

U.S. MERCHANT MARINE ACADEMY

(USMMA)

2020 ANNUAL REPORT TO THE

SECRETARY OF TRANSPORTATION

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Preface

This report provides the U.S. Secretary of Transportation (Secretary) Elaine Chao with advice and counsel in accordance with the U.S. Merchant Marine Academy (USMMA, or Academy) Advisory Board (Board) Charter. Pursuant to 46 U.S. Code of Regulations, Secretary Chao appointed members to the Board in June 2019.

This 2020 report is the first written by this Board. Its primary purpose is to advise the Secretary, Maritime Administration (MARAD) Administrator, and Academy Superintendent on matters that need immediate and continued attention to advance the Academy toward meeting its strategic goals and objectives.

The findings in this Annual Report are based on direct inspections and observations made during the one in-person visit by the Board to the Academy, the Zoom “visits” made by the Board with the Academy, individual visits by Board members to the Academy, oral reports and written documents provided to the Board by faculty and staff, survey data, and individual and small group discussions with Midshipmen, faculty, staff, administration, alumni, members of the maritime industry, and higher education officials. Recommendations are based on the Board members’ collective knowledge of best practices and emerging trends and issues in higher education and the maritime industry, and on Board members’ expertise.

EXECUTIVE SUMMARY

Background

The USMMA is a critical and essential component of National Security and National Defense. USMMA produces over 80% of the officers serving in the U.S. Navy's SSOs (Strategic Sealift Officers) Community. Moreover, USMMA is the only maritime school in which 100% of its graduates both earn a merchant marine license and incur an obligation to the U.S. government.

Assessment

The Academy has improved its academic programs as required by the 2017 Middle States review, and has developed a comprehensive educational program that meets the Academy's Mission and provides lifelong professional growth for graduates, in a culture of continuous assessment and improvement.

The Board applauds the Academy's transition to online learning occasioned by COVID-19 in Spring 2020, and the faculty, midshipmen and leadership investment and cooperation involved in introducing new pedagogy and the use across the Academy of the Blackboard learning management system. Sustaining this new technology infrastructure and pedagogy, however, requires additional central Information Technology (IT) training and professional development resources. In addition, IT resources and plans should extend beyond online learning and pedagogy to include digital institutional outcomes assessment tracking and reporting.

Being part of DOT procurement procedures provides benefits to the Academy, such as economies of scale in purchasing commonly used technology items, such as printers. However, there are circumstances where DOT procurement procedures are not helpful. In these cases, the Academy should have options to pursue streamlined procurement processes in support of the Academy's educational mission.

The Academy's new Master Plan integrates past capital improvement program (CIP) efforts and provides direction for an integrated vision of civil and technology infrastructure investments. However, accomplishing the goals in the Master Plan

requires that stakeholders follow project management principles, including committing to consensus requirements; budget monitoring and transparency; contingency planning and flexibility in the form of swing space or alternative instructional formats; and adherence to schedules and budgets once articulated.

Simulation is a key learning platform that is essential for maritime education and the Academy needs to devote the proper personnel support and resources to its installation, maintenance and planning. The Academy is encouraged to leverage relationships with industry to keep pace with technology and to develop partnerships in education, research, and development that can elevate the Academy's status as a research and educational institution.

Academy leadership has made significant changes to improve the culture on campus. The Academy has assembled resources that analyze the Academy's culture and focus on initiatives to encourage and support inclusion. However, there is more work to be done.

The Superintendent is not vested with sufficient (college president-like) authority to adequately lead and manage the Academy in a manner necessary for the USMMA to meet its academic, professional and military missions. The Superintendent role should include accountability for Legal, Human Resources, Finance and IT functions, and should include Official Representation Funds (i.e. discretionary funds in support of the Academy mission).

The Board noted reports of a tepid history of administrative and financial support for the Academy in recent decades, and a credible case can be made that the USMMA should be housed in a different federal agency, one that could better leverage the supply line interdependency between the warfighter and the Merchant Marine. The Board recommends that a study should be conducted to determine the federal agency best suited to oversee the USMMA. The Board is concerned that a small number of individuals in DOT and USMMA continue to work against the best interests of the Academy, an issue that undermines the Superintendent's and Senior Staff's ability to properly administer and lead the USMMA.

BACKGROUND

USMMA graduates are critical to US strategic and tactical interests around the world:

-As US Coast Guard-licensed mariners sailing aboard commercial vessels, they are the human capital that keeps US economic and supply chain forces moving forward, putting themselves in harm's way in service to the nation. Today, USMMA graduates serve on 'ghost ships' that cannot find ports of refuge because of the COVID-19 pandemic, serve on extended sea voyages because of the lack of qualified mariners to replace them at the end of their voyages, and serve the nation as the human front line for supply chains that bring basic sustenance, equipment and systems to US shores and around the world.

-USMMA graduates are also the backbone of US sealift capacity. General Stephen Lyons, Commander of the U.S. Transportation Command, testified in March 2019 before a House Armed Services Committee joint subcommittee hearing, stating that sealift readiness was his number one concern for joint [military] deployment, relating the sobering statistic that today's [U.S.] sealift fleet is only able to generate 65% of required capacity. USMMA graduates provide the human capital for that sealift capability, as well as the intellectual, innovation, engineering and naval architecture expertise and experience required to bring that sealift capability to serve for our nation (Testimony before the House Armed Services Committee, combined Readiness Subcommittee and the Seapower and Projection Forces Subcommittee, March 7th, 2019 - "The State of the Command")

-USMMA graduates who are sailing mariners are also commissioned Naval Reserve officers, who can be called to serve in military roles that leverage their shipboard, navigation, systems, logistics and engineering expertise in times of need.

The USMMA provides a critical function related to our national security. In 2017 a multi-agency report described a situation where the U.S. would have a deficiency of 1,839 mariners needed for national security purposes, assuming the entire pool of qualified U.S. citizen mariners was available and willing to serve when required. Note that the USMMA is the only maritime academy where all the graduates are

legally obliged to serve when called upon. (Maritime Workforce Working Group (MWWG) Report, pp. 1-2, 2017)

Since the writing of the MWWG report, the COVID-19 pandemic has pointed out additional challenges: sick mariners may decrease the supply of available mariners and the threat of becoming ill onboard a vessel may discourage other mariners on shore from going to sea. In addition, the use of the two hospital ships would increase the demand for mariners. Therefore, the obligation of all USMMA graduates to go “in harm’s way” if called upon makes the Academy a valuable national resource.

This federal academy – the only maritime academy whose graduates are legally obliged to serve the nation in times of need – provides inestimable value and is the cornerstone of our nation’s maritime heritage, as well as of its sealift and defense capabilities.

ACADEMICS

Prior to the convening of the USMMA Advisory Board September 23-24, 2019, much had already been accomplished to improve the academic program by the Academics Leadership Team headed by CDR Paul Acquaro under the guidance and supervision of Dean/Provost RADM Dr. John Ballard and Superintendent RADM Jack Buono. The primary impetus for such initiatives was to improve the deficiencies detailed in the 2016 Middle States Commission on Higher Education (MSCHE) Report. These improvement initiatives are pursuant to the August 2018 USMMA Strategic Plan – Strategic Priority One (SP1).

The present curriculum continues to address professional (USCG license) requirements, military (USNR commission) and academic (MCSHE) requirements. Ongoing improvements to the curriculum are driven by the SP1 objective of preparing graduates for their post sailing or military career in shoreside employment in the maritime industry and continuing professional growth.

Midshipmen may pursue five majors at the Academy: two primary majors (Marine Transportation and Marine Engineering) and three specialized majors (Maritime Security and Logistics, Marine Engineering Systems and Marine Engineering & Shipyard Management). Midshipmen in the specialized majors can

typically choose electives more closely aligned with their majors. The Dean and Provost has proposed establishing several concentrations for Marine Transportation and Marine Engineering majors, allowing these midshipmen to take electives in specialty areas. The Advisory Board endorses this proposal.

A challenge identified by this Advisory Board is the question of credit-hour bandwidth, especially in view of establishing a concentration system. Presently, the credit totals for the five majors range from 166 to 180, compared to a typical college credit hour requirement of 120 hours. The in-residence (non-sea-year) credit totals range from 146 to 158, which needs to be accomplished in three in-residence years, compared to four years at a typical college.

The Academy has identified the need to establish new courses, even concentrations, in such areas as cybersecurity, dynamic positioning and inland transportation, as well as more robust business courses. Introducing new courses will require revision and reduction of existing courses, given credit limit hours, a process the Board endorses.

Previous reports have noted the need to revise the Academy's Sea Project requirements, and COVID-19 has highlighted opportunities and challenges in Sea Year Project content and processes, including opportunities for on-line submission and more real-time reporting and professional consultation. Faculty are currently updating Sea Year Project requirements and processes, a process the Board supports.

Remote, on-line instruction was implemented at the Academy in March 2020 as a result of the COVID-19 pandemic. Although midshipmen returned to the Academy for face-to-face instruction at the beginning of the 2020-2021 academic year, the Academy's implementation of on-line learning offers increased opportunities for improved educational experiences, such as having new courses taught by experienced executives in mainstream or specialized professions – nearby or far away – serving as adjunct professors or guest lecturers. On-line learning could also provide opportunities for short specialized courses that could enhance midshipmen learning and contribute to balanced credit hour requirements.

INFRASTRUCTURE

USMMA's plans and future require infrastructure – civil, technological and human capital. Civil and technological infrastructure plans have been introduced for several years, with limited success, primarily because of the lack of human capital infrastructure in the form of effective project management. The Academy's new Master Plan integrates past capital improvement program (CIP) efforts and provides direction for an integrated vision of civil and technology infrastructure investments. However, accomplishing the goals in the Master Plan requires investment in and stakeholder cooperation with project management leadership and principles. Fundamental project management principles include a requirements process to which stakeholders commit; budget monitoring and transparency; contingency planning and flexibility in the form of swing space or alternative instructional formats; and adherence to schedules and budgets once articulated. The Advisory Board recognizes the Academy's recent efforts to hire project management expertise, but believes that the Academy's plans for civil and technology infrastructure are not realizable absent the human capital infrastructure and leadership needed for effective and trusted project management. The Academy is moving forward with a plan to have the US Army Corps of Engineers assume project management responsibility for infrastructure investments at the Academy. The Board has not had the opportunity to review the proposed project management plan, or the Academy's new Master Plan, both of which are important for future infrastructure planning.

SIMULATORS

Simulation is a key learning platform that is essential for maritime education and the Academy needs to devote the proper personnel support and resources to its installation, maintenance and planning. The Academy is encouraged to leverage relationships with industry to keep pace with technology and to develop partnerships in education, research, and development that can elevate the Academy's status as a research and educational institution.

INFORMATION TECHNOLOGY (IT)

The Board applauds the Academy's transition to online learning occasioned by COVID-19, and the faculty, midshipmen and leadership investment and cooperation involved in the new pedagogy and the use of the Blackboard learning

management system. Sustaining this new technology infrastructure and pedagogy, however, requires additional central IT training and professional development resources. In addition, to address and plan for MSCHE reporting requirements, IT resources and plans should extend beyond online learning and pedagogy to include digital reporting and institutional outcomes assessment tracking.

Information Technology Procurement

Being part of DOT provides benefits to the Academy, such as economies of scale in purchasing commonly used technology items, such as printers. However, there are circumstances where DOT procurement procedures work against the Academy's academic and professional mission, slowing the procurement and provision of required technology and services. One instance is where the Academy is ordering a product that is unique to educational institutions. Another instance is where time is of significant importance. A third instance is when truly routine academic purchases (i.e. annual e-library subscriptions) are delayed because they become mingled with a single IT budget request rather than proceeding as normal renewals for services.

To best serve the Academy's educational and professional missions, the Board recommends that the Academy have access to a special category of technology and service purchases under these specific circumstances.

REPORTING STRUCTURE

In 2016, a team representing the Middle States Commission on Higher Education noted:

The Superintendent does not currently have direct control over the institutional functions of personnel hiring, financial planning and management, and procurement. The Superintendent must have the means, authority, and responsibility, assigned or delegated from DOT and/or MARAD as appropriate, over the institutional functions of personnel hiring, financial planning and management, and procurement required to effectively and efficiently accomplish the Academy's mission.

Although the situation has improved in recent years, the Board observed that this requirement has not been met, and a degree of micromanagement from DOT still

exists in legal, human resources, IT and financial areas, despite highly competent Academy leadership at present. Additional authority also requires additional resources. One example is the need for the Superintendent to have Official Representation Funds (i.e. discretionary funds in support of the Academy mission). An “Equal Footing” Analysis, comparing USMMA to State Maritime Academies and Federal Military Service Academies, would provide insight into a reasonable amount for Official Representation Funds at the USMMA.

The Board notes reports of a tepid history of administrative and financial support for the Academy in recent decades, and a credible case can be made that the USMMA should be housed in a different federal agency, one that could better leverage the supply line interdependency between the warfighter and the Merchant Marine. The Board recommends that a study should be conducted to determine the federal agency best suited to oversee the USMMA. The Board is concerned that a small number of individuals in DOT and USMMA continue to work against the best interests of the Academy, an issue that undermines the Superintendent’s and Senior Staff’s ability to properly administer and lead the USMMA.

INSTITUTIONAL CULTURE

Current Academy leadership has made significant changes to improve the culture on campus, starting with a revitalized Strategic Priority #2 (SP2) Committee.

The SP2 Committee’s activities have been focused on organic activities led by midshipmen to foster institutional culture change. Those activities include:

- unifying the midshipmen around the battle standard, a historic symbol that can be worn on their sleeves with pride for the Academy;
- establishing an online “Midshipmen Portal” to be easily accessed at all times to voice ideas and complaints, as well as developing communication channels, including weekly emails and social media posts
- hosting cookouts at warmer-month sporting events; and
- offering leadership development and professional competence activities by highlighting achievements of alumni and current midshipman to embody Acta Non Verba and excellency within themselves.

The Board notes reports that sexual assault and harassment persist in the Academy's culture. The Sexual Assault Prevention and Response (SAPR) Program is working to eliminate sexual assault on campus and is staffed by a new Sexual Assault Response Coordinator (SARC). The SAPR Program provides sexual assault and harassment prevention training, accountability of incidents, a victim advocacy system, and promotes the development of an overall climate of confidence for victims to report incidents of sexual assault 24/7 around the clock. The SAPR Program is addressing sexual assault and harassment problem by enhancing midshipman awareness and readiness, empowering bystander intervention, and supporting the safety and well-being of everyone across campus. Last year there were two midshipmen who were certified as victim advocates; this year there are 20 currently training as victim advocates and 30 more have applied including many on the football team.

The Academy is addressing issues of multicultural awareness and racial bigotry through midshipmen-led activities and programs. The Board supports these efforts and believes that more must be done to develop an inclusive culture at the Academy, including empowering male midshipmen and faculty to support females and minorities. The Board encourages Academy leadership to lead the multicultural awareness programs and efforts to address racial bigotry at the Academy, in addition to the midshipmen-led programs. The Advisory Board recommends consultation with outside resources, such as Catalyst's MARC (Men Advocating Real Change) framework, which empowers men to engage in inclusion through research-based programming and an online community.

Midshipmen-led clubs provide important learning, professional development, leadership and community building opportunities at the Academy. To enhance these opportunities, the Board recommends that the Academy provide more formal structure to midshipmen clubs, specifically, the female midshipmen club, which has suffered from inconsistent midshipmen leadership in the past

A voluntary, female-only mentoring program open to all women on campus, including faculty and staff, and overseen by the Commandant's office, for instance, could contribute to midshipman professional development and to the development of a community of trust, which is critical to promoting an inclusive and safe culture for all midshipmen.

The Board notes that the use of alcohol and the existence of binge drinking noted in the SAPR survey results persists at the Academy and recommends that the Academy implement a Drug & Alcohol Abuse Program, including safe havens and programs for sober midshipmen, as soon as possible. While rare and infrequent, there are reports of drugs in the barracks. The Board recommend the Academy considers the creation of a dedicated department, perhaps under the Deputy Superintendent's leadership, to address the drug and alcohol abuse on campus with its own staff and programs.

CONCLUSIONS AND RECOMMENDATIONS

Background

- The USMMA is a critical and essential component of National Security and National Defense. USMMA produces over 80% of the officers serving in the U.S. Navy's SSOs (Strategic Sealift Officers) Community. Moreover, USMMA is the only maritime school in which 100% of its graduates both earn a merchant marine license and incur an obligation to the U.S. government.
- USMMA graduates also serve the nation as officers on commercial seagoing and domestic vessels, the backbone of the nation's maritime logistics and sealift capability.
- Despite these critical roles and needs, the U.S. faces a shortage of qualified commercial mariners, which threatens our national security. The current pandemic can only exacerbate this situation.

Assessment

- The Academy has improved its academic programs as required by the 2016 Middle States review, and has developed a comprehensive educational program that meets the Academy's Mission and provides lifelong professional growth for graduates, in a culture of continuous assessment and improvement.
- There are two primary majors at the Academy, Marine Transportation and Marine Engineering, along with three specialized majors, Maritime Security and Logistics, Marine Engineering Systems and Marine Engineering & Shipyard Management. The Advisory Board supports the proposal to establish several

concentrations within the majors, allowing midshipmen to attain specialized training and education.

- The Board applauds the Academy's transition to online learning occasioned by COVID-19 in Spring 2020, and the faculty, midshipmen and leadership investment and cooperation involved in introducing new pedagogy and the use across the Academy of the Blackboard learning management system. Sustaining this new technology infrastructure and pedagogy, however, requires additional central IT training and professional development resources. In addition, IT resources and plans should extend beyond online learning and pedagogy to include digital institutional outcomes assessment tracking and reporting.
- Being part of DoT procurement procedures provides benefits to the Academy, such as economies of scale in purchasing commonly used technology items, such as printers. However, there are circumstances where DOT procurement procedures are not helpful. In these cases, the Academy should have options to pursue streamlined procurement processes in support of the Academy's educational mission.
- The Academy's new Master Plan integrates past capital improvement program (CIP) efforts and provides direction for an integrated vision of civil and technology infrastructure investments. However, accomplishing the goals in the Master Plan requires that stakeholders follow project management principles, including committing to consensus requirements; budget monitoring and transparency; contingency planning and flexibility in the form of swing space or alternative instructional formats; and adherence to schedules and budgets once articulated.
- The Advisory Board recognizes the Academy's recent efforts to hire project management expertise, but questions whether the Academy's plans for civil and technology infrastructure are realizable given the absence of project management personnel and leadership.
- Simulation is a key learning platform that is essential for maritime education and the Academy needs to devote the proper personnel support and resources to its installation, maintenance and planning. The Academy is encouraged to leverage relationships with industry to keep pace with technology

and to develop partnerships in education, research, and development that can elevate the Academy's status as a research and educational institution.

- Academy leadership has made significant changes to improve the culture on campus. The Academy has assembled resources that analyze the Academy's culture and focus on initiatives to encourage and support inclusion.
- The Sexual Assault Prevention and Response (SAPR) Program has worked to eliminate sexual assault on campus, although sexual assault and harassment persist in the Academy's culture. The SAPR Program is addressing sexual assault and harassment problems by enhancing midshipmen awareness and readiness, empowering bystander intervention, and supporting the safety and well-being of all on campus.
- To further support the Academy in developing an inclusive culture, more must be done to empower male midshipmen and faculty to support females and minorities. The Advisory Board recommends consultation with outside resources, such as Catalyst's MARC (Men Advocating Real Change) framework, which empowers men to engage in inclusion through research-based programming and an online community. The Advisory Board also recommends providing formal structure, resources and programming to the loosely structured midshipmen-led clubs, specifically the female midshipmen club.
- The Board notes the persistence of alcohol and binge drinking noted in the SAPR survey results and recommends that the Academy create a Drug & Alcohol Abuse Program, perhaps under the Deputy Superintendent's leadership, to address the drug and alcohol abuse on campus with its own staff and programs, and to create programs and safe havens for sober midshipmen.
- The Superintendent is not vested with sufficient (college president-like) authority to adequately lead and manage the Academy in a manner necessary for the USMMA to meet its academic, professional and military missions. The Superintendent role should include accountability for Legal, Human Resources, Finance and IT functions, and should include Official Representation Funds (i.e. discretionary funds in support of the Academy mission).
- The Board noted reports of a tepid history of administrative and financial support for the Academy in recent decades, and a credible case can be made that

the USMMA should be housed in a different federal agency, one that could better leverage the supply line interdependency between the warfighter and the Merchant Marine. The Board recommends that a study should be conducted to determine the federal agency best suited to oversee the USMMA. The Board is concerned that a small number of individuals in DOT and USMMA continue to work against the best interests of the Academy, an issue that undermines the Superintendent's and Senior Staff's ability to properly administer and lead the USMMA.