoral operations in a contested environment.
9. Northwest Pacific War Game (February–March 2016). Game director—Professor Terry Mahoney. NWPAC is an annual war-game series sponsored by Commander, U.S. Naval Forces Japan. It is designed to help comprehend the challenges and friction associated with crisis action planning on a combined task force (CTF) staff and its components: conducting collaborative communications, conducting staff transitions, conducting parallel planning, maintaining a common operational picture, managing information, operating in a resource-constrained environment, building unity of effort, coordinating with nonmilitary agencies, and synchronizing the CTF planning effort.
10. Deterrence and Escalation Game and Review (April 2016). Game director—Professor Hank Brightman. Held at the behest of Commander, U.S. Strategic Command (USSTRATCOM), DEGRE 15 was the eighth project held at the U.S. Naval War College and the ninth event that has been conducted in direct support of Commander, USSTRATCOM and his J5 planning efforts. This was a multisided, free-play game focused on escalation and deterrence dynamics at the strategic level in the areas of nuclear, space, cyber, conventional military, diplomatic, informational, and economic instruments of national power.
11. Naval Staff College Capstone War Game (May 2016). Game director—Professor Walter Berbrick. The purpose of the NSC war game was to expose students to the use of war gaming and to reinforce operational-level-of-war course objectives from the CNC&S resident curriculum. The game was designed to improve mutual understanding of the application of sea power and to explore the complexities, challenges, and opportunities associated with coalition operations to achieve strategic and operational effects in a contested maritime environment.
12. Global 5 War Game—Command and Control (June 2016). Game director—Professor Shawn Burns. This game explored the command and control (C2) challenges and information exchange requirements of a large maritime force in an environment of degraded or denied C2.
13. Korea United War Game (July 2016). Game director—Professor Robin Babb. Korea United (KU) is an annual event sponsored by U.S. Forces, Korea (USFK) Detachment 102 and hosted by NWC. Navy Reserve USFK Det 102 has conducted the KU war game series annually since 1995. KU was an operational/strategic-level, one-and-a-half-sided game in which the players functioned as the service and functional components of the Korean theater of operations (KTO) joint and combined staffs. The main goal of this annual war game is to familiarize Reserve, National Guard, and active-duty members with the C2 structure of the KTO, which is unlike any other theater of operations.
14. Cyber Game (July 2016). Game director—Professor John Hanus. This war game explored the issues surrounding the direct impacts of a cyber attack on several civilian/commercial sectors of the

economy, and the resultant impacts on the Navy's ability to conduct a mission in response to a crisis.

15. Joint Force Maritime Component Commander Course (July 2016). Game director—Professor Jeff Landsman. JFMCC courses provide executive-level PME/JPME for U.S. flag and general officers, designed to prepare them for theater-level combat leadership and the broad perspective of operational and strategic levels of war. A large-scale floor map is used to stress the C2 relationships needed to conduct high-end warfighting.
16. Game Reports. Every analytic war game designed, developed, and executed by the War Gaming Department results in a game report for the sponsor. The game report summarizes key information about a game, including its purpose, objectives, design plan, analysis plan, player expertise, player roles, and, most importantly, analysis of game play and implications of insights derived from game play. (For experiential and educational games, reports typically are not written.) The Naval Services Game report is posted to the Naval War College website; all other FY 2016 analytic war games conducted were classified. Game reports can be requested through the War Gaming Department operations officer, Lieutenant Commander Nick Miller.

## Stockton Center for the Study of International Law

The Stockton Center for the Study of International Law seeks to be the world's premier organization studying the intersection of military affairs and international law. The Stockton Center conducts and disseminates advanced international law research and analysis. It is uniquely positioned to shape the development and implementation of legal rules that directly affect the operations of U.S. naval forces and the Department of Defense.

1. Major Initiatives and Events in FY 2016.
  - a. NWP 1-14M Update. In 2016, the Stockton Center continued its update of NWP 1-14M, *The Commander's Handbook on the Law of Naval Operations*. This publication is the definitive legal guide for U.S. Navy, Marine Corps, and Coast Guard operational commanders and their staffs. The first draft of the new *Commander's Handbook* was opened for review by the Navy, Marine Corps, and Coast Guard on 9 March 2016.
  - b. *Tallinn Manual 2.0*. Stockton Center director Professor Michael Schmitt directs the Tallinn 2.0 project, which is the follow-on project to the *Tallinn Manual on the International Law Applicable to Cyber Warfare*. The project brings together global experts and is designed to expand the scope of the original *Tallinn Manual*. Tallinn 2.0 will address cyber operations during peacetime by exploring such topics as sovereignty, state responsibility, and the laws of air, space, and the sea. Publication by Cambridge University Press is expected in 2016.
  - c. Workshop on the Syrian Crisis. The November 2015 workshop brought together scholars and practitioners—including the Judge Advocate General, U.S. Navy; Deputy Judge Advocate General, U.S. Army; a Royal Air Force one-star; and a British Army two-star—to examine the

intricate legal issues presented by the Syrian crisis, and specifically examined whether international law could cope with the myriad issues. The workshop resulted in multiple articles for publication in *International Law Studies*.

- d. Workshop on Korean Maritime Security and International Law. The February 2016 workshop brought together law and security scholars and practitioners from around the world to discuss the challenges of Korean maritime security. The workshop resulted in multiple articles for publication in *International Law Studies*. It also established what will be an enduring relationship between the Naval War College and the Korea Maritime Institute, the Korean think tank responsible for informing Republic of Korea government national policy decision making in the maritime domain.
2. Teaching and Presentations. Stockton Center faculty spoke and taught at U.S. and international legal courses and conferences.
    - a. Three elective classes were taught at the Naval War College in 2016: Operational and International Law Issues for Commanders; Global Maritime Security; and Advanced Topics in International Law.
    - b. Professor Michael Schmitt presented *Tallinn Manual* initial conclusions to a meeting of fifty states in the Netherlands, February 2016.
    - c. Professor Schmitt spoke on autonomous weapons and international law at a Duke University Law School conference in February 2016.
    - d. Professor Schmitt spoke on cyber law at a technical conference at MIT, March 2016.
    - e. Professor Schmitt spoke on the *Tallinn Manual* project in an NWC Foundation evening lecture series, April 2016.
    - f. Professor Schmitt spoke at the Human Rights in Cyberspace Workshop at the NATO Cooperative Cyber Defence Centre of Excellence, October 2015.
    - g. Professor Schmitt spoke at the International Law Association Working Group on Targeting, Norway, October 2015.
    - h. Professor Schmitt was the director of and a presenter at the British Armed Forces Cyber Course, October 2015.
    - i. Professor Schmitt spoke at the Non-state Actors in Cyberspace Conference, Benjamin Cardozo Law School, November 2015.
    - j. Professor Schmitt spoke at the International Law Association Annual Conference, New York, November 2015.
    - k. Professor James Kraska made an address to the American Enterprise Institute, January 2016.

- l. Professor Timothy McCormack spoke to the Naval War College Foundation about international war crimes trials.
- m. Lieutenant Colonel Alan Schuller taught the law of war and the law of naval operations to an international student audience at the International Institute of Humanitarian Law in San Remo, Italy.
- n. Lieutenant Colonel Schuller taught a class on noninternational armed conflict, Major Ford taught rules of engagement, and Lieutenant Commander Goddard taught the International Criminal Court to international students at the Defense Institute of International Legal Studies, October 2015.
- o. Lieutenant Commander Goddard made a presentation on current issues in human rights law to the U.K. Royal Navy Annual Legal Conference in London, October 2015.
- p. Captain Crisfield and Lieutenant Colonel Schuller taught seminars on rules of engagement and the law of naval operations to students in the Maritime Advanced Warfighting School.
- q. Captain Crisfield gave a speech at the New England Bar Association annual meeting on the history of judge advocates providing legal advice in combat operations, October 2015.
- r. Captain Crisfield gave a speech to the Des Moines Committee on Foreign Relations on the national security benefits of the UN Convention on the Law of the Sea, November 2015.
- s. Major Ford led a roundtable discussion at the University of Minnesota School of Law Conference on Autonomous Weapons.
- t. Major Ford presented an address to the 2016 meeting of state parties to the UN Convention on Certain Conventional Weapons on the topic of autonomous weapons.
- u. Professor Schmitt and Professor Kraska provided lectures on the law of war and the law of the sea, respectively, and Captain Crisfield, Lieutenant Colonel Schuller, Major Ford, Major Androski, Major Coats, and Lieutenant Commander Goddard taught seminars on rules of engagement and the law of naval operations to students in the Joint Military Operations course.
- v. Lieutenant Colonel Schuller made a presentation on the legal implications of autonomy in lethal weapons systems at the 2016 ICRC Meeting of Experts on Autonomous Warfare Systems, Geneva, Switzerland.
- w. Lieutenant Colonel Schuller taught a class session on the legal implications of autonomy in lethal weapons systems in the NWC Unmanned Systems and Conflict in the 21st Century elective.
- x. Lieutenant Colonel Schuller taught a session on jus ad bellum versus "just war" at the NWC Ethics Symposium.

- y. Lieutenant Colonel Schuller taught at the Crisis Leadership Conference, Yale University NROTC.
3. Publications. A large part of the Stockton Center's efforts go to publication of its faculty's research and analysis. Recent articles have featured scholarly analysis of the new DoD law of war manual; maritime exclusion zones; and Japan's territorial disputes.

## Museum and Maritime History Department

The Maritime History Department (MHD) continues to focus on the fleet as the basic platform for other efforts to engage the American public in understanding the fundamental function of the U.S. Navy in both peace and war. At the request of the CNO, Professor Hattendorf and Dr. David Kohnen provided the Naval War College recommendations for executing the "Design for Maintaining Maritime Superiority." Hattendorf and Kohnen provided practically framed course-of-action recommendations for the CNO to exploit critical foundations in naval history so as to identify contemporary challenges for framing future American maritime strategy. OPNAV formally acknowledged their work, and actions are currently being taken on the basis of their recommendations.

### Electives

Working in close collaboration with the College of Operational and Strategic Leadership (COSL), the MHD has successfully delivered a variety of *totally new* educational programs. These efforts are specifically designed to enhance the educational foundations and seize the strategic advantages provided by an understanding of history. For example, the MHD and COSL provided five courses on naval history:

- Yankees and Rebels at Sea: The Maritime Battlefields of the American Civil War (Kohnen, with COSL professor Steve Kornatz)
- The "Great" War at Sea: The Naval War College, American Expeditionary Force, and Combined Operations (Kohnen, with College of Distance Education professor Angus Ross)
- Operational "Warfighting" in the Maritime Domain: The U.S. Navy in Two World Wars, Cold Wars, and Global Wars on Terror (Kohnen, with COSL professors Steve Kornatz and David Polatty)
- "Cyber" Seas: The Wireless World, the U.S. Navy, and the Military Policy of the United States (Kohnen)
- Revolutionaries in the Ranks: The Naval War College, Literary Foundations, and Strategic Innovators from Stephen B. Luce to Present (Kohnen, with Hattendorf)

Students may examine the historical evolution of the U.S. Navy and the revolutionary influence of the Naval War College by taking the first three electives in succession. Unlike other offerings in the current academic catalog, the Maritime History Department electives provide basic historical foundations for understanding contemporary questions of American naval strategy, which are crucial in framing future global policy.

“Cyber” Seas takes a critical approach by examining the role of communications and intelligence, from Edward Lloyd’s coffeehouse in the 1640s through the modern age of the Internet, the rise of the National Security Agency, and other vast bureaucracies of intelligence. Although this course has not yet been offered at the Naval War College, the instructor has already provided this course as the U.S. Navy Reserve officer in charge of the joint and interagency faculty in the Executive Program of the National Intelligence University. This elective is tentatively slated at the Naval War College for academic year 2017–18.

Given the revolutionary influence of technology, the Naval War College provided the deeper foundations for the U.S. Navy to become a “navy second to none” into the twenty-first century. By exploring the literary foundations of this rich history, *Revolutionaries in the Ranks* examines the writings and theorists who shaped the strategic thinkers most closely associated with the Naval War College. In essence, our students are challenged to consider the transcendent themes that characterize American maritime strategy, focusing on the revolutionary thinkers who overcame the bureaucratic barriers to lead the innovative charge in creating the modern U.S. Navy.

In addition to the above, Professor Bruce Elleman, in collaboration with Professor Sally Paine of the Strategy and Policy Department, offers *Modern China*. This course emphasizes the important role of warfare in Chinese history. War has wracked Chinese society for the last two centuries. Hostilities were not confined to a single region but devastated all provinces at different times. The unrest continued not for years but for decades. Constant warfare and internal upheavals help explain the high value the Chinese government and people attach to social order.

### **Symposiums and Scholarly Lectures**

1. Marking a lifetime of scholarship and singular academic achievement, Professor Hattendorf received the designation of doctor of letters (DLitt) after a unanimous vote of the faculty of Oxford University. The DLitt is above a PhD in the British academic ranks. Hattendorf is among the few Americans to have received this singular designation and is the only maritime historian in the world to hold a DLitt within that field.
2. The *Festschrift* proceedings for the academic celebration of Professor Hattendorf’s contributions to history centered on the conference held at Oxford in April 2014, “Strategy and the Sea: An International Conference in Honour of Professor John B. Hattendorf.” A formal presentation of the published *Festschrift* occurred during the June 2016 conference, “The First World War at Sea, 1914–1919,” at the British National Maritime Museum in Greenwich (London).
3. Federal German Navy captain Dr. Werner Rahn is the 2016 recipient of the Hattendorf Prize for Distinguished Original Research in Maritime History. The CNO participated in the presentation during the International Seapower Symposium in September. Rahn is the author of numerous important histories, including the magisterial annotated scholarly edition of the War Diary of the German Naval Staff, 1939–45. It is the single most important document in understanding German strategic and operational thinking in the Second World War.



Figure 5. Professor John Hattendorf accepting the Distinguished Civilian Service Award from the Chief of Naval Operations, Admiral John Richardson, during the Twenty-Second International Seapower Symposium at the U.S. Naval War College. In recognition of nearly forty years' service to our Navy, Hattendorf was subsequently designated the Ernest J. King Professor Emeritus of Maritime History. Hattendorf first served as the speechwriter for President of the Naval War College Admiral Stansfield Turner, before becoming a member of the Naval War College faculty. Having earned the PhD at Oxford in 1979, he more recently earned the rare scholarly honor of doctor of letters (DLitt) in the field of history in 2016. Awarded on the recommendation of the Oxford faculty, the DLitt recognizes a lifetime of singular academic achievement. Hattendorf stands among the few American historians to have earned the academic rank and title of DLitt.

4. At the invitation of the superintendent of the U.S. Naval Academy, Kohnen delivered "A King's Navy': The First World War Education of U.S. Navy Fleet Admiral Ernest J. King," U.S. Naval Academy, McMullen Naval History Symposium (September 2015). This paper was selected for future publication in the conference proceedings.
5. At the invitation of Vice Admiral Jan Tighe and the National Security Agency Center of Cryptologic History, Kohnen delivered "Seven Minutes to Intercept: The U.S. Navy Tenth Fleet, Global Antisubmarine Operations, and Combat Intelligence during the Second World War" at Fort Meade, Maryland (December 2015). In addition, Kohnen participated in a strategy-planning discussion about the future development of a National Museum of Intelligence and Cryptography.
6. Kohnen and the managing director of the Naval War College Museum, John Pentangelo, participated in the Naval History and Heritage Command executive committee meeting at the Washington Navy Yard in December 2015. The meeting involved the director of naval history, Rear Admiral Sam Cox, USN (Ret.), and ten Navy museum directors. During these discussions, Kohnen and Pentangelo outlined a strategy to exploit the First World War centennial in amplifying

contemporary strategic discussions of the future role of the U.S. Navy in coalition operations in both peace and war.

7. Among other future opportunities for our Navy, the year 2017 will mark the centennial of the assignment of the President of the Naval War College Rear Admiral William S. Sims to serve in London as the ranking U.S. Navy representative to the AEF. Such historical milestones provide ideal opportunities for contemporary naval thinkers to examine the development of the U.S. Navy during the war, its emergence as a “navy second to none” during the following world war, and its contemporary strategic role in maintaining American concepts of “sea power.”
8. In May 2016, Kohnen delivered a paper, “The Historical Section: U.S. Navy Commodore Dudley W. Knox—Fusing History with Intelligence and Maritime Education (1915–1960).” His paper was largely derived from his work *Twenty-First Century Knox*, recently published by Naval Institute Press.
9. In June 2016, Kohnen chaired a panel at the British National Maritime Museum conference “First World War at Sea, 1914–1919.” During these proceedings, he also delivered his paper “The ‘London Flagship’: Admiral William S. Sims and Anglo-American Collaboration in Combined Operations during the First World War and Beyond.” He appeared at the invitation of the National Maritime Museum.

## **Naval War College Museum**

### Exhibits and Educational Programs

1. Attendance 2015–16: 31,640 (as of 30 June 2016)
2. Major Museum and Archival Acquisitions
  - a. Ingraham family papers from the Civil War era (in process for 2016). This singular collection includes documents from the antebellum period and materials from the Confederate Navy associated with Wilburn Briggs Hall. Among other points of interest, Hall graduated first in the Naval Academy class of 1859—ahead of Alfred Thayer Mahan. During the Civil War, Hall commanded multiple Confederate warships and organized a guerrilla regiment ashore during the defense of Richmond. General William Tecumseh Sherman later appointed Hall to serve as the War Department representative to Egypt and France. Hall served in an ambassadorial role in France before returning to the United States. At the invitation of Mahan and others, Hall frequently lectured at the Naval War College before the First World War.
  - b. Admiral William S. Sims papers (in process for 2016). Acquisition of this singular collection of documents and other materials from the career of Sims directly aligns with the 2023 strategy of the Maritime History Department. Comprising an estimated 15,000 previously unpublished documents, this collection also includes previously unpublished photographs that hold the potential to generate fresh interest in Sims’s contributions to creating the U.S. Navy of the twenty-first century. Among other factors of contemporary interest, Sims twice served as President of the Naval War College and became the first-ever combined force maritime

component commander as the senior U.S. Navy representative for the AEF in the role of Commander, U.S. Naval Forces in Europe during the First World War. In essence, Sims and his “London Flagship” headquarters provided the template for the contemporary functions performed by a C/JFMCC. Sims pioneered methods for combining naval strategy with operational communications and intelligence. This collection is being donated to the Naval War College by his grandson, Dr. Nathan Sims, who also serves on the faculty at the Harvard University Medical School.

## Major Museum Programs

Marking the inaugural program of the 2023 strategy of the Maritime History Department, the President of the Naval War College and the director of naval history participated in a war game based on the battle of Jutland. This particular battle served as the focal point of experimentation at the Naval War

College after the First World War, as Admiral Sims revised the curriculum and provided the basis for creating the U.S. Navy “second to none” before the Second World War.

In essence, the Jutland war game was used in educating the future five-star admirals Leahy, King, Nimitz, and Halsey. As a member of the Naval War College faculty, Raymond A. Spruance specifically used Jutland in training such officers. Celebrating this rich history, the Maritime History Department, in close collaboration with the Naval History and Heritage Command, staged the Jutland war game on the historic war-gaming floors of Pringle Hall on 10 May 2016, with seventy-eight direct participants.

The Jutland war game was also conducted in Sims Hall, during which students completing the Great War elective examined transcendent problems of strategy, command, and intelligence. The students then drafted analytic papers in the same way as their predecessors at the Naval War College.

## Naval War College Press

NWC has published a quarterly journal, the *Naval War College Review*, since 1948. The *Review* is distinctive among official military publications in having greater independence from its sponsoring service, covering a broader range of defense issues, and maintaining a more rigorous standard of scholarship and writing. Owing to its high standards and the fact that it has historically enjoyed a great deal of academic and editorial freedom, the *Review* enjoys a high degree of credibility with its diverse audiences.

Since July 2015, the Press has undergone significant organizational and personnel changes. The accession of new book review editors, a new managing editor, and successive associate editors has involved a significant learning curve, and has sparked procedural and methodological reassessments. Not surprisingly, multiple projected project publishing dates required extension.

Nonetheless, in FY 2016 as usual, four issues of the *Naval War College Review* went to press (volume 69, beginning with no. 1, Winter 2016). In addition, the Press is now moving forward with three Newport Papers, five Historical Monographs, and one CMSI Red Book.

## Office of Naval Intelligence Detachment

The Office of Naval Intelligence Detachment, Newport is part of the Office of Naval Intelligence, headquartered in Suitland, Maryland. The detachment was established in 1977 to provide on-site intelligence support to war gaming at NWC. In 1981, the ONI Det was assigned as a department under NWC's Center for Naval Warfare Studies. Since that time, the ONI Det's mission has expanded to include support to a variety of research, warfare analysis, and advanced operational planning programs.

ONI Det members are integrated into NWC war-gaming teams for game design, development, testing, and execution, providing intelligence-related subject matter expertise. The detachment also liaises with the broader Intelligence Community (IC) and recruits IC subject matter experts to support war gaming. For FY 2016, these games included the following:

1. Global 3 Maritime Alternatives War Game
2. Exercise LEADING EDGE 2015 Tabletop Exercise (TTX)
3. ISWOS Game
4. Global 4 Joint Operations War Game
5. NWPAC 2016
6. DEGRE 2016
7. U.K.-U.S. Combined Operational War Game 2016
8. South Asia Stability Workshop TTX

## 9. Global 5 Command and Control War Game

In addition, the ONI Det was fully integrated into various regional and functional analytic efforts at NWC throughout FY 2016, supporting the Halsey Alfa, Halsey Bravo, and Gravely student research groups, the Maritime Advanced Warfighting School, the CNO Strategic Studies Group, and others. The detachment also served as the point of presence for dedicated JWICS network support in the region.

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# Contact Information

## **CNWS**

Prof. Thomas Culora, Dean  
(401) 841-4957  
thomas.culora@usnwc.edu  
thomas.culora@nwc.navy.smil.mil

Col. Joseph Levreault, U.S. Marine Corps, Deputy Dean  
(401) 841-4062  
joseph.levreault@usnwc.edu  
joseph.levreault@nwc.navy.smil.mil

## **STRATEGIC AND OPERATIONAL RESEARCH DEPARTMENT**

Dr. Andrew Winner, Chairman  
(401) 841-7805  
andrew.winner@usnwc.edu  
winner@nwc.navy.smil.mil

Cdr. Ryan Logan, U.S. Navy, Deputy Chairman  
(401) 841-7767  
ryan.logan@usnwc.edu  
ryan.logan@nwc.navy.smil.mil

Dr. Chris Demchak, Center for Cyber Conflict Studies  
(401) 841-6882  
chris.demchak@usnwc.edu

Prof. Peter Dutton, China Maritime Studies Institute  
(401) 841-4613  
duttonp@usnwc.edu  
peter.dutton@nwc.navy.smil.mil

Dr. Negeen Pegahi, Mahan Scholars Advanced Research Project Group  
(401) 841-6448  
negeen.pegahi@usnwc.edu

Prof. Jim FitzSimonds, Halsey Alfa Advanced Research Project Group  
(401) 841-6931  
james.fitzsimonds@usnwc.edu  
fitzsimj@nwc.navy.smil.mil

Prof. William Murray, Halsey Bravo Advanced Research Project Group  
(401) 841-6984  
william.murray@usnwc.edu  
murrayw@nwc.navy.smil.mil

Dr. Will Bundy, Gravely Advanced Research Project Group  
(401) 439-0708  
bundyw@usnwc.edu  
bundyw@nwc.navy.smil.mil

**WAR GAMING DEPARTMENT**

Capt. Michael Quan, U.S. Navy, Deputy Chairman  
(401) 841-3389  
michael.quan@usnwc.edu  
michael.quan@nwc.navy.smil.mil

Lt. Cdr. Nick Miller, U.S. Navy, Operations Officer  
(401) 841-3531  
nicholas.miller@usnwc.edu  
nicholas.miller@nwc.navy.smil.mil

**STOCKTON CENTER FOR THE STUDY OF INTERNATIONAL LAW**

Capt. Kevin Brew, U.S. Navy, JAGC, Deputy Director  
(401) 841-6590  
kevin.brew@usnwc.edu  
kevin.brew@nwc.navy.smil.mil

**MUSEUM AND MARITIME HISTORY DEPARTMENT**

Dr. John B. Hattendorf, E. J. King Chair Emeritus of Maritime History  
(401) 841-6020  
john.hattendorf@usnwc.edu

Dr. David Kohnen, Deputy Chairman  
(401) 841-7362  
david.kohnen@usnwc.edu

**NAVAL WAR COLLEGE PRESS**

Dr. Carnes Lord, Editor  
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