



CONSORTIUM OF STATE MARITIME ACADEMIES
California • Maine • Massachusetts • Michigan • New York • Texas

February 13, 2023

Admiral Linda Fagan
Commandant
US Coast Guard
2703 Martin Luther King Jr. Avenue, SE
Washington, DC 20593

Via email: linda.l.fagan@uscg.mil

Dear Admiral Fagan:

On behalf of the Consortium of State Maritime Academies (“The Consortium”), we write to respectfully request a review team to address concerns regarding the current Chart Plot module of the U.S. Coast Guard Third Mate exams and, particularly, recent changes that have resulted in a pattern of dramatic departure from historic success.

As background, the Consortium represents the nation’s six state maritime academies. Each academy is a regionally accredited bachelor’s degree granting institution. Approximately 70% of the nation’s unlimited tonnage/horsepower merchant marine officers are graduates of a state maritime academy. Additionally, due to federal law contained in 46 U.S. Code 51506 our cadets are required to earn their merchant marine officer’s license as a condition of graduation.

As you know, the Chart Plot module is one of seven contained in the Third Mate exam cycle. Our students train and study for four years to become ready to be tested on their chart plotting knowledge and skills through this module. We are proud that, for decades, our cadets have passed the module at an acceptable rate and then served the U.S. Merchant Marine at a high level of competency.

In the spring of 2021 the U.S. Coast Guard introduced several new chart plot exams. Due to a significant decline in passing rates on these exams we requested on March 11, 2022, that these exams not be used until they were vetted by a review team that includes personnel as specified by 46 U.S. Code 7510. Following this review, the exams were revised and reintroduced over the past two months. U.S. Coast Guard license exams were administered at five of the six state maritime academies during this past December and January. The percentage of cadets who passed the chart plot exam declined even further as follows: SUNY (37%), Cal (19%), TX (48%), ME (0%), GLMA (56%). The results for cadets who failed and have subsequently retaken the exam are equally disheartening. We have also heard from industry representatives that unlicensed mariners are having an equally difficult time with the chart plot exam, in some cases opting to not attempt to retake the chart plot exam and forgoing pursuit of a merchant marine officer’s license. This, of course, is a troubling trend in context with the current mariner shortage.

After the exam was administered at California State University Maritime Academy, a team comprised of members from the U.S. Coast Guard and the U.S. Maritime Administration reviewed the chart plot exams at the National Maritime Center. We appreciate that this was accomplished in a timely manner. However, the

subsequent exam results demonstrate that the problems embedded in the module remain. If left unresolved this will continue its great impairment to addressing the current mariner shortage.

Of course, we do not have the benefit of seeing and reviewing the actual exam questions. But, we have numerous reports from cadets and other students who have taken the exams. Based upon multiple sources of input, it seems clear that if a recent chart plot exam were compared to a comparable one as recently as 2018, the structure and wording of the new changes would predictably produce failure by many students who passed in 2018 and became successful professional mariners. We have seen no casualty data from industry or otherwise indicating that our graduates have been lacking in chart plot skills. We are also unsure why there is an emphasis on this module. A large and growing percentage of cadets will now sail on vessels that do not even carry paper charts, and SOLAS regulation V/19 requires all newly built passenger ships of 500 gross tonnage, and all newly built cargo ships of 3,000 gross tons to be fitted with Electronic Chart Display and Information System (ECDIS).

One structural change that seems to add no benefit but has resulted in a pattern of failures is the linkage between multiple questions, such that a correct answer to one question is dependent on having answered a previous question correctly. We do not believe this is necessary or reasonable for an exam that consists of only 15 questions, and a passing grade requires 13 correct answers.

Our concerns are not based solely on passage rates nor the intrinsic difficulty of questions but, rather, the *structure and wording* of the module and questions therein. For example, a recent high-achieving student who maintains a 4.0 grade point average points out “[t]he difference is not that the actual plotting or navigational skills required to complete them ... but the composition of individual questions and the overall plot construction are more complex”. She also points out that it is very unclear what is expected from a particular question and confusion is inserted by combining multiple steps and skills within a single question. She also points out that the multiple small features of the question create failure even though the student successfully answers the larger point.

We are not requesting that the exam be modified to reduce its effectiveness at verifying competencies of our future mariners. But, we are concerned that the structural changes and confusing wording are diverting the core focus and purpose of the exam which is to verify that maritime academy graduates are capable and competent to perform the duties of a Third Mate.

We do not advocate eliminating the chart plot exam. Rather, we ask that the recent changes to the exam be modified or eliminated to address the problems. Specifically:

1. Questions should not be linked;
2. Questions should assess a singular task; and
3. Question wording should be standardized across all chart plots.

We respectfully request that you convene a new review team for the chart plot exam module as soon as reasonably possible and that the review team include recent graduates and current cadets who have successfully passed the chart plot exam earlier this year. We ask this because we have received input suggesting that the questions in this module may have been written by senior mariners with an expectation of performance by senior mariners who have taken multiple U.S. Coast Guard exams.

As noted in the U.S. Coast Guard Assessor's Manual for Conducting Mariners Assessments (NVIC 19-14, Encl. 3, page 4) "An assessment is valid when it accurately measures the job-critical knowledge, skills, and abilities required for proficient job performance". We do not believe the current chart plot exams are a valid assessment of the skills needed to serve as a licensed officer in the U.S. Merchant Marine.

Thank you for your consideration of these matters.

Sincerely,



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