Office of Inspector General

Audit Report

Merchant Mariner Licensing and Documentation Program

U.S. Coast Guard

Report Number R9-CG-7-013
Date Issued: September 30, 1997

Memorandum

U.S. Department of Transportation
Office of the Secretary of Transportation
Office of Inspector General

Subject: ACTION: Report on Audit of Merchant Mariner Licensing and Documentation Program, USCG Report No. R9-CG-7-013

Date: September 30, 1997

From: Lawrence H. Weintrob
Assistant Inspector General for Auditing

Reply to Attn of: JA-1

To: Chief of Staff
U.S. Coast Guard

We are providing this report for your information and use. Your June 30, 1997 comments, to our March 14, 1997 draft report, were considered in preparing this report. A synopsis of the report follows this memorandum.

In your comments to our draft report, you concurred with nine recommendations and partially concurred with two recommendations. We consider your comments and planned actions to be responsive for all recommendations. Therefore, the recommendations are considered resolved, subject to followup provisions of Department of Transportation Order 8000.1C.

We appreciate the cooperation and assistance provided by U.S. Coast Guard management and staff. If I can answer any questions or be of further assistance, please contact me on (202) 366-1992, or Robin K. Hunt, Regional Audit Manager, on (415) 744-3090.

#

Attachment

Merchant Mariner Licensing and Documentation Program

U.S. Coast Guard

Report No. R9-CG-7-013 ***September 30, 1997***

Objective

The objective of the audit was to evaluate the effectiveness of the U.S. Coast Guard's (USCG) Merchant Mariner Licensing and Documentation (MLD) Program for issuing licenses, certificates and documents to merchant marine personnel.

Background

The goal of the MLD Program is to ensure merchant mariners are qualified in an efficient manner to perform their duties for the purpose of: (1) promoting the safety of life and property at sea, (2) promoting public safety, and (3) protecting the marine environment.

Licenses are issued to deck, engineer, pilot, and radio officers on merchant vessels, and to operators of uninspected towing and passenger vessels. Certificates of registry, which are another form of license, are issued to staff officers including pursers, medical doctors, and nurses. Merchant mariner documents are issued to crew members for qualified ratings such as able seaman and qualified member of the engine department and for entry-level ratings such as ordinary seaman, wiper, and steward.

USCG Regional Examination Centers (REC) in 20 U.S. cities issue licenses, certificates of registry, and documents to merchant mariners. During Fiscal Year 1995, RECs issued 49,600 original licenses and documents; and 25,200 renewals, endorsements, and duplicates.

Results-in-Brief

USCG issued licenses and documents to merchant mariners without ensuring they were qualified to perform the required seamen duties. This occurred because eligibility was based on unverified quantity, not quality, of sea experience; and examinations were not challenging and did not require demonstration of mariners' sea skills. Also, physical standards did not ensure mariners were fit for duty; eligibility

evaluations were incomplete; and approved mariner training courses were not audited to ensure the highest quality of training.

The MLD Program also lacked adequate operating procedures and controls. This occurred because management oversight of RECs was not performed, a fully operational management information system was not implemented, accountable documents were not controlled, and user fees were not safeguarded. As a result, USCG does not have assurance the MLD Program is effectively promoting the safety of life and property at sea, promoting public safety, and protecting the marine environment. The MLD Program is also susceptible to fraud, waste, and abuse. Because of control weaknesses, one USCG employee was able to embezzle $2,000 by not turning over mariner fees to the cashier. In addition, mariners such as masters, chief mates, officers, seamen, and lifeboatmen are not provided the best possible service. For example, mariners were working with expired or suspended licenses and documents.

As of September 1997, USCG was developing processes to measure and report the performance of major operating programs, as required by the Government Performance and Results Act of 1993. USCG plans to develop performance measures for support activities, such as the MLD Program, in Fiscal Year 1998.

Monetary Impact

USCG is implementing corrective actions which will result in cost savings. For example, effective January 1, 1998, all Headquarters staff associated with the MLD Program will relocate to the national Maritime Center in an effort to reduce administrative and overhead costs. USCG also plans to reduce REC workload by eliminating the requirement for stewards not responsible for passenger safety to obtain a merchant mariner document. USCG planning documents reflect an estimate of cost savings up to $3.4 million annually from MLD Program changes similar to those discussed in this report.

Recommendations

We made 11 recommendations to USCG to strengthen and streamline the MLD Program. Seven recommendations concerned mariner qualifications and four recommendations addressed management effectiveness and MLD Program oversight. The recommendations included emphasizing quality of sea time and practical skills in evaluating mariners for licenses and documents, increasing oversight of RECs, adhering to program operating procedures and controls, fully implementing a new

management information system, and establishing accountability for forms and user fees.

Management Position

USCG officials concurred with 9 of 11 recommendations and partially concurred with recommendations to make written examinations more challenging, and require all mariners, including entry level and food handlers, to meet appropriate physical and health standards. USCG officials stated that new USCG regulations will require mariners to demonstrate professional skills to qualify for licenses and documents, and meet appropriate physical standards. In this regard, USCG issued a draft Commandant Notice establishing procedures for authenticating self-certified sea service; and requiring RECs to verify sea service of a sample of applicants submitting self-certified sea service. Further, examination modules are being developed by random generation methods, and each REC will have the capability to generate distinct and individual examination modules.

USCG formed a Quality Action Team to study the efficient and effective use of personnel and resources at RECs. Specifically, the Quality Action Team will review REC operations to identify ways to reduce low value-added functions to free resources to perform necessary administrative functions, and to ensure adequate controls are being developed to safeguard user fee collections. Also, the Marine Safety Manual, Volume III, Marine Industry Personnel was completely overhauled, and the automated Merchant Marine Licensing and Documentation System was implemented.

Office of Inspector General Comments

All proposed USCG corrective actions are responsive to our recommendations. For those actions that have not been completed, such as the Quality Action Team study, we will obtain final documentation to ensure full implementation of the recommendations. Corrective actions will be subject to the audit followup provisions of U.S. Department of Transportation Order 8000.1C.

TABLE OF CONTENTS

TRANSMITTAL MEMORANDUM

SYNOPSIS

I. INTRODUCTION

Background 1

Objective, Scope, Methodology, and Performance Results Act 2

Prior Audit Coverage 3

II. FINDINGS AND RECOMMENDATIONS

Finding A. Improvements Are Needed in the MLD Program Qualification Process 4

Finding B. The MLD Program Could Be More Effectively Managed 13

III. OTHER ITEMS OF INTEREST

Program Efficiency 18

Types of Licenses and Documents Issued 19

IV. EXHIBITS

Exhibit A. Locations Visited 21

Exhibit B. Major Contributors to This Audit 22

V. APPENDIX

Management Responses 23

I. INTRODUCTION

Background

Legislation addressing merchant marine safety in United States waters was first enacted in July 1838, in response to frequent steamboat boiler explosions. This legislation established requirements for fire and lifesaving equipment, and hull and boiler inspections. At the same time, the Steamboat Inspection Service was established in the U.S. Department of Treasury. Following several major steamboat accidents, the Steamboat Act of 1852 was approved. This Act expanded equipment and inspection requirements, and authorized the Steamboat Inspection Service to issue licenses to pilots and engineers of passenger carrying steamboats.

An act, referred to as the Act of February 28, 1871, required masters and chief mates on steam powered vessels to be licensed by the Federal Government. A series of laws in the last decades of the 1800s and early 1900s further expanded licensing requirements to include officers on motor and sailing vessels, of a certain size, carrying passengers and freight. The Seamen's Act of 1915, required able seamen and qualified lifeboatmen to have certificates.

The Steamboat Inspection Service was merged with the Bureau of Navigation on June 30, 1932, to create the Bureau of Navigation and Steamboat Inspection in the U.S. Department of Commerce. Effective July 16, 1946, authority for merchant marine inspections and licensing was transferred to the USCG.

USCG is delegated authority to issue, suspend, and revoke licenses and documents pursuant to Public Law 98-89. Title 46 Code of Federal Regulations (CFR), Subchapter B, Merchant Marine Officers and Seamen, contains Federal policy on merchant mariner licenses and documents.

The Merchant Mariner Licensing and Documentation (MLD) Program is part of USCG's marine safety mission. The objective of the MLD Program is to ". . . ensure that merchant mariners are qualified in an efficient manner to perform their duties for the purpose of: I. Promoting the safety of life and property at sea; II. Promoting public safety; and III. Protecting the marine environment."

Seventeen Regional Examination Centers (REC) and three sub-centers issue licenses, certificates of registry, and documents to merchant mariners. Licenses are issued to deck, engineer, pilot, and radio officers on merchant vessels, and to operators of uninspected towing and passenger vessels.

Certificates of registry, which are another form of license, are issued to staff officers including pursers, medical doctors, and nurses. Merchant mariner documents are issued to crew members for qualified ratings such as able seaman and qualified member of the engine department and for entry-level ratings such as ordinary seaman, wiper, and steward.

During Fiscal Year 1995, RECs issued 49,600 original licenses and documents; and 25,200 renewals, endorsements, and duplicates.

In November 1993, a USCG focus group issued an internal report titled "Licensing 2000 and Beyond." The report advised the Chief, Marine Safety, Security and Environmental Protection, on beneficial modifications to the MLD Program including new technologies and concepts in verifying mariner competence, standards for protecting public and environmental safety, quality of service to merchant mariners, and program cost effectiveness.

In addition, amendments to the 1978 International Convention on Standards of Training, Certification, and Watchkeeping for Seafarers (STCW), adopted July 7, 1995, require applicants for licenses and document endorsements to establish competence through practical demonstration of skills, and pass more technical examinations. The amendments became effective on February 1, 1997, with a 5-year phase in period for implementation.

Objective, Scope, Methodology, and Performance Results Act

The objective of the audit was to evaluate the effectiveness of the MLD Program for issuing licenses and certificates to merchant marine personnel. The audit was conducted between August 1995 and March 1996, and included a review of MLD Program activities during calendar years (CY) 1992 through 1995. The period of review was expanded as necessary for certain audit tests.

We reviewed laws, regulations, manuals, and other MLD Program instructions; analyzed MLD Program data related to the issuance of licenses; and tested selected transactions. We also interviewed USCG officials at the National Maritime Center in Arlington, Virginia; Office of Marine Safety in Washington, D.C.; four District offices; and eight Marine Safety Offices and RECs. We also visited 16 mariner training schools. (See exhibit A for a listing of locations visited.)

We evaluated USCG policies and procedures for administering and controlling the MLD Program. To identify supervisory review practices and separation of duties, we observed REC staff processing applications for licenses and documents, administering tests, and issuing licenses and

documents. Weaknesses found in management controls are discussed in detail in Part II of this report.

The audit was performed in accordance with Government Auditing Standards prescribed by the Comptroller General of the United States. The audit included such tests of procedures and records as were considered necessary in the circumstances.

The Government Performance and Results Act of 1993, requires each agency to develop a strategic plan -- including objective, quantifiable, and measurable performance goals -- no later than September 30, 1997, for accomplishing major program activities. As of September 1997, USCG was developing processes to measure and report the performance of major operating programs. USCG plans to develop performance measures for support activities, such as the MLD Program in Fiscal Year 1998.

Prior Audit Coverage

The most recent OIG report titled, "Coast Guard Merchant Marine Licensing Program" (Report No. R3-CG-1-165, dated June 12, 1991) concluded improvements were needed to ensure personal qualifications of mariners applying for licenses were adequately evaluated. Recommendations were made to revise the mariner physical examination form, establish procedures for national drivers record and criminal background checks, and systematically verify information provided by mariners on applications.

II. FINDINGS AND RECOMMENDATIONS

Finding A. Improvements Are Needed In the MLD Program Qualification Process

USCG issued licenses and documents to merchant mariners without ensuring they were qualified to perform the required seamen duties. This occurred because eligibility was based on unverified quantity, not quality, of sea experience; examinations were not challenging and did not require demonstration of mariners' sea skills; physical standards did not ensure mariners were fit for duty; eligibility evaluations were incomplete; and approved mariner training courses were not audited to ensure the highest quality of training. As a result, USCG has no assurance its MLD Program is effectively protecting life and property at sea, promoting public safety, and preventing marine disasters.

According to a 1995 USCG report titled, "Prevention Through People:"

> Our 200-year-old [maritime] safety system has been one of promoting safety through developing and enforcing engineering and technological standards. . . . However, [today] human error causes over 80 percent of maritime casualties. While it is important to maintain the current level of maritime safety and pollution prevention achieved by past technological and engineering innovations, removing human error will yield the greatest safety and pollution prevention results in the years ahead.

Therefore, a licensing and documentation program that focuses on mariner competency should yield the greatest benefits to safety and pollution prevention.

Pursuant to 46 CFR 10.201(a), to be eligible for a mariner license:

> The applicant must establish to the satisfaction of the Officer in Charge, Marine Inspection, that he or she possesses all of the qualifications necessary, e.g., age, experience, character references and recommendations, physical examination, citizenship, and training, and pass a professional examination, as appropriate, before a license or certificate of registry is issued.

Under 46 CFR Subparts 12.05, 12.10, 12.15, and 12.20, to be eligible for a mariner document with qualified ratings, the applicant must meet physical, service or training, and examination requirements. Applicants for documents

with entry-level ratings of ordinary seaman, wiper, or steward must only meet drug-free requirements.

These standards, as implemented, did not ensure mariners were qualified to perform their duties. We found (1) eligibility was based on unverified quantity, not quality, of sea experience; (2) examinations were not challenging and did not require demonstration of mariners' sea skills; (3) physical standards did not ensure all mariners were fit for duty; (4) eligibility evaluations were incomplete; and (5) approved mariner training courses were not audited.

Eligibility Was Based on Unverified Quantity, Not Quality, of Sea Experience. Title 46 CFR 10.205(e)(1), states:

> All applicants for original licenses and certificates of registry shall present to the OCMI [Officer in Charge, Marine Inspection] letters, discharges, or other documents certifying the amount and character [e.g., chief mate, assistant engineer, etc.] of their experience and the names, tonnage and horsepower of the vessels on which acquired.

However, requirements and standards have not been established for the quality of sea service. Applicants need only identify amounts of time at sea. Further, sea time does not need to be related to the licenses they are obtaining. For example, one applicant seeking a license as operator of an uninspected passenger vessel provided a sea service form signed by himself and a letter from a friend. The friend stated the applicant had gone sailing with him on hundreds of occasions during the last 20 years. The friend could not remember the exact dates but stated the applicant had operated the boat at least 10 days each year for the last 20 years. This evidence was accepted as qualifying experience without verification or any indication of the applicant's duties or performance.

Further, under Title 46 CFR 10.209(c)(1):

> In order to renew a license as master, mate, engineer, pilot, or operator, the applicant shall: (i) Present evidence of at least 1 year of sea service during the past 5 years; (ii) Pass a comprehensive, open-book exercise covering the general subject matter . . .; (iii) Complete an approved refresher training course; or (iv) Present evidence of employment in a position closely related to the operation, construction, or repair of vessels (either deck or engineer as appropriate) for at least 3 years during the past 5 years.

> An applicant for a deck license must also demonstrate knowledge on an applicable Rules of the Road exercise.

Again, this requirement does not assure the mariner is qualified to perform duties associated with the license. For example, one mariner renewed his masters license for vessels not more than 500 gross tons (a vessel such as a 200 foot ferry or off-shore supply vessel) by providing a company letter showing he worked over 360 days during the previous 5 years as a captain of a vessel of only 25 gross tons (a vessel similar to a 50 foot pleasure craft). Even though the mariner's experience was on a smaller vessel, he was able to renew his license for a larger vessel. Also, it should be noted this applicant could have renewed by serving in any capacity on the vessel.

In addition, regulations allow mariners to renew licenses without spending any time at sea during the previous 5 years. For example, a mariner renewed his license as third mate of vessels of any gross tonnage by passing two examinations taken at home. Another mariner renewed his license as third assistant engineer of steam or motor vessels of any horsepower while working for an insurance agency that inspects boilers, and steam and gas turbines. Both applicants had no sea experience yet received licenses valid for 5 years.

Allowing mariners to renew without (1) documenting the quality of their experience, (2) working under the authority of their license, or (3) having sea experience during the previous 5 years appears contrary to the demonstration of good seamanship. In contrast, Navy and USCG members must demonstrate competency and necessary skill levels prior to being qualified to perform assignments aboard ship, and must requalify each time they change ships.

Moreover, the amount of sea time reported by mariners was not verified by USCG. Title 46 CFR 10.205(e) states "The OCMI must be satisfied as to the authenticity and acceptability of all evidence of experience or training presented." A June 1991 OIG audit report found USCG was not randomly verifying sea time on mariner applications to ensure accuracy and completeness. In response to the audit report, USCG agreed to selectively verify information provided by applicants. However, at the time of our current audit, USCG had not developed requirements to selectively verify reported sea experience, and none of the eight RECs visited were routinely verifying the quantity of experience reported by applicants. To illustrate, one applicant received a license based upon a relative's statement that the applicant had 365 days of sea service aboard a vessel owned and operated by the relative. No other sea experience was reported and the experience was not verified by the REC.

Examinations Were Not Challenging, and Did Not Require Demonstration of Mariners' Sea Skills. Title 46 CFR 10.205(i) states, "(1) When an applicant's experience and training are found to be satisfactory and the applicant is eligible in all other respects, the OCMI examines the applicant, in writing; . . . " According to USCG officials, the examination is intended to determine if the mariner has the necessary knowledge to hold a license at a particular level.

We concluded examinations for original licenses and documents were of little value in assessing mariner competency. We found most exams were open book, consisted of multiple choice questions, had no time limits, and all questions and answers were available to the public. In addition, written exercises for renewals were administered through the mail. As a result, during CYs 1992 through 1994, over 96 percent of applicants passed the exams, and at two RECs, all applicants passed the exams for all 3 years. Test results, by each REC, are shown in the following table:

Examinations for Original Licenses
Calendar Years 1992 through 1994

REC	All Exams Administered			Passing
	1992	1993	1994	Rate (%)
1. Anchorage	116	245	436	99.0
2. Baltimore	787	604	485	99.9
3. Boston	1,226	1,269	1,262	99.4
4. Charleston	413	427	387	83.9
5. Honolulu	295	259	241	99.7
6. Houston	488	429	596	98.0
7. Juneau	166	141	167	99.6
8. LA/Long Beach	624	569	469	100.0
9. Memphis	418	376	343	99.6
10. Miami	1,128	1,029	1,159	98.6
11. New Orleans	1,060	1,220	1,197	85.5
12. New York	1,148	1,113	1,028	94.6
13. Portland	220	246	272	99.7
14. San Francisco	477	288	379	99.9
15. Seattle	887	722	719	99.7
16. St. Louis	148	146	83	100.0
17. Toledo	346	789	715	94.7
TOTALS	9,947	9,872	9,938	96.3[1]

[1]Passing rate may include partial failures which require retests in one or more test modules.

Since 1989, USCG has published all test questions and answers on mariner examinations for public access. Updates are also published when questions are added or changed. Currently, there are about 24,000 questions included in 625 test modules for the 88 different licenses and documents. All questions and answers are available on the Internet. Because these questions are in the public domain, vocational schools have access to the questions and can prepare mariners for specific examinations for particular licenses. For example, one school advertised, "Pass the first time, or get 100% money back!"

Also, USCG testing facilities provided reference materials which can be used for all examinations, except one module (Rules of the Road). Further, the exams are not timed. In our opinion, the credibility of the examinations is compromised by providing reference materials which contain most, if not all, of the deck exam answers, and then allowing an applicant almost unlimited time to complete a single module. To illustrate, using available reference materials, we were able to find all answers to the first 10 questions in a deck license module within 3 hours. In addition, merchant mariners can renew their license or document by passing an open-book exercise which can be completed by mail.

In response to the STCW, USCG published rule changes in the Federal Register on June 26, 1997, requiring applicants for a license in certain capacities to successfully perform practical demonstrations. Applicants will be evaluated on practical skills as well as a written test of their knowledge. Practical skills to be demonstrated would include piloting, electronic navigation, aids to navigation, watchkeeping, tides and tidal currents, ship maneuvering and handling, and emergency procedures. These new rules will enable USCG to better assess whether or not mariners are qualified to perform their duties. However, at the time of our audit, RECs had neither the equipment nor technical expertise to administer these proposed practical tests.

Physical Standards Did Not Ensure All Mariners Were Fit For Duty. Applicants for entry-level seaman or wiper were not required to take physical examinations necessary to protect other crew, and applicants for food handler positions were not taking physical examinations to protect passengers from contagious and communicable diseases.

Entry-Level Documents. Title 46 CFR Subpart 12.25, does not require physical examinations for entry-level ratings of ordinary seaman or wiper. In 1994, entry-level ratings accounted for approximately 85 percent of all documents issued. From 1992 to July 1995, about 86,000 entry-level ratings were issued without physical examination.

In contrast, USCG Navigation and Vessel Inspection Circular No. 6-89 states, "In order for a ship at sea to be operated safely, it has always been essential that the crewmembers be physically fit and free of debilitating illness and injury." A USCG proposed rule change, published in the Federal Register on March 26, 1996, would add medical and fitness requirements for entry-level merchant seaman. Interim regulations were published on June 26, 1997.

Food Handlers. Title 46 CFR 12.25-20, states:

> No applicant for a rating authorizing the handling of food will be certificated unless he produces a certificate from a medical officer of the United States Public Health Service, or other reputable physician stating that the applicant is free from communicable disease.

However, USCG was not enforcing this requirement. Our review of 245 applications for a food handler rating found none of the mariners had submitted the required certificates. According to USCG records, approximately 100,000 merchant mariners have ratings authorizing them to handle food. Not enforcing health standards for food handlers increases the risk of diseases aboard ships which can result in illnesses or even deaths. For example, in September l994, more than 600 passengers and crew members aboard a foreign-flagged cruise ship were stricken with an intestinal disorder (shigellosis) suspected to be transmitted by food, water, or food handlers. As a result, six passengers required hospitalization ashore.

Eligibility Evaluations Were Incomplete. Title 46 CFR 10.201(a) states for original licenses, "The applicant must establish . . . that he or she possesses all the qualifications necessary . . . before a license or certificate of registry is issued." Similarly, 10.209(a) states ". . . an applicant for renewal of a license or certificate of registry shall establish possession of all the necessary qualifications before the license or certificate of registry is issued."

Eligibility reviews by RECs were not complete. We found one or more evaluation deficiencies in 80 of 272, 29 percent, license files reviewed in a statistical sample. Deficiencies were primarily in the following areas: (1) sea service was not properly documented for 37 applications, (2) physical examinations were not current or forms were incomplete for 25 applications, and (3) criminal record checks were not completed for 10 applicants. To illustrate, an applicant submitted a signed handwritten note stating sea time for the last 5 years consisted of 90 to 95 trips without any other details. Sea service documentation was accepted and the license was renewed for 5 years. As another example, an applicant submitted a photocopy of a physical

examination report. The physical exam was accepted by USCG and the applicant's license was renewed for 5 years. In our opinion, a photocopy can be easily forged. Another applicant's file contained a blank fingerprint card and no other evidence the required Federal Bureau of Investigation criminal records check was done. Nevertheless, the applicant received a license valid for 5 years.

In addition, 200 of 272 files reviewed contained completed National Driver Register forms which had not been sent to USCG Headquarters for processing. According to the Chief, Marine Personnel Division, RECs began performing National Driver Register checks in April 1996. However, the checks are only for current applications. There are no plans to check past applicants' driving records.

USCG Approved Training Courses Were Not Audited. Title 46 CFR Part 10, Subpart C-Training Schools with Approved Courses, prescribes requirements for all USCG approved training courses which may be accepted in lieu of sea service experience or examinations. Paragraph 10.303(f) states each school with an approved course must allow USCG to:

> . . . (1) Inspect its facilities, equipment, and records, including scholastic records; (2) Conduct interviews and surveys of students to aid in course evaluation and improvement; (3) Assign personnel to observe or participate in the course of instruction; and (4) Supervise or administer the required examinations or practical demonstrations.

As stated in Navigation and Vessel Inspection Circular No. 5-95, "The Coast Guard considers oversight of training programs to be of critical importance in ensuring compliance with the course approval letter and ensuring that seafarers are provided training that meets at least the minimum requirements."

Also, USCG's "Licensing 2000 and Beyond" study noted the importance of USCG oversight of training courses by recommending:

> . . . 5. Strengthen oversight of approved courses by: a. Improving course approval criteria, b. Improving and increasing monitoring of courses, c. Creating an "Instructor" license endorsement, and d. Taking strong disciplinary actions including revocation against courses, schools and instructors who fail to meet the established standards.

USCG approves mariner training courses in three categories: the course meets a regulatory requirement (Category 1); the course substitutes for more than 25 days of sea service credit or replaces a USCG examination (Category 2); or the course substitutes for not more than 25 days of sea service (Category 3). Category 1 courses include radar observer, basic and advanced firefighting, lifeboatman, engineering propulsion, vessel stability, and safe boating. Category 2 courses include signaling/flashing lights and operator of uninspected passenger vessel. Category 3 courses include first aid/cardio pulmonary resuscitation. According to USCG guidelines, Category 1 courses should be audited annually and Category 2 and 3 courses audited biennially.

We found USCG was not auditing approved courses. Our review at eight RECs disclosed only 15 of 76 approved Category 1 courses (20 percent), and only 37 of 148 Category 2 and 3 courses (25 percent) were audited in CYs 1994 or 1995. Moreover, three of the eight RECs reviewed (Portland, Alameda, and Houston) did not perform any audits of approved courses in CYs 1994 or 1995.

Recommendations

We recommend the Chief of Staff increase the effectiveness of the MLD Program by:

1. Establishing requirements for quality of mariner sea service.

2. Verifying, on a random basis, sea time reported by mariners.

3. Making written examinations more challenging.

4. Requiring mariners to demonstrate practical skills.

5. Requiring all mariners, including entry-level and food handlers, to meet appropriate physical and health standards.

6. Ensuring RECs perform more complete eligibility evaluations of applicants.

7. Auditing mariner training courses in accordance with USCG guidelines.

Management Response

USCG officials concurred with Recommendations 1, 2, 4, 6 and 7, and partially concurred with Recommendations 3 and 5.

For Recommendations 1 and 4, USCG officials stated new USCG regulations will implement the provisions of Standards of Training, Certification, and Watchkeeping for Seafarers (STCW) to require mariners to demonstrate professional skills to qualify for licenses and documents. The regulations were published in the Federal Register on June 26, 1997 and will be incorporated into 46 CFR Parts 10, 12, and 15.

In response to Recommendation 2, USCG officials provided a draft Commandant Notice which establishes requirements and procedures for authenticating self-certified sea service.

For Recommendation 3, USCG officials stated a mariner's ability to use standard references commonly available aboard ship is in itself a demonstration of practical skills. The officials stated examination modules are being developed by random generation methods, and each REC will have the capability to generate distinct and individual examination modules.

For Recommendation 5, USCG stated STCW requires all mariners, including entry level mariners, meet appropriate physical standards. Interim regulations implementing the STCW were published on June 26, 1997. Regarding health standards for food handlers, USCG stated the requirement for food handlers to be free from communicable diseases was dropped when Title 46 U.S. Code was recodified, losing its legal basis.

With regard to Recommendations 6 and 7, USCG formed a Quality Action Team to study the efficient and effective use of personnel and resources at RECs. A final strategic action plan was published in July 1997.

USCG's complete response to the draft report is included as an appendix to this report.

Audit Comments

All proposed USCG corrective actions are responsive to our recommendations. For those actions that have not been completed, such as the Quality Action Team study, we will obtain final documentation to ensure full implementation of the recommendations. Corrective actions will be subject to the audit followup provisions of U.S. Department of Transportation Order 8000.1C.

Finding B. The MLD Program Could Be More Effectively Managed

The MLD Program lacked adequate procedures and controls for effective operations. This occurred because management oversight of RECs was not performed; a fully operational management information system was not implemented; accountable documents were not controlled; and user fees were not safeguarded. As a result, the MLD Program was susceptible to waste and abuse; and, mariners were not provided the best possible service.

Oversight of RECs Was Not Performed. RECs are under the authority of the local Marine Safety Offices. Discussions with Marine Safety Office Commanding Officers and other officials revealed oversight primarily consisted of quarterly audits of user fees. District offices provided even less oversight. Also, the two Headquarters Offices involved in the MLD Program, the Licensing and Manning Branch, Office of Marine Safety; and the Marine Personnel Branch, National Maritime Center, developed and interpreted policy matters, but did not provide oversight of REC operations.

Moreover, the MLD Program had little guidance. USCG had not updated the Marine Safety Manual, Volume III, which covers the MLD Program, since 1985, nor issued policy letters, which clarify MLD Program policies, since 1992. As a result, decisions affecting mariner licenses and documents were not always consistent among RECs, and mariners were not getting the best possible service. For example, at one REC a question arose about the need for an applicant to take an examination. The REC contacted Headquarters and another REC office for advice. The Headquarters official stated an exam was required while the official at the other REC stated the exam was not needed.

Management Information System Was Not Implemented. USCG had not fully implemented a management information system for the MLD Program at the time we completed our audit. In CY 1990, USCG began developing an automated system to collect, monitor, and disseminate MLD Program information. This new system was scheduled to be fully operational in CY 1992. However, because of software design problems, the system was delayed until late 1996. Without a fully implemented management information system, mariner records were duplicative, incomplete, or missing; mariners with suspended or revoked licenses could obtain another license; and mariners could work under an expired license without detection. For example, during CY 1994, USCG received over 40,000 document applications, and maintained separate (duplicate) files for each applicant at the local REC and at USCG Headquarters. However, the files at USCG Headquarters lacked complete documentation for mariner endorsements.

Our review of a statistical sample of 272 active license files determined that 15, or 6 percent, of the files could not be located by REC personnel. Furthermore, we selected 30 names from a list of licenses revoked or suspended between 1991 and 1994 and found RECs records indicated 17 of the individuals had active licenses.

In addition, our review of 48 license renewals disclosed that 16 (33 percent) mariners had some type of sea service after their licenses expired. In fact, we accompanied USCG inspectors on a routine vessel inspection. The license of one of the crew members had expired 17 months earlier. Sea service records, certified by the employer, showed the mariner had sailed six times with an expired license for a total of 223 days.

In October 1996, we received updated information from the Chief, Marine Personnel Division, indicating the management information system had been installed in 16 of the 17 RECs, and was about 95 percent operational.

Accurate Inventories of Documents Were Not Controlled. Title 31 U.S. Code (USC) Section 3512(c)(1) requires ". . . internal accounting and administrative controls that reasonably ensure that . . . (B) all assets are safeguarded against waste, loss, unauthorized use, and misappropriation; . . ." The Marine Safety Manual, Chapter 1, paragraph 1.G.16.c. states "An examination inventory log shall be maintained by each unit that administers examinations" and paragraph 1.G.16.b.(1) states "A complete inventory of examination materials shall be conducted semiannually. . . ."

Five of eight RECs visited did not have adequate inventory controls for one or more of the following accountable items: unused licenses, certificates of discharge, or examinations. Inventory records for these items were either not maintained, not accurate, or incomplete. For example, two RECs had no inventory records for all licenses on hand, two RECs did not maintain accurate inventories for certificates of discharge, and two RECs maintained inaccurate examination inventory logs. Also, none of the RECs consistently performed semiannual reviews of examinations as required.

User Fees Were Not Safeguarded. Controls were not adequate to safeguard fees collected by RECs, which totaled $4.6 million in FY 1994. Specifically, user fees were not reconciled or deposited in a timely manner.

User Fees Collected Not Reconciled With Services Rendered or Deposits. The Federal Managers' Financial Integrity Act of 1982, as amended, requires executive agencies to have an internal control system which safeguards all assets from waste, loss, unauthorized use, and misappropriation. According

to Part 6, Chapter 8000 of U.S. Department of Treasury Cash Management procedures, paragraph 8030.20, "Agencies must have adequate internal controls in place to ensure the security of all undeposited funds." Further, as stated in "Standards For Internal Controls In the Federal Government", published by the General Accounting Office:

> To reduce the risk of error, waste, or wrongful acts or to reduce the risk of their going undetected, no one individual should control all key aspects of a transaction or event. Rather, duties and responsibilities should be assigned systematically to a number of individuals to ensure that effective checks and balances exist.

USCG User Fee Collection Policies and Procedures guidance states:

> Strict accounting control begins at the earliest point of collection and continues until final disposition of all user fees. To ensure accountability, fee collection and handling must, by necessity, involve the absolute minimum number of command personnel.

Controls over user fees were not adequate at the eight RECs visited. Five of the RECs did not safeguard fees prior to deposit. For instance, several employees received fees directly from mariners or had access to fees stored in unlocked safes. Further, at one REC, fees received by regular mail were left unattended in an area accessible to mariners. At seven RECs, the fees collected were not reconciled with services rendered to determine if all fees were accounted for. In addition, none of eight RECs had controls to ensure all fees were deposited, since collection clerks both prepared fees for deposit and received deposit confirmations.

<u>User Fees Not Deposited In A Timely Manner</u>. Title 31 CFR 206.6(a) Paragraph b states ". . . an agency is expected to document cash flows . . . and to identify areas that will yield savings after cash management initiatives are implemented." USCG has not evaluated its cash management procedures for license and document fees. All eight RECs visited were using outdated collection procedures which required them to mail user fees to a bank in Atlanta, Georgia.

We contacted a Treasury Financial Management Service Center official to obtain an opinion on REC collection procedures. The official told us RECs would improve their cash management by (l) utilizing credit cards, (2) directing customer payments to a local bank, or (3) depositing payments at a Treasury General Account bank.

Because of control weaknesses, license and document fees could be lost or stolen. At one REC, an employee did embezzle fees. The employee did not turn over mariner fees to the cashier. The embezzlement was only discovered when another employee complained to a supervisor. An investigation determined the employee had embezzled $2,000.

Recommendations

We recommend the Chief of Staff ensure effective operation of the MLD Program by:

1. Providing increased oversight and guidance to the RECs.

2. Fully implementing an automated and integrated management information system.

3. Maintaining accurate inventories of accountable forms.

4. Strengthening safeguards over user fees.

Management Response

USCG concurred with all four recommendations.

For Recommendation 1, USCG officials stated the Marine Safety Manual, Volume III, Marine Industry Personnel was completely overhauled in March 1997. In addition, a USCG Quality Action Team will review the RECs' chain of command and make recommendations for improvement.

For Recommendation 2, USCG officials stated the Merchant Marine Licensing and Documentation System was implemented in January 1997 and improved in June 1997. This system will diminish duplication of effort, improve records maintenance, improve controls over issuance of licenses and merchant mariner documents, and flag suspended or revoked licenses and documents.

Regarding Recommendation 3, the Quality Action Team will review REC operations to identify ways to reduce low value-added functions to free resources to perform necessary administrative functions.

For Recommendation 4, USCG officials stated they are developing safeguards for user fee collections. For example, steps are being taken to ensure collection clerk functions are performed correctly with adequate

oversight. Also, a USCG audit team will review collection operations and procedures at RECs, and identify corrective measures.

Audit Comments

All proposed USCG corrective actions are responsive to our recommendations. For those actions that have not been completed, we will obtain final documentation to ensure full implementation of the recommendations. Corrective actions will be subject to the audit followup provisions of U.S. Department of Transportation Order 8000.1C.

III. OTHER ITEMS OF INTEREST

Program Efficiency. The Report of the National Performance Review issued on September 7, 1993, by Vice President Gore emphasized the need to make the Government work better and cost less. To accomplish this goal, the report stated:

> . . . we will eliminate programs we do not need, the obsolete, the duplicative, and those that serve special, not national interests . . . we will reengineer government activities, making full use of computer systems and telecommunications. . . .

Based on the situations described in findings A and B, the MLD Program could benefit from reengineering to improve its efficiency. USCG could centralize and/or privatize MLD Program functions. For example, 17 RECs plus three sub-centers, widely disbursed throughout the United States and territories are not necessary since half the RECs' work involves processing documents received through the mail and approximately 75 percent of all license and document renewals are handled by mail. Also, original documents for entry-level mariners, which in 1994 represented 85 percent of all documents issued, could be processed by mail since examinations are not required.

Further, through centralization, the time taken to process applications could be better controlled, thus providing improved service to mariners. Currently, the timeliness of service to mariners varies widely among RECs. For example, at the Houston REC, the average time to process applications received in the mail was 3 to 5 days, while it took the New Orleans REC 6 to 8 weeks to process applications by mail.

Also, the workload and productivity of RECs varied widely among RECs. For example, during CY 1994, the New Orleans REC processed 14,023 licenses and documents while the St. Louis REC processed only 740. Similarly, the New York REC processed 631 licenses and documents per full-time employee in CY 1994 while the St. Louis REC processed only 148 per full-time employee.

USCG has recently recognized the inefficiencies in REC operations. After our audit work was completed, the Office of Marine Safety prepared a draft Resource Change Proposal titled "Centralization/Privatization and Reduction of Marine Licensing Functions." This proposal presents alternatives for administering the MLD Program, including such changes as centralizing the processing of renewal applications, adjusting REC staff to reflect new workload, and delegating authority to the private sector to perform functions

such as administering examinations, renewing mariner credentials, and evaluating applicant eligibility. The proposal estimated cost savings up to $3.4 million annually.

In our opinion, USCG could potentially increase MLD Program efficiencies by:

1. Utilizing designated examiners and approved mariner schools to determine if mariners possess skills, knowledge, and judgment to perform their duties in a professional manner.

2. Centralizing processing of applications by mail.

3. Adjusting REC staff to reflect workload.

4. Closing low activity RECs.

Types of Licenses and Documents Issued. USCG issues approximately 88 licenses and documents. Title 46 USC Section 7101(b), states:

> . . . the Secretary . . . (2) may classify the licenses and certificates of registry . . . based on (A) the tonnage, means of propulsion, and horsepower of machine-propelled vessels; (B) the waters on which vessels are to be operated; or (C) other reasonable standards.

Under paragraph (c) "The Secretary may issue licenses in the following classes . . . (1) masters, mates, and engineers, (2) pilots, (3) operators, (4) radio officers." In paragraph (f), "The Secretary may issue certificates of registry in the following classes . . . (1) pursers, (2) medical doctors, (3) professional nurses." Chapter 73 of 46 USC, provides for various endorsements for merchant mariner documents.

Many licenses and documents issued appear overly specialized and restrictive. For example, a mariner applied for a license to operate vessels carrying up to six passengers on the St. Johns River. The license read as follows:

> UNINSPECTED PASSENGER VESSELS AS DEFINED IN 46 U.S.C. 2101(42) UPON THE WATERS SOUTH OF SHADS BRIDGE (ROUTE 16) OF CLAY, ST. JOHNS, PUTNAM, FLAGLER, MARION, VOLUSIA, SEMINOLE AND LAKE COUNTIES, FLORIDA EXCEPTING THE INTRACOASTAL WATERWAYS.

In contrast to USCG's 88 different licenses, other Federal agencies with oversight for transportation licensing have far fewer. For example, the Federal Aviation Administration has only six pilot licenses (Student, Recreational, Private, Commercial, Airline Transport Pilot, and Flight Instructor) and the Federal Highway Administration has only one commercial vehicle operator license.

The need to revise the current license and document structure was recognized in the "Licensing 2000 and Beyond" study. The study suggested only generic third and second mate licenses be issued; the requirement for USCG to issue certificates of registry and radio officer licenses be eliminated; the law covering able seaman unnecessarily presents different levels and needs to be rewritten; and the qualified member of the engine department rating structure needs to be revised to match requirements with current merchant vessel equipment, operations, and staffing. The STCW also suggests a less complicated license structure, with fewer licenses than presently issued by USCG. For example, USCG plans to eliminate the requirement for stewards, not responsible for passenger safety, to obtain a merchant mariner document.

Therefore, USCG should follow through on recommendations in “Licensing 2000 and Beyond” and STCW guidelines, and reduce the types of licenses and documents issued.

Exhibit A

LOCATIONS VISITED

Following is a list of USCG offices and mariner training facilities visited during the audit of the Merchant Mariner Licensing and Documentation Program.

USCG Headquarters

- Office of Marine Safety, Washington, District of Columbia
- National Maritime Center, Arlington, Virginia

USCG Districts

- Eleventh, Long Beach, California
- Seventh, Miami, Florida
- Eighth, New Orleans, Louisiana
- Thirteenth, Seattle, Washington

Marine Safety Offices and Regional Examination Centers

- Alameda, California
- Long Beach, California
- Miami, Florida
- New Orleans, Louisiana
- Baltimore, Maryland
- Portland, Oregon
- Houston, Texas
- Seattle, Washington

Mariner Training Schools

- California Maritime Academy, Vallejo, California
- Marine Safety International, San Diego, California
- Mereld Keys Consulting and Training, Westminster, California
- Merchant Marine Training Services, San Diego, California
- Maritime Professional School, Ft. Lauderdale, Florida
- School of Marine Engineering and Navigation, Dania, Florida
- Sea School, The Law School of the Sea, Ft. Lauderdale, Florida
- Houston Marine Training Services, St. Rose, Louisiana
- Lundeberg School of Seamanship, Piney Pt., Maryland
- Clatsop Community College, Astoria, Oregon
- National Maritime Union, Astoria, Oregon
- Texas A&M Center for Marine Training and Safety, Galveston, Texas
- Texas Maritime Academy, Galveston, Texas
- Fryar's Maritime Services, Vancouver, Washington
- Northwest Merchant Marine Training Services, Seattle, Washington
- Seattle Community College, Seattle, Washington

Exhibit B

MAJOR CONTRIBUTORS TO THIS AUDIT

Following is a listing of OIG staff who participated in the audit of the USCG Merchant Mariner Licensing and Documentation Program:

Robin K. Hunt	Regional Audit Manager
Larry Arata	Project Manager
John Osborn	Auditor-in-Charge
Judy Nadel	Auditor
Larry Plate	Auditor
Terri Ahuruonye	Auditor
James Kane	Auditor
Shevawn Hamilton	Auditor
Petra Rose	Statistician

Appendix
(8 pages)