

**REPORT**  
**ON THE**  
**DISAPPEARANCE OF THE U.S. FLAG**  
**FREIGHTER SS *POET* IN**  
**OCTOBER 1980**

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**SUBMITTED BY**  
**HON. WALTER B. JONES, *Chairman***  
**COMMITTEE ON MERCHANT MARINE AND**  
**FISHERIES**



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On October 24, 1980, the United States flag freighter S.S. POET left Port Philadelphia with a crew of 34 men and a cargo of U.S. Agency for International Development (AID) corn bound for Port Said, Egypt. The POET has not been heard from since that day; it vanished without a trace, leaving no clue to her fate.

In the first days of the 97th Congress, after reviewing the information available on the loss of the POET, Chairman Walter B. Jones ordered a full investigation, including public hearings, into the disappearance of the vessel. This investigation was in keeping with the mandate of the Committee on Merchant Marine and Fisheries, which is empowered by the U.S. House of Representatives, with jurisdiction over incidents involving the loss of U.S. shipping and U.S. merchant seamen. In the case of the POET, the specific jurisdiction, as set forth in the Rules of the House of Representatives Citation of Rule, is as follows:

1. Merchant Marine generally.
2. Coast Guard, including lifesaving service, lighthouses, lightships, and ocean derelicts.
3. Measures relating to the regulation of common carriers by water and the inspection of merchant marine vessels, lights and signals, lifesaving equipment and fire protection on such vessels.
4. Merchant marine officers and seamen.
5. Navigation and the laws relating thereto.
6. Registering and licensing of vessels.

The Committee investigation was in addition to inquiries already underway by the U.S. Coast Guard (USCG) and the National Transportation Safety Board (NTSB), who are charged with determining the cause of a marine accident. The Coast Guard's report was issued on April 12, 1982; that of the NTSB on June 23, 1981. The Committee will seek to use this entire body of information to develop legislative initiatives and policy recommendations for improving maritime safety. In this way, the Committee hopes to respond to the plea articulated by a retired Coast Guard officer who lost his son on the POET, who said, ". . . At least don't let my son die in vain. Find out what went wrong and do something about it."

FACTUAL SUMMARY OF EVENTS

On October 17, 1980, the POET, owned by the Hawaiian Eugenia Corporation of New York, arrived at Cape Henlopen, Delaware, and was brought up the Delaware River by two tugs to a layberth at Girard Point Pier #2, in Philadelphia, Pennsylvania. Later that day, U.S. Department of Agriculture and National Cargo Bureau (NCB) inspectors boarded the POET and found that the holds contained water and rust and ordered them to be cleaned and repaired prior to the loading of cargo. The NCB surveyor also discussed with the Chief Officer the stowage factors to be used and suggested a change in his computation.

On October 18, a Coast Guard Boarding Inspector (a Reserve member who became a qualified Boarding Officer in August 1980) cited the POET for not having a required LORAN-C navigation system and for an absence of insulation under some drums and gas tanks. A follow-up check on October 21 showed the LORAN-C being installed but the drums and tanks still improperly stored.

In response to difficulties encountered by the radio operator, who had just completed his first solo voyage since receiving his license, an RCA representative was called to the POET on October 18 to service a radio receiver. While on board, he also replaced a resistor in the transmitter and serviced the other radio equipment.

On October 20, the cargo holds were reinspected by the Department of Agriculture and the NCB, and found ready for loading.

On Tuesday, October 21, the POET was moved to Pier #3, and the loading of the AID shipment was begun. Loading of 13,500 long tons of corn was completed in the late afternoon of October 23. The cargo was valued at \$2.1 million. The NCB issued a "Certificate of Loading" stating that the loading of the grain had been monitored and its stowage was "in accordance with the regulations of the Commandant, U.S. Coast Guard."

At 1:00 a.m., on October 24, the docking and river pilots boarded the POET to guide her down the Delaware River. Both pilots reported a slow response to turns in shallow water, but the river pilot stated the POET steered normally once it reached deeper water.

The NCB, the owner's representative, the master, and the pilots all noted that the POET's bow was two feet lower than the stern when it left Philadelphia.

The POET filed its USMER\* departure message at 9:00 a.m. as it passed Cape Henlopen, stating it was planning a speed of 15 knots on a rhumb (straight) line course to the Straits of Gibraltar and estimating its arrival there on November 3 and at Port Said on November 9, 1980. At midnight on the 24th, a collect radio-telephone call was made to Mrs. Donna Gove from her husband, third mate Robert Gove. He made no mention of any problems or adverse weather. The POET's next scheduled report to the USMER system would have been at approximately noon on Sunday, October 26. Also on this date, the ship would normally have checked with Chatham Radio, a commercial radio station, often used by the POET's agent to communicate with the ship. Neither contact, nor any other, was ever made.

At 9:59 a.m. on November 3, a representative of Mr. Henry Bonnabel, the President of the Hawaiian Eugenia Corporation, advised the Coast Guard Rescue Coordination Center (RCC) at Governor's Island, New York, that no word had been received from the POET since it passed Cape Henlopen ten days earlier. The Coast Guard began communication checks with AMVER\*\*, the Lloyds of London Intelligence Service, law enforcement computer files, the U.S. Navy, and Chatham Radio. While no one had any information on the vessel, Chatham Radio did report that it had

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\*USMER is an acronym for the U.S. Flag Merchant Vessel Locator Filing System. It is operated by the Maritime Administration to provide U.S. government agencies with the location of U.S.-flag and other U.S. owned ships in case of a national emergency.

\*\*AMVER is the acronym for Automated Mutual-Assistance Vessel Rescue System, which is operated by the Coast Guard as a voluntary international maritime distress assistance program providing the location of vessels capable of responding in a sea search and rescue.

been calling the POET every two hours since October 27, and had never received an acknowledgment. RCC also initiated broadcasts to all Navy and merchant ships and ports to determine whether any vessel had been in contact with the POET.

On November 4, the Coast Guard checked with the Delaware River pilot who guided the POET out of Philadelphia to see if he had noticed any problems with the ship. That evening, RCC again contacted Lloyds of London to determine if the POET had passed through the Straits of Gibraltar -- it had not.

There is no information in the Coast Guard log book or chronology report suggesting any actions were taken on either November 5 or 6, other than awaiting responses to earlier broadcast communications inquiries.

On November 7, the Coast Guard called the Navy to determine the POET's reporting history to the USMER system. It was advised that the POET had an excellent record for reporting every 48 hours. The Coast Guard was also told by the Navy that the POET would have experienced severe weather between 7:00 a.m. on the 25th and 7:00 a.m. on the 26th. The Coast Guard also received a telegram from Mr. Bonnabel requesting a search for the vessel. Fourteen days had elapsed since the POET left Philadelphia.

The search began at 2:00 p.m. on November 8, covering approximately 300,000 square miles including track line searches from Bermuda to the Azores, and from the Azores to the Straits of Gibraltar. The Coast Guard case study on the Search and Rescue

(SAR) states that the probability of detecting the vessel was 80% and 21% for a life raft. The probability of seeing a person in the water was even less, reported to be as low as 1.5%. After 10 days of fruitless efforts, the search was called off on November 17.

A Marine Board of Investigation was convened by the Coast Guard and NTSB and joint public hearings on the POET's loss were held in Philadelphia from November 19 to December 12, 1980.

On December 11, 1980, the Coast Guard issued 34 "Presumption of Death" letters stating that the seamen aboard the POET are "missing and presumed dead."

In February, 1981, underwriters of Lloyd's of London settled a \$1 million claim for the POET, based on the assumption that the ship was seaworthy and had sunk in heavy weather.

#### HISTORY OF THE S.S. POET

The POET was built in 1944 and commissioned as the GENERAL OMAR BUNDY, one of 30 C-4 troopships constructed by the Kaiser Company of Richmond, California, during the three year period 1943-1945. The BUNDY was built under a Maritime Commission contract at a cost of \$8,025,000 plus \$2,400,000 for National Defense Features.

Specifications were: length - 522'10"; beam - 71'6"; draft - 24'0"; gross tons - 13,000; speed in knots - 17; radius in miles - 15,000; propulsion - turbine; passengers - 3,005; cargo in cubic feet - 32,800.

The BUNDY made six round trips to the Pacific carrying over 18,000 soldiers prior to being decommissioned on June 14, 1946, and turned over to the Maritime Commission. On August 30, 1946, the BUNDY was transferred to the War Department where it served the Army until returning to the Maritime Commission on December 12, 1949, to enter the National Defense Reserve Fleet, berthed in the James River.

In 1964, under the authority of the Vessel Exchange Act (P.L. 86-575), Bethlehem Steel applied to the Maritime Administration and was approved to exchange five Liberty ships for five troopships, of which the BUNDY was one. Bethlehem acquired the new ships to improve the service of its subsidiary, Calmar Lines, which ran a cargo operation carrying steel from the U.S. east coast to the west coast and returning with lumber. The BUNDY, now the PORTMAR, was converted to general cargo capability at the Bethlehem Steel Sparrows Point yard in April 1965.

When Calmar Lines went out of business in 1976, the PORTMAR was purchased by Asbury Steamship Company and became the PORT. The Hawaiian Eugenia Corporation bought the ship in May 1979 and renamed her the POET. She made ten voyages under this name:

<u>DATE</u>	<u>VOYAGE</u>	<u>CARGO</u>
May 1979	Portland to Indonesia	13,500 metric tons wheat
August 1979	Portland to Korea	14,000 metric tons wheat
October 1979	Korea to Ceylon	10,500 metric tons bag urea
remainder 1979	Baltimore to Israel	time chartered
early 1980	Gulf to Egypt	14,000 metric tons wheat
June 1980	Gulf to Santo Domingo	12,500 metric tons wheat
July 1980	Gulf to Santo Domingo	12,000 metric tons wheat
August 1980	Gulf to Santo Domingo	13,750 metric tons wheat
September 1980	Gulf to Egypt	13,700 metric tons bag flour
October 1980	Philadelphia to Egypt	13,500 metric tons corn

FULL COMMITTEE HEARINGS

After over four months of investigation by Committee staff into the circumstances surrounding the disappearance of the POET, public hearings were conducted on April 9, and June 24, 1981. Following is a brief summary of the testimony presented at these two hearings. (A complete record of the hearings, along with supporting documents, has been published by the Committee, and is entitled "The Fate of the U.S.- Flag Freighter, the S.S. 'POET,' Which Disappeared With All Hands Aboard" (Committee Document #97-10).)

Panel of National Oceanic and Atmospheric Administration, Department of Commerce, consisting of Gerald A. Petersen, Associate Director, National Weather Service, Office of Meteorology and Oceanography; Paul A. Jacobs, Chief, Marine Weather Service Branch; and Jerome W. Nickerson, Program Leader, Marine Observations; N. Arthur Pore, Marine Techniques Branch

NOAA estimated that the POET encountered a coastal storm and would have endured the brunt of it for approximately twelve hours beginning on October 25. Reports indicated winds in the area at 50-55 knots, punctuated by gale force gusts, and 25 foot seas. The combination of these sea and wind conditions would produce considerable rolling, although other similar vessels suffered no serious mishaps and rode out the weather. This type of coastal storm was unusual for October.

Captain Arthur W. Gove, U.S. Coast Guard (retired) and father of a POET crewman

Captain Gove was the Senior Inspector and Executive Officer of the Coast Guard Marine Inspection Office in New York at the time of his retirement in 1977. Because of his expertise in the Coast Guard and his personal interest in the disappearance of the POET, Captain Gove had called the Coast Guard to discuss the case when concern was being raised about the vessel. In his testimony, he described what he considered to be unwillingness on the part of the Coast Guard to respond to his questions in the days preceding the initiation of a search.

Captain Gove was also concerned that the Board of Investigation did not thoroughly examine the inspection records and did not delve into the actions of the Coast Guard's response to the POET situation. Specifically, the Board denied a request from the union's attorneys to examine the Coast Guard's inspection records of the salt water ballast tanks and the results of the audio gauging of the hull; denied a request for the American Bureau of Shipping (ABS) Special Survey records; denied a request to call ABS witnesses familiar with the POET; and denied a request to call additional Coast Guard witnesses to elaborate on the actions of the service.

Captain Gove made these recommendations:

- 1) The Coast Guard needs to sustain a trained and experienced inspection force with sufficient professional background; inspections of the salt water ballast tanks should be mandatory;
- 2) The Coast Guard should review the procedures identifying a vessel as "unreported" (as opposed to "overdue") which caused a delay in the POET search;
- 3) The Marine Board of Investigation should utilize only seasoned investigators; Coast Guard members of the Board should be chosen on this basis and not simply because they are available.

Captain Gove also expressed his disappointment with the Coast Guard Search and Rescue (SAR) Case Study on the POET which listed as one of its three recommendations and one of its three

conclusions that greater involvement by concerned and uneducated citizens means a less professional SAR case. The other two recommendations were that vessels be required to carry more than one EPIRB and that AMVER have an alerting capability free of false alarms.

Captain Clarence C. Hobdy, Jr., U.S. Coast Guard (retired),  
President, SAR Consultants, Inc., Mobile, Alabama

Captain Hobdy authored the National Search and Rescue Manual, which is the procedure book used by the Coast Guard, Air Force, Army and Navy for search and rescue operations. As president of SAR Consultants, Inc., Captain Hobdy is a leading expert on SAR operations. Captain Hobdy reviewed the SAR case study and the testimony given by the Coast Guard at the Board of Investigation and found two major deficiencies: first, that the owner waited ten days to notify the Coast Guard; and second, that the Coast Guard waited an additional five days to initiate a search. Captain Hobdy stated that the communications checks run by the Coast Guard for five days should have taken no longer than 24 hours, and that at the end of this period an air search should have begun. He further stated that a vessel of the POET's class should have been considered "overdue" when it was four hours late for a scheduled radio contact and communication could not be established.

During questioning, Captain Hobdy indicated his support for a compulsory vessel location system capable of "flagging" non-reporting vessels. Further, he indicated that the statutory responsibility of the Coast Guard to carry out search and rescue duties is not mandatory but discretionary. However, he noted that although a legal requirement was not imposed, that internal directives ordered Coast Guard personnel to be familiar with rescue responsibilities and the tradition of the service was one of engaging in rescue activities.

Rear Admiral Henry H. Bell, Chief of Merchant Marine Safety,  
U.S. Coast Guard; and Rear Admiral John D. Costello, Chief of  
Operations, U.S. Coast Guard

The Coast Guard testified that it was first advised of concern for the safety of the vessel by the ship's agent on November 3, and at that point began communications checks with AMVER, the Defense Mapping Agency's navigational warning system, Lloyds of London, the U.S. Naval Ocean Surveillance Information (NOSIC), Chatham Radio, and the Delaware Bay Pilots. On November 7, the Coast Guard was advised by NOSIC that the POET had a history of reporting every 48 hours to USMER. The Coast Guard also knew that a storm with gale force winds had intercepted the POET's course on October 25-26. Based on these facts, the Coast Guard began an aerial search utilizing Coast Guard, Navy, Air Force, and Canadian planes on 55 sorties covering 300,000 square miles over a ten-day period.

Jesse M. Calhoon, President, National Marine Engineers'  
Beneficial Association

Mr. Calhoon called the Coast Guard's handling of the POET search "a tragic case of indifference and failure. . . to meet its lifesaving obligation", and further stated that the owner was clearly at fault "for not officially notifying the Coast Guard sooner."

He made the following recommendations:

- 1) More effective use of AMVER -- should be mandatory, with strictly enforced penalties for non-compliance, as well as an ability to identify non-reporting vessels;
- 2) Better coordination of emergency response mechanisms -- should streamline the communications search process and have a more precise definition of when search planes go aloft;
- 3) More effective regulation -- better inspection of emergency equipment, specifically the EPIRB (Emergency Position Indicating Radio Beacon); the Coast Guard should provide a comprehensive checklist to Masters and have available a copy of the Master's pre-departure ship examination certificate; the Coast Guard should require more than one EPIRB on a vessel, perhaps one in each liferaft;
- 4) Coast Guard should improve its cooperation with the unions.

Frank Drozak, President, Seafarers International Union of North America

Mr. Drozak's comments fell into the following categories:

- 1) Coast Guard Inspection Procedures: Coast Guard Inspectors are not adequately or properly trained; when inspections are made, there are no complete records of outstanding violations which should be double checked for compliance; most inspections are superficial, equipment should be dismantled to insure it is in working order; there should be more frequent audio gauging to determine the hull's thickness.
- 2) Coast Guard Search and Rescue: The POET SAR was poorly conducted; the five-day delay was unnecessary; AMVER should have the ability to alert if a vessel does not report; Coast Guard should redefine "overdue vessel"; there must be adequate and proper equipment available to the Coast Guard to conduct a SAR; EPIRBs should be constructed so that not only aircraft but other surface vessels can pick up distress signals.
- 3) American Bureau of Shipping: ABS inspection procedures are inadequate, primarily because inspectors are not adequately trained, but also because the inspections are not done in depth and the Coast Guard allows waivers on certain repairs without careful follow-up.
- 4) National Cargo Bureau: NCB needs better, more thorough, and more consistent (one inspector following the entire loading procedure) supervision of loading.
- 5) Shipping Companies: should be required to regularly maintain their vessels.
- 6) Federal Communications Commission (FCC): if major repairs are made, or a new radio set is installed, the FCC should be notified and an inspection made of the unit.
- 7) Marine Board of Investigation: the Coast Guard should allow the unions to participate in Board inquiries as a "Party in Interest".
- 8) National Transportation Safety Board: should conduct investigations into marine accidents independent of the Coast Guard.

Joseph M. Penot, Radio Officers Union, New Orleans, Louisiana

Mr. Penot testified that the present marine distress system does work; that the 500 kHz frequency utilized by the international radiotelegraph distress communication system should remain; that the members of his union are encouraged to participate in AMVER and USMER, but both systems have a basic flaw in that they are incapable of "flagging" a non-reporting vessel; and that his union will work with the other labor organizations, MARAD, the Navy, and shipowners to improve the existing communications system.

His recommendations were:

- 1) USMER reporting should be mandatory for all U.S. ships, every 24 hours, while on an intercoastal, coastwise, or foreign voyage;
- 2) All U.S. public correspondence stations should be required to advise the originators of any message that is not acknowledged within 48 hours;
- 3) All owners/operators should be required to advise MARAD whenever they have traffic on file for more than 48 hours.

Honorable Patricia A. Goldman, Member, National Transportation Safety Board, Washington, D.C.

Ms. Goldman presented a factual rundown of the events relating to the POET's voyage; indicated that the Board's investigation is focusing on: the fact that no radio distress signals were received from the POET; the structural integrity of the ship while exposed to severe weather conditions; the stability of the ship as loaded; AMVER and USMER reporting systems; and the Coast Guard's SAR of the POET.

Honorable Bruce A. McAllister, Deputy Assistant Secretary for Maritime Affairs, U.S. Department of Commerce, accompanied by Richard O. Thomas, Director, Office of Policy and Plans, and Ronald K. Kiss, Director, Office of Ship Construction

Mr. McAllister explained USMER and said that to raise participation from the current 90-95% level would require more reliable ship-to-shore communications. He also reported that discussions between MARAD and the Coast Guard on merging AMVER and USMER have been hindered by two issues: the non-mandatory nature of AMVER and a perceived problem with sharing AMVER data for other than SAR purposes (MARAD's national defense requirement). He noted that either system could be modified to provide a fail-safe mechanism for non-reporting ships.

Al Parente, Brotherhood of Marine Officers

Mr. Parente submitted written testimony that made the following recommendations:

- 1) When a vessel reaches its tenth year, and every third year thereafter, it should be required to have tests on its hull plates and all structural members within its tanks to assure that the metal is not fatigued;
- 2) Combine AMVER and USMER and make the system mandatory; require twice weekly reports, impose a stiff penalty on the owner of a vessel which does not comply;
- 3) Rules should require more complete and frequent -- every six months -- inspections of vessels as they get older;
- 4) Age should be a factor when determining loadline designations;
- 5) Avoid delays; the POET owners were at fault for not contacting the Coast Guard sooner; the Coast Guard was at fault for delays inherent in identifying the POET as "unreported";
- 6) Should be better coordination with other services if Coast Guard aircraft resources are inadequate.

Henry J. Bonnabel, President, Hawaiian Eugenia Corporation

Mr. Bonnabel maintained that the POET was a seaworthy vessel manned by experienced seamen. While company operating procedures required his ships to report to him every 48 hours, in the past, atmospheric conditions had sometimes prevented radio contact for several days. Therefore, even though the POET had a good record of reporting, Mr. Bonnabel waited until November 3 to notify the Coast Guard of his concern for the ship. Drawing from a technical report prepared for the Coast Guard, Mr. Bonnabel surmised that the POET went into a synchronous roll, which caused the ship to capsize before any distress signals could be sent.

Vice Admiral Robert I. Price, Atlantic Area Commander, and 3rd District Commander, U.S. Coast Guard

Admiral Price was first made aware of the lack of communications contact with the POET on November 7, 1980, by a telephone call from the vice president of the Marine Engineers' Beneficial Association. He was also informed that on November 3,

the Coast Guard had initiated a routine intelligence and communications search at the request of Henry Bonnabel. After receiving several more telephone calls requesting information on the POET, he ordered an aerial search, which began on November 8 and lasted until November 17. Admiral Price, one of the Coast Guard's most experienced officers, emphasized the limitations of such a search, which extended from Cape Henlopen to Gibraltar, and stated that Coast Guard SAR procedures are adequate and were fully adhered to in this case.

Admiral Price testified that improved radio communications are most important in avoiding another incident such as the POET disappearance. He recommended that participation in AMVER be mandatory.

#### DISCUSSION OF ISSUES

The absence of physical evidence or eyewitness accounts has required the Committee to look at the entire range of factors which may have led to the POET's disappearance. Some of these, such as theories that the vessel was hijacked by Iranians or organized crime, had no supporting evidence whatsoever and were put aside after cursory study. Other issues, such as the POET's communications capabilities and its inspection history, deserved and received a thorough investigation. A discussion of each follows.

#### INSPECTION

Ships of the class and size of the POET are required by federal regulation to undergo periodic inspections to determine their stability, structural soundness, and the proper functioning of the safety equipment they carry. The overall responsibility for inspections and insuring compliance with published federal

standards lies with the Coast Guard, which is authorized (46 U.S.C. 881 and 46 U.S.C. 369) to delegate duties to the American Bureau of Shipping (ABS), or other classification societies.

Federal regulations required the Coast Guard to physically inspect the POET every two years. The scope of this inspection is set forth in Title 46 CFR 91.25-10:

"The inspection for certification shall include an inspection of the structure, boilers, and other pressure vessels, machinery, and equipment. The inspection shall be such as to insure that the vessel, as regards the structure, boilers and other pressure vessels, and their appurtenances, piping, main and auxiliary machinery, electrical installations, lifesaving appliances, fire-detecting and extinguishing equipment, pilot ladders, pollution prevention equipment, and other equipment, is in satisfactory condition and fit for the service for which it is intended, and that it complies with the applicable regulations for such vessel and determine that the vessel is in possession of a valid certificate issued by the Federal Communications Commission, if required.

"The lights and means of making sound signals and the distress signals carried by the vessel shall also be subject to the above mentioned inspection for certification for the purpose of insuring that they comply with the requirements of the applicable regulations and the applicable Rules of the Road."

Beginning on February 27, 1980, the Coast Guard conducted this inspection at Port Orange, Texas. The POET was found fit, and a Certificate of Inspection was issued on March 6, 1980.

During this same period, March 4-6, both the Coast Guard and the ABS examined the POET in drydock at the Bethlehem Steel shipyard in Beaumont, Texas. Drydocking is required every two years and includes a complete examination of the vessel's underwater body, outboard fittings and all parts not normally accessible when the vessel is afloat.

The POET was also required to undergo annual hull surveys, a Special Periodical Survey every 4-5 years, and an Intermediate Survey between the Special Periodical Surveys. From March 4-6, an ABS surveyor conducted a boiler, a tail shaft, and a partial Intermediate Survey of the POET. His report indicated that the salt water ballast tanks were not opened for examination and therefore the Intermediate Survey was incomplete. On August 19, an ABS surveyor conducted an Intermediate Survey of the POET, but

again, did not examine the salt water ballast tanks, consistent with Coast Guard and ABS procedures which permit waiver of this inspection requirement. The surveyor's report stated, however, that the Intermediate Survey was carried out and did not list any outstanding requirements.

An ultrasonic gauging of the thickness of the vessel's lower shell was also conducted on March 2 and indicated substantial variations in plate thickness throughout the ship. In addition, the inspector noted in three instances the word "hole", and in one "pit", next to the thickness value. In considering these results, and those of the last test made in 1976, the NTSB stated:

"The gaugings taken of the POET's hull structure in December 1976 as part of ABS Special Hull Survey No. 6 showed little wastage of the ship's shell plating except for the keel plating at the bow and the stern. The shell plating showed wastages of from 0 to 4 percent, the midship keel plating about 4 percent, and the keel plating at the bow and stern 15 percent. These values are well within the Coast Guard guidelines of 25 percent for local wastage and 20 percent within the midships half-length. The tank top plating and transverse floors in some double-bottom tanks showed wastage between 7 and 10 percent. Again, this was well within acceptable limits and should not have increased significantly over the following 4-year period. The exposed deck plating had wastage between 1 and 3 percent. During April and June, 1977, the ABS inspected all the POET's double-bottom tanks and found them in satisfactory condition.

"The 1980 gaugings had some inconsistencies and certain readings should not be considered accurate. However, the average results of the 1980 gaugings showed little additional wastage compared with the 1976 gaugings. The fact that one keel plate showed an average wastage of 32 percent should not have affected the structural integrity of the hull. This one plate was located below the machinery space. Even if this plate experienced a local structural failure, only the double-bottom tanks below the machinery space would have flooded. This plate was to have been repaired at the next special survey scheduled for June 1981."  
(NTSB Marine Accident Report, NTSB-MAR-81-6, page 45)

While there were no findings in any of the inspections conducted in February and March of 1980 that prevented the awarding of the appropriate certification, observations recorded in the inspection documents are, under the circumstances, of interest.

For example, during the drydock examination, the Coast Guard inspector noted when surveying the external structural members that ". . . Sternpost has considerable amount of erosion but considering the age of vessel was not considered excessive." A similar notation was made later in the inspection of the stern frame. The point that older vessels need more vigorous inspections rather than special considerations was made by several witnesses at the Committee's hearings.

The other major federally required structural inspection is authorized by CFR Title 46, Subchapter E, which establishes the Coast Guard, or its agent (in this case the American Bureau of Shipping), as the assigning authority to conduct examinations and issue load line designations. Load lines indicate the maximum amidships draft to which the vessel can lawfully be submerged in various circumstances in each season. Load line assignments are "conditioned upon the structural efficiency and satisfactory stability of the vessel, and upon the provisions provided on the vessel for her effective protection and that of the crew."

A load line survey is made before the vessel is put into service and drydock follow-ups are required at five year intervals. The POET was surveyed by the ABS on June 18, 1977 and received an International Load Line Certificate valid until June 18, 1981. The required annual inspection to endorse this certificate was made in August 1980.

CFR Title 46, Subchapter A, confers the authority to issue certificates required by the International Convention for Safety of Life at Sea on either the ABS, the Coast Guard, or in the case of radio communications, the Federal Communications Commission. The POET carried a Cargo Ship Safety Construction Certificate issued by the ABS in the Port of New York on September 9, 1977, good until June 30, 1982; a Cargo Ship Safety Equipment Certificate issued by the Coast Guard in Port Arthur, Texas, on March 6, 1980, and good for one year; as well as a Cargo Ship

Safety Radiotelegraphy Certificate issued by the FCC in Pensacola, Florida, on August 19, 1980, and also good for twelve months (this last certification process also involves the testing of the Emergency Position Indicating Radio Beacon (EPIRB)).

Concern for the adequacy of the inspections performed on the POET was heard from several sources during the Committee's hearings. Captain Arthur Gove, the father of one of the ship's crewmen, testified on the importance of examining the ship's saltwater ballast tanks as a method of determining the ship's structural integrity. Captain Gove's professional credentials include service in the merchant marine and twenty years in the Coast Guard, the last of which were as senior inspector and executive officer of the New York Marine Inspection Office. Captain Gove stated:

"My particular interest is in the condition of the saltwater ballast tanks located under No. 2 and No. 3 holds - a critical area of the vessel. My own experience is that they are often neglected or the examination put off for various reasons. Such inspections are time consuming, messy, and strenuous tasks for the inspector and expensive for the vessel's owner in time and possible cleaning and drydocking costs, that require counter ballasting costs. . . a study that was made relative to inspecting saltwater ballast tanks. . . the net substance of that was the fact that they are inspected when the records so indicate and under the Coast Guard Inspector and the officer in charge of marine inspection's discretion. I think something should be said about this. If this is to be the standard used. . . it would probably mean that it would rarely be done in the real world."  
(Committee Document 97-10, page 20-22)

The possibility of problems starting in the tanks was also brought out in the accident scenarios developed by the Coast Guard's Marine Board of Investigation and contained in its report. In discussing the likelihood of a loss of hull integrity, the Board concluded:

"c. That a credible possibility exists that a major hull structural failure occurred. A detailed critical analysis of design and actual hull strength serves to discount this possibility, but other considerations are of concern to the Board, including the possibility of an undiscovered hull structural defect of a size and nature adequate to lead to a major hull structural failure under the loading the vessel was subjected to on 25 and 26 October 1980. The Board is aware of a number of serious ship casualties which have been traced to undetected structural defects and does not rule out the possibility in this case.

"The Board's definition of undetected structural defects includes defects which can be detected by ordinary inspection practices but are not, and defects which cannot be detected by ordinary inspection practices. An example of the former would be possible visible defects in way of No. 3,4,5, and 6 port and starboard double bottom ballast tanks which were not examined during the 1980 drydocking. An example of the latter would be the possible reduction of the tensile strength of the steel plate exposed to fire and water quenching similar to the circumstances of the fire in POET's No. 2 hold in February 1978." (Coast Guard Marine Casualty Report, SS POET Disappearance, Rpt. No. USCG 16732/11486, page 57)

Further, the Board recommended to the Commandant that he "consider improving guidance as to the frequency double bottom tanks of cargo vessels are to be internally examined." (ibid, page 62) The response to this recommendation has been favorable and the Commandant has indicated that guidance as to the inspection of internal tanks will be developed and published in the Marine Safety Manual and a check of internal compartments will be added to the Drydock Examination Book used by marine inspectors.

In other testimony before this Committee, Mr. Frank Drozak, President of the Seafarers International Union of North America, termed the inspection procedures of both the Coast Guard and the American Bureau of Shipping "inadequate", particularly so in the case of the POET. Mr. Drozak cited several faults including inexperienced and improperly trained inspectors, the lack of availability to the inspector of a complete record of a ship's outstanding violations, superficiality of the inspections themselves, the policy of allowing shipowners waivers on the correction of violations, and the lack of follow-up on ordered repairs.

Some of Mr. Drozak's sentiments are supported by the Coast Guard Marine Board of Investigation report. Conclusions arrived at in this document, although not concurred in by the Commandant, state the following:

"7. Coast Guard personnel performing the last drydock and biennial inspection were not highly skilled in vessel inspection procedures and lacked relevant experience. Further, the previous inspection history of the vessel and information concerning potential problem areas was not available to these personnel and do not exist in useful form. Taken together, these shortcomings cause the Board to conclude that a Coast

Guard overview of the vessel's safety status was not totally satisfactory. Within their level of experience, training, and skill, the Coast Guard personnel performed their duties to the best of their abilities and there is no evidence of misconduct, negligence, or inattention to duty on their part. The quality of the Coast Guard inspection program needs to be improved.

"8. It is concluded that a gap existed between the efforts of the ship's crew and the safety overview of federal agencies and the classification society. The vessel's owner relied heavily on vessel personnel to provide the initiative for finding and reporting safety deficiencies and although Port Engineers were engaged to represent the owner on specific occasions, for the most part their efforts were limited to responding to requests for repairs from the ship and the requirements of inspecting agencies. This state of affairs heightened the Board's concern that structural defects may have gone undetected. There was no evidence of a violation of law or regulation in this regard."  
(ibid, page 59)

In its recommendations, the Board noted the development underway of a Marine Safety Information System, a computerized system for making a vessel's inspection history, including possible areas for special attention, available to marine inspectors. The Commandant has concurred in the importance of supplying this information to inspectors and has indicated that when operational, the Marine Safety Information System will include casualty and repair reports for every certificated vessel.

The Board also recommended that the Commandant "establish a goal of increasing the skill and experience level of the workforce engaged in the performance of ship inspections" (ibid, page 62) and that "the Coast Guard supervision of inspection functions delegated outside of the service be clarified in terms of Coast Guard responsibility in the field." (ibid, page 62)

In his response, the Commandant indicated that he has a "continuing goal" of enhancing the skill and experience level of Coast Guard marine inspectors and listed several steps that have been taken to accomplish this end: more direct commissioning of senior merchant marine officers to serve only in commercial vessel safety; efforts to provide a coordinated and uniform functional training program; and extending the tours of duty of personnel assigned to commercial vessel safety.

The second part of the recommendation was not concurred in by the Commandant, who stated in his comments "further clarification (beyond that already in the U.S. Code of Federal Regulations, and Executive Orders) regarding such delegations is not deemed necessary." (ibid, page 5)

The Committee feels that the key to the Board's recommendation is clarifying the Coast Guard's responsibility to supervise delegated inspection functions, not the authority under which they are delegated. There is no question that the adequate authority exists for the Coast Guard to name other organizations, such as the ABS, the NCB, or the International Cargo Gear Bureau, to perform certain inspections of vessels. However, there is no stated requirement for the Coast Guard to review or oversee the performance of these delegated functions. As the trend continues to delegate more of the Coast Guard's inspection responsibilities to independent classification societies, the need to develop written procedures which ensure that adequate Coast Guard oversight is carried out, will become increasingly important.

In written testimony submitted to the Committee, Mr. Al Parente of the Brotherhood of Marine Officers also expressed his concern about the inadequacy of inspections, especially in older vessels. He made several recommendations for improvement:

"We recommend that when a vessel reaches its tenth year, that it becomes mandatory to conduct tests on the hull plates, and all structural members within the (saltwater ballast) tank to assure the metal in the area is not fatigued, after the ten years test, every three years thereafter.

"Rules must be adopted that as a vessel gets older, a more comprehensive inspection takes place and if necessary, every six months rather than annually. Other periods for inspections should also be shortened."

There are ways to improve the inspection programs for commercial cargo vessels; therefore the Committee recommends the following actions:

- 1) The Marine Safety Manual and the Drydock Examination Books used by the Coast Guard and the American Bureau of Shipping should be revised to make the internal examination of double bottoms and ballast tanks an inspection requirement which may not be waived.

- 2) The Coast Guard should formulate regulations requiring more frequent inspections of older vessels.
- 3) The Coast Guard should improve guidance as to the type of repairs which can be deferred, as well as the issuance of waivers for violations.
- 4) The Coast Guard should require marine inspectors to review a ship's records prior to conducting an inspection.
- 5) The Coast Guard should formulate written procedures for its oversight of inspection functions delegated to the ABS and other classification societies.

#### CARGO LOADING

U.S. cargo ships are required to adhere not only to federal regulations but also to International Maritime Organization (IMO) resolutions governing stability and loading. Generally, these provisions require clean, safe holds and the proper loading and trimming of each to prevent voids, shifts, and the impairment of the ship's stability. The National Cargo Bureau (NCB) has been recognized as the government's agent to insure compliance with these requirements.

Both the NCB and the U.S. Department of Agriculture (USDA) inspected the POET's holds on October 17, 1980, and ordered them cleaned of rust, cargo residue, and water before the loading could begin. The NCB surveyors also conferred with the chief mate of the POET on the calculations to be used in determining the proper stowage of the grain. A lower cubic foot per ton was suggested to the vessel's officers and a revised grain stability formula was worked through by both men.

A second inspection of the holds on October 20 found them in satisfactory condition and a Certificate of Readiness was issued. The loading of corn was begun early the next morning and completed, filling holds 1,2,and 3 and part of 'tween deck No.1, by late afternoon on the 23rd.

When fully loaded, the ship was drawing 34'8" forward and 32'0" aft. This was acknowledged by the NCB, the owner's representative, the pilots, and according to testimony, the

ship's officers, who told the NCB surveyor that the trim would be reduced once they were underway by transferring fuel oil from tanks forward to ones aft.

Surveyors from the NCB monitored portions of the loading operation to ensure that the cargo was stored in accordance with federal and international standards. They were not present when two of the three holds were closed and therefore did not witness the trimming of the cargo in these instances. Trimming is a process to avoid voids in the holds and thus prevent the cargo from shifting. In the POET's case, a trimmer, a motor driven belt that threw the grain into the corners, was dropped into each hold as loading neared completion.

On April 30, 1981, two NTSB investigators visited the grain company in Philadelphia which had provided the cargo for the POET and observed the loading and trimming of a similar 'tween deck ship. The investigators were told by the stevedores that an average of only four of these ships are loaded in the port each year; the rest are self-trimming.

The NTSB Report states that its investigators found the trimming machines to be "effective in minimizing void spaces under decks if used properly by the operating personnel. However, they also observed that significant voids can remain if the trimming machines are brought into use too late in the loading process. Although trimming hatches are found on the lower decks of some ships, they are not normally found on the main decks of vessels. Therefore, it is unlikely that any significant voids would be detected by NCB surveyors in underdeck areas after a ship is loaded, although it is possible to make a partial inspection through escape hatches." (page 38)

Concern for the absence of the NCB during much of the loading was voiced by Mr. Drozak during the Committee hearings:

"The National Cargo Bureau has the obligation to see that the cargo is properly loaded and stowed aboard the vessel. The cargo of grain aboard the vessel, SS POET, was certified as being properly loaded by a National Cargo Bureau representative. This individual was not present each time a hatch was finished being loaded and closed. It is strange that a ship should be

certified as being properly loaded and stowed when, in fact, the representative did not see the end result, namely the finishing of the stowing and loading of each hatch and its closing.

"When asked by our attorney at the Marine Board of Investigation why this was not done, the answer was the Bureau did not simply have enough manpower. This condition should not be permitted to exist. There is no guarantee under present procedures that the cargo was properly loaded. It is also extremely important to note that more than one representative from the Cargo Bureau was present at various times during the loading of the SS POET and not at each stage." (Committee Document 97-10, page 59)

The NTSB Report also addressed this issue:

"When the NCB surveyor arrived on board the POET at 1500 on October 23, the loading of lower hold No. 1 and lower hold No. 2 and 'tween deck were completed. Loading was continuing in hold No. 3 with the trimming machine in use. Since the NCB surveyor did not observe the completion of loading of lower hold No. 1 and 'tween deck No. 2, he may not have been able to detect significant voids if they existed. Although the stevedores were well experienced in the stowage of grain in this type of vessel, the Safety Board believes that it is important that NCB surveyors observe the trimming of each under-deck area on a 'tween deck-type ship. The NCB surveyor watched the completion of loading of hold No. 3 and thus had personal knowledge that the grain there was trimmed properly. Because of its design, a 'tween deck-type vessel requires more supervision during grain loading both by the stevedores and the NCB than a self-trimming bulk carrier. Since the POET was loaded at a stowage factor of 49.3, which was close to the expected value of 49, the Safety Board does not believe there were any significant voids on the POET when it left Philadelphia. However, the Safety Board believes that the NCB should pay particular attention to the loading of 'tween deck vessels and that NCB surveyors should observe the completion of loading of each under deck area." (page 43)

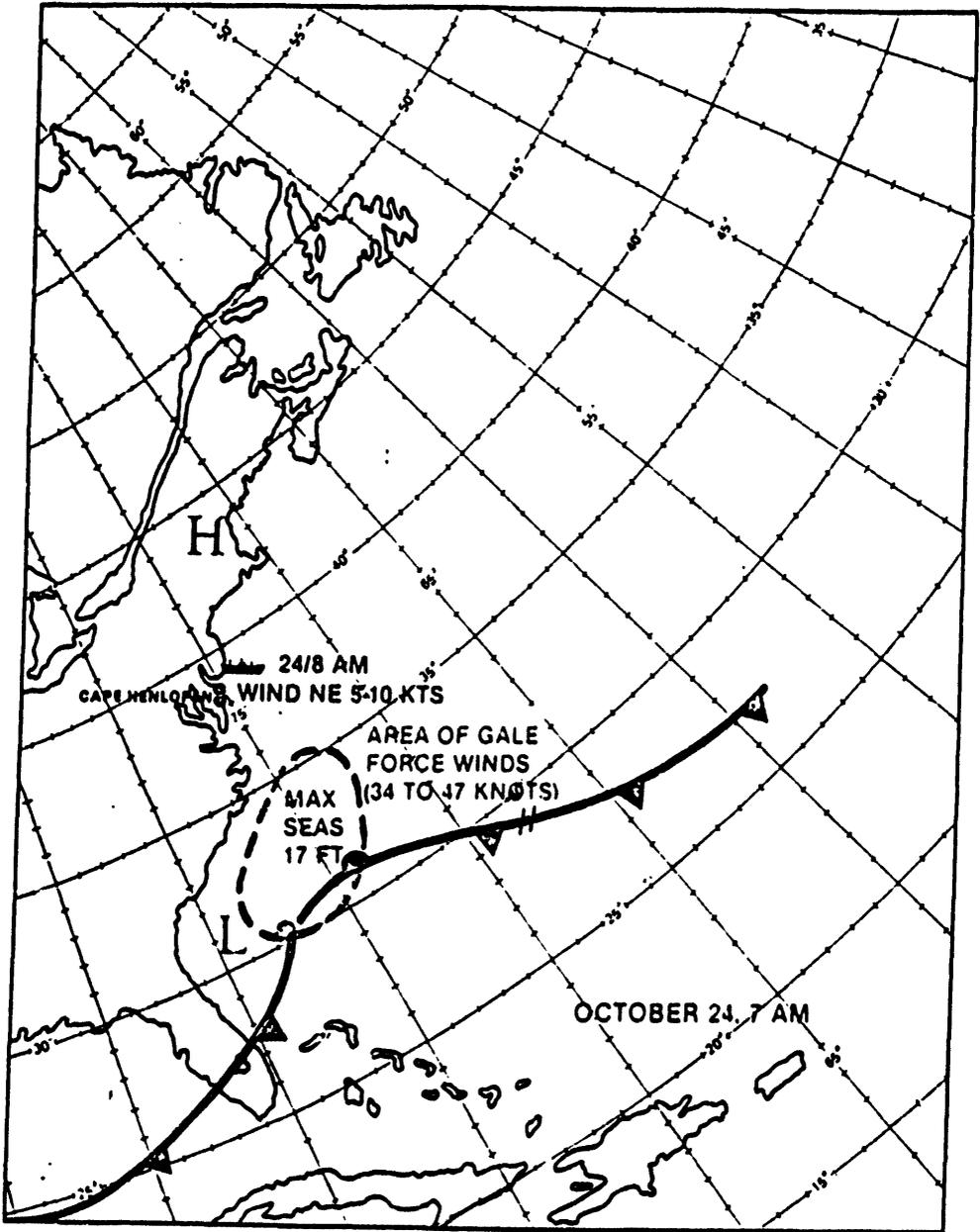
Neither the Coast Guard nor the NTSB investigations found any evidence that the POET's cargo was improperly stowed, and concluded that the "shifting of the grain cargo was not a significant factor in the loss of the vessel." However, the Committee concurs with the NTSB assessment that loading operations must be monitored more closely and urges the Coast Guard to develop and implement the necessary policies.

WEATHER

When the POET left Philadelphia on the morning of October 24, 1980, a storm developing off the coast of Florida brought storm warnings from the National Weather Service for the area the ship would transit. The initial warning at 7:00 a.m. was updated as the storm progressed northward and intensified.

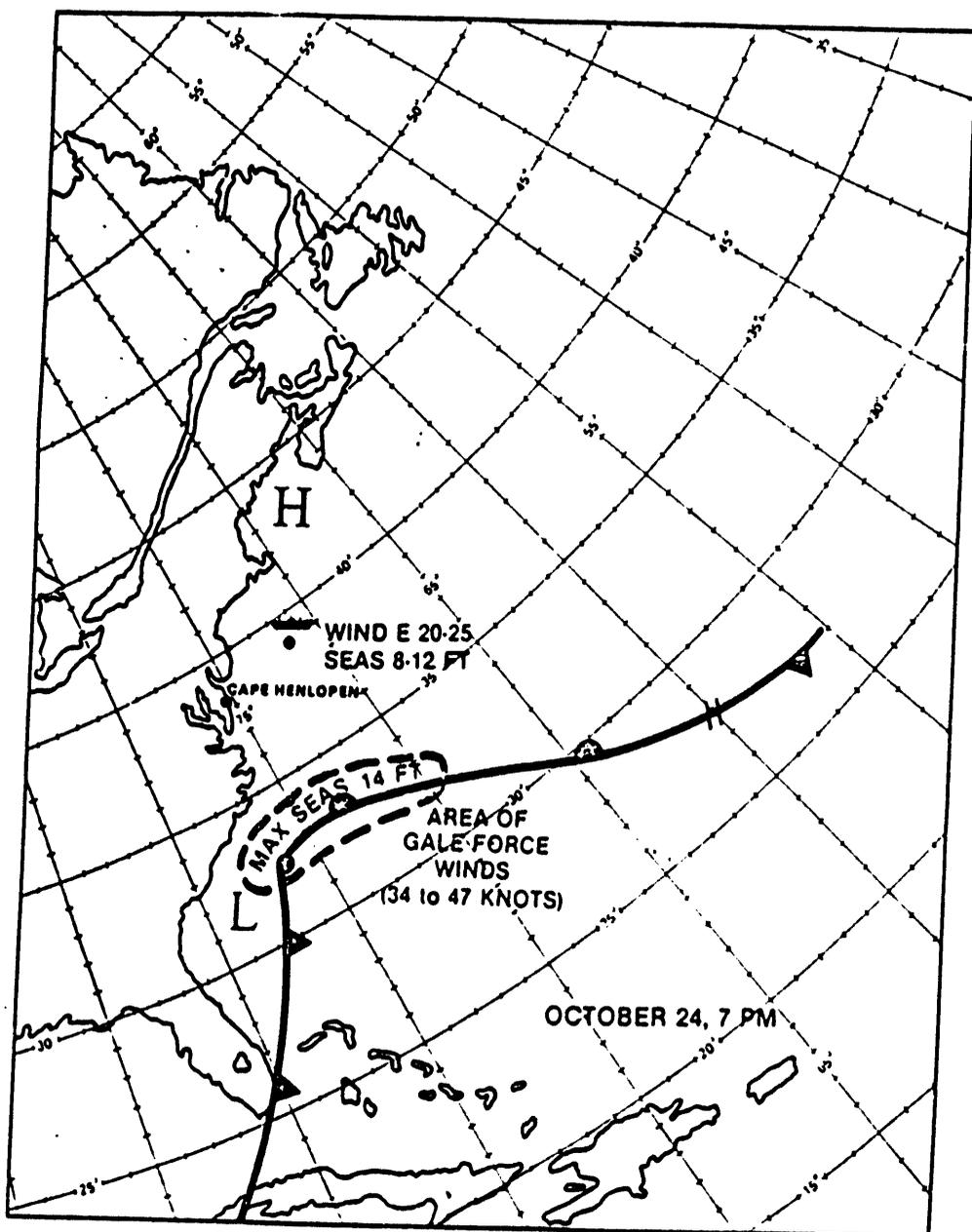
The following description of the weather conditions encountered by the POET was developed by the National Weather Service and presented to the Committee at its April 9, 1981 hearing. The descriptions are based on the POET's intended course and speed of 15 knots, which was assumed to be reduced to approximately 8 knots when the vessel encountered the storm. (The slides referred to are reproduced on the following pages.)

- Pic. #1    "(at 8:00 a.m. on October 24) we have a storm front or frontal boundary that separates cooler air to the north. Gale force winds, winds between 34 to 47 knots, are within a 300-mile area north and east of the storm center. However, the POET is not yet affected by the storm. We calculated winds at the mouth of Delaware Bay to be approximately out of the northeast at 5 to 10 knots and waves were of no consequence.
- 2        "By October 24, 7 p.m. that evening, the low had a slight northward movement, and this accounts for the confinement of the gale winds to the vicinity of the storm. However, the POET is now underway. She is moving out at about 15 knots and is on the outer edges of the circulation area. She is beginning to experience winds on her bow from the east, about 20 to 25 knots, and seas of approximately 8 to 12 feet from what we have been able to calculate.
- 3        "By October 25, 7 a.m., things are starting to get more serious. The storm has deepened significantly and moved very rapidly in toward the coast to a position in the vicinity of Chesapeake Bay. The reason for this rapid deepening and movement is probably due to a colder air mass sweeping toward the ocean from the Eastern United States. You have another storm center here, and atmospheric pressures all along the area from the mid-Atlantic coast up to the Great Lakes are falling. This has created a tendency to draw the storm into the coast as well as increase the pressure gradients, the difference in pressure between the storm and a high pressure area here. This has resulted in a dramatic increase in winds over the entire offshore area. As you can see, the strength of the storm has now produced an outer edge of gale force winds and an inner area of higher storm force winds, that is, winds of 48 knots and above.



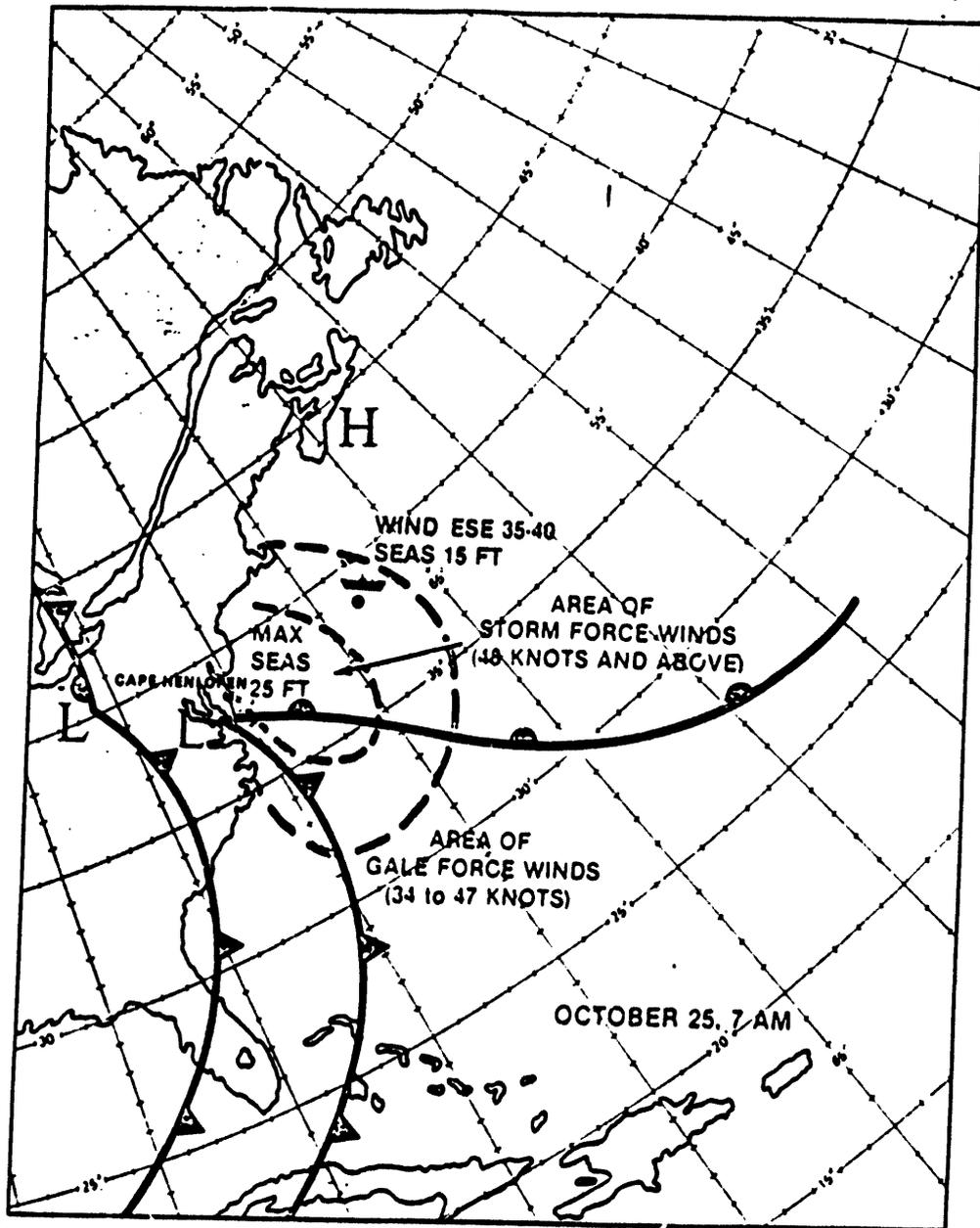
October 24, 7AM

Within the last 18 hours, the storm center and associated frontal system has moved offshore from southern Georgia and is beginning its northward movement. Winds and seas are increasing in the area north of the storm center. The POET is not yet affected by the approaching storm.



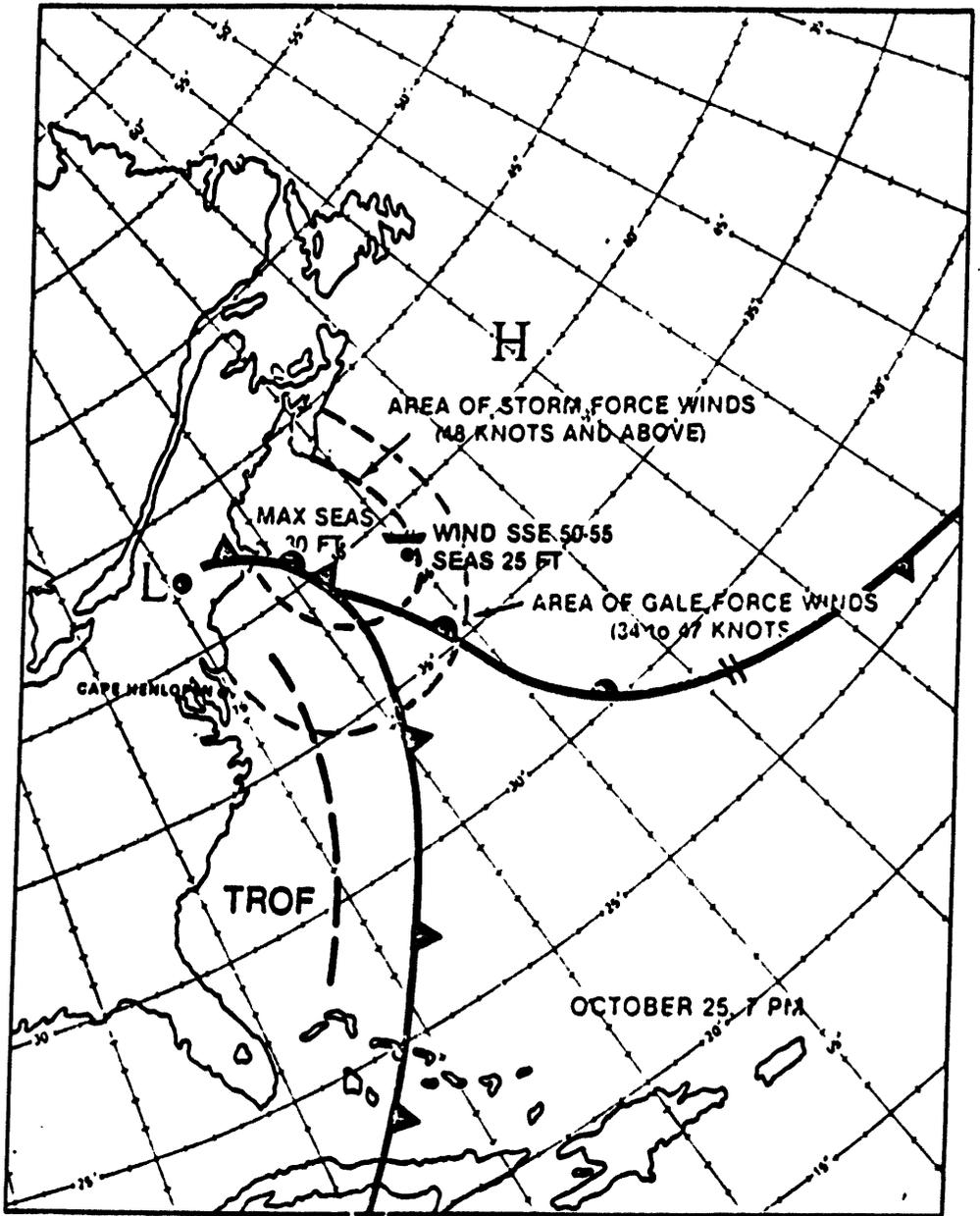
October 24, 7PM

The storm center with associated frontal system continues to move northward. A slackened pressure gradient north of the storm center has somewhat reduced the area of gale force wind and high seas. The POET is within the outer edge of the storm's counter-clockwise circulation and will experience gradually increasing winds and seas.



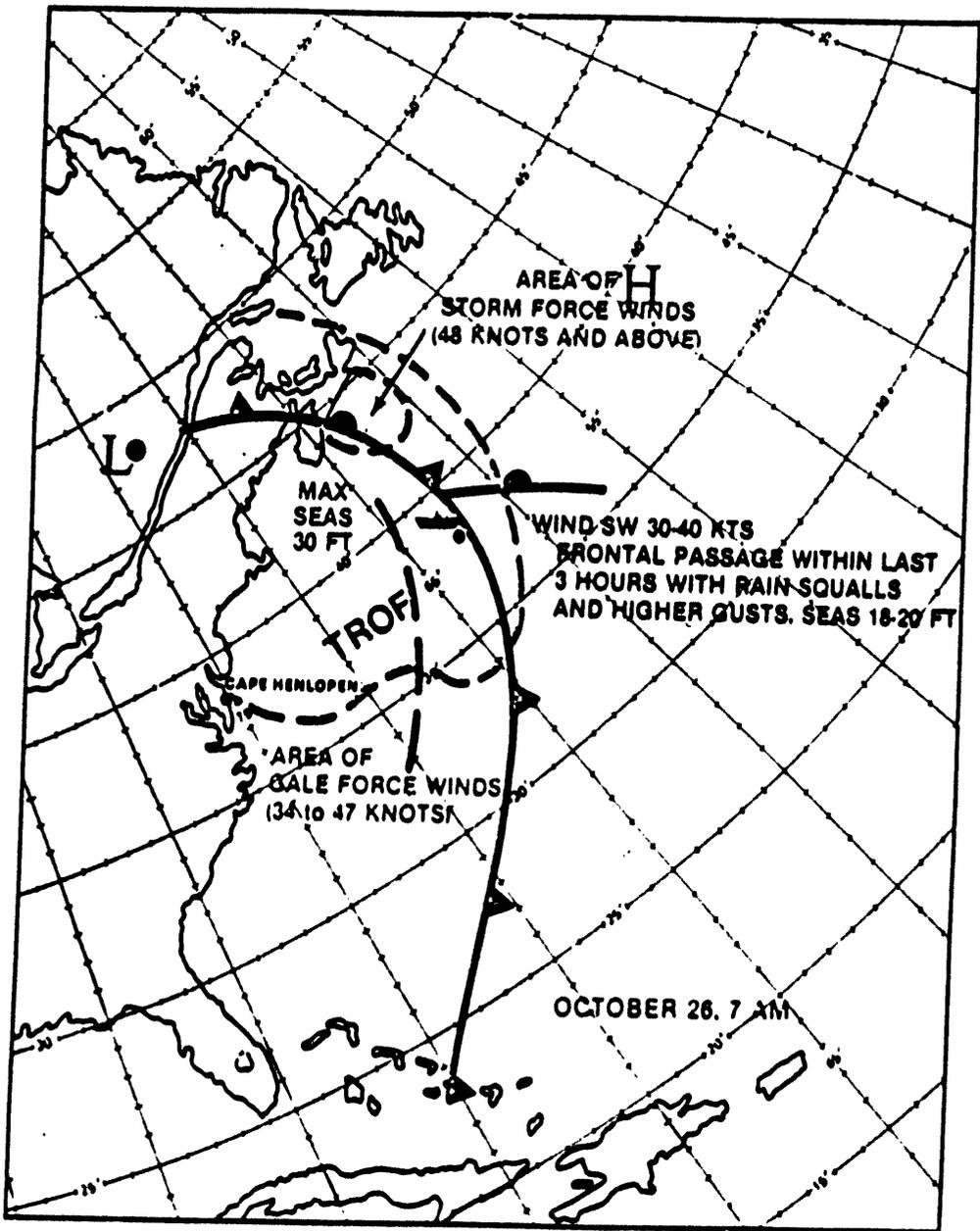
October 25, 7AM

The POET is now entering a period of severe weather that will continue until the morning of the 26th. (Slides 4, 5, and 6). Winds and seas have increased substantially in the last 12 hours as the storm has intensified along its northward track. A second cold front now along the Southeastern Coast will overtake and intensify the frontal system just ahead to the east.



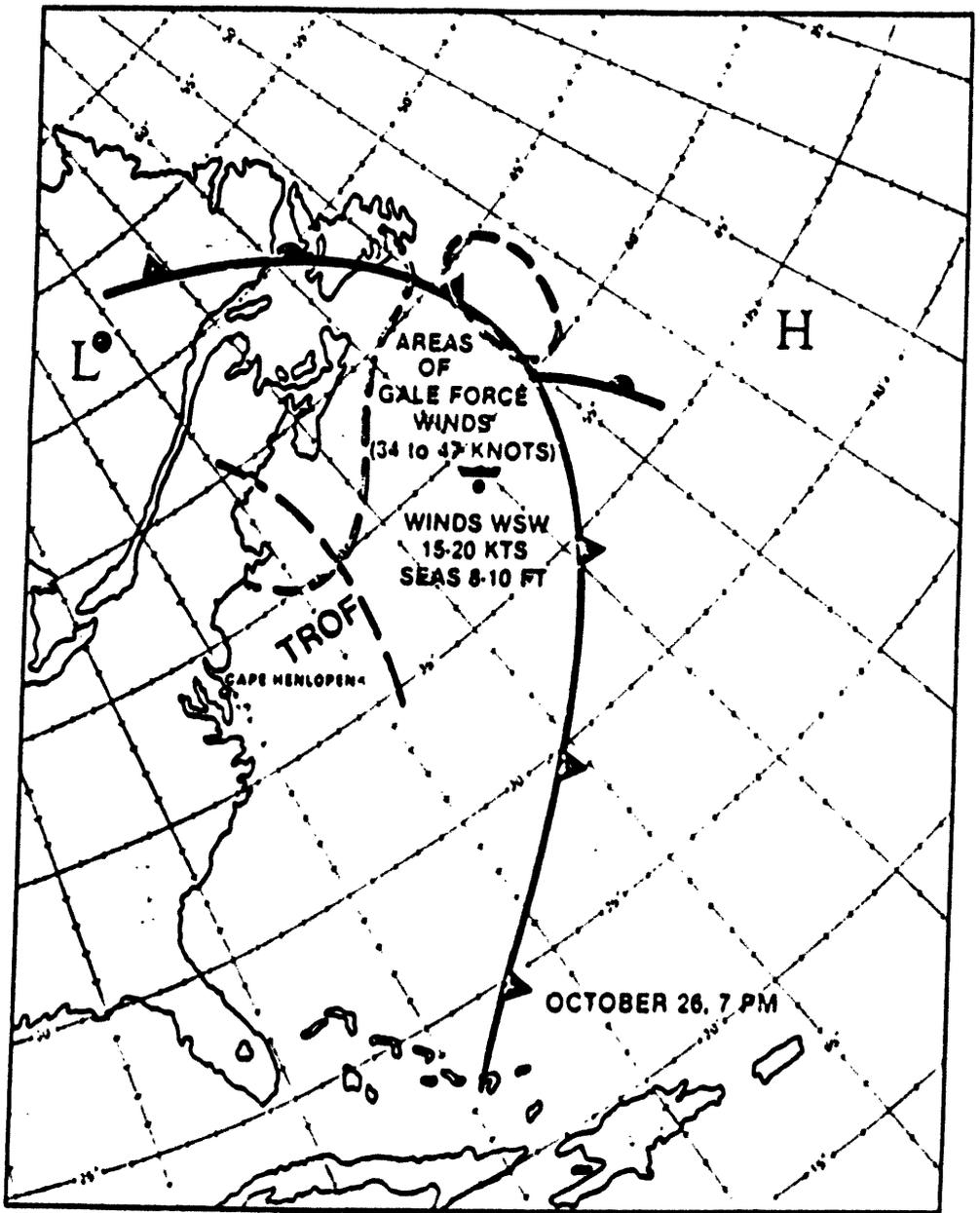
October 25, 7PM

The area of storm force winds has overtaken the POET and the ship is now encountering the most severe conditions of the storm. Southerly winds of over 50 knots and high seas are hitting the ship abeam on its easterly course. These conditions will continue for 10 to 12 hours.



October 26, 7AM

The frontal system associated with the storm has overtaken the POET within the last 3 hours with wind gusts up to 60 knots, rain squalls and high seas. The wind has shifted from SE to SW and will continue backing to the West. Sustained winds are now in the 30 to 40 knot range.



October 26, 7PM

The major storm activity has moved away from the PCET's position. The estimated course and speed keep the ship in relatively mild weather and sea conditions about 200 miles behind the cold front.

"By 7 a.m., the 25th, the POET would have begun to experience some difficult conditions at her assumed position. We are calculating winds out of the east-southeast at 35 to 40 knots, and seas building up to average heights of about 15 feet.

"For the next 12 to 24 hours, she will be experiencing rather difficult conditons.

- 4 "Colder air has punched through and has reinforced the cold front ahead of it. The low or storm has intensified more. It has moved inland over New York State. We still have a wide swath where the strength of the storm keeps gale force winds prevailing well out into the offshore area. Winds of storm force intensity have grown a little more. The movement of the cold front and the orientation of the storm and the ship's position itself brings the ship within the area of strongest winds. We calculated that the winds have shifted more to the south-southeast at 50 to 55 knots with seas of approximately 25 feet.

"I would like to point out that on her course, she was starting to take winds and stress from the southerly direction, and is picking up the full brunt of the storm on the starboard bow. This would quite likely cause a great amount of rolling of the vessel. In these kinds of seas and winds, she is going to be rolling significantly, probably for the next 12 hours, until the front goes past.

- 5 "By the morning of October 26th, the POET would have experienced a frontal passage, with winds shifting to the southwest 30 to 40 knots. Such frontal passages are usually associated with gusty winds and very choppy seas because of changing winds. Even though the storm is beginning to move out of the area, she would still be within the gale force winds and would be experiencing some difficulty, with winds calculated between 30 and 40 knots.
- 6 "By the afternoon and into the evening of October 26th, the storm continues to move up into Quebec. The front would now be well past the POET. The POET would be about 200 miles to the rear of the front. Most of the difficult or high wind areas have now migrated further north. Conditions are beginning to subside. Winds lowering to 15 to 20 knots would be essentially on her stern and seas beginning to subside 8 to 10 feet."

In its testimony, the Weather Service also noted that while it is unusual for a storm of this type to be encountered in October, it was not extraordinary. However, the captains of two pleasure boats which were lost recounted run-ins with exceptionally severe weather. In one instance, a "rogue wave" estimated at 40-50 feet capsized a boat, and in the other, winds, of up to 60-70 knots, were experienced.

Another factor to be considered in assessing the environmental conditions experienced by the POET is what is known as the "North Wall". This phenomenon is described by the Coast Guard as "one of rapidly increasing wind and seas in the area of

the northern boundary of the Gulf Stream where the sea surface temperature can change dramatically. In such a region of large surface temperature contrast, a potential for damaging and volatile weather frequently exists. When cold air flows over this narrow zone of warm water, the air is rapidly warmed and rises. The rising air displaces the heavier, colder air aloft which descends generating strong, gusty winds at the surface." (USCG Report 16732/11486, page 23)

A NTSB analysis of the North Wall's effect on the POET stated that the ship would probably have encountered its influence beginning late on the 24th. Winds 15 knots greater and waves 5 feet higher than those away from the area would have been experienced, with the worse combined conditions occurring from early on the 25th through the evening of the 26th. However, this conclusion was not reached by the National Weather Service whose formula for estimating the track of the POET, and thus the weather conditions endured, never brought the vessel under the influence of the North Wall. (The NWS refers to this phenomenon as the West Wall.)

The POET's operating manual indicated that "weather routing" could be provided but only upon the specific request of the master. This is a commercial service providing navigational information to help vessels avoid severe weather and the accompanying problems and delays. Whether the POET's master was aware of the availability of this service, or the other provisions of the manual, is a matter of conjecture. The owner, Mr. Bonnabel, has testified that a copy of the manual was onboard. However, this was disputed by the alternate master and permanent chief engineer who both said they had never seen the operating manual onboard the POET.

There is no question that the weather conditions encountered by the POET were both extreme and impacted the ship's situation. The Coast Guard concluded in its report, "One causal factor common to all of the most prominent possible accident event sequences is the adverse weather." (ibid, page 56)

COMMUNICATIONS

Both federal regulations and international agreements (specifically, the International Convention and Regulations for Promoting Safety of Life at Sea (SOLAS)) require vessels over 1600 gross tons to carry specified communications equipment. The POET met and exceeded these requirements. It had onboard main and emergency transmitters, main and emergency receivers, a VHF/FM Bridge to Bridge Receiver and Transceiver, a lifeboat transceiver, an auto alarm and auto alarm keyer, a single side band radio transceiver, an Emergency Position Indicating Radio Beacon (EPIRB), a high frequency transmitter, and a radio direction finder. The radio operator, whose presence is also required by regulations, was on only his second "solo" voyage since being licensed.

While a vessel is at sea, it normally maintains communication with its owner/operator for business purposes, i.e., for changes in time or place of destination. In the instance of the POET, the ship's owner testified that the vessel's operating manual required it to call in every 48 hours. This was contradicted by testimony of former crew members who said they had reported only on Mondays and Thursdays.

In addition, all U.S. flag merchant ships of 1000 gross tons and over engaged in foreign commerce and not operating as part of the Military Sealift Command, and non-U.S. flag vessels that are covered by a "war risk" insurance binder, must participate in the U.S. Merchant Vessel Locator Filing System (USMER). Participation requires ships to report their arrival and departure at each port, and their location every 48 hours while at sea. Reports are made through either Naval or Coast Guard radio stations and are passed to the Maritime Administration (MARAD) which computerizes the information and makes it available

to U.S. government agencies for use in the event of a national emergency. While an operator who does not file a required report is liable for a \$50 fine for each violation, this fine has never been assessed since the system became operational in 1975.

The POPT, as do most ships, had a good reporting history to USMER. On the three voyages prior to its leaving Philadelphia on October 24, 1980, the POET promptly reported to USMER every 48 hours. The only gap at all was on its last complete trip when a scheduled call was missed, and another a day late.

A second system, similar to USMER, but with a different intent, is operated by the Coast Guard. The Automated Mutual-Assistance Vessel Rescue System (AMVER) is a voluntary, international safety program which gathers information on the position and course of vessels for use in directing assistance to marine emergencies. Virtually all U.S. vessels on voyages over 24 hours participate, as do approximately 30% of the international merchant fleet. The average number of vessels carried in the system is 2,400. Any recognized search and rescue agency can utilize AMVER, which also keeps track of whether its participants carry medical personnel or special equipment. AMVER reports are made through Coast Guard, Navy, and commercial radio stations throughout the world who accept and transmit the messages free of charge to the Coast Guard computer center at Governor's Island, New York. In addition, information received through the USMER system is automatically given to AMVER.

AMVER began as a manual plotting system of vessels in the Atlantic, but was computerized in 1958 when it expanded beyond this region. Information from the system can be produced in three ways:

**SURPIC RADI:** a surface picture showing ships within a radius of the distressed vessel.

**HILO SURPIC:** a rectangular area surrounding the distressed vessel by two chosen latitudes and longitudes.

**TRAK SURPIC:** a trackline between two points and having a specified width.

In less than 30 minutes an AMVER SURPIC can be delivered anywhere in the world. Approximately 5,000 of these plots are published annually.

Neither AMVER nor USMER was designed to alert their operators when a vessel misses a scheduled report. Their stated purposes did not require this capability. So, even though the POET was a reliable participant, when it missed its scheduled reports on October 26th and the days following, it was not noticed.

It became obvious during the Committee's hearings and investigation that there is overwhelming agreement on the need to develop an alerting capability within the existing reporting systems. It also became evident that USMER and AMVER could be combined into a single, more efficient system.

Negotiations between MARAD and the Coast Guard have produced an agreement to join the two, adopting temporarily, MARAD's statutory authority to require vessels to report to AMVER rather than USMER; the Coast Guard will in turn make necessary information available to MARAD. A study of the feasibility of incorporating an alerting feature is expected to be completed by November 1982.

It was also suggested that participation in the new, mandatory AMVER be required not only of American vessels in foreign commerce, but also of those in domestic trade.

While AMVER and USMER had no way of knowing the POET had not reported, the commercial radio station used by the vessel knew that it had been unable to contact the ship. This RCA station in Chatham, Massachusetts had been trying to get a message to the POET from Mr. Bonnabel beginning on October 27. Attempts to raise the ship were made every two hours.

Even though unsuccessful, this situation did not arouse concern because as Admiral Robert Price, USCG, put it, "We have been dealing with radio communication in the state that Marconi left it some 60 or 70 years ago." Simply, erratic communications, which can be caused by distance, weather or ionospheric conditions, are, even today, an accepted fact of life

in the marine community. In fact, both the Coast Guard and the owner of the POET testified before this Committee that it was not unusual for a ship to be out of touch for ten days, the length of time which elapsed between the POET leaving Philadelphia and Mr. Bonnabel calling the Coast Guard.

However, testimony from an official of the Radio Officers Union indicated that even if transmitting conditions are poor at various times on a frequency, if the radio equipment is functioning properly, the operator should be able to transmit and receive messages. And, in the event of an emergency, the operator has only to turn the transmitter on, set it to 500 kHz and activate the automatic signal keyer, actions which require about 30-40 seconds. Should the main transmitter be inoperable, the emergency unit, which is battery operated, is capable of signalling for several hours. International regulations require that all operators observe a "silent period" on this frequency between 15-18 minutes and 45-48 minutes after the hour. This allows any ship in distress unobstructed access and ensures that their signal will be heard.

No emergency call was ever heard from the POET, although a radio operator in Baltimore, Maryland, did report hearing a partial auto alarm of 500 kHz at midnight on October 26. The signal was steady and clear but weak, and then ended abruptly before its distance or direction could be determined. The operator promptly advised the Coast Guard Communications Station at Portsmouth, Virginia, of the signal, which the station had not heard. When, on November 14, he became aware of the missing POET, he advised the Coast Guard Rescue Coordination Center (RCC) in New York of the signal.

One other unverified distress signal was reported on October 27, but again could not be confirmed or traced.

According to the Commandant, current policy "directs any Coast Guard unit receiving information pertaining to possible distress situations, such as an auto alarm signal, to pass the information to the appropriate RCC as soon as possible." (ibid,

page 4) Why this did not occur in the POET case, and what effect, if any, this knowledge would have had on search decisions, is unclear.

During its investigation, the Committee received a substantial amount of information regarding the strengths of satellite communication systems. A study of the feasibility of satellites for maritime communications was begun by NASA in the early 1970's. In 1973, the U.S. Navy awarded a contract to Comsat General Corporation (COMSAT) to provide this service, called MARISAT, as a joint venture with RCA and Western Union. Earth stations were constructed in Santa Paula, California, and Southbury, Connecticut, and in 1976, three MARISAT satellites were put into orbit providing coverage of the Atlantic and Pacific. The service was extended to the Indian Ocean in 1978.

MARISAT for the first time provided dependable, high quality voice, slow scan television, telex, facsimile, and data transmissions regardless of distance, weather, or ionospheric conditions.

Initially, the federal government, through MARAD, jointly funded the installation of ten MARISAT terminals on U.S. flag ships to test its commercial feasibility. The system's cost:benefit ratio was projected over a ten year period at approximately 4.83:1 for a container ship, and 3.79:1 for a tanker. This amounts to a savings of \$30,000-50,000 annually per ship due to fewer delays in the ship's schedule.

The U.S. Navy has determined that satellite communication systems are a priority defense feature, and a new law (P.L. 96-387), authorizes the federal government to pay for the installation of terminals on U.S. vessels receiving a Construction Differential Subsidy from MARAD. Generally, items deemed national defense features cannot be used for other purposes. However, an exception has been made permitting the commercial use of this equipment.

MARISAT is the foundation of a new international system, INMARSAT, formed by the members of the International Maritime Organization (IMO). INMARSAT, which stands for International Maritime Satellite Organization, became operational on February 1, 1982, with 37 member countries. COMSAT, representing the United States, is the single largest shareholder. During the remainder of 1982, services will be expanded with higher capacity satellites and the opening of six more land stations. More than 1,000 ships and offshore facilities are equipped with terminals which average in cost between \$50,000-75,000. An estimated 3,000-6,000 users are expected to be in the system before the end of the decade.

Satellites are also integral to the development of improved emergency location devices. The present, Emergency Position Indicating Radio Beacons (EPIRBs), are designed to float free of a sinking vessel and automatically send a distress signal with a range of approximately 25 nautical miles and effective for 48 hours. EPIRBs are required on passenger ships and cargo ships of 1,600 gross tons and over.

The EPIRB carried by the POET was inspected annually by the Federal Communications Commission, the last time in August 1980. It was, however, a type (MARTECH Whaler EB-2BW) which has a history of malfunctions relating to maintenance problems during battery replacement. The FCC advised its field units of possible problems on May 12, 1980, and brought the specifics to the attention of the manufacturer in a letter on August 13, 1980.

The frequencies on which the EPIRB broadcasts (121.5 MHz and 243 MHz) cannot be received by most other ships, but can be heard by aircraft. Thus, if an EPIRB is deployed in an area where there are no overflights, it will not be heard. The correction of this weakness is the basis for an international demonstration program utilizing satellites to hear the EPIRB signals. Search and Rescue Satellite-Aided Tracking (SARSAT) will use low-orbit polar orbiting satellites to detect both EPIRBs and the equivalent aircraft distress device (ELT) signals on the current frequencies. In addition, the program will test a new class of

EPIRB which will transmit on 406 MHz, a frequency reserved by the World Administrative Radio Conference for maritime satellite SAR purposes. The first American SARSAT satellite is expected to be launched in February 1983, although a Soviet satellite, which will be used for this purpose, is due to be placed in orbit in the summer of 1982. An effort is also underway by IMO to have INMARSAT include an EPIRB capability in its satellite network.

SARSAT is a joint effort of the U.S., Canada, France, and the U.S.S.R., with American involvement coordinated by the National Aeronautics and Space Administration, the Department of Defense, the Department of Transportation, and the National Oceanic and Atmospheric Administration. The system will be able to determine the location of a distress signal within 10 miles of an existing EPIRB and within 2.5 miles of the experimental unit. The new devices will be able to transmit not only a simple signal, but information such as the name of the ship, its country of origin, and possibly the time elapsed since the accident.

The Coast Guard has indicated that it will seek the necessary legislative authority to require satellite EPIRB systems on U.S. vessels once the system is proven.

While supporting the expeditious development of SARSAT, both the NTSB and the Coast Guard Board suggested looking into the feasibility of redesigning the EPIRB to generate a signal which could be heard by other ships. In addition, the NTSB suggested that the FCC and Coast Guard establish national, and propose international, listening watch standards on these frequencies. The Coast Guard Board also recommended that the effectiveness of EPIRBs in adverse seas be evaluated, as well as the premise that an EPIRB will "float free" from a ship which overturns or sinks.

The Commandant's response to these suggestions was either that they had already been looked at, or were scheduled to be considered during the SARSAT demonstration. Specifically, the Commandant said:

"The need for developing an EPIRB which would emit a signal detectable by other ships was evaluated before the requirements for EPIRB's were introduced in 1975. In general it was found that the large antenna and high power requirements needed for the maritime frequencies were inconsistent with an EPIRB package of acceptable size and price. Higher, line of sight frequencies used on board ships would not have sufficient range to be effective. Consequently, the line of sight, aeronautical frequencies were chosen as the best alternative. The potential additional coverage offered by other ships is minimal when compared to the coverage offered by aircraft or satellite." (ibid, page 3)

The Commandant did note that while he still considers the "float free" concept to be valid, the Coast Guard SAR Coordinator recommended in the SAR Case Study on the POET that vessels carry a minimum of two EPIRBs on deck and at least one salt water activated EPIRB in each lifeboat and liferaft. This suggestion was echoed by other experts to whom the Committee spoke.

Why neither the normal or emergency communication systems were able to alert anyone to the POET's distress will never be known. Possibilities range from a total equipment failure to a simple, but tragic, explanation that signals were sent yet not heard, to the theory advanced by both the Coast Guard and the NTSB, which is that whatever happened to the POET, occurred so quickly and with so little notice, that the crew was unable to call for help.

Whatever the answer, it is obvious that there is room for improvement in our current communication programs, and that the development of future systems should be expedited. With this in mind, the Committee recommends that:

1. The Coast Guard and the Maritime Administration finalize negotiations to combine AMVER and USMER;
2. Legislation be enacted to grant the Coast Guard the authority to require vessels currently participating in USMER, as well as U.S. vessels over 1,000 gross tons engaged in domestic trade, to report to AMVER;
3. The Coast Guard add an alerting feature to AMVER that will "flag" any vessel that misses a scheduled report;
4. The owner/operator of any vessel participating in AMVER be required to promptly report to the Coast Guard any irregularities in scheduled communications with the ship;
5. Commercial radio stations which have a message on file for over 48 hours for any AMVER participant be required to report this fact to the owner/operator;
6. The installation of a satellite communication capability on U.S. ships be encouraged and adequate funds appropriated to implement P.L. 96-387;

7. The Coast Guard determine the benefits to be gained from requiring the carriage of multiple EPIRBs;
8. The SRSAT demonstration project be expedited.

#### SEARCH AND RESCUE

As stated earlier, the POET left Philadelphia on October 24. On November 3, a representative of the vessel's owner contacted the Coast Guard Rescue Coordination Center (RCC) in New York to advise that the ship had not been heard from since leaving port. The POET was due to pass the Straits of Gibraltar on November 3 and reach Port Said, Egypt on November 9.

The Coast Guard, which had been told that the POET was an AMVER participant, checked its computers and learned that the last information it had was the POET's departure message on October 24. The Coast Guard also began communication searches involving Lloyds of London Intelligence Service, law enforcement computers, USMER, and the commercial radio station used by the POET, Chatham Radio in Massachusetts. The only information produced by this search was that Chatham had been trying to reach the POET every two hours since the morning of October 27. The RCC also checked its unverified distress signal folder but found nothing. (As noted in the discussion of communications issues, a partial auto alarm heard at midnight on October 26 was reported to the Coast Guard station in Portsmouth, Virginia, but this information was not forwarded to the RCC.)

On November 4, the Coast Guard checked with the Delaware Bay pilot who had guided the POET out of Philadelphia, to determine if there were any problems with the vessel. The answer was negative. The RCC also queried Lloyds to see if the POET had passed Gibraltar. The answer, received the following day, was again negative. For the remainder of this day, November 5, and the next, the Coast Guard awaited responses to its broadcast request for information.

On November 7, the Coast Guard checked and determined that the POET had reported continuously to USHER on previous voyages. According to the chronology prepared by the RCC, "This information led to primary assumption number one that the POET had encountered difficulties (nature unknown) prior to 26 1200R OCT 80." (Coast Guard SAR Case Study, page 6)

Some three hours after this was determined, the RCC checked and determined that there was severe weather along the POET's intended track on the 25th and 26th. Again, according to the RCC chronology, "This led to primary assumption number two, that whatever occurred did so in the storm." (ibid, page 6)

Based on these two assumptions, the RCC prepared a search and rescue plan, beginning the actual aerial search on November 8. On November 11, a Navy plane heard a distress signal but was unable to locate its source before having to leave to refuel. Subsequent searches of the area turned up nothing. On November 15, a small oil slick was sighted approximately 1,200 miles off the east coast in the vicinity of the POET's assumed track. "An orange object which looked similar to a life preserver" was sighted by the same plane, although the crew was "unable to positively identify what was on surface due to no surface units in area" (ibid, page 12)

During a Subcommittee on Coast Guard and Navigation hearing on March 17, 1981, Coast Guard Commandant John B. Hayes addressed this lack of surface vessels as a function of vessel maintenance problems. When asked whether major maritime tragedies had occurred while ships were laid up, Admiral Hayes responded in the negative. "I guess the nearest miss was when the POET was apparently lost at sea off the east coast of the United States. The search and rescue phase was going on and at that time we had virtually no major vessel of the Coast Guard available in the Atlantic area due to various operational commitments or maintenance problems that were in fact occurring at that time." (Committee Document 97-2, page 405)

After ten days of fruitless efforts, the Coast Guard called off the search on November 17. An estimated 300,000 square miles were covered by Coast Guard, Navy, Air Force, and Canadian pilots.

The statutory authority for search and rescue by the Coast Guard is found in Section 88 of Title 14, U.S. Code. This authority to "render aid to distressed persons, vessels, and aircraft" is discretionary. However, the duty to maintain "rescue facilities" is mandatory under Section 2 of Title 14, U.S. Code. In carrying out these discretionary duties, the policies and procedures to be followed during a suspected marine emergency, as well as those on land, are outlined in the National Search and Rescue Manual.

In the case of the POET, the responsibility for the investigation and search was that of the Coast Guard Third District RCC headquartered at Governor's Island, New York. The Manual designates the District Commander as the "SAR Coordinator". (At the time of the POET disappearance, this was Vice Admiral Robert Price, who served simultaneously as Atlantic Area Commander. Admiral Price has since retired.) While the SAR Coordinator may designate a Mission Coordinator to oversee a specific incident -- which was done on the POET -- the Manual explicitly states that the SAR Coordinator has overall mission responsibility (Section 232) and must "follow each mission closely until assistance is no longer necessary, or a rescue has been effected, or until chances of success are no longer a reasonable possibility." The Mission Coordinator is charged to "keep SAR Coordinator fully advised of SAR mission progress with timely situation reports at least once daily." (Section 232(e)(17)).

As stated earlier, the Coast Guard was first advised of concern for the POET on November 3. However, in what appears to be a clear departure from the chain of command set forth in the Manual, Admiral Price was not told of the situation until November 7, and then by a union official and not his staff. The importance of this delay can only be assumed when one looks at

the RCC chronology. This shows that it was on November 7, within hours of Admiral Price becoming involved, that the information was first sought which led to the initiation of the search.

The Manual states that a SAR incident exists when "the surface vessel is overdue or unreported. Generally, a surface craft may be considered overdue when it fails to arrive at its destination within 2 to 24 or more hours after its estimated time of arrival. . . A surface craft may also be considered to be overdue when a scheduled position report is 4 hours late and no communications contact can be established." (Section 751(g)).

At the Committee's hearing on April 9, 1981, Captain Clarence Hobdy, (USCG, Retired), author of the SAR Manual, and now in private life an expert consultant on search and rescue operations, testified that on November 3, the POET met the stated criteria for an overdue vessel since she missed scheduled reports to USMER on October 26, 28, 30, November 1, and 3, as well as check-ins with its owner, and had been out of communication for ten days. It was, however, classed as an unreported vessel and assigned to the uncertainty phase, "Due to the immense area of ocean involved, the lack of information related to the subject, and due to it not being overdue, either at Port Said or passing through the Straits of Gibraltar." (The POET was, however, scheduled to pass Gibraltar on November 3.) (Coast Guard SAR Case Study, page IV-1)

Had the POET been classed as overdue rather than simply unreported, the provisions of Section 732(c) of the Manual would have applied. This section states, "In missions involving overdue craft, the weather situation should be evaluated to determine what effect it may have had upon the craft's operating capabilities or the actions of the craft's operator." Information about the weather conditions along the POET's route was not sought until the fifth day.

Captain Hobdy also reviewed the Coast Guard Case Study on the POET and found what he determined to be two major deficiencies: "First, the operating company waited ten days before alerting the Coast Guard of the POET's failure to

communicate after sending its initial departure message. Second, the Coast Guard waited an additional five days before initiating an air search." (Committee Document 97-10, page 26)

Addressing himself primarily to the second deficiency, Captain Hobdy testified that "within 24 hours the Coast Guard should have completed all communication searches, established the emergency phase of uncertainty initially, followed within a few hours by an upgraded emergency phase of alert. And, upon upgrading to alert, plans for the first air search should have been commenced." (ibid, page 26)

Thus, in Captain Hobdy's opinion, the Coast Guard air search should have begun on November 4 and that no later than the morning of November 5, the incident should have been escalated to the distress phase, and extensive air searches commenced.

The need for a speedier reaction was also found by the NTSB in its assessment of the Coast Guard's efforts. The Board stated that while the search was "extensive and exhaustive" had it "commenced sooner, the probability of finding survivors or debris would have been greater." The NTSB's analysis stated that a search should have begun on November 5.

The Coast Guard's Hearing Board concluded that:

"the actions taken by the Coast Guard Rescue Coordination Center, New York, and Commander, Atlantic Area, in initiating and conducting search and rescue efforts aimed at locating the POET or survivors from the POET were in accordance with current agency policy. The absence of a distress message or verifiable signal from POET was the single greatest factor in the search effort not being undertaken in time to be of benefit to possible survivors. The reliability of the communication system (including the EPIRB) is fundamental to safety of life at sea and requires further attention." (Report No. USCG 16732/11486, page 60)

This finding was echoed by Admiral Price at the Committee's June 24, 1981 hearing. When asked if, since the POET, any actions had been taken to modify, improve, or change Coast Guard procedures in the Third District, Admiral Price responded, "I have taken no measures, sir, because those that were taken were correct, and they are adequate." (Committee Document 97-10, page 206)

However, the procedures followed in the Third District had come under scrutiny six months before the POET ever left Philadelphia.

A NTSB Marine Accident Report issued six months before the POET incident (April 24, 1980, on the fishing vessel M/V LOBSTA-I) stated that many of the Third District rescue coordination actions "were not made in a timely manner," that the RCC "was not well organized and that personnel on duty may have lacked the experience and instruction needed to process the SAR operation in the timely manner necessary to save lives."

The NTSB recommended a review of the Coast Guard's rescue coordination for this accident and improvement of the rescue coordination procedures to provide a more timely response.

The Coast Guard disagreed with the NTSB's assessment and recommendation.

The Committee is in agreement with Captain Hobdy's assessment that a significant deficiency in the search for the POET was the delay by the owner in reporting to the Coast Guard that his vessel had not been heard from in ten days. Also, pertinent data, such as weather information and reporting habits of the POET, could have been ascertained at an earlier date by the Coast Guard. To address the latter, the Committee recommends the following:

- 1) The Coast Guard should impress upon the officer designated as the SAR Coordinator the importance of following the chain of command outlined in the National Search and Rescue Manual.
- 2) The Coast Guard should make certain that, pending the establishment of a mandatory reporting system with an automatic alerting capability, a vessel's history of participation in USMER, as well as the weather conditions encountered by a vessel, should be among the first items checked when determining the status of a SAR incident; at least within the first 24 hours.
- 3) The Coast Guard should make certain that its RCCs are aware of and use the flexibility given in the Manual to classify a ship as overdue rather than simply unreported when a scheduled position report is more than four hours late and communication contact cannot be established.
- 4) The Coast Guard should make certain that its field offices forward any unverified distress signals to the appropriate RCC.

OWNER RESPONSIBILITY

Under American admiralty law and federal regulation, a shipowner is responsible for insuring that his vessel is seaworthy. This has always been interpreted very broadly, and includes, in addition to the vessel's ability to withstand anticipated vicissitudes of the voyage, the readiness of holds and other carrying spaces, proper outfitting of the vessel, including up-to-date charts and navigational aids, and proper manning. However, in order to encourage investment in shipping, maritime nations -- including the United States -- have limited an owner's liability for the loss of cargo at sea. It has been customary to include within this limitation any other liability which the owner might have for an incident, such as the sinking of a vessel or the loss of life.

The statute which establishes the limitation of a shipowner's liability is 46 U.S.C. 181 et. seq., with the most significant section relating to the loss of life or bodily injury contained in section 183. This section has remained virtually unchanged since its enactment in 1851; it limits an owner's liability to the value of his interest in a vessel and its freight then pending (which, if it has been destroyed or sunk, may be zero. An exception for loss of life was enacted in 1935, establishing a separate limitation fund equalling \$60 per vessel gross ton to be available to recompense loss of life claims.

Although the Committee's hearings did not address the Limitation Act and its applicability to the POET incident, the subject was explored and discussed during the staff's investigation. The benefits of the Limitation Act are invoked by vessel owners in virtually all maritime law actions addressing loss of property, bodily injury and loss of life. The courts, however, are increasingly reluctant to grant the protections of the Act to vessel owners, even where vessel owners are

demonstrably free of "privity or knowledge", the statutory language which serves to cut off the right to limit liability. Courts have done so based upon equitable principles.

The Limitation Act, in essence, seldom serves those it was originally intended to benefit. Because the amounts available in limitation funds are often inadequate to compensate claimants, rightful claims may be inadequately redressed or, in the alternative, vessel owners denied their rightful statutory protections in order to provide greater compensation. Recognizing this dilemma, the International Maritime Organization, (IMO) and the Maritime Law Association (MLA) have both proposed changes to international conventions which would generally increase the amounts available in limitation funds and, at the same time, retain the limitation protection to vessel owners.

The Committee believes it is in order to review the 1851 Limitation Act, in its entirety, utilizing the IMO and MLA alternatives as the basis for reexamination. Changes in U.S. law should be made, as appropriate.

The Committee also believes that the current law requiring a shipowner to report his vessel's probable loss must be strengthened.

Expert assessments of the circumstances surrounding the POET's disappearance by both Captain Hobdy and the NTSB found fault with the owner for waiting ten days before notifying the Coast Guard. In its report, the NTSB stated: "The delay until November 3 by the POET's owner in notifying the Coast Guard that the POET was unreported since October 24 may have contributed to the loss of life." (page 53)

Mr. Bonnabel testified that he sent a message through Chatham Radio to the POET on October 27. He was advised by Chatham on October 30 that it had been unable to get through to the ship with broadcasts made every two hours over the preceding three days. On this date, Mr. Bonnabel said he first became concerned about the ship and placed calls to the unions which represented his crew to determine if they had heard from the

ship. Even though this inquiry drew a blank, Mr. Bonnabel told the Committee that he decided to wait "another day or two for the single reason we (did) not think anything (was) wrong with the ship." (Committee Document 97-10, page 195)

While Mr. Bonnabel also testified that it was company policy for ships to report their status every 48 hours, the same time frame as for reports to USMER, it was, however, unclear whether the ship's officers possessed an operating manual that expressed this policy. When the POET left Philadelphia on October 24, reports were expected by both the owner and USMER on October 26, October 28, October 30, November 1, and November 3. Thus, ten reports were missed (five each to the owner and to USMER) before the Coast Guard was advised by Mr. Bonnabel on November 3.

The provision requiring a shipowner to contact the Coast Guard when he is concerned about the probable loss of a vessel is Title 33 U.S.C. 362. This states:

"Whenever the managing owner or agent of any vessel of the United States has reason, owing to the nonappearance of such vessel, or to any other circumstance, to apprehend that such vessel has been lost, he shall, as soon as conveniently may be, send notice, in writing to the Coast Guard official of the port to which said vessel belonged, of such loss, and the probable occasion thereof stating the name and the official number (if any) of the vessel, and the names of all persons on board, so far as the same can be ascertained, and shall furnish, upon request of the Coast Guard official of such port, such additional information as he may be able; and if he neglect to comply with the above requirements within a reasonable time, he shall incur a penalty of \$100."

The Committee believes that it is necessary to clarify the shipowner's responsibility under this law, specifically with regard to what factors constitute reason to suspect a loss, and the maximum time frame in which the report is to be made to the Coast Guard.

In general, the Committee believes that the laws governing a shipowner's responsibility for the safety of his crew and vessel need strengthening. To this end, the Committee makes the following recommendations:

1. Congress should examine the limitation of liability law and make appropriate changes to bring it more nearly into conformity with proposed international conventions.

2. Legislation should be enacted to clarify the responsibility for reporting the probable loss of a vessel by more clearly defining the criteria a shipowner should use to determine a vessel's probable loss and by including a time limitation within which a report of probable loss must be made to the Coast Guard.

#### SUMMARY

The Committee has not attempted to assess blame or responsibility for the loss of the POET, but rather to detect and correct any weaknesses in current procedures which may have contributed to or exacerbated the accident.

The recommendations the Committee has made requiring legislative authority will be included in a comprehensive maritime safety bill. Since the Committee has already heard testimony on these issues, it is hoped that consideration of the bill can proceed expeditiously. Those recommendations which require a policy or regulatory change will be forwarded to the appropriate agency for action.

HEARING ON THE  
DISAPPEARANCE OF THE S.S. POET

Thursday April 9, 1981

\*The following testimony was inadvertently left out of the printed hearing record on the disappearance of the POET and is included here to ensure overall completeness.



# Brotherhood of Marine Officers

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## COMMITTEE HEARING S.S. POET

It is our opinion that the following questions should be accorded your full attention and close scrutiny to determine if restructuring is required to safeguard the men who go down to the sea in ships.

1. We know of no Coast Guard mandatory regulation that requires audio-gauging or other appropriate tests of double bottom tanks, ballast tanks or known by any other appellation, after a vessel has reached a certain age bracket. (The Poet was 36 years old and during the Coast Guard inquiry certain records were requested, which we believed could have shed light on the last inspection of these tanks. The records were unavailable.)

The tanks are used for salt water ballast, that is pumped in and out as cargo necessitates. This in itself will set up a corroding affect, that over the years could be disastrous if not periodically checked. Permanent ballast such as "drillers mud" is also used and remains part of the vessel, with no visible means of checking the hull plates thereafter, without the removal of said ballast.

Opinion: We therefore recommend that when a vessel reaches its tenth year, that it becomes mandatory to conduct tests on the hull plates, and all structural members within the tank to assure the metal in the area is not fatigued, after the ten years test every three years thereafter.

Note: If the CAB can ground all DC 10 to check engine mounting to safeguard passengers, there is no reason M.M.F.C. cannot apply the same principle to protect seamen.

2. There are two vessel communication agencies that on the face, seem to be at odds with each other. Maritime USMER and AMVER (CG).

During the inquiry no exchange of information took place until the various unions involved pressed the issue. We were unable to ascertain the cost of each program and to extract the exact role of AMVER or of USMER. We were made to understand that U.S. vessels are required to notify USMER twice weekly and the company is liable for a fine if their vessels do not comply. We know of no fine ever being levied.

The Master of the Poet, during the previous voyage maintained a constant position report with USMER and this was brought to the attention of the Coast Guard to, perhaps, expedite the search.

Opinion: We recommend that the M.M.F.C. study the feasibility of combining the funds of AMVER and USMER and forming one agency, that will be responsible for ship reporting. We further suggest, that it be mandatory that all U.S. vessels report their position twice weekly. Failing to report as required would subject the vessel owner to a stiff penalty.

No vessel shall be allowed to steam more than three days from its last reporting position, if their radio equipment fails to function. The vessel shall head for the nearest port for radio repairs.

A vessel could continue on its voyage, without radio contact, provided it can contact the nearest port with its emergency radio equipment (lifeboats), whenever possible.

Any vessel having continual radio equipment failure, shall remain in port until such equipment is placed in proper operating condition by certified radio technicians or such equipment is replaced.

3. We realize the Coast Guard is deluged at times with SOS's from pleasure craft etc., and do a fine job in this area, but it seems that not enough effort is expended toward the safety of the merchant ships.

Opinion: Rules must be adopted that as a vessel gets older, a more comprehensive inspection takes place and if necessary, every six months rather than annually. Other periods for inspections should also be shortened. Present schedules of all vessels. Example

1. 2 yr. - Hydrostatic safety valves.
2. 4 yr. - Boiler mountings.
3. 8 yr. - Stud replacement.

\* See U.S.C.G. Regulation for all inspection requirements.

4. The Poet was loaded with 14,300 tons of grain in Philadelphia. This load was maximum for a fresh water calculation. During the period of loading, a severe drought was in effect in the area and no record is available as to the salt content of the water in the vicinity of the vessel. Therefore, a likelihood exists that the vessel was carrying more than it should.

Opinion: Consideration should be given to a loadline capacity, based on the age of a vessel and more stringent inspection of the loadline should be instituted. An offshore check of the Plimsoll mark should be made, rather than from the deck.

5. "Overdue" vs. "unreported" vessels. These terms are used by the Coast Guard and in the case of the "Poet" these terms, in our opinion, were misused and resulted in a five day delay in commencing a search for the vessel.

Opinion: In the Poet's case, the company officials were definitely at fault in not requesting Coast Guard guidance sooner than they did, in view of past practices of the Master in maintaining radio contact.

The Coast Guard was at fault by implementing the term "unreported" in this instance as the vessel had not cleared Gibraltar. No vessel is required to notify Gibraltar authorities. The "unreported" period continued for another five days to the time the vessel was to have arrived off Port Said.

This in view of a freak storm, off the coast, when the "Poet" sailed.

The Coast Guard should reevaluate this procedure as the facts in this issue speak for themselves.

6. During the period of seeking the whereabouts of the "Poet", statements by several Coast Guard officers, that "equipment" — "unavailable" — for such a search. "We got 3 P3's which gives us one to get in the air" and other amazing comments.

Opinion: Although the Coast Guard put planes up on the 9th of November, plus 1 or 2 Navy planes, we believe that whenever the Coast Guard cannot get a sufficient number of planes airborne, there should definitely be a coordination of all the services immediately