SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION
SUBCOMMITTEE ON SURFACE TRANSPORTATION AND MERCHANT MARINE INFRASTRUCTURE, SAFETY AND SCURITY

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"Protecting Our Shores from Oil Spills – Operational Procedures and Ship Designs"

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On behalf of
American Pilots' Association

Good afternoon Mr. Chairman and members of the Subcommittee. I am Paul Kirchner, Executive Director – General Counsel of the American Pilots' Association. The APA appreciates the invitation to testify today to discuss pilotage in the United States and the role US pilots play in the prevention of oil spills from vessels.

The APA has been the national association of the piloting profession since 1884. Today, there are approximately 1200 individual pilots working in the 60 APA-member pilot groups. These APA members pilot about 95% of all oceangoing foreign trade vessels moving in US waters. Virtually all state-licensed pilots belong to an APA member group as well as all of the US Coast Guard registered pilots working in the Great Lakes.

The pilotage system in this country is a system of state regulation. State pilots are also subject to federal navigation safety laws, hold federal pilot licenses, and work closely with the Coast Guard. In every coastal state, however, the primary source of regulatory oversight of pilotage operations is a state governmental authority, typically a pilot commission. This system of state responsibility reflects a specific judgment made by Congress in 1789 that pilotage is best regulated at the state and local level. The judgment has been reaffirmed many times since, and the state pilotage system has served, and continues to serve, the interests of this country extremely well. The US has the safest, most technologically advanced, and most efficient system of pilotage in the world.

Any system, however, should constantly seek improvement. Indeed, one of the major benefits of state and local level control of pilotage is the ability of the system to evolve and adjust to changing conditions and developments in vessel navigation. It also is able to respond quickly to lessons learned from accidents. Although vessel accidents are very rare, when an accident does occur, pilots, pilot associations, and state pilotage authorities recognize the need to examine their practices to see if they can do a better job. The COSCO BUSAN incident presents US pilotage with that challenge. What can the piloting profession and the pilotage system learn from COSCO BUSAN, and are there changes that can be made to help prevent similar accidents in the future?

Despite considerable speculation and opinions offered in news reports and other sources, we do not yet know what happened on the bridge of the COSCO BUSAN on the morning of November 7, 2007. Clearly, something went wrong in the navigation of that vessel. Typically, it takes a combination of things to produce this kind of result. In Bridge Resource Management terms, it appears that there was a lack of situational awareness and a chain of errors. Modern bridge procedures, including cross-monitoring and information sharing, are designed to prevent such problems from occurring, and if they do occur, from reaching a point where the result is an accident. Until we know exactly what errors were made and the specific reasons for the lack of situational awareness by the pilot and the bridge crew, we will not know why the normal fail safe mechanisms did not work on the COSCO BUSAN that morning.

We do know, however, that the accident and its causes are being thoroughly investigated by a number of bodies. The Coast Guard and the NTSB are conducting casualty investigations to determine the causes of the accident. The Department of Homeland Security's Office of Inspector General is investigating certain aspects of the accident and the resulting oil spill. The US Attorneys office is reportedly considering criminal charges.

The pilot's performance is being examined by the state authorities. His state license was summarily suspended after the accident by the Board of Pilot Commissioners for the Bays of San Francisco, San Pablo and Suisun. On December 6, 2007, the Pilot Commission's Incident Review Committee filed an "accusation" against the pilot charging him generally with negligence and listing a number of asserted errors including his decision to get underway despite the fog conditions and a loss of situational awareness during the voyage.

This is a formal license suspension or revocation proceeding under state statute and commission regulations. The matter is set for a hearing before an Administrative Law Judge. The hearing, which the ALJ has estimated may take 15 days, was recently postponed until September due to difficulties that the pilot and his attorneys are having securing evidence necessary for his defense. The ongoing criminal investigation was cited as a source of those difficulties. Meanwhile, the pilot's state license will remain suspended.

The pilot has also surrendered his federal pilot license to the Coast Guard. That action was taken in response to a notification from the Coast Guard that it has determined that he is not medically fit for the duties of a pilot, based on information that he had previously disclosed in connection with the Coast Guard's normal medical review program for pilots and other mariners. The Coast Guard has indicated that it will not return the license unless the pilot demonstrates that he is fit for duty.

In addition to these investigations and actions taken against the pilot, various components of the pilotage system have already taken some steps to respond to several of the immediate issues that have been raised by the accident. For example, the San

Francisco Bar Pilots Association is conducting a complete review of its operations. It has developed a new set of guidelines for moving in fog. Those guidelines have been submitted to the Coast Guard, and the expectation is that the Association and the Coast Guard will jointly submit them to the local Harbor Safety Committee for adoption and implementation in the region. The Association has established a committee of its members to work with a similar committee established by the San Francisco Pilot Commission to review the content of the Commission's training programs, particularly continuing training.

The Pilot Commission has set up a Navigation and Technology Committee to study carry aboard electronic piloting units. The committee has been directed to issue a report to the Commission by June 1 with recommendations on whether all pilots should be required to use such units, which types of units and capabilities should be selected, how and when they should be used, and what training should be required. Over the last two months, that committee has evaluated and "test-driven" several different types of portable units, ancillary equipment, and navigation software programs.

The Pilot Commission has also initiated a thorough review of its operations. The California State Legislature is considering several bills calling for reviews of, and in some cases changes to, the Commission's procedures and operations.

The American Pilots' Association has conducted an in-depth survey of its member groups regarding their use of carry aboard units. Results of that survey should be available in another week or two. The APA also expects to issue a "Best Practices" paper on pilot carry aboards in the same time frame. The Best Practices project was begun a number of months before the COSCO BUSAN accident, but the accident has accelerated the project's schedule.

As more is learned about the details of the accident and its causes, there will be additional actions by various segments of the US pilotage system – pilots, pilot associations, pilotage commissions, state legislatures – in response to the lessons of the COSCO BUSAN incident. The APA and its pilot members are also ready and willing to work with Congress and the Coast Guard to find ways to improve the national marine safety programs, upgrade the infrastructure associated with those programs, and generally enhance navigation safety.

In order to assist the Subcommittee in its review of COSCO BUSAN and the subject of preventing oil spills from vessel casualties, we are providing the following information about pilotage in the US. The information is particularly addressed to questions that have been raised by the COSCO BUSAN incident.

US Pilotage – An Overview

Pilotage of international trade vessels in the United States is regulated by the individual states, each of which maintains a pilotage system that is suited to the

particular needs and circumstances of its own waters. In 1789, the first Congress of the United States enacted a law giving the states the right to regulate pilotage in their waters. That created the state pilotage system, which remains in effect today. Every foreign-flag vessel and every United States-flag vessel engaged in international trade moving in the waters of a state is required by the state to take a pilot licensed by the state.

Although each state has its own pilotage statute and regulatory system, there are substantial similarities in their systems. In all but one state, pilots are licensed and otherwise regulated by a pilot commission, which is a governmental entity that is part of a state agency or of a local municipality or port authority. Most pilot commissions have a mixed membership composed of representatives of ship operators, port interests, environmental groups, pilots, government agencies, and the public. The commission selects individuals for admission to a training program, oversees the training process, issues licenses, investigates accidents involving pilots or complaints filed against pilots, and oversees various aspects of the pilotage operation.

Each U.S.-flag coastwise vessel is required by federal law to use a pilot holding a federal license issued by the Coast Guard. Unlike the comprehensive state systems, federal regulation is limited to licensing and disciplinary enforcement. The federal license has much lower qualification requirements and standards (for example, no prior training as a pilot or continuing training is required) than a state license and is similar to a pilotage exemption certificate issued under systems in other parts of the world. Each state pilot also holds a federal license, however. In this respect, the federal license serves as a national minimum standard.

State and Federal License Jurisdiction

The states and the Coast Guard have reciprocal and mutually supportive roles in overseeing the professional activities of pilots. This is a carefully balanced system equally accommodating the need for comprehensive state pilotage regulation as well as the important federal marine safety functions of the Coast Guard.

When a state pilot is working on a vessel subject to a state compulsory pilotage requirement (i.e., a foreign flag vessel or a US-flag vessel operating under a registry endorsement), the pilot is considered to be "working under the state license." As a consequence, the state pilotage authority (the applicable Pilot Commission) has the primary role in overseeing the pilot's performance. The state authority will investigate the pilot's performance and has a range or available remedial or disciplinary actions, including letters of warning, fines, remedial training, and suspension or revocation of the state license.

The Coast Guard also has several forms of disciplinary measures that it can take against a state pilot for actions by the pilot while working under the state license. For example, the Coast Guard can initiate a license suspension or revocation proceeding against the pilot's federal license if the pilot committed an "act of

incompetence relating to the operation of a vessel," 46 USC 7703(A)(4), even if that act occurred while working under the state license. Under Coast Guard regulations, "incompetence is the inability on the part of a person to perform required duties, whether due to professional deficiencies, physical disability, mental incapacity or any combination thereof." 46 CFR 5.31. This license authority in the case of incompetence, for example, is the basis for the demand that the Coast Guard made for the surrender of the COSCO BUSAN pilot's license. The Coast Guard also has a wide range of civil penalties that can be assessed for a variety of violations and actions, including the negligent operation of a vessel.

When a state pilot is working on a vessel subject to the federal compulsory pilotage requirement (46 USC 8502 and 8503), the pilot is considered to be "working under the federal license." In that case, the Coast Guard is primarily responsible for overseeing the pilot's performance and taking appropriate responsive action, including letters of warning, civil penalties, remedial training, and suspension or revocation of the federal license. In most states, the state pilotage authority may also take action against the pilot and his state license.

There is one important limitation on the Coast Guard's authority to suspend or revoke a state pilot's federal license. Under 46 USC §7703, the Coast Guard can suspend or revoke a federal license for negligence, misconduct or a violation of Coast Guard marine safety regulations only if the asserted offense occurred while the holder was acting under the authority of the federal license. In the case of a state pilot, this federal law bars the Coast Guard from proceeding against the federal license of the pilot for asserted offenses of those types while working under the pilot's state license. This result is a necessary consequence of the system of state pilotage that has existed in this country for over 215 years.

Removing that limitation to permit the Coast Guard to proceed against a state pilot's federal pilot license for all types of asserted offenses while acting under the authority of the pilot's state license would interfere with and undermine the state's regulatory role. Virtually every state pilot is required by state statute, commission regulation, or association rules to have a federal pilot license. The loss of a state pilot's federal license, therefore, would effectively mean the loss of the pilot's ability to work as a state pilot. That would have the Coast Guard, not the state pilotage authority, exercise the ultimate control over state pilots.

The courts have recognized the critical role that this limitation on the Coast Guard license authority plays in preserving the state pilotage system and the destructive impact that removing the limitation would have. For example, in Soriano v. United States, 495 F.2d 681 (9th Cir. 1974), the U.S. Ninth Circuit Court of Appeals struck down a Coast Guard attempt to avoid the limitation and proceed against the federal pilot license of a pilot licensed by the State of Washington. The Coast Guard tried to use its regulation, currently at 46 CFR §5.57(a), providing that an individual is considered to be acting under the authority of a federal license when the license is required by law or is a condition of employment (a Washington pilot is required by

law to hold a federal pilot license). The Court held that the regulation could not be used to obtain jurisdiction over a state pilot:

> *The Commandant's condition of employment regulation leads to precisely this result: it affects the power of the states to regulate pilots of foreign-flag, merchant vessels in state waters. ... [E]ven though it chooses to require a federal pilot's license as a condition for the issuance of a state license, the state of Washington still might not wish to see its own pilots investigated and reprimanded for alleged misconduct while serving as compulsory pilots pursuant to state law.*
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> *... The Commandant's regulation, which purports to place state pilots under Coast Guard discipline, infringes upon an area specifically reserved by Congress for 185 years for regulation by the states and acknowledged by the Supreme Court for more than 120 years to be a subject of peculiarly local concern. See Cooley v. Board of Wardens of Port of Philadelphia, 53 U.S. (12 How.) 299, 13 L.Ed 996 (1851). The regulation is void.*

Id. at 684.

Another attempt to avoid the limitation of 46 U.S.C. §7703 was struck down two years after the Soriano decision in Dietze v. Siler, 414 F. Supp. 1105 (E.D. La. 1976). Again, the importance of the limitation in preserving the state pilotage system was recognized. The Dietze court observed:

> *Thus retained [in the predecessor of 46 U.S.C. § 7703] is the traditional right of each state to enforce the standards of state pilotage as to acts under state licenses, free from the possibility that the same acts will be subject to federal investigation and the same pilots subject to sanction under federal law.*

Id. at 1113. In addition, the court described the limiting phrase, "acting under the authority of his license" in the predecessor of 46 U.S.C. § 7703 as the product of the "historical attempt by Congress to preserve the integrity of state regulation even while promoting public safety." Supra at 1112.

This rather limited limitation on the Coast Guard's license authority in the case of state pilots has no effect on marine safety. The Coast Guard retains considerable authority to take action against a state pilot, including the very important authority to take away the federal license of a state pilot who is incompetent -- physically, mentally or professionally. Moreover, as a practical matter, the possibility of an action against a state pilot's federal license for negligence or misconduct would provide no additional incentive for doing a good job. There is no lack of severe consequences for a pilot who is involved in an accident or has a substandard performance during a piloting assignment. State disciplinary and license actions,

federal and state civil penalties, uninsurable damages claims in civil suits, criminal charges, and potentially crippling legal fees provide incentive enough.

The reality is that every time a pilot boards a ship, he or she knows that a moment's inattention, complacency, confusion, or a wrong decision could lead to a potentially catastrophic vessel casualty with hundreds of millions of dollars in damages and/or loss of life, the end of the pilot's career, and financial ruin for the pilot and the pilot's family. Coupled with the physical dangers involved in the job of piloting, no other occupation or profession presents such risks to its practitioners in the normal course of their activities.

Role of the Compulsory Pilot

In 1997, the Board of Trustees of the APA adopted the following as the official statement of the piloting profession on the role of the compulsory state pilot and the relationship between the pilot and the master and bridge crew of a vessel. This statement has guided the profession ever since:

Navigation of a vessel in U.S. pilotage waters is considered to be a shared responsibility between the pilot and the master/bridge crew. The compulsory state pilot directs the navigation of the vessel subject to the master's overall command of the vessel and the ultimate responsibility for its safety. The master has the right, and in fact the duty, to intervene or to displace the pilot in circumstances where the pilot is manifestly incompetent or incapacitated or the vessel is in immediate danger ("in extremis") due to the pilot's actions. With that limited exception, international law requires the master and/or the officer in charge of the watch to "cooperate closely with the pilot and maintain an accurate check on the ship's position and movement."

State-licensed pilots are expected to act in the public interest and to maintain a professional judgment that is independent of any desires that do not comport with the needs of maritime safety. In addition, licensing and regulatory authorities, state and federal, require compulsory pilots to take all reasonable actions to prevent ships under their navigational control from engaging in unsafe operations. Because of these duties, a compulsory state pilot in the U.S. is not considered a member of the "bridge team." Nevertheless, a pilot is expected to develop and maintain a cooperative, mutually supportive working relationship with the master and the bridge crew in recognition of the respective responsibility of each for safe navigation.

Pilots and Advanced Navigation Technology: Carry Aboard Electronic Units

APA-member pilots are supporters of advanced navigation technology, extremely knowledgeable about it, and experienced practitioners in its use. Whether through the

use of their own carry-aboard electronic navigation units or of equipment installed on ships' bridges, today's pilots understand and are familiar with the latest types of advanced navigation technology.

With their knowledge and training, and their experience seeing all different types of ships with all different types of navigation technology, pilots are in a unique position to assess the strengths and weaknesses and the benefits and dangers in modern navigation technology. Pilots bring a very practical approach to navigation technology, one firmly rooted in what actually happens on the bridge of ship and what they need in order to make the best navigation decisions. This then can be described as a dual attitude of pilots towards advanced navigation technology. They support and embrace technology but with a full awareness of the cautions that must surround its use.

There is one area in particular in which US pilots have distinguished themselves in the practical application of advanced navigation technology. APA-member pilots in the US have been the world leaders in the developing practice of pilot carry aboard units (also referred to as portable piloting units or PPUs). State pilots on the Bay and River Delaware are believed to have been the first pilots in the world to use carry aboard units over 25 years ago.

The APA has played a major role in supporting this program in the US. The association has sponsored and conducted research on the subject. It has also made recommendations on the selection and use of carry aboard units as well as on training in not only the operation of the units but also in their incorporation into piloting practices and effective Bridge Resource Management principles.

Today, approximately 55-60% of the 1200 pilots belonging to APA member pilot groups use some type of carry aboard unit. These pilots, often in conjunction with state pilotage authorities, have made the decision to use such units after considerable research and a determination that a particular type of unit could be of benefit as an additional source of navigation information under the conditions of piloting in their area.

In places where units are not used today, it is because the pilots there have made an informed professional judgment that such a practice would not be appropriate at this time with the types of units currently available. As the technology evolves, the quality of electronic data improves, and new units become commercially available, the local pilots may decide to use carry aboard units at some point in the future. There will probably remain some locations, however, where carry aboard units will never be appropriate. The units may not be necessary or provide any benefits under the local conditions and types of piloting required or they could even have a negative effect on safety.

Even where pilot groups use the units, including places where they have used the units for many years, the units are not used for every piloting assignment or task. For example, pilots might not use the units for shift jobs or other short movements,

particularly in clear weather, or during certain operations, such as docking and undocking. The units may not be necessary or helpful for such assignments or may act as an unsafe distraction during an operation that requires the pilot's full attention to other navigation demands. Also, units are not used in some locations where the hydrographic data or satellite signal on which the unit depends may be unreliable.

A large part of the success of the pilot carry aboard program in the US can be attributed to the fact that it has been driven by the pilots themselves. The program has grown incrementally as pilots have developed units based on their intimate knowledge of the particular conditions and needs in their area -- not on regulatory mandates or vendors' marketing claims. Pilots have also learned how best to use the units. For these reasons, the pilots are wary of potentially overwhelming governmental regulation, especially at the national level, which could seriously interfere with the growth and development of the program.

There are ways, however, for the federal government to support the piloting profession's carry aboard program. The Coast Guard, for example, should be provided with adequate resources to maintain the DGPS and AIS infrastructure on which most units depend for their raw data. The recent decision by the Administration to request funding for a fully deployed eLoran system is a welcome development. A robust eLoran would provide a valuable terrestrial backup source of position, navigation and timing (PNT) data on which AIS and pilot carry aboard units depend. In addition, NOAA should be provided with full funding for a national program of Physical Oceanographic Real Time Systems, which provide valuable tide, current and water level data. In several places, pilots are seeking to have PORTS data included in their unit displays. That development is threatened, however, by the persistent underfunding of the PORTS program.

Pilots and VTS

Pilots, as the principal users of VTS services and, for most vessels, the point of contact between the VTS and the vessel, value the information provided by VTS systems. That information is one of the resources that pilots use in maintaining situational awareness and making critical navigation decisions. The primary mission of the VTS, therefore, is to give pilots and other mariners the information that they feel is useful in making those decisions. Other functions and benefits, such as traffic management, traffic monitoring, interventions in navigation emergency situations, or other regulatory activities, are secondary, although important.

Except in emergency situations or hazardous conditions, navigation decisions must be made on the bridge of the ship by the master, pilot, and other mariners involved in directing the movement of the ship. Nevertheless, there may be specific circumstances where the current role of VTS and its range of interactions with a vessel could be expanded. The APA and its members are certainly willing to discuss with the Coast Guard ways in which the VTS and pilots could better work together to prevent vessel

accidents, particularly in conditions such as fog, when own-ship and other-ship position information may be compromised.

It would be unrealistic, however, to think that vessels could ever, as a normal practice, be safely navigated by personnel in a VTS center. Information available from the current technology in VTS centers, particularly with respect to AIS indications of vessel location, is simply not accurate or reliable enough to justify attempts at directing a vessel's navigation. As result, interventions from a VTS center should be kept to a minimum and reserved for true emergencies and hazardous conditions where the normal risks of such action are outweighed by the exigencies of the situation.

Even if the quality and quantity of the equipment in a VTS were significantly improved over what is found today, there is no way that the virtual information available in the VTS center could provide situational awareness of all the forces that affect a vessel or must be considered in making correct navigational decisions. Simply, the view from a VTS center is much different from the view from the bridge of a vessel.

Watchstanders in Coast Guard VTS centers are not mariners and have little, if any, understanding of hydrodynamic or mechanical forces affecting a vessel, shiphandling techniques, or navigation practices. This is not meant as a criticism of VTS personnel – they are information providers, not vessel navigators. Even if the personnel were replaced or supplemented with experienced mariners who receive VTS training, it would still not be a safe practice to direct a vessel's navigation from a VTS center.

Thank you Mr. Chairman. I hope the information we have provided is helpful, and I would be pleased to answer any questions that the Subcommittee may have.