**DEPARTMENT OF TRANSPORTATION**

**STATEMENT OF MARITIME ADMINISTRATOR**

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**BEFORE THE**

**COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE**

**SUBCOMMITTEE ON**
**COAST GUARD AND MARITIME TRANSPORTATION**

**OF THE**
**UNITED STATES HOUSE OF REPRESENTATIVES**

**ON**
**MARINER EDUCATION AND WORKFORCE**

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Good morning, Mr. Chairman and Members of the Subcommittee. It is indeed a pleasure to be here today to discuss an issue as important as mariner education and workforce. The Maritime Administration appreciates the opportunity to discuss the challenges and opportunities facing the maritime industry in the recruitment, training and retention of qualified mariners.

This is an issue I am familiar with. I graduated from the U.S. Merchant Marine Academy at Kings Point, New York almost 25 years ago. I still remember the excitement of passing my license exam and looking forward to graduation. After four years of school, my fellow classmates and I were anxious to graduate and sail on our merchant marine licenses. However, there turned out to be one significant problem with this expectation: there were almost no seagoing jobs available due to a downturn in the U.S. economy and maritime industry. As a result, I, along with many others, either entered the service or sought whatever maritime-related positions were available.

A tremendous amount has changed since then. Now, U.S. maritime employers are actively recruiting and hiring new graduates from Kings Point and the state maritime academies at California, Great Lakes, Maine, Massachusetts, New York, and Texas. Salaries are up and many seafarers are receiving multiple job offers. Employment opportunities are particularly robust in the offshore energy industry, the inland river system, and in the coastwise trades. The largest single employer of American mariners, the Military Sealift Command, is also aggressively seeking seafarers.

Only months since graduation, approximately 85% of the USMMA and state schools' Class of 2007 is either employed afloat or in the Armed Services and another 12% is employed in the maritime industry.

This is positive news but we are aware that the industry is still facing challenges in recruiting and retaining personnel. Addressing these challenges as well as taking advantage of the opportunities being presented in the international arena are the dual challenges before us today.

Current Maritime Administration Programs

The education of merchant mariners is an essential Maritime Administration responsibility. We must provide the highest quality personnel possible for the complex responsibilities of vessel operations and the demands of economic competitiveness in world shipping, as well as to meet national security needs and to maintain defense readiness. The Maritime Administration meets that need by educating and training young men and women for service in the U.S. merchant marine, in the U.S. Armed Forces, and in commercial activities related to intermodal transportation. The Maritime Administration has several maritime education and training programs.

The Maritime Administration operates the U.S. Merchant Marine Academy (USMMA). USMMA is located at Kings Point, New York. With a total student body of approximately 1000, USMMA graduates around 210 entry level deck and engine merchant marine officers a year. Graduates are obligated to maintain a license as an officer in the merchant marine of the United States for at least six (6) years following the date of graduation from the USMMA as well as serve in the foreign or domestic commerce and the national defense of the United States for at least five (5) years following the date of graduation from the Academy.

In addition, the Global Maritime and Transportation School (GMATS) at USMMA is an education and training arm of the Maritime Administration and a U.S. Department of Transportation (DOT) Learning Center. The mission of the school is to provide advanced education and training for professionals from the maritime community, private sector, government and military. GMATS provides significant Army and Navy training, including the simulation center for the Navy's surface warfare officers. No appropriated funds are used for GMATS; rather, fees are charged for the courses and the school is self-supporting.

The Maritime Administration also supports mariner training at state maritime academies. These schools are located in California, Michigan, Maine, Massachusetts, New York, and Texas. These schools produce a steady stream of almost 700 new licensed officers a year, a number that could grow to take advantage of the increased demand for seafarers. The Maritime Administration

provides training vessels to each of the state maritime academies for use in at-sea training and as seagoing laboratories. The Maritime Administration also provides direct financial support to the state maritime academies for their operations and Student Incentive Payments (SIP) to those students willing to undertake service obligations similar to those of graduates from USMMA.

The Maritime Administration owns and operates a Fire Training Facility in Swanton, Ohio. This facility is available for use by the industry and government entities for basic and advanced firefighting training.

Growing Demand for Mariners

There are reasons for a growing need for mariners. First and foremost is the strong American economy, which continues to need the raw materials, energy and manufactured goods the maritime industry transports so cheaply and effectively. That strong economy has created tight labor markets nationwide and drawn mariners ashore.

We are also experiencing a major recapitalization in practically every segment of the U.S. merchant fleet. The new double-hulled tankers and tank barges, offshore services vessels, ferries and cruise ships, and inland tugs and barges require personnel with advanced training and certifications. This has contributed to increased demand for trained and licensed seafarers to operate these vessels.

While our Nation has a large pool of highly trained licensed and unlicensed mariners, the towing, passenger, and offshore "brown water" operators are reporting shortages of mariners who are qualified and willing to work in these sectors of the industry. However, despite this increased demand, experienced mariners are also retiring or leaving the mariner workforce at a rapid rate due in part to the rising costs imposed on them to upgrade their licenses or advance their qualifications. The passenger industry is also reporting personnel shortages due to the rising costs (merchant mariner documents, drug tests, physicals) of entering the industry as well as from the exodus of qualified mariners who cannot justify the costs of remaining in a heavily regulated industry.

This labor market imbalance is not unique to the United States. The rapid growth in global trade has dramatically increased the worldwide demand for seafarers. Shifting demographics and decreasing interest in sailing have limited the number of new officers from Europe, Korea and Japan. Some industry associations estimate that the licensed officer shortage is currently at 10,000 and will grow as more ships enter the marketplace. Even India, a traditional source of licensed officers for the world's merchant fleets, is examining the use of foreign officers for its domestic fleet because of an acute officer shortage. This international demand has a dual impact on the available mariner labor pool in the United States. On the one hand, it provides new opportunities for U.S. mariners. We want U.S. mariners to be regarded as the best qualified in the world and to be

sought after, as they should be. On the other hand, worldwide mariner demand can attract U.S. mariners away form domestic employment.

Maritime Administration Initiatives

The Maritime Administration is taking action to identify the magnitude of the mariner shortage problem. We are going to conduct a survey of the entire U.S. vessel operating industry to determine where shortages exist. This will serve to verify the anecdotal information we have received and will identify the specific sectors where we need to focus our attention. We are currently awaiting approval to send the survey to the industry for response.

In 2006, the agency established the Mariner Outreach System (MOS), which provides a systematic way to monitor the adequacy of our nation's deep sea qualified merchant mariner pool and to track and maintain contact information and qualifications of mariners. The Maritime Administration has partnered with the U.S. Coast Guard National Maritime Center (NMC) to utilize data from the USCG Merchant Mariners Licensing and Documentation (MMLD) system which is critical to analyze and monitor trends in the mariner population. MOS is an invaluable tool that enables the Maritime Administration and its partners to make valid vessel and human resources projections, identify potential mariner shortfalls, and facilitate crewing of vessels should a mariner shortage occur.

Over 41,000 licensed and unlicensed U.S. mariners have consented to participation in MOS. Additionally, MOS now provides the following capabilities:

- Provides the analysis necessary to monitor the current status of the deep sea mariner pool and the factors affecting that pool.
- Improves the Maritime Administration's ability to understand and communicate with mariners.
- Provides analysis on the QMED (Qualified Member of the Engine Department) population to be used by the NDTA-sponsored working group on mariner availability to determine the cause of the current decline in the QMED population as well as its impact on crewing the surge vessels.
- Provides the capability to track the increase in LNG-qualified mariners.
- Provides up-to-date mariner qualifications, contact data and crewing requirements in a single system that can be accessed by the Maritime Administration (and other customers in a national emergency) when existing crewing practices have exhausted the mariner pool.

We intend to expand MOS to include other industry sectors in addition to deepsea. This will enable us to better track mariner availability and qualifications

in the brownwater area and to disseminate information and communicate with mariners in that sector.

We are also meeting with industry groups to hear firsthand their labor experiences. In fact, we just conducted a meeting with the Offshore Marine Services Association (OMSA). They shared their assessment of the current labor situation and their forecast of future demand in the offshore sector. OMSA is very concerned about mariner shortages and welcomed the opportunity to discuss possible approaches to this issue with the Maritime Administration. On our part, we appreciated their insights and will add their information to our ongoing analysis of the potential shortage problem.

As a related matter, the shipbuilding industry is also experiencing significant labor shortages. The same industry recapitalization with new vessel construction that is creating a demand for mariners is also creating a demand for shipyard workers. The Maritime Administration held a conference in July to which it invited every shipyard in the United States. The attendees overwhelmingly identified worker shortages as a major issue. In response, we reached out to the Department of Labor (DOL) to obtain information about apprenticeship programs and other forms of assistance. We then facilitated a meeting with DOL, the Shipbuilders Council of America and the American Shipbuilding Association. As a result, we are hopeful that the shipbuilding community has a promising avenue to explore which will assist them in meeting their workforce challenges.

We also plan to expand our discussions with DOL into the mariner arena in order to address brownwater shortages. We believe that training opportunities can be developed which could not only reduce the cost to companies for entry level employees but also significantly reduce the cost burden to a mariner of acquiring additional necessary skills.

As a proactive step to address the brownwater mariner demand, we have instituted a policy allowing our maritime academy graduates to fulfill their service obligations to the Government in the brownwater sector of the industry. Previously, service in this sector of the industry did not meet the service obligations for maritime academy graduates. By changing this policy, we have increased the pool of mariners available for service in the inland and offshore industries.

We are active participants in major working groups that focus on mariner issues. For example, we participate in the NDTA working group on unlicensed engineers and various USCG advisory committees that address a myriad of mariner issues facing the industry. We are also exploring an initiative to work with USCG to obtain credit for Navy sailors for their Navy training which will allow them to transition easily into a merchant marine career once they retire from the Navy.

We have embarked on an effort to increase cadet billets on vessels. These billets are essential to our training programs because without sufficient sea time cadets cannot take the examination to become a merchant marine officer. This last Monday, I signed, on behalf of the Maritime Administration, an agreement with Overseas Shipholding Group, Inc, (OSG) that will provide training

opportunities for American maritime academy cadets on board OSG's international vessels. This public-private partnership is the first formal agreement to make available on-board training billets in the international commercial fleet for U.S. maritime academy cadets. Under the terms of the agreement, cadets from the U.S. Merchant Marine Academy and all six state maritime academies will be able to obtain work experience and training on board OSG vessels. OSG is a market leader in global energy transportation services for crude oil and petroleum products in the U.S. and International Flag markets. OSG's owned, operated and newbuild fleet totals 144 vessels.

In its recently completed realignment, the Maritime Administration created the Office of Maritime Workforce Development. This office is responsible for the management and development of policy and plans for the recruitment, training and retention of maritime workers both ashore and afloat. As well as working with DOL on programs to alleviate the current shortage of shipyard workers, the office is developing secondary school programs to introduce young Americans to the opportunities presented by a career in the maritime industry.

I would like to address this further. It is important to recognize that career opportunities in the maritime industry are not widely known among youth and young adults. Therefore, the Maritime Administration has embarked on a campaign to raise awareness about career and employment opportunities in the industry. Through the years, we have developed and implemented initiatives with a youth and young adult focus to familiarize them with maritime career paths, educational institutions, and potential resources in order to attract them to career opportunities in the maritime industry. To achieve this, we participate in a number of school events and activities, including career fairs and trade expositions.

Most recently, my staff participated in a discussion group at the Baltimore City Maritime Industries Academy. Chairman Cummings and representatives from various maritime industry organizations were also there. The group came together in June of this year to discuss ways to best structure the USMMA's curriculum with a specific focus on maritime related studies. As a result, Maritime Administration staff members as well as members of the maritime community will serve as guest speakers through the 2007-2008 school years to raise awareness among students about the importance of the maritime industry and the employment and training opportunities for U.S. merchant mariners. As members of the maritime community, we are committed to further assist the Maritime Industries Academy, in coordination with Chairman Cummings' office, in formalizing the Academy's structure to support a strong maritime curriculum for our future young leaders.

The Maritime Administration has also been involved for many years in supporting the interest and training of young men and women who desire to go to sea as a career after high school. A number of new programs and training institutions have developed around the country to train and assist younger students in

pursuing maritime careers. The agency is supporting the Ship Operations Cooperative Program in its research study to identify middle and high school maritime institutions and programs around the world to document the successes and failures of various programs, develop best practices and link industry, government and local schools for future support.

The Maritime Administration also plays a major role in the development and certification of mariner security training standards which have become so critical as part of the war on terror. Training courses for security must be approved by the Maritime Administration, and we regard this as a vital part of our responsibilities.

Most recently, we have begun to develop proposed revisions to the regulations governing the USMMA and the state academies. These regulations have not been updated in over 20 years, and we expect to propose significant changes, particularly in allowing graduates to meet their service obligations in the brownwater sector.

LNG Opportunities

I'd now like to focus on a specific area of opportunity, the expanding Liquefied Natural Gas (LNG) market and highlight some recent successes we have experienced. By the year 2030, the United States' demand for natural gas is projected to increase by 20 percent to 26.1 trillion cubic feet per year.[1] Industry analysts also project that as demand increases, domestic production will decrease and account for only 79 percent of consumption. To accommodate this shortfall, the U.S. will need to increase the amount of natural gas imports to 4.4 trillion cubic feet per year in 2030, an increase of 750 percent.[2]

The importation of LNG will serve to relieve the nation's growing energy needs by diversifying energy sources. Deepwater ports are necessary to enhance the nation's ability to import LNG from worldwide sources by oceangoing LNG tanker vessels. Notably, advances in LNG tanker size, the increased number of LNG carriers in the worldwide fleet, and improvements in LNG transfer technology have made importing LNG increasingly more efficient and cost effective. Increased consumer demand for LNG will clearly require new and expanded terminal infrastructure as well an increase in the nation's pool of U.S. mariners to serve on these sophisticated vessels.

Strong competition from China, Japan, and Korea for both energy resources and mariners has led to intense competition within the LNG industry. It has also led to the lack of a single U.S.-flagged LNG vessel. Consequently, few U.S.

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[1] The data is from the Energy Information Administration's *Annual Energy Outlook, with projections to 2030.*

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mariners have the opportunity to gain vital hands-on experience in this growing industry. Recent industry reports have concluded that the number of mariners with LNG experience is rapidly declining. It is estimated that as many as 3,700 to 5,000 additional mariners may be needed by the year 2008.[3] If the shortage of mariners is not addressed, the magnitude of this problem could negatively impact the LNG industry's excellent safety record.

This shortfall problem is not unique to the LNG shipping industry, but is rather a reflection of the manpower crisis which faces the global shipping industry that I referred to earlier. Analysts have further asserted that the loss of experienced LNG officers is expected to be a worldwide problem by 2010. This loss of experienced mariners coincides with the growth of the global LNG carrier fleet. Over the last 5 years, the LNG carrier fleet has grown by 73 percent, from 128 to 222 vessels[4]; and by the year 2010, an approximate 130 additional LNG vessels are scheduled for delivery to service the global LNG trade industry.[5] This expanded fleet will require as many as 10,000 additional seafarers, of whom almost 3,000 will be licensed officers.[6]

The world's maritime community must meet this growing challenge without compromising safety and competency levels. The competence level of mariners is the most critical element in the transportation of LNG. As such, there is an immediate need to educate and train qualified U.S. LNG officers to meet the demands of this expanding industry.

Recognizing the need to increase the presence of U.S.-flag vessels and U.S. mariners in our worldwide LNG industry, Congress amended the Deepwater Port Act through the Coast Guard and Maritime Transportation Act of 2006, directing the Secretary of Transportation to develop and implement a program to promote the transportation of LNG to the United States on U.S.-flag vessels. Under this amendment, the Maritime Administrator, by delegated authority from the Secretary, must give top priority to all deepwater port applicants that commit to utilize U.S.-flag vessels in their port operations. The Maritime Administration interprets this requirement to include both domestic and foreign-flag LNG vessels providing gas to deepwater port facilities licensed by the Agency.

The Maritime Administration supports the premise that U.S. mariners should play an integral role in the importation of LNG to ensure and provide the highest level of safety and security to our nation's ports. Because of this, and in response to these legislative directives, the Maritime Administration has developed a voluntary Deepwater Port U.S. Manning Initiative to encourage the employment of highly trained and skilled U.S. mariners to meet the current and forecasted

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[3] Reported by Reuters, June 20, 2006.

[4] Colton Company, *Summary of LNG Carrier Construction Activity in 2006.*
[5] Colton Company, *The Orderbook of LNG Carriers* (as of July 11, 2007)
[6] Financial Times, *Officer Cadre Shrinks as Fleet Grows*, June 19, 2006.

demand for professional mariners in the international LNG shipping industry. The agency strives to ensure that reliable supplies of U.S citizen mariners are available to serve on LNG vessels calling at all U.S. ports.

Currently, the Maritime Administration is working with the USMMA, state maritime academies, and other training facilities to develop and expand innovative educational programs for U.S. mariners. The goal is to provide immediate employment opportunities for entry-level mariners, both licensed and unlicensed, into the LNG industry upon graduation, and to participate in course development for the retraining and/or recertifying of current mariners who are sailing on vessels other than LNG – thus enabling the transition into LNG service.

Over the past year, we have begun to see tangible results from our efforts to establish innovative public-private partnerships with deepwater port license applicants. In December 2006, the Agency announced a partnership with SUEZ Energy – the first official collaboration of its kind in the international LNG industry. Under this agreement, SUEZ committed to train and employ U.S. citizen officers, cadets, and unlicensed mariners aboard their tanker fleet and at both their planned deepwater ports proposed for construction and operation off the coasts of Boston and Florida. Another recent deepwater port applicant, Excelerate Energy, entered into a similar agreement for its planned Northeast Gateway deepwater port to be located in Massachusetts Bay, and its existing LNG deepwater port, Gulf Gateway, located in the Gulf of Mexico. Additionally, Excelerate has established a partnership with Texas A&M University to place students and instructors on Excelerate Energy's ships for training and educational purposes. Further, in January 2007, the Louisiana-based applicant, Freeport-McMoRan Energy, committed to work with the Maritime Administration to develop programs to train and employ U.S. mariners on LNG vessels that will service the Main Pass Energy Hub port planned for construction and operation off the coast of Louisiana.

More recently, the Maritime Administration entered into an agreement with Woodside Energy to register two new LNG regasification vessels under the U.S.-flag national ship registry. Although the vessels will be constructed overseas, they will be fully manned with U.S. citizen crews upon delivery to the United States. These vessels will service the OceanWay deepwater port terminal planned for construction and operation off the coast of Southern California. More than 90 American officers and crew will be employed on each of the vessels calling at the OceanWay port. Woodside Energy has also made additional commitments to provide training and employment opportunities for U.S. officers, cadets, and unlicensed mariners aboard their entire tanker fleet.

It is important to note that from an economic and competitive perspective, the growing worldwide shortage of trained and qualified LNG ship officers has created an opportunity for U.S. officers to work aboard foreign-flag LNG vessels. International vessel operators are dramatically increasing the wages and benefits

offered to foreign officers to keep or attract their services, thus narrowing the gap between the wages and benefits paid to Americans and those paid to their foreign counterparts.

The Maritime Administration will continue to reach similar voluntary agreements with our pending and future deepwater port applicants and all energy companies serving the nation's international maritime markets. It is our ultimate goal to provide adequate job opportunities for Americans while ensuring the safe, secure and efficient importation of LNG to our Nation's shores.

Conclusion

Mr. Chairman and members of the Subcommittee, we are now seeing a perfect storm in which the demand for mariners, particularly those who are licensed, is increasing while the supply may not be keeping pace. This provides incredible opportunities to the young men and women who are just beginning their careers as well as those who are already in the industry. We welcome the career paths open to our young people but, at the same time, recognize that they may contribute to shortages in industry sectors such as brownwater

The Maritime Administration stands ready to pursue other initiatives to address mariner issues such as developing training courses necessary for brownwater operation and analyzing the tax inequities facing U.S. mariners in the international trade

I look forward to assisting you in addressing an issue that is vital to our economic and national security. I would like to thank the members of the Committee and Chairman Cummings for your leadership in recognizing the importance of this issue and in holding this hearing today. I will be happy to answer any questions that you might have.

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