DISAPPEARANCE OF THE S.S. POET

HEARINGS

BEFORE THE

COMMITTEE ON MERCHANT MARINE AND FISHERIES HOUSE OF REPRESENTATIVES

NINETY-SEVENTH CONGRESS

FIRST SESSION

ON

THE FATE OF THE U.S.-FLAG FREIGHTER, THE S.S. "POET," WHICH DISAPPEARED WITH ALL HANDS ABOARD

APRIL 9, JUNE 24, 1981

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DISAPPEARANCE OF THE SS "POET"

THURSDAY, APRIL 9, 1981

HOUSE OF REPRESENTATIVES,
COMMITTEE ON MERCHANT MARINE AND FISHERIES,
Washington, D.C.

The committee met at 10:08 a.m., in room 1334, Longworth House Office Building, Hon. Walter B. Jones (chairman) presiding.

Present: Representatives Jones, Studds, Hughes, Mikulski, Foglietta, Sunia, Hertel, Shumway, Fields, Schneider, and Shaw.

Staff present: Lawrence J. O'Brien, Edmund B. Welch, Cher Brooks, Barbara Cavas, Dave Parker, Duncan Smith, Eugene W. Gleason, Charlie Holm, John Cullather, Sue Waldron; and Barbara Fox.

The CHAIRMAN. The committee will please come to order.

The first order of business is consideration by the committee of permitting the televising and recording of these proceedings. The committee rule No. 3-G requires that the committee, by majority vote, approve broadcasting coverage of our hearings.

Is there any discussion about allowing broadcasting coverage?

Hearing none, the Chair moves that such coverage be allowed. All in favor say yes.

[Chorus of "Yeas."]

The CHAIRMAN. All opposed.

[No response.]

The CHAIRMAN. The TV boys are now in business.

Today we inquire into the fate of the U.S.-flag freighter, the SS *Poet*,, which disappeared with all hands aboard sometime after she left Port Philadelphia and cleared Cape Henlopen at 8:30 a.m., last October 24. The vessel carried 34 men and 13,500 long tons of yellow corn bound for Port Said, Egypt, and vanished without a trace, without a clue. She disappeared, it is safe to say, engulfed in mystery.

A matter this serious, which took the lives of 34 young men, needs to be investigated. The time we spend developing solutions that will prohibit similar events from happening in the future, will be time well spent.

This is not to be a bloodletting or cross-examination of any department, be it the Coast Guard or the Department of Transportation or the shipping companies. We merely hope to uncover, if at all possible, the events that did occur and, with the wisdom of this committee, or any other committee, come to a conclusion as to how to prevent their recurrence. If we can accomplish this, then I repeat it will be time well spent.

Going back to the unfortunate events of last October, some 6 hours after sailing, a young officer aboard the vessel called his wife

on ship-to-shore phone but gave no hint the ship was experiencing difficulty. That was the last known contact with the SS *Poet*; only the second U.S.-flag vessel to disappear without a trace in 17 years.

Though the vessel normally reported in every 48 hours, no alarm was given by the ship's owner until November 3, when he informed the Coast Guard the ship had been out of radio contact for more than 10 days. The Coast Guard began a fruitless search for the vessel on November 8, approximately 16 days after it cleared Cape Henlopen and 5 days after it was due in the Strait of Gibraltar.

The Coast Guard convened a Marine Board of Inquiry jointly with the National Transportation Safety Board in Philadelphia on November 19, 1980, to investigate the remarkable disappearance. Both agencies plan to issue their separate reports on the incident in July.

On December 11, 1980, the Board of Inquiry resumed the Philadelphia hearings after a 10-day recess by issuing 34 "presumption of death" letters which stated that, in the Board's opinion, the men aboard the *Poet* are "missing and presumed dead."

Now, we must sift the known in a search for the unknown. The task before us is to determine what happened to the SS *Poet* one morning last October as it began its final journey. In a moment, the staff will present the committee with a report on its investigation of the disappearance of the SS *Poet*. However, before the first witness is called, I would like to make several other observations.

The first is that the disappearance of a vessel the size of the SS *Poet* without a trace is most unusual. If there is some intrinsic weakness in the design of our vessels or in our operating procedures, we must discover and correct them before more American lives are lost.

Second, I want to express my own deep sorrow and regrets to the families of the missing men, and to assure them I will do all I can to determine the cause of this tragedy. I am confident my colleagues on the committee agree with me on that point.

Because this is an investigative proceeding with profound implications, each of today's witnesses, including staff, will be sworn and testify under oath.

Before I call upon the staff to present their findings, I will ask if there are any opening statements.

The Chair recognizes the gentleman.

Mr. FOGLIETTA. Thank you, Mr. Chairman.

First of all, I want to state that the SS *Poet*, when it left the Port of Philadelphia on October 24, left the First Congressional District in Pennsylvania, which I represent.

For that reason, and just for humanitarian motives, I want to express my deep sorrow and sympathy to the families of the missing crew members, and assure that this is a matter which we are very, very concerned about. This is an investigative procedure. We will devote our energies, our time, our resources to try our best to determine exactly what happened to the ill-fated SS *Poet* and to make any determinations necessary to correct situations which need correcting, to assure that this kind of a situation will never occur again.

The CHAIRMAN. I thank the gentleman very much. The Chair would like to state that no one on this committee has shown any

more interest in this unfortunate incident than has the gentleman from Pennsylvania. I appreciate your help.

At this time, we will call the members of the staff who will give their testimony.

Will you please stand and be sworn?

Do you solemnly swear that the testimony you are about to give is the truth, the whole truth and nothing but the truth?

Mr. O'BRIEN. Yes.

Ms. BROOKS. Yes.

Mr. GLEASON. Yes.

The CHAIRMAN. The Chair recognizes Mr. O'Brien, the chief counsel of the House Merchant Marine and Fisheries Committee.

TESTIMONY OF LAWRENCE J. O'BRIEN, CHIEF COUNSEL, HOUSE MERCHANT MARINE AND FISHERIES COMMITTEE, ACCOMPANIED BY CHER BROOKS, COUNSEL TO THE COMMITTEE, AND PRINCIPAL COUNSEL ON THE INVESTIGATION OF THE S.S. "POET"; AND EUGENE W. GLEASON, COMMITTEE CHIEF INVESTIGATOR

Mr. O'BRIEN. I am Lawrence J. O'Brien, chief counsel of the House Merchant Marine and Fisheries Committee, and I am accompanied by Ms. Cher Brooks, counsel to the committee and principal counsel on the investigation and disappearance of the SS *Poet*. I am also accompanied by Mr. Eugene W. Gleason, the committee's chief investigator, who has spent most of the last two months looking into this matter. At your direction, we have prepared a chronological exposition of the facts as we know them, with a view to setting the scene for subsequent witnesses and for later questioning of those witnesses.

On October 24, 1980, the SS *Poet*, U.S.-flag merchant vessel, left Philadelphia bound for Port Said, Egypt, with a cargo of 13,700 metric tons of corn. A radiotelephone call at noon on that day is the last known contact with the vessel. No trace of the ship, its crew or cargo has since been found. In February 1981, underwriters with Lloyds of London and United Kingdom Insurance Co. settled a $1 million full claim for the SS *Poet*, with the presumption the ship had sunk in heavy weather and that it was seaworthy at the time.

In late November 1980, the U.S. Coast Guard Marine Board of Inquiry convened to probe the disappearance of the SS *Poet*. The National Transportation Safety Board (NTSB) participated in the hearing, and will be issuing its findings and recommendations by midyear of 1981. The Coast Guard study results are expected around the same time.

Events preceding the disappearance:

On October 17, 1980, the SS *Poet* arrived at Cape Henlopen and was brought up the Delaware River by two tugs to a layberth at Girard Point pier No. 2. Later that day. U.S. Department of Agriculture and National Cargo Bureau (NCB) inspectors boarded the SS *Poet* and found the holds contained too much water and rust to allow the cargo to be loaded.

On October 18, a U.S. Coast Guard boarding inspector found safety violations on the SS *Poet*. The ship did not have a Loran C navigation system onboard, and there was no insulation under the 55-gallon drums and welding tanks. These deficiencies were cor-

rected before the SS *Poet* left port, and a Loran C device was installed.

It should also be noted that the Coast Guard inspector is a member of the Coast Guard Reserve and, as a member of the Reserve, he only works every third weekend. In civilian life, he is a Philadelphia police officer. In August 1980, he had just become a qualified boarding officer.

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

On Tuesday, October 21, the SS *Poet* was moved from pier No. 2 to pier No. 3, and the loading of the U.S. AID shipment of No. 2 corn was begun. At 5:45 p.m., on October 23, the loading operation was completed and the hatches were secured. The corn weighed 13,500 long tons, and was valued at $2.1 million. At the completion of the grain loading, the NCB issued a "certification of loading" stating that they had monitored the loading of the grain and the stowage was "in accordance with the regulations of the Commandant, U.S. Coast Guard."

At 1 a.m., on October 24, the river pilot boarded the SS *Poet* and two tugs towed her down the Delaware River. The pilot heard the master and mate discussing the new Loran C system and how well it worked. He also testified under subpena that the bow drew 34.5 feet of water while the stern appeared to only draw 32 feet, that is, it was approximately 2 feet low in the bow. This was also noticed by a surveyor who inspected the SS *Poet* before it sailed from Philadelphia's Girard Point.

The USMER, the U.S. merchant vessel locating system, departure message was filed while the vessel was passing Cape Henlopen. USMER is the Maritime Administration's vessel reporting and locating system which came into being in 1975 after the *Mayaguez* incident. The message read that the SS *Poet* was planning a speed of 15 knots on a RHUMB—straight—line course to the Straits of Gibraltar, estimating their date of arrival at Port Said, Egypt, to be November 9, 1980. Approximately 4 hours later, at noontime, the last message received from aboard the SS *Poet* was a collect radiotelephone call to Mrs. Donna Gove from her husband, Third Mate Robert Gove. In the conversation, there was no mention of any problems or adverse weather. The SS *Poet*'s next scheduled report to the USMER system would have been at approximately noon on Sunday, October 26. No message was ever received.

The SS *Poet* had a record of religiously reporting to USMER every 48 hours. Between April 28 and May 14, 1980, the SS *Poet* traveled from Alexandria, Egypt, to New Orleans, La., during which time the vessel reported promptly every 2 days. On August 23, 1980, the SS *Poet* left Pensacola, Fla., with a cargo of flour, its destination being Port Said, Egypt. Again, the SS *Poet* reported every 48 hours to the USMER system. The only substantial gap in the SS *Poet*'s recent reporting history was on the return trip from Port Said to Philadelphia.

The SS *Poet* departed October 1 and reported to USMER, but the next call was not received on that leg until October 6. For the remainder of this voyage, the SS *Poet* reported every 2 days. It was

unusual, therefore, that the SS *Poet* did not report on October 26 on what apparently was its final voyage.

Because the SS *Poet* had a previous record of reporting every 48 hours to USMER, it is suspected the vessel ran into trouble sometime during the first 2 days of the voyage. Tracing the SS *Poet's* reported course, she would have run into a storm beginning early the second day. The worst weather would have been encountered between 7 a.m. on Saturday, the 25th, and 7 a.m. on Sunday, the 26th. At 7 p.m. on Saturday, there were 50- to 55-miles-per-hour winds from south-southeast, and seas averaging 25 feet. Due to the fact there is no evidence that any crew members made it to a lifeboat, life raft, or life vest, it is more probable that the disaster occurred at night when most of the crew was below the deck or in their bunks during the storm. Although it was a heavy storm, weather conditions of this magnitude are not uncommon and do not alone normally sink a ship.

On the basis of the foregoing facts, the Coast Guard commenced a search and rescue pattern (SARP).

The disappearance of the SS *Poet* represents the first time in nearly 20 years that a U.S.-flag vessel has totally vanished without a single trace. Leaving aside for the moment the suspicions that the ship was hijacked or was a victim of maritime fraud, the most cogent theory is that the SS *Poet* sank without the crew becoming aware of their grave situation quickly enough to send an emergency distress signal, or sank after the crew sent an emergency signal, but the message was never received.

If the SS *Poet* did sink within the first few days, serious questions arise with regard to the structural integrity of the vessel; the adequacy of the safety inspection; the degree of scrutiny over the loading procedures; the effects of the weather on the ship, and the standard of care exercised by the owner in managing and maintaining the vessel.

Mr. Chairman, that concludes the factual synopsis prepared by the staff, at your direction. A more complete rendition of the same materials was forwarded to each member of the committee last week, and provides a more detailed evaluation of both policy and events surrounding the loss of the SS *Poet*.

I will be immediately followed by a representative of the National Oceanic and Atmospheric Administration (NOAA), who will provide a brief on the weather patterns in the Atlantic at the time the vessel was lost.

The CHAIRMAN. Does any member of the committee have questions for the witnesses?

Mr. FOGLIETTA. Mr. O'Brien, you state in your testimony that the last report from the *Poet* was on the 24th, and the next report was due at noon on the 26th?

Mr. O'BRIEN. That is correct.

Mr. FOGLIETTA. So, therefore, we do not know whether or not there was at this point any time that a message was reported back that was required that was not transmitted?

Mr. O'BRIEN. There is an USMER requirement. It's a mandatory reporting situation. They usually reported every 48 hours.

At the board of inquiry, there was testimony to the effect that the owner's standard operating procedure also required reporting

every 48 hours. The prior pattern of reporting by the vessel indicated it had established a routine whereby it honored the USMER requirement, and the owner's requirement, by reporting every 48 hours. So when it got to the 26th and there was no response, that was inconsistent with most of the past practice regarding that vessel.

Mr. FOGLIETTA. All right.

You said that the owner of the vessel finally did notify the Coast Guard that he had not heard from them. This is 10 days later?

Mr. O'BRIEN. Yes, sir.

Mr. FOGLIETTA. Ten days later. Ten days after the 24th?

Mr. O'BRIEN. Right. We prepared a chronology, Congressman.

Mr. FOGLIETTA. Yes, I see it.

Mr. O'BRIEN. And that indicates that the Coast Guard search commenced on November 8.

Mr. FOGLIETTA. I am not talking about the Coast Guard search. That is my next question.

The notification by the owner to the Coast Guard that he had not heard from the ship occurred on——

Mr. O'BRIEN. November 3.

Mr. FOGLIETTA. The 3d?

Mr. O'BRIEN. Yes, sir.

Mr. FOGLIETTA. Now, is it normal for any communication to be occurring between the ship, the vessel, and the owner during that period?

Is there anything that should have occurred that aroused his suspicions at that particular time?

Mr. O'BRIEN. I would like to yield to one of my colleagues here, to answer that more fully.

Ms. BROOKS. Yes. As the report read, the ship, the S.S. *Poet,* had regularly reported every couple of days to the owner and to USMER, which is the MARAD mandatory reporting system; and it also voluntarily reported to AMVER, which is the Coast Guard system, every 2 days. So the owner should have been alerted those first couple of days when it did not report. That was highly unusual.

Mr. FOGLIETTA. That is my big question.

Why was there a lapse of 10 days between the last time the ship was heard from by the owner and the Coast Guard? Nothing was done for 10 days?

Ms. BROOKS. That is right.

Mr. FOGLIETTA. Should not some suspicions have been aroused after 2 days or 3 or 4 days?

Ms. BROOKS. I would think so.

In fact, on the 27th of October, the commerical radio navigation station the owner used, which was in Massachusetts had began trying to contact this ship every 2 hours and never received any acknowledgment. And still no one called the Coast Guard.

Mr. FOGLIETTA. He was trying to call every 2 hours for 9 days and never got an answer for 9 days and never notified the Coast Guard?

Ms. BROOKS. Right.

Mr. FOGLIETTA. I think these are areas for concern that we really have to get into.

The questions that I and other members of this committee and the public have, are obvious: Why 9 days elapsed before any notification was made by the owner to the Coast Guard, especially in view of the fact that he was trying to contact this vessel every 2 hours and got no response for 10 days and did not notify the Coast Guard? I think that is a horrendous situation.

Second, the Coast Guard itself for 9 days received no communication from the ship, and they had no suspicion?

Ms. BROOKS. The Coast Guard does not have a system that would flag a ship if it does not report every 2 days. They have a computer system on Governors Island called AMVER, and they receive the reports of vessels every 2 days: What their position is, where their location is. It is a voluntary system. The Coast Guard keeps the information so if there is a distress call, they know where the ships are in the area of the distressed ship and they can communicate with those surrounding vessels to go help.

Mr. FOGLIETTA. These USMER calls are made to the Coast Guard?

Ms. BROOKS. There are two systems; USMER is with MarAd; AMVER is with the Coast Guard. USMER is mandatory; AMVER is voluntary. USMER is for defense purposes in case the United States needs to move our vessels away from a ship, let us say, like *Mayaguez*. And AMVER is for search and rescue purposes. USMER requires U.S. vessels to report to them every 2 days. They in turn have voluntarily given that information to the Coast Guard.

Mr. FOGLIETTA. In each of those instances, who is the receiver of the report?

Ms. BROOKS. MarAd and the Coast Guard.

Mr. FOGLIETTA. What is the first one?

Ms. BROOKS. Maritime Administration.

Mr. FOGLIETTA. Neither one, the Maritime Administration or the Coast Guard, received any calls or messages from the ship for 9 days?

Ms. BROOKS. That is right. The computer is not set up to alert the Coast Guard personnel and let them know they did not hear from the ship.

Mr. FOGLIETTA. What is the sense of reporting if you do not have a report and nobody knows about it?

Ms. BROOKS. It is mostly helpful if you get a distress call and then you know the navigation plan of the ship and where it should be. It is only helpful if the ship calls in every 2 days.

Mr. FOGLIETTA. I do not understand that.

If a distress call comes in, you say they will notice the distress call, but if no calls comes in, and it is much more of a distress that no call is able to be made, they have no way of knowing that no call was made?

Ms. BROOKS. Right.

Mr. FOGLIETTA. I think this is a disgraceful situation. I just cannot believe it.

Ms. BROOKS. The Coast Guard has advised the committee that a new computer that will be able to flag nonreporting ships, will soon be in use. I think the Coast Guard witnesses can provide more details for you.

Mr. FOGLIETTA. I do not think it is a question of a new computer but of human concern. Computers are not human beings. There should be somebody tracking down the fact that a vessel has not reported for 10 days—what was the date that the Coast Guard was notified by the owner that the ship—had not been heard from?

Mr. O'BRIEN. That was November 3.

Mr. FOGLIETTA. And on what day did the Coast Guard start its search?

Mr. O'BRIEN. November 8.

Mr. FOGLIETTA. Why did 5 days elapse between the time it was notified and the search was started? There was a possibility that human beings were out on lifeboats.

Mr. O'BRIEN. Congressman, I think you would have to ask that of the Coast Guard. We could give you speculation on that but there are a number of different theories as to why the delay occurred, some theories favor the Coast Guard and some do not. And that answer might be more directly given by the Coast Guard.

Mr. FOGLIETTA. Just one final question.

In your statement you state that there was a payment of $1 million by Lloyds of London.

Mr. O'BRIEN. Yes, sir.

Mr. FOGLIETTA. What was that in payment for?

Mr. O'BRIEN. That was hull insurance that was disbursed to the owner of the vessel. Lloyds has offices in the United States, and when a vessel goes down or is damaged, the normal insurance review is made, and they make their finding and then they disburse payment under the insurance policy. This was payment that occurred.

Mr. FOGLIETTA. This was just for damage to the vessel? It has nothing to do with claims by families of the crew?

Mr. O'BRIEN. No, sir.

Mr. FOGLIETTA. Thank you, sir.

The CHAIRMAN. Thank you very much.

Any other questions by members of the committee?

If not, we will now recognize the officials of the National Oceanic and Atmospheric Administration. Please come forward.

Would each of you be kind enough to identify yourself by name and title, please.

Mr. PETERSEN. Thank you, Mr. Chairman.

I am Gerald Petersen, Associate Director of the National Weather Service for the Office of Meteorology and Oceanography.

Mr. JACOBS. I am Paul Jacobs, and I am Chief of the Marine Weather Service Branch.

Mr. NICKERSON. I am Jerome Nickerson, program leader, marine observations.

Mr. PORE. I am N. Arthur Pore, a member of the Marine Techniques Branch.

The CHAIRMAN. Thank you, gentlemen, for coming.

Now, if you will raise your right hand.

Do you solemnly swear that the testimony you are about to give is the truth, the whole truth and nothing but the truth?

Mr. PETERSEN. Yes.

Mr. JACOBS. Yes.

Mr. NICKERSON. Yes.

Mr. PORE. Yes.

TESTIMONY OF 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

Mr. PETERSEN. Good morning, Mr. Chairman, and members of the committee.

The National Weather Service, under the National Oceanic and Atmospheric Administration of the Department of Commerce, is responsible for providing weather forecasts and warnings to the general public, and specialize users operating in the public interest. Among our programs are weather and oceanographic services furnished to the Nation's maritime industry, including shipping on the high seas.

We appreciate the opportunity to brief the committee this morning on weather and sea conditions associated with the voyage of the SS *Poet* after its last known position off Cape Henlopen, Del., on the morning of October 24, 1980.

At the time, the *Poet* was underway from Cape Henlopen, a storm began developing off the coast of Florida. This storm intensified as it moved up the east coast and, most likely, influenced the *Poet* in the early stages of its voyage.

Mr. Paul Jacobs will now brief you on the wind and wave conditions affecting the *Poet* with respect to the 12-hour positions of the storm between October 24 and October 28.

We will be happy to answer any questions regarding weather observations, the weather forecast, and our reconstruction of the events leading to the event.

Thank you, Mr. Chairman.

Mr. JACOBS. Good morning, gentlemen. First slide please.

The positions you see in red show the track of the storm center that moved up the coast and inland beginning with the development of a storm off the coast of Florida on the evening of October 23. The track is in 12-hour increments at 7 a.m. and 7 p.m. We also show the presumed track of the *Poet* out of Cape Henlopen at the mouth of the Delaware Bay beginning at 8 a.m. on the 24th, the last known reported position, also plotted in 12-hour increments at 7 a.m. and 7 p.m.

The reason for the selection of these times is that they are at two of the four standard times per day we receive weather reports from ships at sea. I should also mention that the ship was assumed to be underway at 15 knots up until about 7 p.m., the evening of October 25, at which point we believe she began to feel the full brunt of the storm. At this point, we slow her down to a hypothetical speed of about 8 knots for about 24 hours and then pick her up again at 15 knots after the storm has gone by.

Can I have the next slide?

This is a weather map of conditions that existed about 1 hour prior to her last known whereabouts at 8 a.m. on October 24. As you can see, 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.

Next slide.

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.

The next slide.

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.

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 conditions.

Could I have the next slide?

Cold 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.

Next slide, please.

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.

The next slide.

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.

Next slide.

By 7 a.m., the 27th, the front has passed through. The storm is out of the way, winds continue to subside to westerly at 10 to 20 knots. You can flip through the next two slides.

Wind conditions are no longer a danger by October 28 at 7 a.m. There is no question that had she been on the RHUMB run line route, the *Poet* would have encountered difficult weather and wave conditions. For the 12-hour period in the middle of the storm, she would have been taking the full brunt on her beam.

I would also like to point out that there were other ship weather reports received from the vicinity and some reports were relatively close to the position of the *Poet.* We received reports of over 40 knots of wind with waves of 20 to 22 feet. Apparently this caused no difficulty on the part of these other vessels.

Finally, I just wish to mention that a coastal storm of this type in October is a bit unusual. You normally expect coastal storms in the months of February and March. This is what brings Washington its terrible snowstorms on occasion.

Even though this was a unique situation, with an early season coastal storm, it was by no means an extraordinary weather situation that could not be handled by ships at sea under operating conditions.

Are there any questions?

The CHAIRMAN. Does that conclude your presentation?

Mr. JACOBS. Yes.

The CHAIRMAN. Thank you very much.

Any other testimony?

Mr. PETERSEN. No. That is all, Mr. Chairman, unless you have any questions.

The CHAIRMAN. Any questions that the committee might have?

Thank you very much for your appearance here this morning. I think it has been very enlightening to get a little concept of the weather situation as it relates to the tragedy.

Our next witness will be retired Coast Guard Capt. Arthur Gove.

Captain Gove, will you raise your right hand?

Do you solemnly swear that the testimony you are about to give is the truth, the whole truth and nothing but the truth?

Captain GOVE. Yes, sir.

The CHAIRMAN. After his retirement from the Coast Guard in 1977, Captain Gove was senior inspector and executive officer of the New York Marine Inspection Office located at the 3d Coast Guard district. His retirement was a natural conclusion to an outstanding career which began with his graduation from the New York State Maritime Academy. Beginning as a third mate, Captain Gove served continuously with American Export Lines until 1957, the last 5 years of which were served as chief officer. He entered the Coast Guard in 1957 to assist in the marine safety program.

Captain Gove subsequently served as chief of marine inspection, Michigan, assistant to the marine safety officer, 3d district, as also in charge of marine inspection and captain of the Port of Toledo on the Great Lakes where he received the Coast Guard commendation medal for outstanding performance in marine inspection, port investigations and port security.

He also served as executive officer on a major cutter for 2½ years, including a tour in Vietnam where he received the Navy Commendation Medal for meritorious service in combat. Captain Gove is here because of his demonstrated expertise as a marine inspection officer and because he is the father of Robert W. Gove of Red Bank, N.J., the third mate and one of the 34 men who vanished with the SS *Poet*.

Captain Gove is a man of the sea, as was his grandfather, his father and his son. His daughter currently is a sophomore at New York Maritime College. So I really believe, as far as being qualified to discuss the matters of the sea, we could hardly have a better witness.

You can proceed, Captain Gove.

TESTIMONY OF CAPT. ARTHUR W. GOVE, U.S. COAST GUARD (RETIRED)

Captain GOVE. Thank you, Mr. Chairman.

I want to thank you and the members of the Merchant Marine Committee for your interest in this disaster and for your considerable efforts in determining its cause. I appreciate it, and I am certain the others who lost family members on the *Poet* share that sentiment.

We will probably never know precisely what occurred on the SS *Poet* when it went down in the Atlantic Ocean in October 1980 with 34 American seamen. In my opinion, however, it is reasonable to presume that whatever happened was so momentous and rapid that it precluded a radio message from being sent, and even possibly the launching of primary lifesaving equipment.

It is extremely important that every aspect of this casualty be thoroughly investigated so that these men will not have died in vain.

The Joint Marine Board is now winding up its active investigation and no further hearings are scheduled by the Board. In my opinion, the above-mentioned goal will not be reached.

My opinion of the Marine Board's conduct and manner is amply described in my letter to Mr. James B. King, Chairman, National Transportation Safety Board on February 14, 1981, and my letter to you, the chairman of this committee, on March 28, which set forth my dissatisfaction with Mr. King's reply. I request that these

letters be made part of the record of this hearing. The course of this investigation is concentrating on what was done—no matter how meager—and less on what inspections or procedures were not done well.

[The following was submitted for the record:]

RAMSEY, N.J., *February 14, 1981.*

Mr. JAMES B. KING,
Chairman, National Transportation Safety Board,
Department of Transportation, Washington, D.C.

DEAR MR. KING: During October, 1980, the S.S. *Poet,* a vessel under American flag, was lost in the stormy Atlantic Ocean with 34 American seamen on board, including my own son. A Marine Board of Investigation, as you know, was convened to determine the cause, or probable cause, of the casualty. This Board has been "recessed" for approximately two months.

The casualty is history now and somehow will have to be accepted by me and my family and the other families involved. Something I do not have to accept, however, is that all aspects of the case are such a profound mystery that nothing remedial or instructive can be ascertained from the tragedy. We will probably never know precisely what occurred on the SS *Poet* when it went down, and can only presume that whatever happened was momentous and rapid to preclude a radio message and possible launching of life saving equipment. However, we can scrutinize carefully what was done (or not done) on the SS *Poet* prior to the casualty and also events that concerned the vessel when she was unreported.

I have attended 4 full days of the more critical Marine Board testimony concerning the vessel inspections, both Coast Guard and American Bureau, and search and rescue efforts of the Coast Guard and have been briefed on the other days of testimony. In my opinion, unless the Marine Board changes its passive and obstructionist ways, the lost seamen may very well have died in vain.

Before I get into the issues that concern me most, let me say that I am a former merchant marine officer and a retired Coast Guard Captain. I hold a Master's license for Any gross Tons on Oceans and have served a total of twenty years at sea with both services. I have had 15 years in Marine Safety with the Coast Guard, of which a considerable amount of time was spent in marine casualty investigations. I have served on two Marine Boards, writing both of them. I am presently lending my expertise to the Brotherhood of Marine Officers (my own and my son's former Union association) in certain areas of the case, looking towards possible corrective action.

The issues I will call attention to should be aggressively pursued by the Board itself in open session. The Board, to date, has been less than probative in its manner and has certainly pussy-footed where U.S. Coast Guard responsibilities, in particular, lie. That and the lack of a dominant Recorder to give the investigation continuity and purpose, has also led to necessary, but endless, questioning by attorneys for parties in interest, some with limited expertise on the various complexities of the case. The result is a voluminous record with little coordination to arrive at reliable and intelligent facts supported by the record.

The President of the Board's unkind remarks on the record that Union attorney questioning, as parties in interest, is primarily for future plaintiff civil action was not only callous under the circumstances, but is prejudicial to getting all the facts and using them on their own merits, no matter who helped derive them. The Board should look to itself to pursue the necessary questioning and obtaining supportive material in order that confidence, that the Board is meeting its assigned role, is restored and thereby reduce party in interest questioning to a minimum. The issues are as follows:

I. COAST GUARD INSPECTION

The Board's willingness to conduct an unprobative examination of the vessel's Coast Guard inspection records in open session is disturbing. The President of the Board has turned down parties in interest requests to examine the vessel inspection files prior to the last biennial inspection, although records to 1965 were admittedly in his possession. This is obstructionist pure and simple.

Initially, the questioning of the Coast Guard inspector who conducted the last drydock and biennial inspection in March 1980 was passed directly to the Department of Transportation representatives on the Board, who merely had the inspector's inspection books read in the record. This is hardly an example of a probative examination of a critical element in the SS *Poet*'s recent inspection history.

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Fortunately, party in interest attorneys took up the investigative role and with some Board afterthoughts, it was later developed that the Marine Inspector, by his testimony had no previous inspection records, including audiogauging or internal vessel inspections at his availability. He did, however, sign the inspection books, indicating he considered the vessel safe for its intended route without requiring audiogauging to be done or data provided and without entering any of the salt water ballast tanks located in the critical areas of the vessel. The inspector testified that on the basis of the Cargo Ship's Safety Construction Certificate issued by the American Bureau of Surveyors, the tanks must have been examined by them and sufficient audiogauging of the hull conducted. He did verify, with the American Bureau surveyor attending the vessel at the inspection, that the limited audiogauging readings taken then presented "no problems".

Will the obstructed vessel inspection records show that the Coast Guard inspections in the past (as well as in 1980) have failed to have entered and examined salt water ballast tanks or, possibly, that hull audiogaugingly has not been required by the Coast Guard for the aged SS *Poet*? This matter has to be addressed to and it is the Board's responsibility to do it well.

II. AMERICAN BUREAU OF SURVEYOR'S SPECIAL SURVEYS

The Board again expressed a willingness to examine only the most recent American Bureau of Surveyor inspection records and self serving documents and certificates. A repeated request by parties in interest to examine all the American Bureau of Surveyor's records concerning the SS *Poet* was turned down by the President of the Board. A later compromise by the President to provide only the 1977 Special Survey records has not been fulfilled to this date. Again, this is obstructionist tactics.

The Board, for its own passive reasoning, utilized the testimony of an American Bureau surveyor who was on the SS *Poet* for only one and one-half hours on 19 August 1980. The surveyor's own testimony indicated his inspection (also without benefit of previous ABS inspection records) was a "walk through" of various check list items—obviously limited. Party in interest questioning of the surveyor by union attorneys concerning other ABS inspections and policy were generally turned aside as beyond his scope and observation.

Is this as far as the Board intends to go on the American Bureau's critical role in the inspection history of the SS *Poet*? American Bureau Certificates in the record as exhibits, are meaningless unless the supporting data is available for the record, and examination by the Board is conducted in open hearing with an American Bureau representative to explain all the records of the SS *Poet* commencing 1980 and working backwards until all matters are fully explained. For example, one area currently not resolved or, for that matter, pursued by the Board is as follows:

Ballast tanks

(a) What are ABS requirements for physically inspecting salt water ballast tanks, fresh water tanks and Fuel Oil tanks, including double bottom tanks?

(b) How clean are tanks required to be when inspected—ABS policy?

(c) Are structural members in the ballast tanks measured during these physical inspections?

(d) What records are kept on these physical inspections? Where are they kept? Are they available?

(e) What do records concerning the SS *Poet* indicate?

(f) Resolve discrepancies on the use of the ballast tanks indicated on the recent American Bureau computer read out (Exhibit) and those indicated on Trim & Stability Booklet and the Underwriters Sailing Report from Philadelphia in October 1980 (also Exhibits).

III. COAST GUARD SEARCH INITIATION

At approximately 1100 A.M. on 7 November 1980 (Friday), I learned of the disappearance of the SS *Poet* from Mr. A. Parenti, President of the Brotherhood of Marine Officers. During the afternoon and early evening, I received from the same, and other sources, more information concerning the time lapse (2 weeks), storm, the Master's report reputation, cargo and age of the vessel. I also heard that no searches were planned. This fact was confirmed when I telephoned RCC on Governors Island at 2112 the same day. I then requested to speak to Captain Suzich, Atlantic Area Operations Officer. I was directed to the Officers Club and spoke with Captain Suzich for approximately 10 minutes. I gave him my involvement, sea experience, marine inspection and investigation experience and the facts of the case which I knew about. I stated I was astounded that no search had been initiated. His

evaluation was that this was a common occurrence, radio checks were being conducted, the vessel was probably wallowing without power or radio and, besides, "no where to search except the entire ocean". My reply was that his evaluation was ridiculous and unprofessional and that all the ingredients of a major casualty were present and that the Coast Guard was sitting on it. Rejected in my request to start a search on the best information available, I terminated my telephone call in frustration. this telephone conversation was conveniently "not recalled" by Captain Suzich as a Marine Board witness. However, I can substantiate the calls were made.

I called RCC again at 0851 on 8 November 1980 and received a negative on any searches being planned. I then asked for Captain Suzich again and was told that he would call me back. Receiving no return call from Captain Suzich, I called RCC again at 1022 and was directed to his office. After more of the conversation and "logic" from the night before, I was finally told that a search was to commence that afternoon with limited resources and that a meeting on Governors Island was also being planned for that afternoon.

At the meeting, with Vice Admiral Price attending, it was indicated to some family and Union representatives that a search had commenced but that positive results (due to resources, area involved, weather and time on scene elements) were not encouraging. Admiral Price stated he would give it (the search) his "best shot" but he probably wouldn't even be doing it except that an American vessel was involved.

The whole atmosphere was one that the Coast Guard was begrudgingly being forced into searching because of congressional and union pressure and that the vessel, hopefully, was still afloat with mechanical and/or radio problems. This wishful thinking continued on through the following week at subsequent meetings.

The owner's failure to report that one of his vessels was unaccounted for 9 days or so cannot be excused. However, the concurrence and compounding of the delay by a Government Agency committed with Search and Rescue responsibilities for another 5 days is inconceivable. There was nothing but communication and agency checks spread thinly over 5 long days and nights. An extensive examination and investigation of the Coast Guard procedures, instructions and performance in this matter is imperative.

So far, the Board has limited its investigation to the testimony of Captain Suzich who, on the record, indicated he was not heavily committed to the SAR case until 7 November 1980. The board has also denied the appearance of further Coast Guard witnesses, such as the various RCC Controllers involved, the Senior Controller, and the Branch Chief of Atlantic Area OSR in order to explain the evaluations, coordination and decision making processes prior to 7 November 1980. If the Board fails to pioneer into the above (which it obviously intends to avoid), it will again pose the question as to whether the Coast Guard can properly and thoroughly investigate itself under public scrutiny. It was disappointing to me that the Department of Transportation representatives did not raise the issue, but they were strangely mum.

There are a myriad of questions concerning the Coast Guard's performance and some of the questions that quickly come to mind are as follows:

1. How long would communication and various agency checks have continued beyond 8 November 1980 before positive Coast Guard action would have initiated had not external pressures been applied?

2. Why was it necessary to conduct five days of communication checks before making a search initiative decision after the owner had already been trying to reach the vessel by radio for at least eight days without success?

3. Who was the SAR Mission Coordinator (SMC) assigned to the case? When was he assigned and by whom? What was the SMC's role and action from 3 November to 7 November? If none was assigned, why not?

4. What was the role, if any, of the Senior RCC Controller between 3 November and 7 November 1980?

5. What Area of District Staff Officers were involved, cognizant or in liaison with RCC concerning the case from 3 November to 7 November 1980? What action or role did they take?

6. When was the Area Commander informed of the facts of the SAR case? What were his orders or advice?

7. Are USMER reports (or lack of) utilized directly by RCC personnel in their information check procedures and instructions and, if not, why not?

8. When was the alert or distress phase initiated by the Coast Guard? By whom was it initiated? What Staff Officers were advised or involved? Was any record entry made of this?

9. At what time in the SAR case did Coast Guard RCC personnel or Staff Officers consider the vessel to be overdue? Was this determination logged or recorded?

10. Were there any Staff meetings, concerning the SAR case held between 3 November and 7 November 1980? If any, were the meetings logged or recorded? Who conducted the meetings and what, if anything, were the results of the meetings?

Answers to the above incomplete list of questions in themselves may not tell the whole story of what transpired from 3 November to 7 November 1980 with the Coast Guard's prosecution of the SAR case. The answer to each question would have to be further pursued and developed. Only with the testimony of the denied witnesses can the full story be told with possible future corrective action taken in procedures, instructions or policy. Captain Suzich could be recalled to answer questions to a now, more enlightened Board. The pertinent sections of the RCC Handbook should be made an exhibit for public perusal and examination by the Board. Without this issue being fully resolved, another major tragedy could slip through the cracks of everyday operations.

IV. SISTER SHIP INVESTIGATION

My best information indicates that the Board, as well as parties in interest, have not convened aboard the SS *Penny,* a sister ship of the SS *Poet.* Usually, Board action in these circumstances are minimal and only a superficial examination of the similar vessel is taken to gain perspective and some technical information to assist in making the final report.

This case I consider to be decidedly different. Hopefully, the Board will require the vessel to be meticulously inspected in critical areas, particularly in the salt water ballast tanks under #2 and #3 hold—I believe, if my memory serves me correctly, to be 3, 4, 5 and 6 Port and Starboard. Each tank should be cleaned and physically examined with gaugings taken of structural members for evaluation. The possible future safety of SS *Penny* crew members makes this request necessary and could lead to some important comparisons in the instant case.

In conclusion, may I say this matter is very close to my heart and experience in many ways. I felt it has to be written. It was not written in anger but in sadness for what has transpired and also to events in the aftermath. I earnestly request that the matter be given your immediate attention and your response would be welcome.

Sincerely,

ARTHUR W. GOVE.

RAMSEY, N.J., *March 28, 1981.*

Hon. WALTER B. JONES,
Chairman, Committee on Merchant Marine and Fisheries,
U.S. House of Representatives,
Washington, D.C.

DEAR CHAIRMAN JONES: Forwarded as Enclosure (1) is a copy of the reply made by Chairman James B. King, National Transportation Safety Board, to my letter to him concerning the investigation into the loss of the SS *Poet* last October. A copy of my letter was forwarded to your staff by Subcommittee Chairman (Merchant Marine) Mario Biaggi. Another copy of my letter is forwarded as Enclosure (2) for ready reference.

I originally chose to write the National Transportation Safety Board rather than the Coast Guard (a copy of the letter was provided to them) as the Safety Board was not party to the inspection of the *Poet* and also to the search efforts. The reply by Chairman King is completely unresponsive to the issues and criticism raised. The reliance on the active Board's reasoning and opinion indicated to me a lack of personal involvement in answering my issues with substance and objectivity. As an experienced merchant marine officer and one with many years in the Marine Safety field, I had expected a more positive and corrective answer but received a patronizing letter instead. The fact that no further public hearings are planned was also extremely discouraging.

To begin with, my letter comments were not limited to the scope of the joint National Transportation Safety Board and the U.S. Coast Guard investigation as the reply suggests, but also covered criticism of the manner in which the investigation was being conducted. My criticism of the lack of coordination, lack of probative skills and thoroughness, obstructionist tactics and the prejudicial remarks made, were all completely ignored. The transcript should bear me out on this matter.

The reply letter did deal with the four basic issues or recommendations I made in my letter to be pursued in improving the investigation by turning each one aside with naive justification that only fortified my resolve and also resentment concerning the present Board's actions. I will point out the weak reasoning used as follows:

I. COAST GUARD INSPECTION

The letter addresses the Board's choice of selecting the last Coast Guard inspector of the vessel (March 1980) to determine the vessel's condition before its sailing. It is an obvious and appropriate choice, but certainly is not conclusive. Party in interest questioning developed that the inspector was relatively inexperienced and abbreviated his inspection of an old ship to the extent that plate gaugings were not known or required and that critical salt water ballast tanks were not inspected. A competent Board would not have let this matter rest, but would have forged on for other information sources. The previous Coast Guard records could be that source. As I questioned in my original letter, will these records disclose that the Coast Guard has failed to examine the salt water ballast tanks in the critical areas of the vessel and that hull audio-gaugings were never conducted recently under Coast Guard supervision and mandate? This doubt is present now and I cannot understand Chairman King's statement that prior inspection records will be requested only if necessary and included in the Safety Board's public record. They are public records now and the Board's motive in hiding them could be suspect.

II. AMERICAN BUREAU OF SHIPPING

The reply letter addresses itself to the Board's efforts to obtain the most up to date information on the *Poet's* structural condition. Again, their choice is both obvious and appropriate, but the record now indicates that the surveyor's role was an extremely minor one with limited examination criteria to be performed by him. The time on board, he expended, was one and one half hours and was described as a walk through survey. No structural condition of a vessel can be determined in that time and manner beyond a few generalities. The Board itself and Chairman King, in particular, are indicating their lack of inspection realities if they could not realize last December that more probing was required into American Bureau records, inspection techniques and policy. Another logical American Bureau surveyor to testify would be the one who had the vessel last on drydock. More important, the 1977 Special Survey which has been obstructed and delayed by the Board action (or inaction) should be produced and explained in open hearing. While Chairman King alludes that these matters are still open, in his reply letter, the Board's failure to initiate it in over three months would indicate its accomplishment was never originally intended.

III. COAST GUARD SEARCH INITIATION

The extent and adequacy of the Coast Guard's search efforts was the issue as expressed in the reply letter. The crux of my letter, however, was the tardy initiation of the Coast Guard search effort and the lethargy and wishful thinking that existed from 3 November to 8 November 1980 by those in charge. An extensive examination and investigation of the Coast Guard procedures, instructions and performance is imperative so future like cases will not fall through the cracks of every day operations. The Board does not have sufficient facts in the record to make a proper determination whether it is aware of it or not. It was an unprepared Board (as well as parties in interest) that questioned Captain Suzich during open hearings in Philadelphia. The Board did not know of, or care to use, the requirements and procedures contained in the RCC Handbook in questioning him. When parties in interest requested from the Board a copy of the operational manual used in RCC, they were delayed several days and then presented with a listing of some 80 books to choose from. This is either arrogance or stupidity (or both). Again the Board has been left to correct the situation of calling additional individuals to testify or obtain additional information by Chairman King. On the basis of past performance and thoroughness I am not optimistic it will be accomplished at all or certainly in open hearings. The questions I posed (partial in content) in my letter will remain unanswered. The board does not have sufficient facts now to make a determination on how well the search was initiated and to say otherwise only shows how shallow this investigation is being conducted.

IV. SISTER SHIP INVESTIGATION

The reluctance of Chairman King to entertain my recommendation to examine and measure the structural members of the critical ballast tanks on the comparable sister ship *Penny* with a similar history is, in my opinion, incredible. It is not a large undertaking, but it could be instrumental in making a conclusion in a case where conclusions, beyond probable ones, will be difficult. There is ample precedent in other marine and aviation disasters to examine similar vessels and aircraft. I do not understand the reluctance to use this tool as much information has been found

in the past and also lives saved by its implementation. The structural calculations being conducted now by the Safety Board could be supplemented by the findings most representative of the present scantlings of the vessel as opposed to those found on the blueprint records. The reply letter also disclosed that the joint Board had "visited" the *Penny* on 19 January 1981. My best information indicates that all parties in interest were not notified. Why?? Just another example of the Board's insensitive manner of operation.

In conclusion, may I say, I wrote this letter to you knowing that your Full Committee will be holding hearings in April concerning this and other related matters. At the risk of appearing argumentative and repetitive, I decided not to answer directly Chairman King's response. However, copies of this letter will be provided for both the Coast Guard and the National Transportation Safety Board to at least consider once again. From the attitude taken already by the joint Board and the less than enlightening response of Chairman King, my only real hope of attaining a review of these investigation deficiencies and the imperious manner displayed will have to come from Congressional stimulus.

Sincerely,

ARTHUR W. GOVE.

NATIONAL TRANSPORTATION SAFETY BOARD,
OFFICE OF THE CHAIRMAN,
Washington, D.C.

Mr. ARTHUR W. GOVE,
424 Canterbury Drive,
Ramsey, N.J.

DEAR MR. GOVE: Thank you for your letter of February 14, 1981 concerning the loss of the SS *Poet,* which tragically caused the death of your son and 33 other American seamen. We appreciate your comments concerning the scope of the joint National Transportation Safety Board and U.S. Coast Guard investigation of this accident. Although the public hearings at Philadelphia, Pennsylvania, have been concluded and no further public hearings are planned, this does not mean that the Safety Board has concluded its investigation. During January and February, a Safety Board meteorologist has been analyzing the weather and sea conditions which the *Poet* would have experienced if the ship followed its proposed trackline. A report of the meteorologist's findings will be sent to the parties of interest shortly. The Safety Board and the Coast Guard are also conducting stability and structural analyses of the *Poet* as loaded on October 24, 1980. A report of these analyses will also be sent to the parties of interest. Your letter addresses four specific areas that you consider need further investigation. I will address each of these points in the following paragraphs.

The Safety Board is interested in determining the condition of the *Poet* before its last voyage and the adequacy of the last comprehensive inspection of the ship in March 1980. For these reasons, Safety Board representatives requested the Coast Guard call as a witness the Coast Guard inspector who signed the hull, drydocking and machinery inspection books in March 1980 and conducted the initial interrogation of this witness. If the Safety Board determines that prior inspection records are necessary, we will request them of the Coast Guard and make them part of the Safety Board's public record.

To obtain the most up-to-date information on the *Poet*'s structural condition, the last American Bureau of Shipping (ABS) surveyor to survey the structure of the *Poet* was called. This survey took place in August 1980, before the *Poet*'s last complete voyage. The ABS will provide the Coast Guard, parties of interest, and the Safety Board with records of its last special survey in 1977. If the Safety Board determines that additional witnesses or prior records are necessary, it will call such witnesses to testify or the records will be obtained, examined, and made part of the Safety Board's public record.

The extent and timeliness of the Coast Guard's search efforts for the *Poet* are an important element in the Safety Board's investigation. Thank you for providing us with your personal knowledge of the Coast Guard's search efforts. Although other Coast Guard officers were involved in the search, the Safety Board considered that Captain M. Y. Suzich, who was Chief of Operations for the Atlantic area and who personally supervised the active search effort, was the best witness to testify concerning the entire Coast Guard effort. As stated by the Safety Board representative at the public hearing, the Safety Board did not call any other Coast Guard officers because it was believed that sufficient facts were in the record for the Safety Board to determine the adequacy of the Coast Guard search. However, if the Safety Board finds that additional facts need to be obtained, it will call individuals to testify or obtain additional information.

Safety Board representatives and Coast Guard members of the Marine Board of Investigation visited the SS *Penny*, a sister ship of the *Poet*, on January 19, 1981 to familiarize themselves with this type of ship. The Safety Board does not plan to conduct any special structural survey of the *Penny* at this time.

On behalf of the Safety Board, I wish to offer my condolences for the loss of your son. We will send you a copy of our report when it is completed, which will contain our recommendations to prevent similar future accidents.

Sincerely yours,

JAMES B. KING, *Chairman.*

Captain GOVE. The only phase of this casualty in which I played a part was just prior to the initiation of the Coast Guard search efforts. I had learned of the disappearance of the SS *Poet* from Mr. Albert Parente, president of the Brotherhood of Marine Officers—my son's union affiliation—at approximately 11 a.m., on November 7, 1980. During the afternoon and early evening, I received from the same and other sources more information concerning the vessel. The information included the 2-week time lapse, the violent storm, the master's radio reporting reputation, cargo, and the age of the vessel. I was told later that no search was planned by the Coast Guard, although they were aware of the situation from November 3, 1980.

That fact was confirmed when I telephoned the rescue coordination center (RCC) on Governor's Island, N.Y., at 2112 the same day. I then requested to speak to Captain Suzich, Atlantic area operations officer. My call was transferred to the officers club, and I spoke with Captain Suzich for approximately 10 minutes. I explained to him my involvement, my sea experience, marine inspection background, my investigative experience, and the facts of the case as I understood them.

I stated that I was astounded that no search had been initiated. He commented that this was a common occurrence, that radio checks were being conducted the vessel was probably wallowing without radio or power, and besides ". . . there's nowhere to search but the whole ocean." My reply was that his evaluation was ridiculous and unprofessional and that all the ingredients of a major casualty were present and that the Coast Guard was sitting on it. Rejected in my request to start a search on the best information available, I terminated my telephone call in frustration.

I called the Coast Guard again on November 8, 1980, at 0851, and received a negative on any searches being planned. I then asked for Captain Suzich again and was told he would call me back. When I had not received the return call more than an hour later, I called the Coast Guard again and ultimately reached Captain Suzich at 1022. After more logic from the night before, I was finally told by Suzich that a search was to commence that afternoon with limited resources.

Following the termination of the Coast Guard search efforts, I attended four of the more critical joint marine board of investigation sessions which included particular testimony on the vessel's inspections by the Coast Guard and the American Bureau of Shipping and also the Coast Guard's search phases. I was lending my expertise to the Brotherhood of Marine Officers—a party in interest—looking toward possible corrective action.

The board, although relying to a large extent on parties in interest probative questioning, obstructed the producing of vital

witnesses or vessel records requested by parties in interest as follows:

One, inasmuch as the Coast Guard marine inspector for the last biennial and drydock inspections, March 1980, had not entered and examined the saltwater ballast tanks and did not have or require any audio gaging on the SS *Poet*, a request was made for previous Coast Guard inspection concerning the SS *Poet* back to 1965 when she was converted from a troop carrier for commercial operations. That request was denied by the board chairman.

Two, in view of the fact that the board had requested the presence of an American Bureau surveyor with only limited knowledge of the SS *Poet* and who had only a minor inspection role on the SS *Poet*, a request was made to have the 1977 special survey records produced and a competent American Bureau of Shipping representatives to testify on their contents. Despite promises by the board chairman and Mr. King of the NTSB to at least produce the ABS records, this—after some 3 months—still has not been resolved. The records have not been made available.

Three, the testimony of Captain Suzich, Coast Guard area operations officer, at the board hearing was contradictory as to who was committed to the search and rescue case between November 3, 1980, and November 8, 1980. Therefore, a request was made for further Coast Guard witnesses, such as the various rescue coordination center controllers and the branch chief of the Atlantic area in order to explain the evaluations, coordination and decisionmaking processes prior to November 7, 1980.

This request was denied on the grounds that sufficient information was already in the record. The evaluations, coordination and decisionmaking processes as they happened and whether they were in accordance with the instructions, the RCC handbook, during this period were not adequately covered during the board hearing.

The search and rescue (SAR) case study, dated February 4, 1981, does not adequately cover the period either, except for communication check results and some other data. The late weather checks and USMER reports have not been satisfactorily explained by all RCC personnel. Was the RCC controller who classified the vessel in the uncertainty phase—in the SAR study—acting alone or under guidance and instruction? Were all the criteria for determining whether the SS *Poet* was overdue ever utilized?

The partial list of questions posed in my letter to Chairman King of the NTSB may also never be answered.

My present premise on the fate of the SS *Poet* is that she broke up in heavy seas with the probable capsizing of the aft living quarters of the vessel. This premise would have to be conditional on any information contained in the records withheld from the several inquiries conducted to date. 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 counterballasting costs.

My recommendation to Chairman King to have the comparable sister ship with a similar history—the SS *Penny*—studied and the ballast tanks examined and the internals measured is not now planned. There is ample precedent for this in other marine and aviation casualty cases. The results could be negative or positive, but at least we would have a possible conclusion in a difficult case. Navigation and Vessel Inspection Circular No. 7-68, a Coast Guard document, entitled notes on inspection and repair of steel hulls deals with the inspection of double-bottom internals in its enclosure on page 14.

In conclusion, I would like to make some observations which may have affected the SS *Poet* and her crew members in some way and certainly could affect future mariners like my daughter.

One, concerning Coast Guard inspections: When will the service be able to sustain a trained and experienced inspection force with sufficient professional background and secure to the basic responsibility of marine safety. The flux of marine inspectors within the Coast Guard to round out their careers and out of the Coast Guard for attrition purposes permits relatively inexperienced marine inspectors to inspect vessels the size of the SS *Poet*. This observation is not intended to impugn the dedication, talent and motivation of the many young marine inspectors I came into contact with in my own career. It is simply a condition that needs review and correction.

Two, concerning Coast Guard search and rescue operations: Review all procedures for an unreported merchant vessel in light of the delay in the initiation of the SS *Poet*'s search. Assure that in the future a SAR mission coordinator (SMC) is assigned immediately so there is no doubt who is running with the ball. Assure that all determinations, staff meetings and changes in status are logged. Assure that USMER reports, where applicable, and weather reports are pursued and utilized at the initial phase of the SAR case. Assure that 9 or 10 days of an unreported vessel is not treated as an initial case and assure that all criteria is utilized in determining whether a vessel is overdue or an uncertainty, scenarios for possible casualty situations should be made as early in the case as possible.

Three, concerning joint marine board of investigation choice of members: The conduct and mission success of a marine board can be improved by assigning seasoned investigators with probative skills and motivated to conduct a thorough and coordinated investigation. Coast Guard members should not be chosen just on availability, but with the above in mind. The recorder role should not be abandoned because with a competent recorder coordination and purpose is accomplished.

The last comment I wish to make is a sad one indeed for me. In reading the SAR cast study under "Opinions," I was outraged at the unnecessary and callous remark made concerning the greater involvement in the situation by concerned and uneducated—in respect to SAR operation—citizens, the less professional the conduct of an SAR case becomes. This is a situation that SAR should expect and cope with when loved ones are missing and public confidence in the Coast Guard's performance is shaken by its late search operations.

The CHAIRMAN. Thank you, Captain, very much.

Do any of the members have any questions or statements?

The gentleman is recognized.

Mr. FOGLIETTA. Captain, on behalf of myself, I am sure that the other members of the committee express to you our sincere sympathy at what happened, and we pledge to you our dedication in following this thing to its utmost to find out exactly what happened and do whatever we can to rectify this situation whenever we can in the future.

Captain GOVE. Thank you, Congressman.

The CHAIRMAN. Any other questions?

If not, Captain, thank you very much for your appearance here this morning and your very enlightening testimony.

Captain GOVE. Mr. Chairman, could I make a final observation?

The CHAIRMAN. Without objection, so ordered.

Captain GOVE. After I made this statement, I ran across a study that was made relative to inspecting saltwater ballast tanks, and it basically was in answer to a query made by the committee as to what is the criteria for inspecting saltwater tanks. And in the net substance of that was the fact that they are inspected when the records so indicate and under the Coast Guard inspector and also the officer in charge of marine inspection's discretion. I think that something should be said about this.

If this is the standard to be used, saltwater ballast tanks, and their importance as indicated in the circular that I set forth to you, it would probably mean that it would be rarely done in the real world. The real world of inspection is a situation of ships coming in, ships leaving for scheduled purposes, and it is difficult to make these decisions on a mandatory basis because there is no mandatory basis.

No. 1, the records are not normally available to our Marine Inspector at that particular inspection site. The OCMI may have no reason or cause, other than possibly in this case, the age of the vessel, to say I want those tanks inspected.

You might have an unqualified man making that determination. I say unqualified, he has not had all the expertise and all the exposures that one has in the marine inspection field to make a proper determination and insist on having something done. They are not easy jobs to do. However, they are easily put off is what I am trying to say. My own experience though are that they are very important. I used to stress this in my own training procedures at New York State inspection office. I can quote to you an experience over a 9-month period when I myself was a resident inspector in the field in a shipyard, and during that 9-month period, we ran across four distinct and separate vessels that had problems in the saltwater ballast tanks. They were discovered not because of records, they were not discovered because the OCMI required me to do it or made it mandatory for me to inspect them. They were found because—the owner was required to dump his tanks and have a look at it because they had not been done for quite some time.

Of those four ships, the SS *Summit*, the SS *Florida*—the motor vessel *Florida*, the SS *Beauregard*, and either the *New York—Seatrain NY* or *Texas*, I do not remember which one exactly, each

one had major problems in the saltwater tanks, ballast tanks which required immediate repair.

One of the vessels required to be repaired required over $1 million. I think that if any suggestion can come out of my testimony here today, it is that a good hard look at the situation to have some mandatory system requiring that these be dumped and not leave it to the discretion of anybody. We had done something on that on the Great Lakes after the casualty of the *Carl Bradley,* which broke up—in Lake Michigan in 1957, where a policy of the Coast Guard was to make sure that every—in this case, freshwater ballast tank was inspected on a 5-year basis. A program was made so that 20 percent would be done over each year for the net result of 100 percent over 5 years which is the normal drydock date for freshwater. That has been done, it has been carried out successfully since that program started, and I am quite sure that it has benefited marine and safety on the Great Lakes.

That is all, sir.

The CHAIRMAN. Then I would conclude from your testimony, Captain, if it were left to your wishes and command, that you would upgrade the inspection service; is that correct, sir?

Captain GOVE. Yes, sir.

The CHAIRMAN. That is the only thing I can conclude.

It is a known fact that with the turnover in the Coast Guard, Navy, and Army, they are having tremendous manpower problems. I am not defending them in this case, do not misunderstand me—I am looking at the overall problem that exists for all branches of the military to attract and, more important, maintain the type man or woman that we need to carry out the duties to which you refer. Of course, as one Member of Congress, and I am sure the majority of this committee would agree, we are perfectly willing to authorize the money necessary to achieve the purpose of upgrading the necessary services to which you refer.

Captain GOVE. Sometimes it is not only money. Sometimes it is policy.

You train that marine inspector. I think the thing for you to try to attain is to keep them in the job that he is trained to do. At some point in time, you always have transfers, you always have people going out of business for some other lucrative opportunity but, at least, you will have some nucleus, the 219 program was one of those programs of bringing into the Coast Guard seasoned and experienced men. I am a product of that program. But when you have people going in and being trained and then being sent off to other assignments in the Coast Guard and/or to be phased out through some attrition board—and I am speaking of the MarGrad program here where we had outstanding young men in the MarGrad program.

I looked forward to them—they held me up in my New York Marine inspection assignment, and yet they happened to be forced out of the Coast Guard because of various reasons, that they could only retain a certain number. And in the same light, in the same year, take in 20 more of unseasoned inspectors. It does not make sense.

The CHAIRMAN. The gentleman is recognized.

Mr. SHUMWAY. Thank you, Mr. Chairman.

Captain Gove, can I ask some basic questions about the saltwater ballast tanks?

You have identified the ones that you are most concerned about as being under the holds No. 2 and 3.

Captain GOVE. Yes, sir.

Mr. SHUMWAY. What function do they play? Why is it that they are so important to a ship like the *Poet*?

Captain GOVE. In this particular case, you have a vessel that was constructed as a transport. She was later converted to a bulk vessel, steel mainly. And then, of course, it was utilized as a grain carrier by the present owners. The ballast tanks in this particular vessel are double bottom, as I read the plans, and as was described to me during the investigation.

Underneath 3 and 4, if my memory serves me correctly, you have 3, 4, 5, and 6 double bottoms, port and starboard utilized as ballast tanks, and the center tanks as fuel oil. This does not show up exactly on the American Bureau readout.

We requested that this be clarified. It has never been. I cannot clarify it without the records. I have been obstructed from those records to see what this is all about.

Mr. SHUMWAY. What is that ballast held there for? Was the purpose of it to stabilize the ship?

Captain GOVE. Yes, it could be used to make the vessel stable, or when a vessel comes back empty, it could be filled for stability purposes.

Mr. SHUMWAY. How often are they repeated and then filled?

Captain GOVE. Could be every trip.

Mr. SHUMWAY. When the inspection occurs, does the tank have to be empty?

Captain GOVE. They are not necessarily empty but they could be filled, but they are inaccessible to the point that they are bolted down with manhole covers.

Mr. SHUMWAY. When the inspection does occur, what kind of problems would you expect to find? You mentioned one case where it costs $1 million to correct the problem.

Is it deterioration of the metal structure?

Captain GOVE. Yes, sir. I am speaking of deterioration of the inwards of the vessel. Also it could give you indications of problems that that vessel is having. It could be buckled members, it could be loosened fastenings, it could be innumerable things that an inspector would be able to find as problems for that particular vessel.

Mr. SHUMWAY. You mentioned some tanks being saltwater tanks and others freshwater tanks.

Captain GOVE. The freshwater tanks were for the Great Lakes.

Mr. SHUMWAY. Any oceangoing vessel would presumably have saltwater tanks?

Captain GOVE. Yes, although there is a number of procedures done. You could have permanent ballast in the vessel. You could have a permanent slurry placed in the double bottoms, but there are provisions for inspecting those. It is spelled out in the—under policy.

Mr. SHUMWAY. So again if there is some defect in those tanks, which would have been shown by inspection, that defect would lead to a lack of stability of the ship?

Captain GOVE. Well, I am speaking more of the structural integrity of the vessel, that is what I am speaking of.

Mr. SHUMWAY. If there were a problem in the structural integrity, would that not appear since it was converted in 1965, I believe, to a transport?

Captain GOVE. That is 15 years ago, Congressman.

Mr. SHUMWAY. During that period of time, the matter of a structural defect would not have appeared?

Captain GOVE. I am trying to find that out, quite frankly, and I have been obstructed from the information to make a proper determination of it. I have since heard, since I made that statement, that the Coast Guard in their presentation to the committee has indicated that they have no records that indicate that this was done. That does not satisfy my request because I am also asking for audio gauge readings conducted under Coast Guard mandate.

Mr. SHUMWAY. Thank you, Captain.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Captain, very much for your appearance here this morning.

Our next witness is retired Capt. Clarence C. Hobdy.

Captain, if you will raise your right hand, please.

Do you solemnly swear that the testimony you are about to give is the truth, the whole truth and nothing but the truth?

Captain HOBDY. Yes, sir.

The CHAIRMAN. Captain Hobdy, our present witness, is the author of the National Search and Rescue Manual which is used by the Coast Guard and by four other U.S. military services as well as many foreign governments. I feel you are well qualified to testify in this respect.

You may proceed, sir.

TESTIMONY OF CAPT. CLARENCE C. HOBDY, JR., U.S. COAST GUARD (RETIRED), PRESIDENT, SAR CONSULTANTS, INC., MOBILE, ALA.

Captain HOBDY. Thank you and good morning, Mr. Chairman, members of the committee.

I am Clarence Hobdy, president of SAR Consultants, Inc., a Delaware corporation with its home office in Mobile, Ala. My firm specializes in the analysis of aeronautical mishaps, maritime disasters, and any aspect of land/sea/air search and rescue operation. Our analyses are typically directed toward uncovering deficiencies, and then providing expert opinion on the significance of those deficiencies as they influenced or prevented a favorable outcome or conclusion. My résumé has been submitted to the committee to substantiate my expertise in the field.

Upon the request of Counsel Brooks of your committee, I agreed to review the U.S. Coast Guard's search and rescue case study of the merchant vessel *Poet* case. I also reviewed the testimony given by Capt. Milton Suzich, USCG, on November 26, 1980, before the marine board of investigation, chaired by Capt. Herbert Lyons, USCG.

My opinions, as expressed today, are limited to my review of only these two documents. Other documentation does exist in this committee which I have not reviewed, but I do not believe that my

opinion and conclusion would be significantly altered by additional documentation review.

My review noted two factors which I would classify as major deficiencies. First, the operating company waited 10 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 5 days before initiating an air search. The documentation which I reviewed is unclear as to the precise reasons why the operating company did not alert the Coast Guard earlier, or why the Coast Guard did not initiate an air search earlier, even though there was a continued lack of communication with the *Poet* and a continued lack of progress information about the *Poet.*

The National Search and Rescue Manual (Coast Guard publication 308) is both a U.S. National and a U.S. Coast Guard policy manual, as well as a Coast Guard duty and responsibility manual and a Coast Guard operational manual. I have attached a 7-page treatise to my statement which clarifies the mandatory nature of this manual for Coast Guard search and rescue operations. This manual prescribes the various actions which Coast Guard personnel in search and rescue positions of authority should take in responding to an incident such as the *Poet*'s continued failure to communicate.

For example, upon being alerted to the *Poet*'s 10-day silence, the Coast Guard's New York rescue coordination center should have assigned an emergency phase of "uncertainty," since the *Poet* was overdue communicating its positions by several days, and there was legitimate doubt regarding the vessel's safety. This is in article 741, NSARM. A "Preliminary Communication Search" should then be initiated and completed in approximately 4 hours (article 771, NSARM). During this time period, the RCC controllers are specifically charged to consider the type of vessel involved, the crew's experience, the master's habits, weather conditions encountered, and sea conditions encountered. A vessel of the *Poet*'s type should be evaluated as overdue whenever it is 4 hours late for a scheduled radio contact, and communications contact cannot be established with the vessel (article 751, NSARM).

Failing to either establish radio contact with the *Poet,* or to discover any recorded contacts with the vessel since its departure messages, an "Extended Communication Search" should next be initiated and completed in about 10 to 20 hours (article 772, NSARM). During this time period, as more possibilities for locating or contacting the vessel are eliminated, and there is a continuing lack of progress or position information on the vessel, apprehension develops for the safety of the vessel and the emergency phase is upgraded to ALERT (article 742, NSARM).

Thus, 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, planning for the first air search should have been commenced. Typically, a form of the trackline family of search patterns is selected to search for an overdue vessel in the ALERT phase.

Under the circumstances of the *Poet*'s continued lack of communications or of sightings, it is my opinion that the Coast Guard's air search should have commenced on November 4, 1980, approximately 24 hours after being first alerted to the *Poet*'s 10-day silence.

Upon completion of the first air search, and with continued lack of communications with or sightings of the *Poet*, the emergency phase should have been further upgraded to distress, and large area searches planned and conducted with appropriate search craft (A743, NSARM). In my opinion, the distress emergency phase should have been established by the Coast Guard no later than the morning of November 5, and extensive air searches commenced no later than that date.

Thank you for the opportunity to appear before you. I would be pleased to answer any questions generated by my statement.

The CHAIRMAN. Captain Hobdy, you referred in your testimony, to "overdue vessels." Does this have a different meaning under different circumstances?

Is there a standard of 24 hours, 48 hours, or whatever, after which a vessel is considered "overdue"?

Captain HOBDY. The National Search and Rescue Manual, which is the manual used by the rescue coordination center controllers, discusses the circumstances under which various vessels are considered, or should be considered, as overdue; as opposed to being unreported in which they just have not made a contact. It gives various consideration factors in talking about the different types of vessels.

For example, a sailing vessel may be 24 hours late in arriving at its destination before being classified as overdue, because of the possibility of encountering winds that it did not expect. However, a large commercial type powered vessel could be considered overdue at its destination if it is only 2 hours late in arriving at its destination. So you consider the types of vessels involved.

It also speaks to the criteria that anytime a vessel is late in a scheduled communications contact, such as the position report, that it is normally making on a regular time schedule. If it is 4 hours late for making that schedule, and then you, in turn, are unable to establish communications with that vessel, then it should be classified as overdue.

The CHAIRMAN. Any other questions?

The gentleman is recognized.

Mr. FOGLIETTA. Captain Hobdy—I did not know what to call you——

Captain HOBDY. Mr. I am retired now.

Mr. FOGLIETTA. I will call you Captain. I think the honor stays with it. A couple of questions.

The recipient or the proposed recipients of the communication by this vessel on a 48-hour basis, which is normal, was USMER, is that correct?

Captain HOBDY. USMER. According to the SAR case study, this would have been to the MarAd reporting system.

Mr. FOGLIETTA. You heard, I assume, staff report in which it was stated that there is no backup if the USMER does not receive the

call within 48 hours or after—there is no way of knowing that the call has not been received, the vessel has not made contact.

Is there supposed to be some sort of procedure or mechanism whereby they are to be alerted that this vessel has not called in?

Captain HOBDY. I am not aware of a flagging system that their software program would show, either on their computers or plotting system, that the vessel has not made a scheduled communications with them. It is a very fine suggestion.

I would certainly support that kind of philosophy. If a vessel does fail to make a scheduled communications broadcast, that should be noted and reported to responsible operating agencies and search and rescue authorities.

Mr. FOGLIETTA. I agree with you. That seems to me to be a tremendous gap in the procedures here.

If a vessel is supposed to report every 48 hours and it does not report for 3 or 4 days after that 48-hour period, there is no way of anyone knowing that that vessel has not reported within 24 hours.

Captain HOBDY. That is correct. It would have to be the receiving activity that receives the regular position reports.

Also, AMVER does not normally get messages on a regular basis from vessels. They will get the departure message, and that will give them the trackline. Unless there is a deviation from their speed of advance or their ETA's for the various turnpoints, along the route that they have given to AMVER, they do not send a message. They will just send the arrival report at the other end.

Mr. FOGLIETTA. Captain, you also concluded that the Coast Guard's air search should have commenced on November 4, 1980?

Captain HOBDY. Yes, sir. The first searches should have gone out on the 4th.

Mr. FOGLIETTA. That was based on them being notified by the operator, the owner of the ship on the 3d?

Captain HOBDY. Yes, sir.

Mr. FOGLIETTA. OK.

Twenty-four hours after the Coast Guard was notified. So it is your conclusion that they should have been on the job by the 4th.

However, faced with the fact that the owner waited 10 days, during which time he was trying to communicate with his vessel every 2 hours and he got no response before contacting the Coast Guard, I conclude that if the owner had been diligent here and had notified the Coast Guard even 2 or 3 days after he had not received any word, the Coast Guard then should have commenced its search on the 29th of October.

Captain HOBDY. I consider the delay in reporting to the Coast Guard by the operating agency one of the two major deficiencies I noted in my review. It was the 10-day delay, no communications and not reporting that to the search and rescue authorities, that is a major deficiency in my classification terminology. And then the next 5 days in which the Coast Guard delayed commencing an air search, I consider that as a major deficiency. These are the two.

Mr. FOGLIETTA. These are the two major deficiencies, the owner waiting 10 days before notifying the Coast Guard and the Coast Guard then taking 5 days to commence a search rather than 24 hours?

Captain HOBDY. Yes, sir. It appeared to me in reviewing the SAR case study that the Coast Guard contacted the commercial radio station at Chatham, which was the normal reporting station for the merchant vessel *Poet*, and in contacting them, they found out that Chatham had been trying to contact the *Poet* every 2 hours commencing on the 27th.

Now, their normal schedule for sending position reports was to two people. One went to USMER, the MarAd system, and one went to his operating company. It appeared to me that upon getting that information from Chatham, that the owner was aware that the vessel was overdue in making its position report. He had given him 24 hours in which to get his radios repaired. That, assuming that could have occurred, delayed his reporting his position. But the owner grew more worried, and so he started trying to contact his own vessel through the commercial radio station at Chatham. That is how I read that.

Mr. FOGLIETTA. You would think that, based on your experience, by the 27th or the 28th, at the latest, the owner should have been very suspicious that something was amiss.

Captain HOBDY. Yes. He obviously was, in my interpretation of those facts. He was concerned when he started to attempt to make contact with his vessel. There really are no criteria established on how long an owner should wait before he becomes really concerned about the lack of communications with his vessel, because some merchant vessels do not send any position reports while they are en route on a voyage.

Mr. FOGLIETTA. How often in the past was the *Poet* sending in position reports or communicating with the owner?

Captain HOBDY. According to what I have reviewed, the information that was available after the Coast Guard started checking into their habits of the Master was that the Poet would send his position reports on a regular basis. I do not—there was nothing in the SAR case study that showed they got that information from the owner of the *Poet* or the agent of the *Poet*.

Mr. FOGLIETTA. Would you then, sir, agree with me that these two gaps, these two discrepancies, these two violations, No. 1 the owner not notifying the Coast Guard until 10 days after he should have become suspicious and, No. 2, the Coast Guard not starting its search for 5 days after they had been notified amounts to not only gross negligence but total and wanton disregard for human life?

Captain HOBDY. No. I would prefer to use my own terminology in that, Congressman. I would say I would consider those as major deficiencies in my analysis of the circumstances.

To be a little more specific on your previous question, you asked if I would consider that the owner should have notified the Coast Guard after 24 or 48 hours. Yes, I would consider that that time-period would have given him, the owner, sufficient time to have confirmed that there was either (1) some kind of communications difficulty on his vessel or, (2) possibly "something more serious." And it is the possibility of "something more serious" that, if I were the owner, I would have certainly notified search and rescue authorities.

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Mr. FOGLIETTA. So what you are saying then is that if everybody acted reasonably in the matter that the search should have been started approximately 10 days from the time?

Captain HOBDY. Yes, sir; I would accept that terminology.

Mr. FOGLIETTA. Well, I will accept your chronology, but my terminology is that there was a wanton and total disregard for human life.

Thank you.

The CHAIRMAN. Any further questions?

Mr. Shumway.

Mr. SHUMWAY. Mr. Chairman, I have just one or two questions.

I understand that the source for the Coast Guard to conduct this investigation is section 14 U.S.C. 88.

Are you aware of any other legal authorization or direction to the Coast Guard to perform duties, search and rescue, such as that one?

Captain HOBDY. Yes, sir.

The Coast Guard has statutory SAR responsibility and it is—the basic one is 14 U.S.C. 88. There have been various judicial interpretations and amplifications on the Coast Guard's duties that have occurred over the years in which they have modified the Coast Guard responsibility in search and rescue, and its responsibility to take actions under certain circumstances.

The Coast Guard also has its own Coast Guard regulations which further reinforce the responsibilities and duties of its own personnel in various positions of authority, particularly including search and rescue positions of authority.

Mr. SHUMWAY. But those are simply regulations developed by the Coast Guard, they are not statutory?

Captain HOBDY. No, sir. They are our basic—they are the Coast Guard's basic operating rules under which it functions.

Mr. SHUMWAY. Can you tell me does the Coast Guard interpret that section 88 as opposing a mandatory or simply a discretionary duty on their part to conduct the search and rescue operation?

Captain HOBDY. The law reads, and the Coast Guard interprets that, as discretionary. The law reads may, m-a-y.

Mr. SHUMWAY. There is no mandatory statutory provision that you know of?

Captain HOBDY. Not statutory, no sir, not that I am aware of.

Mr. SHUMWAY. Is there by regulation?

Captain HOBDY. By regulation, in our—the Coast Guard regulations, yes, there are more positive wordings and terminology used, and assigning to the Coast Guard people who are in positions of authority what their SAR responsibilities are. This, I have covered in my treatise that I have attached to my statement.

To give you an example of some of the terminology that is used in this respect, note article 811 for example, "Duties Relative to Laws, Regulations, and Orders." I will quote, "Every person in the Coast Guard shall acquaint himself with, obey, and so far as his authority extends, enforce the laws, regulations, and orders relating to the Coast Guard. In the absence of instructions, he shall act in accordance with the public interest and in conformity with the customs of the service."

That is a pretty strong charge to its own officers to do this sort of thing. It has other sections, examples to be set by the officers, and conduct of persons in the Coast Guard and so forth. There is this strain of SAR responsibility stemming from statutory authority, then judicial interpretations, the Coast Guard regulations, and then the Coast Guard's publication 308, which is the National SAR Manual, following right in line. And the National SAR Manual prescribes in more detail some of the duties and responsibilities of those officials in search and rescue positions, which they are charged to comply with.

Now, there is a separate strain totally different from that one in which the SAR Manual was derived, and it is based on an international treaty. The International Civil Aviation Organization stems from the Treaty on International Civil Aviation back in the midforties, about 1945 or 1946, somewhere within that time frame. From that, during President Eisenhower's term in the White House, there was established a civil air policy which addressed the assumption by the United States of certain, search and rescue responsibilities. From that civil air policy developed the National SAR plan, the National Search and Rescue plan. This was an agreement among various executive branch agencies who had some responsibility, or some interest, or some capability, in search and rescue. And then from the National SAR plan, we have National SAR agreements and then we have the National Search and Rescue Manual, getting into greater specificity the further down we get. That is the other general strain that you have without even associating with the historical heritage and customs of almost two centuries of active search and rescue activities by the Coast Guard and its predecessor organizations.

Mr. SHUMWAY. Thank you, Captain.

The CHAIRMAN. There being no other questions, the Chair recognizes Admiral Bell——

Ms. MIKULSKI. Mr. Chairman, I have a statement.

I have no further questions of you, sir. I think you certainly answered them amply in your testimony.

But, as a retired Coast Guard official, I would like to thank you personally for establishing the appropriate procedures that should have been followed, and I think you are a perfect example of the kind of Coast Guard tradition that we are all proud of, and I am sure we will get to the bottom of this. But I would like to personally thank you for the contribution that you have made in your career. I very much appreciate it.

Captain HOBDY. Thank you. I was just the leader of a team, and we did have previous publications to give us a hand on it. But, yes, it was a total rewrite of our National Search and Rescue manual.

Thank you.

The CHAIRMAN. Thank you again.

Admiral Bell and Admiral Costello, would you please raise your right hand?

Do you solemnly swear that the testimony you are about to give is the truth, the whole truth and nothing but the truth?

Admiral BELL. Yes, sir.

Admiral COSTELLO. Yes, sir.

The CHAIRMAN. Admiral Bell, you are now recognized, sir.

TESTIMONY OF THE U.S. COAST GUARD, DEPARTMENT OF TRANSPORTATION, CONSISTING OF REAR ADM. HENRY H. BELL, CHIEF OF MERCHANT MARINE SAFETY; AND REAR ADM. JOHN D. COSTELLO, CHIEF OF OPERATIONS

Admiral BELL. Thank you, sir.

Mr. Chairman and members of the committee, good morning. I am Rear Adm. Henry H. Bell, Chief of the Office of Merchant Marine Safety at Coast Guard headquarters. May I also introduce my colleague, Rear Adm. John D. Costello, Chief of the Office of Operations at Coast Guard headquarters.

We appreciate this opportunity to share with you our present understanding of the circumstances surrounding the disappearance of the SS *Poet* and her crew of 34 American seamen.

The Coast Guard shares the concern of Congress, shipowners and operators, family members, unions, sailors and the public over the disappearance of the *Poet* and her crew. We are very aware of the need for an exhaustive and thorough investigation of all relevant information that may allow us to determine how and why this tragic incident occurred.

In that regard, the Coast Guard convened a Marine Board of Investigation under the provisions of 46 U.S.C. 239 on November 19, 1980, in Philadelphia, Pa. The National Transportation Safety Board is participating in all phases of this investigation under the authority of the Independent Safety Board Act of 1974, 49 U.S.C. 1903. A great deal of testimony and documentary evidence was collected during these public proceedings from former crew members, the pilot that navigated the vessel from Philadelphia to its departure point from Delaware Bay, the vessel's owner and operation, the American Bureau of Shipping, the National Cargo Bureau and our own personnel and records. No physical evidence is available to the Board because the 10-day aerial search for the *Poet,* which covered 300,000 square miles, did not yield any debris or trace of the vessel. I wish to emphasize that this investigation is still ongoing as the members of the Marine Board of Investigation continue to research various lines of inquiry and analyze all of the evidence collected. The Coast Guard is, of course, amenable to suggestions that would act to enhance our investigative efforts.

The history of the SS *Poet* began with its construction at Richmond, Calif., in 1944. The *Poet* was originally built for the U.S. Army Transportation Corps as a troopship and was employed in that service as the *General Omar Bundy* until her retirement from that service in 1948. The vessel was placed back in service as a cargo vessel from layup status in 1965, after conversion work was accomplished in Baltimore, Md. From that point until her departure from Philadelphia in October 1980, the vessel remained in service under the alternative names of *Portmar, Port,* and finally the *Poet.* During her active service, the *Poet* underwent required periodic inspections by the U.S. Coast Guard and surveys by the American Bureau of Shipping. These examinations were made in compliance with applicable national and international standards at the times they were conducted.

The SS *Poet* was last inspected for Coast Guard certification by our Marine Safety Office in Port Arthur, Tex., on March 6, 1980, and found to be fit for her assigned service and route. At that time,

the *Poet* also underwent a drydock examination and was found to be in satisfactory condition. The inspection records show that during these inspections, several deficiencies were detected and corrected to the satisfaction of the attending inspector.

The *Poet* arrived in Philadelphia, Pa., in October 1980 to take on a cargo of bulk corn. The cargo loading and stowage was supervised by the National Cargo Bureau and the vessel subsequently was piloted via the Delaware River and Bay to her point of departure at Cape Henlopen, Del., at which point the River Pilot disembarked. The *Poet* departed Cape Henlopen, Del., at 8:30 a.m. on October 24, 1980.

The Coast Guard was first advised of concern for the vessel's safety on Monday, November 3, 1980, when the agents for the vessel advised the rescue coordination center in New York that the *Poet* was unreported on a trip from Cape Henlopen, Del., to Port Said, Egypt. The *Poet* was due in Port Said on November 9. The search and rescue system was activated upon receipt of the agent's phone call at 0959 a.m. on November 3, 1980, and well established procedures were immediately put into effect. These procedures includes a check of the automated mutual-assistance vessel rescue (AMVER) system computer for information on the *Poet*. This check revealed that no reports from the *Poet* to the AMVER system had been received since the vessel's departure message on October 24, 1980.

Wide ranging communications checks were begun by RCC, New York, in an effort to turn up any information on the possible whereabouts of the *Poet* since, by this time, she could have been anywhere in the Atlantic Ocean. Urgent marine information broadcasts were commenced and continued until January 7, 1981, along with more widespread broadcasts by the Defense Mapping Agency's navigational warning system. Lloyds of London intelligence services were queries. The U.S. Naval Ocean Surveillance Information Center (NOSIC), Suitland, Md., was checked. The last information they had on the vessel was its departure message to the U.S. merchant vessel locator filing system (USMER). This message was also received by AMVER. The U.S. merchant vessel locator filing system (USMER) is a mandatory reporting system for all U.S.-flag vessels and foreign-flag U.S.-owned vessels. The system is operated by the Maritime Administration for the U.S. Navy for national defense purposes. Coast Guard communication facilities handle USMER traffic and USMER reports are also placed in the AMVER system. The radio station (Chatham radio) normally worked by the *Poet* for commercial messages was checked but they had been unsuccessful in trying to establish communications with the *Poet*. The Delaware Bay pilots were contacted for any clues that they might have obtained on the departure of the ship. There were none. Lloyds' signal station at Gibraltar was checked through their intelligence services. Lloyds' Gibraltar station had no contact with the *Poet*. On November 7, information was obtained from NOSIC that the *Poet* has reported every 48 hours during previous voyages; later analysis showed that the *Poet* occasionally missed required reports. It was known that a storm of gale force winds had intersected the *Poet*'s dead reckoning track on October 25 to 26. Based on increasing concern caused by the lack of information on the

Poet, the alleged regular reporting to USMER on previous trips, and the information about the storm, an aerial search was planned for the next day.

The aerial search continued for 10 consecutive days using aircraft from the Coast Guard, Navy, Air Force, and Canadian Forces flying 55 missions and covering 300,000 square miles, including track searches from Cape Henlopen to the Strait of Gibraltar, and area searches from the eastern U.S. seaboard to midway between Bermuda and the Azores. Nothing was seen or heard that could be identified as coming from the SS *Poet.*

Sir, this summary is necessarily brief because the Marine Board still has the matter under investigation. To speculate on its findings, or conjecture on one aspect of the incident out of context, could be counterproductive. The Coast Guard is very concerned over the disappearance of the *Poet.* We do not take our search and rescue responsibility or other maritime safety responsibilities lightly. Indeed, it is because of our great concern and our statutory mandates that the Coast Guard investigation has been convened. That investigation should be permitted the time necessary to explore comprehensively this unfortunate incident. Naturally, the final investigative report and all evidentiary material will be made a matter of public record and copies will be furnished to all interested parties. I would only ask that final judgment be withheld until the work of the Marine Board of Investigation is complete, and a determination then be made if further inquiry is warranted.

Mr. Chairman, that ends the statement we have filed with the committee.

Admiral Costello has, with your permission, a briefing on the Coast Guard's events subsequent to the notification by the owner that the *Poet* was unreported.

With your permission, sir, I would like to turn the mike over to Admiral Costello.

The CHAIRMAN. Without objection, so ordered.

Admiral COSTELLO. Good morning, Mr. Chairman.

I am Rear Adm. John D. Costello, Chief of the Office of Operations of the U.S. Coast Guard. As such, I am the principal adviser to the commandant in search and rescue matters.

Although I was not directly involved in the search for the SS *Poet,* I am familiar with the details of the case and would like to review them for you, as they unfolded to those who actually prosecuted the Coast Guard's search effort. Before beginning, and in recognition of the fact that there have been some questions regarding the adequacy and appropriateness of our procedure, I would like to briefly describe the basic procedures we follow in SAR cases.

When the Coast Guard becomes aware that a question exists regarding the safety of a vessel, the duty controller at the appropriate rescue coordination center, or RCC, which in this case was New York, classifies the case into one of three emergency categories. The first is the "uncertainty phase," which is defined as the period in which doubt exists as to the safety of the ship. Action in this phase concentrates on thoroughly researching all available sources to resolve the uncertainty. Many cases actually go no further than this phase. The "alert phase" is defined as a period of heightened apprehension due to the continued lack of information about the

ship. In the alert phase, attention begins to shift to action planning. Search plans are developed and search units alerted. The "distress phase" which is any time immediate assistance is required is usually predicated on known grave or imminent danger or because of a continued lack of information concerning progress or position of the ship. Actual movement of SAR resources is normally involved in this phase. The assignment of any one of these classifications is judgmental on the part of those managing the case and is based on the facts of the situation. If there is a confirmed immediate danger, such as with an SOS, we move directly to the distress phase.

As you can see, our standard procedures recognize that all notifications do not mean an emergency actually exists and do not automatically proceed to the distress phase. Rather, the standard procedure allows for orderly escalation of efforts if the circumstances so indicate.

On the day the initial report was received, the *Poet* was considered to be in the uncertainty phase for the following reasons:

First, the *Poet* was a large ship, approximately 521 feet in length. Ships of this size are not often lost at sea. They are almost never lost with no distress communication being heard.

Second, no distress call had been received from the vessel even though it had emergency communicating equipment aboard.

Third, although the vessel was unreported, it was still 6 days from being overdue at Port Said.

Fourth, the *Poet* was clearly out of communication but this is not a particularly uncommon occurrence. For the committee's information, we know that at least one east coast commercial radio station has about 15 vessels every week for which it holds undelivered messages in excess of a week.

Finally, no EPIRB signal had been detected. An emergency position indicating radio beacon or EPIRB is required equipment on U.S. vessels of the *Poet*'s size.

This last fact was of particular significance. If the *Poet* traveled along the route indicated in the departure message, the vessel would have been overflown and crisscrossed extensively by commercial aircraft over the entire length of its route. During the predicted transit from Cape Henlopen to Gibraltar, there were about 150 aircraft or 15 flights per day paralleling or crossing the *Poet*'s route or coming within range of its EPIRB. It is unlikely that an EPIRB would not have been heard had it been operating. If the ship had come to grief suddenly, the EPIRB was designed to float free and begin transmitting automatically. The fact that no distress communication and no EPIRB signal had been received were strong factors in initially classifying the case as an uncertainty on the 3d of November.

Having placed the *Poet* into the uncertainty phase, the people managing the case, following standard procedures, began a communications search for the vessel. As you know, the commercial radio station at Chatham, Mass., had been trying to raise the *Poet* every 2 hours since October 27. Why then would we apparently repeat this step since it seemed to have been conclusively demonstrated that the *Poet* could not be communicated with? The answer lies in the difference in the communications attempted. Whereas Chat-

ham radio had been trying to reach a single vessel, the *Poet,* our efforts actually involved a communications search which was addressed to all vessels at sea in the North Atlantic and Mediterranean. This communications search involved urgent marine information broadcasts by Coast Guard radio station Portsmouth, Va., NAVAREA IV broadcasts by the Navy at Norfolk and Key West, and HYDROLANT broadcasts by the Navy from Rota, Spain; Odan, Scotland, and Nea Makri, Greece. These broadcasts continued daily throughout the duration of the search. In fact, they continued into January 1981. We were looking for anyone who may have sighted or heard the *Poet.* Thus we were not duplicating Chatham efforts at all. We were extending the communication search to all ships at sea.

RCC, New York, also took the following actions on November 3.

Since the *Poet* was a USMER participant, and current USMER data is available in the AMVER System, the AMVER Center was queried. AMVER reported that the *Poet* had not made a report since her departure message. Although not reassuring, this of itself was still not a matter of great concern. It is not at all uncommon for USMER participants to fail to meet reporting requirements. I am told that as many as 27 per day fail to do so.

In order to eliminate the possibility that USMER data had been inadvertently omitted from the AMVER System, the USMER data bank was queried also. It confirmed that the USMER System had not heard from the vessel since receiving its departure message on 24 October.

Finally, as part of standard procedures Lloyds of London was contacted for information and reported they had none.

Thus, at the end of the first day the case managers had an unreported vessel which was clearly not yet overdue, but that was probably out of communications. No distress communications had been heard although the vessel had emergency signalling equipment aboard. Since this was not an uncommon profile, even though the vessel remained unlocated, the people managing the case in RCC New York were correct in continuing the case in the uncertainty phase. My judgment is that those managing this case knew that it was not particularly unusual for vessels of the *Poet*'s size to be out of communications, but it would be extraordinary for a vessel of this type to be in danger without some form of communication.

Continuing the research on the case on November 4, the Delaware Bay pilots were contacted. They advised no problems had been observed with the *Poet* at the time of its departure on 24 October from Cape Henlopen. Knowing that if the *Poet* had made good her intended speed, the vessel should have passed through the Strait of Gibraltar not later than the 3rd of November, Lloyds was again contacted and requested to check their signal station at Gibraltar to see if the *Poet* had been observed or heard while passing by. A response from Lloyds was not forthcoming until the 5th when they reported that the *Poet* had not been seen or heard. Again, this fact of itself was not conclusive. The vessel could have entered the Mediterranean since vessels are not required to call in at Gibraltar. The Lloyds Co. readily acknowledged that they only

record about 50 percent of the total traffic passing through the Strait. The rest passes through unidentified.

It was known that a severe local storm had occurred along the general route intended by *Poet* after her departure from Cape Henlopen because there had been many SAR cases involving much smaller vessels than *Poet* on October 25 and 26. The weather had been severe. However, while the gale winds and sea states reported along the track should have been a discomfort for those on *Poet,* it did not seem likely that they would pose a serious problem for a vessel of *Poet*'s size. This conclusion was based in part on the knowledge that there were at least 24 other merchant ships of approximately the *Poet*'s size and capability in this storm during the 25th and 26th. There were no reports of difficulty from any of these ships.

However, with continued lack of results from the communications check during the 5th and 6th, apprehension for the vessel's safety was rising, despite the fact the vessel was still not overdue at destination. The managers of this case knew that although it is extremely rare for a ship of this size to be in distress without some communications, such an event is not unprecedented. With this in mind, the managers began to think in terms of escalating to the alert phase. With receipt of information on November 7 that the *Poet* had reported faithfully to USMER every 48 hours on her previous voyage, the managers escalated to the alert phase and subsequently directed a search to commence on Saturday, the 8th. My personal evaluation is that this last piece of information was less significant than was the continuing lack of any information about the vessel. One of the conclusions of the first day was that *Poet* was having communications problems. This would account for this apparently uncharacteristic behavior in failing to report as required by USMER. Parenthetically, the reported reputation of the *Poet* for being a reliable reporter has been later shown to be not entirely accurate. Nevertheless, the information about the *Poet*'s reporting practice was enough to tip the scales in favor of an escalation to the alert phase first and almost immediately to the distress phase.

In the absence of real clues, the manager's best hypothesis was that the vessel encountered a problem of an unknown nature within the 48-hour period between her last message and the next required USMER report on the 26th of October. If this were the case, it would have to have occurred in the vicinity of the storm. With this hypothesis, the search managers generated several scenarios on which to plan a search. The search problem quickly narrowed down to two basic options. The first was to search in the area that ship or survivors would now be in, if the ship had been disabled or involved in a disaster in the vicinity of the storm. The second option was to search the vessel's trackline based on a secondary scenario that the vessel had been damaged by the storm, had been forced to slow down and was now far behind schedule but still on course. Computer assisted search planning began immediately, on the evening of the 7th. A decision was made to go to the distress phase on the 8th even though the vessel was still not overdue.

Approximately 25,000 square miles were searched on the 8th using six aircraft sorties centered primarily around the area where the storm path crossed the ship's intended track, and along the entire intended track. All search areas were adjusted for daily drift since the 25th and 26th of October. Because there were no physical clues as to what happened, it was always possible that a plausible scenario had been overlooked. To evaluate this possibility, the RCC contacted the National SAR School at Governor's Island and asked for their recommendations. The SAR School staff reworked the entire problem independently and came up with the same identical conclusions and search area recommendations.

In a further effort to refine search planning, meetings were held with various union representatives, the owners and the agents of the vessel to explain the search scenario and to see if any other significant information had been overlooked. No additional data which could be incorporated into the search itself was obtained from the attendees.

The search was carried out daily until November 17 when it was suspended. A total of approximately 300,000 square miles had been searched in 55 sorties involving more than 500 flight hours, without uncovering a single clue. In addition to Coast Guard aircraft, Navy, Air Force and Canadian Forces units participated in this search. To the extent they were available, unconventional DOD reconnaissance assets were also being used. In terms of overall effort, this was one of the largest search efforts in recent time.

Mr. Chairman and members of the committee, based upon my experience in Search and Rescue, and a review of the facts as they unfolded for the search managers, it is my opinion that our search procedures are adequate and that the search effort was prosecuted correctly and in accordance with established procedures.

Mr. Chairman, Admiral Bell and I would be pleased now to answer any questions that you might have.

The CHAIRMAN. Admiral, why were neither the weather reports, nor the USMER history of the SS *Poet* checked promptly, when they could have been checked the first day?

Admiral COSTELLO. Mr. Chairman, as far as the *Poet*'s reporting reputation, the way the information was eventually obtained was through our Coast Guard Liaison Officer at NOSIC, who had to manually retrieve the information. It is not retrievable automatically. One has to go back and manually retrieve it.

As far as the weather information, the weather information was available in Coast Guard's Search and Rescue Headquarters in New York, sir. They had prosecuted a number of difficult cases over that weekend.

The CHAIRMAN. Any other questions?

Mr. FOGLIETTA. Yes, sir.

Admiral, you state that you believed that the search and rescue operations were adequate in this case. There are a couple of things that I would like to ask about.

No. 1 is the USMER reporting recipient station. Are there no procedures whereby, if a vessel does not report within the required 48 hours, or two or three periods of 48 hours, that it be flagged for them to determine that there were some problems involved?

Admiral COSTELLO. As far as the USMER system is concerned, I really cannot answer that question. It is a MarAd system.

As far as the AMVERS system, which does get the USMER reports, there is no flagging procedure. The reason for that is several fold.

AMVERS, as you will recall, is a voluntary system, and we have no way of posing a mandatory requirement on those who participate. The vast preponderance of those participating in AMVERS are foreign-flag vessels.

But, for a moment, if we could stipulate that we could make it mandatory, we have a very difficult problem in communications. As this case illustrates, if you are unable to communicate with the vessel, is he in distress, does he have a communications breakdown, or both? There are frequent occasions when atmospherics make it impossible to communicate with the vessel. How does one separate the real distress case from the rest?

For an alerting system to be established, an absolutely essential ingredient is a reliable, all weather, all times of the day and night communications system. That, to my knowledge, exists only through satellite communications now, sir.

Mr. FOGLIETTA. I just do not see how any system could be referred to as adequate, where under ordinary circumstances a vessel is required to report every 48 hours and, for a vessel to have a history of having reported, except for one period of 4 or 5 days, throughout its history every 48 hours, when that vessel does not report for 10 days, no one is aware of the fact that there may be some problems involved.

How could we call any such system an adequate system?

Admiral COSTELLO. There is no such system as an alerting system in existence, sir. You are assuming that such a system exists, none does.

Mr. FOGLIETTA. Let me ask you this question. You stated that——

Ms. MIKULSKI. Would the gentleman yield?

Mr. FOGLIETTA. Yes.

Ms. MIKULSKI. The Coast Guard was very helpful when the *Pride of Baltimore,* our clipper ship was lost at sea, and then subsequently recommended that we install some type of mechanism and, it does operate by satellite, and it could be tracked anywhere in the world.

Now, if that was the recommendation for the *Pride,* as perhaps you are familiar with the search that went on, and we appreciate all you have referenced in that area, why could not what was recommended for the *Pride,* would that not answer the gentleman's question, that there is something that you put in a ship, that literally can be tracked by satellite, so that it can be located anywhere in the world?

Admiral COSTELLO. I am not sure what was recommended for the *Pride of Baltimore,* but two possibilities occur to me.

One is satellite communication system, MARISAT, which is a regular telephone service, extremely reliable, and I understand that MarAd is currently considering the subsidizing the installation of such equipment on U.S.-flag vessels.

The other possibility could be the EPIRB or emergency position indicating radio beacon. EPIRB's have been both a blessing and a thorn in our side. The blessing, in the extent that they have solved a number of very difficult search and rescue incidents for us. Over the past year we have had 25 cases which, my opinion is, we would have not found the participants had they not had an EPIRB.

The thorn in our side is that the EPIRB has a tendency to operate when you do not want it to operate, and we have had an equal number of false alarms from it, but in our judgment we would rather live with false alarms as long as the device does lead to lives saved.

The enigma, the mystery in this case, is why did not the EPIRB aboard *Poet* work?

Ms. MIKULSKI. If the gentleman would just allow me to continue briefly.

So then the systems do exist, so it is not like there is no system in the world, that there are two systems that have been utilized, that could, for example, the system under example by MarAd, and then the EPIRB, or whatever. They do exist, is that correct?

Admiral COSTELLO. Yes, let me put one footnote on it.

With the EPIRB, you cannot communicate with someone. The person in distress can tell us that he is in distress. That is all he can tell us.

Ms. MIKULSKI. But that is telling you that he is in distress?

Admiral COSTELLO. Yes, ma'am, and the *Poet* had one aboard.

Ms. MIKULSKI. One thinks of the fire alarm, when one throws in a fire alarm on a neighborhood street corner, it does not say I have got a little smoke in the second floor of my bedroom, I think it might be in the attic installation, it says get the hell—get the fire engineers here and, is this not what we need? Nobody gives a detailed description of a fire.

Admiral COSTELLO. This vessel was required to carry that alarm device ma'am.

Ms. MIKULSKI. And it was on there?

Admiral COSTELLO. Yes, it was. To the best of our knowledge, it was.

Ms. MIKULSKI. I yield back.

Mr. FOGLIETTA. I think the point the gentlelady is trying to make, is that if a vessel is in distress, but can communicate, and say "we need help," we have a system that works, but if the vessel is in such distress that it cannot communicate, we cannot get help to it.

Admiral COSTELLO. Well, the *Poet* had two emergency methods of communicating. A hand-operated radio, and it had the EPIRB. Neither of them were heard.

Ms. MIKULSKI. If the gentleman would allow for this brief dialog to continue.

Mr. FOGLIETTA. Yes.

Ms. MIKULSKI. Though the ocean is big, we have airplanes flying over it continuously. We also have other ships at sea.

When a ship is just not heard from, what are the steps in which airplanes are tuned in to frequency, or trying to make radio contacts, were other fellow ships, comrade ships, is that a methodology used, other ships, whether it is air or aquatic, trying to contact?

Do you, in other words, contact the airlines, and say, while you are flying over, see if you can make radio contact, or is that not standard procedure?

Admiral COSTELLO. All commercial aircraft traveling transoceanic are required to monitor the frequency on which EPIRB's transmit. There should have been 150 flights a week that either paralled or crossed the *Poet*'s trackline.

As far as the vessels listening to a distress communication, all vessels with communications radio officers aboard are required, twice an hour, to shut down their radio and listen.

Ms. MIKULSKI. And both the airplanes and the ships heard nothing?

Admiral COSTELL. That is correct, ma'am.

Ms. MIKULSKI. Thank you.

Mr. FOGLIETTA. I would like to continue, if I may.

The CHAIRMAN. The gentleman is recognized for one more minute.

Mr. FOGLIETTA. Certain statements, or quotes were made by you during your presentation, that after 1 week it was not a matter of great concern, and it was not unusual not to have not heard from this vessel.

You stated that from the third of November until the 8th of November, which is approximately a 5-day period, you went from the statuses of uncertainty to alert to distress before the search was commenced.

Under ordinary circumstances, I could accept that taking 5 days, with the procedures that you outlined, but was this not an unusual case?

When you first got your notification, which was on the third, that there had been negligence prior to its coming to the Coast Guard, that 10 days had elapsed since this vessel had been heard from, the owner of this vessel was trying every 2 hours to contact the vessel. Should not this process have been speeded up?

Admiral COSTELLO. I do not think so, sir.

To illustrate the radio station at Chatham was attempting to communicate with a vessel which in retrospect we probably can assume had lost its communications.

As the Marine Board discovered, there had been radio equipment difficulties aboard this vessel, just prior to her sailing. That was not known by the Search and Rescue Center. What was known to the Search and Rescue Center is that it is not uncommon for a vessel on a trans-Atlantic voyage to be out of communication for an extended period of time.

For example, 2 weeks after this event occurred, a vessel en route to Mobile, Ala., was out of communications for 13 days, before we finally raised it.

Mr. FOGLIETTA. Well, I do not think that is a good commentary on the methods by which we keep track of the American vessels, on which Americans are traveling or working.

But, if I may, just one more minute, Mr. Chairman?

The CHAIRMAN. One more minute, yes.

Mr. FOGLIETTA. Assuming the 10 days were not too much of a concern, and that the 5 days were more normal, we have had testimony from Captain Hobdy, in which he says under these cir-

cumstances, the Coast Guard should have gone from the uncertainty stage to the alert stage to the distress stage within 24 hours, and not 5 days.

What is your answer to that? Why do you say it normally takes 5 days, and Captain Hobdy said it should have only taken 24 hours?

Admiral COSTELLO. Well, to begin with, sir, I think if you will recall, Captain Hobdy said at the outset of his statement, that his judgments were based on two documents. Mine were based on more access to the material at hand on the RCC than Captain Hobdy had before him.

I also said the decision whether to go from one phase to the other is judgmental of the facts laying before the manager of the case. In my judgment, and I believe I am as qualified as Captain Hobdy, the procedures were properly followed.

Mr. FOGLIETTA. Thank you.

The CHAIRMAN. The Chair recognizes the chairman of the Subcommittee on Coast Guard and Navigation, Mr. Studds.

Mr. STUDDS. Admiral, last month when the subcommittee was holding hearings on the Coast Guard authorizations, I asked the Commandant whether the inadequacy of funding for the Coast Guard for maintenance of vessels had led to any tragedies.

As you will recall, the Commandant was quite straightforward in testifying as to the total inadequacy of the budget of the Coast Guard, in all of its missions, and most particularly in maintenance. He responded in part as follows and, I quote him:

> No, we have not. I guess the nearest miss was the *Poet,* when the *Poet* was lost apparently at sea off the east coast. The United States was in a search and rescue, that is, the search and rescue was going on. At that time we had virtually no major vessel of the Coast Guard available in the Atlantic area, due to various maintenance problems that were in fact occurring at that time.

Can you tell us what maintenance problems were occurring at that time, and to what he referred when he said, "We had operational commitments"?

Admiral COSTELLO. Yes, sir, I will try. I was not present, but I do know that at the time we assume that the event occurred, the Commandant meant that he could not get a cutter to the search scene. We had only one of our major 378-foot cutters on the east coast, of which we have six, that was operable during the search phase.

Mr. STUDDS. Normally there would be six?

Admiral COSTELLO. Normally there should be three.

Mr. STUDDS. What happened to the others?

Admiral COSTELLO. They were down because of maintenance problems, sir. The single vessel that was available was actually located in the Caribbean. It was 2½ days away from the search.

I think the biggest problem with not having a major search—surface vessel on the scene, is not so much that it hindered the search, but that it added a degree of risk to the people who were carrying out the search itself. There was no mainguard for them. They were flying between 500 and 1,000 feet. While I am not an aviator I know they do not like to do that without some surface assistance on scene.

Mr. STUDDS. What was the highest level in the Coast Guard chain of command, really involved in the hourly and day-to-day operations of this search and rescue mission?

Admiral COSTELLO. In this case, sir?

Mr. STUDDS. Yes.

Admiral COSTELLO. In this case, it began with the search and rescue center controllers, rather quickly escalate to the area search and rescue officer, Commander Frischman. Very shortly before, Captain Gove called, it was elevated to the area operations officer.

Mr. STUDDS. What rank is an area operations officer?

Admiral COSTELLO. He is a captain.

Mr. STUDDS. Are there ever situations, given the nature of the distress, or the magnitude of the incident if the tragedy that may be involved, whereby higher rank than that would be involved in the air and rescue search mission?

Admiral COSTELLO. I think that is a function of the individual district commander, his background and his experience. Somebody who has had long experience in search and rescue might be more inclined to become involved early, than somebody who is less experienced in it and, all of us have different backgrounds, obviously.

Mr. STUDDS. In this case, who is the district commander?

Admiral COSTELLO. Vice Admiral Price.

Mr. STUDDS. It is my understanding there were a number of requests for Admiral Price to appear before the Marine Board in Philadelphia, and that he declined to do so, is that correct?

Admiral BELL. No, sir. If I could answer that one.

The Board, which is a factfinding board as we said in the testimony and is looking at the ship itself, did take testimony from Captain Suzich.

The Board, in its deliberations felt that as far as the findings of the Board, the investigation of the Board, which was into the *Poet* itself, and not into the SAR mission, they had received enough information, and that the area commander could not add anything more. They essentially had the people who had the facts.

If I can draw the parallel, Admiral Costello and myself are here this morning, instead of the commandant, because theoretically we know more of the facts about the case than he does. That does not mean that he is not aware of it.

Mr. STUDDS. I appreciate that. In fact, it has been my experience, one has to go down to at least a captain, to find out if something is going on.

But the fact remains, as you well know, that there is a definite chain of command in the organization, and that responsibility lies clearly within that chain.

Let me switch for you. There are some questions that I will come back to.

Are there legal requirements that a vessel such as the *Poet* carry an EPIRB?

Admiral BELL. Yes, sir.

Mr. STUDDS. That she simply carry one, and that it be in order. What is the essence of the requirements?

Admiral BELL. It has to have one, it has to have the FCC inspection, it has to be stowed where it is accessible for maintenance and for testing, and the master is required monthly to test the EPIRB.

Mr. STUDDS. And the irregular inspection is up to the FCC, and not the Coast Guard?

Admiral BELL. We would inspect the location, the storage, and the FCC is responsible for the battery life of the equipment, and the internal electronics part of it, sir.

Mr. STUDDS. But is the testing of an EPIRB, or the establishing of it, as being in good working order, a part of the routine of the Coast Guard?

Admiral BELL. If I understand your question, Congressman, no, we would see that it is tested monthly. We do not test that it does emit a radio signal—no, sir.

Mr. STUDDS. Does anyone do that?

Admiral BELL. No, sir, not to my knowledge.

Admiral COSTELLO. The responsibility for testing the equipment is with those who operate it, sir.

Mr. STUDDS. I am just trying to establish where it lies, and whether the legal requirements are adequate.

I was amazed to see it, that the recent Coast Guard inspection, that vessel showed that they did not have a Loran C equipment aboard, is that correct?

Admiral BELL. Most recent being in Philadelphia?

Mr. STUDDS. Yes.

Admiral BELL. Yes, sir, they found she did not have a Loran C, which had been required to be installed by 1 July, this being October, 3 months later.

Mr. STUDDS. What was she using for navigation?

Admiral BELL. Loran A, sir.

Mr. STUDDS. All right.

Admiral BELL. That was her electronic suite. I cannot say that is what he used for navigation.

Mr. STUDDS. Can you, off the top of your head, give us the history, at least in recent years, perhaps in recent decades, of the disappearance altogether of vessels, of various sizes, and what we know about them.

I guess if they disappeared altogether, we do not know anything about them, but what the history is, and the frequency of the occurrence.

I do not know if you can respond to that at all, off the top of your head. In the last 30, or 40, or 50 years, what occurrence is it for a vessel to disappear, of this size?

Admiral COSTELLO. I looked into that but I cannot go back 40 years.

I called Lloyd's to discuss just how unprecedented an event like the *Poet* was, and I was informed since 1975, there have been an average of 2 vessels a year, of the *Poet's* size that they have classified as missing. That means they do not know what happened to them.

Unfortunately, they do not keep data on how many of those who were missing were never heard from at all. Several years ago, we had a case involving a new West German carrier, the *Meunchen,* she disappeared without a trace, but there was one radio call before they disappeared. They got part of an SOS out of it. That is as close as I can come, sir.

Admiral BELL. One thing to the *Meunchen,* a year later a radio station reported to the German authorities that it had received a

transmission a year earlier, because of circumstances beyond my understanding, which had not been reported.

Mr. STUDDS. A year earlier?

Admiral BELL. He was 1 year later in reporting to the FRG that he had overhead a radio conversation from the *Meunchen* in the timeframe that the accident was occurring.

So the continued use of the broadcast, like we did, is attempting to reach those people. There may be still somebody out there that heard something that we just have not got hold of.

Mr. STUDDS. Let me ask you one final question.

Admiral COSTELLO. Just for your information, there have been two merchant vessels of *Poet* size lost since the *Poet* incident. One was the *Rio Bravo,* a Greek vessel of the Azores, and the other was an Israeli vessel off Bermuda.

In both cases there was a distress call, somebody heard them, and in fact in both cases, AMVER arranged the assistance.

Mr. STUDDS. One final question.

Had the owner of the vessel reported to you that she was out of communication, 2 days after she sailed, instead of 10 days after she sailed, so you had been told on the 26th that the vessel was not keeping its normal pattern of radio communications, and that the owner was concerned, if you were so informed on the 26th, as opposed to the 3d, do you think that you might have reached the distress stage earlier than you did?

Admiral COSTELLO. Hindsight is very clear. Yes, sir, I think we would have.

As I reported, the amount of time that had elapsed from the beginning of the worldwide, or Atlantic wide—Mediterranean wide requests for information, and the lack of any response after 3 or 4 days, that was beginning to be unusual.

Mr. STUDDS. You probably would have taken those 3 or 4 days, and then moved?

Admiral COSTELLO. I would think we would have, yes, sir.

Mr. STUDDS. I realize the difficulty of hindsight.

Mr. Chairman, I thank for your your patience.

The CHAIRMAN. Any questions, sir?

Mr. SHUMWAY. Yes, thank you, Mr. Chairman.

Admiral, gentlemen, you testified that the *Poet* was subjected to a drydock inspection, I believe, on March 6, 1980.

I am advised that according to the American Bureau of Shipping Report following that inspection, the salt water ballast tanks were not open for inspection.

Is that a standard kind of procedure that occurs on an inspection?

Admiral BELL. No, sir, I would not say that it is standard. We have information, and it was brought out in Captain Gove's testimony, that the ballast tanks were audio-gaged in 1977, during a protracted shipyard period, a special survey. They did not indicate the one thing that I think Captain Gove reflected upon that the ballast tanks are subject to accelerated corrosion in some instances. It does not appear to be the case in this vessel.

Mr. SHUMWAY. But you were relying on the information gained by the audio-test in 1977?

Admiral BELL. Yes, sir.

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Mr. SHUMWAY. During the 3 years that elapsed before the March drydocking, is it not possible that there could have been some corrosion, or other kind of——

Admiral BELL. Sir, if the tanks went from 1965 to 1977, and there was no evidence of accelerated corrosion, I would have trouble saying that within 3 years there would be a marked change to the pattern of those tanks.

Mr. SHUMWAY. During that drydocking, the Coast Guard's inspector indicated that the bilge and ballast systems were in working order, but he noted that no tests were made to examine the ballast discharge systems.

Now, is that compatible with his statement that they were in working order, but yet this discharge system was not examined?

Admiral BELL. I presume that—I am having trouble with the "ballast discharge system."

Mr. SHUMWAY. I am, too.

I would like to know what it is, and whether it contradicts the fact that he states it is in working order.

Admiral BELL. The ballast system was in working order. I have the report here, but rather than thumb through it, if you will just say it again, sir?

Mr. SHUMWAY. The inspector said that the bilge and ballast system were in working order, but there was no test to examine the ballast discharge system. How can it be in working order without knowing whether it can properly discharge?

I take it that a periodic discharge of that ballast is what is normally done.

Admiral BELL. No, sir, there is no requirement. The requirement is the soundness and the pumping capacity of the bilge system, the ability to dewater the vessel. This would include removing the salt water ballast, you have to have the ability to do it, and that the piping system and the machinery are sound.

To test that, they could do—it is not a normal test, to my understanding, and I would not—I do not know why that entry was made in there.

Mr. SHUMWAY. Let me just change the scene for a moment.

During the hearings that this committee held recently on the fiscal year 1982 authorization bill for the Coast Guard, the Commandant testified before this committee that the Falcon jets procurement program was behind schedule by, I believe 22 to 24 months.

I understand that that involved some 41 aircraft, and since those aircraft were to be used for search and rescue missions, did the delay and delivery of these aircraft have any impact upon the SAR rendition of the *Poet*?

Admiral COSTELLO. I do not believe so, sir, and the reason for that is that the *Poet*'s search was a long range search. We were dealing with thousands of miles, not hundreds of miles. We needed long-range aircraft, such as our C-130's and the Navy P3 aircraft, to get out there and stay long enough to search.

The average mission time was about 10 hours. The new Falcons are medium range, search and rescue aircraft, and I doubt that they would have been of any great service in this particular case, sir.

Mr. SHUMWAY. Thank you, Mr. Chairman.

The CHAIRMAN. On behalf of Ms. Mikulski, who had to leave, I would like to ask Admiral Bell a question.

Admiral Bell, you asked earlier that final judgement be withheld until the work of the Marine Board of Investigation is complete. What theories concerning the disappearance of the SS *Poet* are you investigating?

Admiral BELL. Sir, we are looking for anything that will lead us to a fact upon which we could start building a hypothesis. We have no facts now directly from the disappearance, and so the Board, lacking direct evidence, is just going through any piece of paper, any report, anything that it can find, to see if it is in any way germane. It is a very slow, heartbreaking process, because we know something happened, but as yet we have not been able to establish a clue as to what happened.

There has been a lot of hypotheses, or a lot of conjecture, but every time we try to run them down, there is no substance to them. So we are working on it. In fact, the members of the Board are meeting this week in Seattle to go over a big stack of documents they described to me as 18 inches high, to see if there is anything germane in there that would lead them forward.

The CHAIRMAN. I will assume that answers the lady's question.

It is now 12:45, the Chair is going to declare a recess until 2 o'clock, at which time we will reconvene to hear the final witnesses, and then we can conclude this hearing today.

I would like to inject at this point that the President of the Hawaiian Eugenia Corp., was summoned to be a witness here. We found some reluctance on his part, so as chairman, I issued a subpena that he appear here today. I have now been advised by his attorney that he is out of the country, but will likely appear sometime later in April, in order that we might get his testimony, which I think is vital to this case.

We will stand in recess until 2 o'clock.

[Whereupon, at 12:45 p.m., the committee recessed, to reconvene at 2 p.m., the same day.]

AFTERNOON SESSION

The CHAIRMAN. The committee will please come to order.

I would like to say, for the benefit of those who are from out of town, that although only a few Members were able to attend this morning, there is intense interest in this incident. Every word that was spoken here this morning, every statement made, will be reproduced in the form of a record.

I can assure you that while maybe the Member himself will not read it, someone on his staff will research carefully what is said here to help bring this inquiry to a successful conclusion. So do not feel that your time is wasted, and do not take it as any lack of interest, because it is not. There will be a permanent record available to any and all.

Now, the next witness this afternoon is a gentleman that has many outstanding attributes, but I suppose the greatest one he has is he was born in the First District of North Carolina, which I represent. So it gives me a great deal of pleasure to introduce Mr.

Jesse Calhoon, president of the National Marine Engineers' Beneficial Association.

Please raise your right hand.

Do you solemnly swear that the testimony you are about give will be the truth, the whole truth and nothing but the truth.

Mr. CALHOON. I do.

TESTIMONY OF JESSE M. CALHOON, PRESIDENT, NATIONAL MARINE ENGINEERS' BENEFICIAL ASSOCIATION

Mr. CALHOON. Thank you, Mr. Chairman, for that kind introduction. I am very proud to be from the First District of North Carolina. Happy years of my life were spent there, and I am looking forward to going back.

Mr. Chairman and members of the committee, 6 months ago there occurred a tragedy at sea almost unequaled in its horror in U.S. merchant shipping for nearly two decades.

The U.S. merchant vessel *Poet* and its complement of 34 officers and crew were lost at sea without a trace.

I appear before you today in lasting sorrow over the loss of these fine men and in deep and abiding sympathy for their families.

Long after this hearing is adjourned; when dust covers the official chronicles of inquiry on the *Poet*'s disappearance, outrage will remain etched in my very being over the failure of the ship's owner and the U.S. Coast Guard to move with life-caring dispatch to save these 34 lives.

I also appear in gratitude to Representative Mario Biaggi for his persistence during the early days of the *Poet*'s disappearance to move the Coast Guard into decisive action.

The members of the National Marine Engineers' Beneficial Association, of which I am honored to serve as their president, and the thousands of other American merchant seamen and their families are grateful to this committee for scheduling these first congressional hearings exclusively devoted to the disappearance of the *Poet*. We are very grateful, Mr. Chairman.

These deliberations hold the potential for us to develop and set firmly in place, measures to assure that the foregoing tragedy of errors does not take place again. The National Marine Engineers' Beneficial Association will work vigorously and unceasingly with this committee, other elements of our Government and the maritime industry to secure that goal.

Permit me now Mr. Chairman, to outline, a tragic case of indifference and failure by the U.S. Coast Guard to meet its lifesaving obligations—its first and foremost role.

In sum, the Coast Guard's handling—or I should say mishandling—of the *Poet* case makes a mockery of its own supposedly guiding standard, "Semper Paratus," Always Prepared. Preparations are meaningless if there is no will to act.

During the predawn hours of October 24, 1980, the SS *Poet*, a 36-year old, 522-foot converted World War II troop carrier under charter by the Egyptian Government, departed the Port of Philadelphia loaded with 13,500 tons of corn bound for Port Said, Egypt.

At 0820 eastern standard time the vessel left Cape Henlopen, Del., headed in open sea on a voyage scheduled to take it near the

Azores, through the Strait of Gibraltar, the Mediterranean Sea and into Port Said. Scheduled arrival date: November 9.

The *Poet* had historically maintained a solid record of providing AMVERS—the Automated Mutual Assistance Vessel Rescue System—and other such networks with its location at minimum 48-hour intervals. AMVERS had been duly notified of the *Poet*'s departure.

The *Poet* sent its last message at 1300 Greenwich mean time October 24.

Now follows the day-by-day chronology of indifference and inaction from the time of that last message.

October 25: No messages are received from the *Poet*. The ship encounters violent and stormy seas.

May I interrupt my prepared statement, Mr. Chairman, to say that subsequent to the disappearance of the *Poet* I was reading an issue of the National Fisherman, and I assume it was the same storm, because it hit New England 2 days later. The storm created real devastation in Massachusetts and Maine with the wrecking of many fishing vessels. This National Fisherman's magazine was very critical of the U.S. Coast Guard, and the number of vessels it had for rescue and aid. This storm was just not an isolated incident to the SS *Poet*.

October 26: No messages are received from the *Poet*.

October 27: Chatham Radio (WCC), a private service in Massachusetts, begins attempts to call the *Poet* approximately every 2 hours beginning in the morning. Note: Within the whole matrix of tracking systems, Chatham Radio appears to be the only element to evidence any measure of concern for the *Poet* through its persistent and consistent attempts to communicate with the crew. It sought information, rather than waiting for it.

October 28: Four days have lapsed without any messages. received from the *Poet*. No concern is yet expressed by the vessel owner or the Coast Guard.

November 3: This is the 10th day since the *Poet* last communicated with anyone. The ship's owner—after an unsatisfactorily explained and unconsionable delay—finally notifies the Coast Guard's Rescue Coordination Center (RCC) that the ship failed to report upon its expected arrival that day in the Strait of Gibraltar.

The RCC begins its apparently routine procedures to contact various civilian/military, national and international tracking and alert systems.

One full day passes since the Coast Guard is notified that the *Poet* has been missing for 10 days. The Coast Guard fails to begin active search and rescue.

November 4: The Rescue Coordination Center continues its routine procedures with no results.

A second day passes since the Coast Guard notification and it fails to begin active search and rescue. The *Poet* has been missing 11 days.

November 5: The Rescue Coordination Center continues its routine procedures—again with no positive results.

A third day passes since Coast Guard notification. The Agency fails again to begin active search and rescue. The *Poet* has been missing 12 days.

November 6: The *Poet*'s owner telephones MEBA Vice President Fred Schamann to advise that the *Poet* was not sighted at Gibraltar on its expected due date 3 days earlier. Schamann telephones Coast Guard Vice Adm. Robert I. Price, Commandant of the Third Coast Guard District, who has Captain Milton Y. Suzich advise Schamann later in the day that the *Poet* had been placed on the AMVERS ship alert system.

A fourth day passes since Coast Guard notification. The Agency fails again to begin active search and rescue. The *Poet* has been missing 13 days.

At 5:05 p.m., Eastern Standard Time, I telephoned the Washington, D.C., Coast Guard Headquarters Duty Office. I spoke with a Lieutenant Commander Pelzer and insisted that planes be used in the search of the *Poet*. I was told that the search consisted of and would consist of the aforementioned notices to ships at sea and Gibraltar.

In absolute disgust, and I may say anger, I told Pelzer I would see him at appropriation hearings.

A fifth day passes since Coast Guard notification. The Agency fails again to begin active search and rescue. The *Poet* has been missing 14 days.

November 8: During the sixth day since Coast Guard notification of the *Poet*'s disappearance, the Agency finally initiates search and rescue in coordination with the U.S. Navy. The *Poet* has been missing 15 days.

November 9 through November 17: Joint Coast Guard/Navy search continues for a total of 11 days with no results. The search ends. The *Poet* has been missing 25 days.

November 19: A U.S. Coast Guard Marine Board of Inquiry opens in Philadelphia. Public sessions and testimony continue for 11 days, with the record left open—as it is today—for inclusion of additional findings.

December 8: The Board of Inquiry declares the *Poet* crew "missing and presumed dead."

January 6, 1981: The families and friends of the 34 lost men gather at the Seamen's Church Institute in New York City for a memorial service. They hear the Reverend William Haynsworth, the Institute's Chaplain, declare:

> The most profound tribute that can be paid to the 34 men who perished aboard the SS *Poet* is for us to seek whatever measures can be found to increase the safety of American vessels.

As yet, Mr. Chairman and members of the committee, we do not know, nor may we ever know what really happened to the *Poet*. The truth may ever be clouded for no evidence has yet been uncovered as to the vessel's ultimate fate. We know there are several theories.

One scenario even holds that the ship may have been hijacked as part of a bizarre underworld scheme to trade its cargo in Iran for heroin. We have no readily available information. Contacts with Federal agencies which appear involved in a continuing investigation have produced only routine Freedom of Information Act replies. That, Mr. Chairman, is in effect no reply.

The press, namely Gannett News Service, has obtained what appears to be documentary evidence that the United States and

Scotland Yard had launched an international investigation. The worst case scenario is that the crew members were murdered or taken hostage in Iran and the ship eventually scuttled or renamed and reflagged. Improbable, yes. Impossible, no.

Thus, we cannot fruitfully dwell on the *Poet's* ultimate fate. We do owe it to the 34 perished members of the *Poet's* crew and the thousands of other U.S. merchant seamen and their families to find fault with those elements which failed to consider their lives as worthy of active concern, and see that the ineptitude of the immediate past does not occur again—ever.

Clearly, the owner of the *Poet* is at fault for not officially notifying the Coast Guard sooner than he did that the ship failed to report its location to him or his designated agent. Fortunately, our system of adjudication provides a process under which the families of the perished 34 men may secure damages. Cases are now in stages of preparation and will move forward as they should under our Nation's legal system.

Similar cases are moving forward by the families of these men to secure damages from the Coast Guard.

We do not, nor will any findings of this committee prejudice the carriage of justice—as it exists—if we pursue a line of deliberation to determine wherein lie the shortcomings of the Coast Guard's system to protect the lives of mariners who are believed lost at sea.

During these early days of the 97th Congress, representatives of the Coast Guard are appearing before various authorizing and appropriations panels. The Coast Guard message has been twofold:

One, proposed funding levels will not meet the needs of an agency which has become stretched thin in recent years as new missions have been placed upon it by the Congress; and

Two, there is a need to move forward, as the Agency is doing, to complete the Needs and Missions Study mandated by the House Appropriations Committee.

Let us not become deceived by the above two factors. The Coast Guard has long sounded an annual litany that it has been hampered by lack of money, lack of manpower, lack of equipment and technology. These shortcomings cannot, however, be blamed for the Coast Guard's ineptitude. As I wrote to then President-Elect Ronald Reagan in the letter which is attached to my testimony, what we are confronted with is—

> an episode of shameful nonfeasance—if not criminal negligence—on the part of the U.S. Coast Guard in its failure to detect, or to initiate a search for the missing merchant vessel.

Men and equipment were in place—but decisions were not made with dispatch.

Imagine the dismay and anger of the families and friends of the missing seamen when they watched on television dramatic accounts of the Coast Guard's successful rescue of a number of Haitian refugees seeking illegal entry into this country. While the Coast Guard put on a grand show of scouring the Caribbean to pluck aliens from tiny boats, it made only the most feeble attempts to locate a 522-foot-long ship and the 34 Americans she carried on a stormy Atlantic sea.

Mr. Chairman, an active Coast Guard officer told me the other day that an SOS used to alert the Coast Guard for immediate

action for rescue, but he says now there are three other call letters that take precedence over the SOS, and that is NBC, CBS and ABC.

If you want to get the Coast Guard to the scene of an accident, the most expeditious method is to put a television camera there.

This is certainly not the first time that the Coast Guard has acted with astounding negligence. Less than 1 year before the Coast Guard twiddled its thumbs while the *Poet* drifted farther and farther toward a point of no return, the cutter *Blackthorn* rammed into the tanker *Capricorn;* an earlier collision of the Agency's cutter *Cuyhoga* with Argentina's *Santa Cruz II* also highlighted the Coast Guard's lack of seamanship.

These accidents resulted in the loss of many lives. But apparently the Coast Guard lost little of its uncanny ability to misinterpret—or even to create—dreadful emergency situations.

In my remaining testimony I will make recommendations concerning several problems that must be addressed by the Coast Guard if it cares to avert further disasters like the abominable negligence in the case of the *Poet.*

First of all, the Automated Mutual Assistance Vessel Rescue System is a far-reaching radio tracking radio tracking program critically hindered by shortsighted operation. Like buying an expensive calculator only to use it as a paperweight, the Coast Guard has failed to put AMVERS to good use—the unrealized potential, the difference between effective utilization and half-hearted operation, could mean the difference between life and death for men who rely on an unreliable system for their very survival at sea. For AMVERS is an emergency network addressing only certain kinds of emergencies—those where official signals of distress are transmitted from the ship to shore.

Coast Guard inspectors encourage masters before their departure to enroll in AMVERS on a strictly voluntary basis. After they set sail, then masters radio periodic progress reports back to AMVERS. If an emergency occurs—a doctor is needed on board or a ship begins to founder, for instance—a radio message to AMVERS will trigger a computer search to determine nearby vessels in a position to provide assistance. So far so good.

But if the routine messages cease midway in a ship's voyage—even a ship whose master has an excellent record of consistent AMVERS responsiveness; even a ship which a Coast Guard inspector declared was the worst he had ever seen; even a ship last identified as steaming toward the eye of a savage storm; even a ship whose three radio transmitters have suddenly, simultaneously gone dead; even, in short, the SS *Poet* and its 34 missing mariners—even then, the Coast Guard officially assumes that all is well and initiates not so much as a communications search to check on the suddenly reticent subscriber. Therefore we can see that the most dreadful emergency imaginable might not be perceived as an emergency at all with AMVERS as currently designed and in the hands of its present operators.

The Coast Guard-like a rescuer demanding a clearly articulated cry of help from a deaf and mute victim—sat complacently on shore, stubbornly insisting on the receipt of a bona fide SOS message from a ship entirely incapable of sending one. Is it not clear

that something is wrong with this system that monitors the seas through rose-colored glasses—with this "no news is good news" network?

AMVERS—under its present management—is a one-way system that hears only routine progress reports or certain proscribed distress signals. What it does not hear will not hurt it, so its operators assume. Well, it did not hear what obliterated the *Poet*, and the same false assumptions will prove disastrous again unless the network is perfected.

AMVERS is far from a pilot program. It has been operated on its half-cocked basis for better than 20 years. The only obstacle restraining it from full-fledged effectiveness is the Coast Guard, whose failure to implement a Mandatory response schedule for U.S.-flag ships has meant the difference between a first-rate emergency monitoring system and a random network that is attentive to all vessels just when the sailing is smooth. Only mandatory and strictly enforced check-in regulations—requiring information from American ships at least every 48 hours, let us say, will let AMVERS live up to its greatest potential.

Mr. Chairman, the American taxpayers are paying for this system. It is a damn disgrace to waste their money, and they are wasting it.

As with any operation, though, AMVERS can only be as good as the people who run it. The mere requirement for mandatory interaction is not enough. This is all too clear by the failure of another monitoring network that did require periodic replies—the U.S. Merchant Vessel Locator Filing System—USMER—to discern the seriousness of the *Poet* tragedy. The response requirements must be implemented with consistent perception and conscientiousness: The Coast Guard can no longer assume a business-as-usual posture when an American ship disappears under unusual circumstances.

Closely linked with the egregious maladministration of a potentially effective tracking system, the Coast Guard's painstakingly—or perhaps just painfully—slow response to the *Poet*'s disappearance, its absolute refusal to act decisively brings to mind serious questions about the fundamental ability of this life-saving agency to save lives. The 5 critical days that elapsed between the Coast Guard's notification and its aerial response are tragic testimony to the inadequacy of its entire emergency search and rescue decision-making framework.

Certainly as disconcerting as the Coast Guard's lack of coordination with its own intelligence system and supporting networks was its failure to cooperate with me and various other maritime union officials who had put their trust and faith in the Coast Guard's vigilance. We repeatedly found ourselves at the mercy of officials who knew little of the case, appeared to care even less, and seemed to regard us as troublesome alarmists although we were simply discerning an emergency for what it was.

We must be able to demand from the Coast Guard tighter, quicker, and more reliable response mechanisms; a streamlining of the "communications search" process; more precise definitions of exactly when surveillance planes should go aloft and more sensible officials to dispatch them. All in all, the Coast Guard must be able

to distinguish when an emergency is an emergency and act accordingly.

With the SS *Poet*, the Coast Guard certainly did not.

Several newspaper accounts related that the Coast Guard was reluctant to begin aerial surveillance missions because the area to be searched was too big; as if the target region could possibly decrease with a few more days of turbulent weather. Other accounts explained that the Coast Guard will initiate search and rescue maneuvers before receiving an official SOS only in rare situations. Under the circumstances, I believe a more rare situation would have been impossible to find. This rigorous adherence to "going by the book"—particularly when the book contradicts commonsense and sensibility—must stop. For while gales embroiled the North Atlantic waters and the very destiny of the *Poet* and her crew, Coast Guard officials at New York's Rescue Coordination Center did everything but coordinate a rescue. They sent radio messages. They made phone calls. They checked files and consulted computers. But they obviously did not rescue, or even make a good attempt.

For example, the ship's owner told them on November 3 that his vessel had failed to pass the Straits of Gibraltar that day as scheduled. The Coast Guard 24 hours later was still checking with U.S. pilots to see if the ship had departed from the Delaware River. They waited 36 hours before consulting with Lloyd's Of London Intelligence Service to determine if the *Poet* had been sighted at Gibraltar. If these steps were necessary to assure the Coast Guard that a very distraught shipowner was not crying wolf, should they not have been taken with much greater dispatch? And why did the Coast Guard wait a full 4 days before consulting the Navy for information and assistance? The Coast Guard was persistent: They eventually contacted every conceivable service, including all the other ships in the area, none of which had sighted the *Poet;* and Massachusetts' Chatham Radio, whose semi-hourly attempts to contact the ship had proven fruitless for 12 days before the search began.

But with a frightening column of alarming news shouting at them from the outset, how could the Coast Guard have been so laborious—or was it even lackadaisical—about gathering more and more information, all of it negative, and then still begin their search with a reluctance whose enormity is appalling?

Simply stated, emergency situations demand emergency reactions. A tie-up in paperwork, rhetoric and blood-redtape for 5 days after a voyage in the stormy Atlantic is officially overdue is an unconscionable and deadly delay.

Other slovenly performances in a life-or-death arena are reflected in the Coast Guard's haphazard and ill-conceived inspection and monitoring requirements relating to ocean-bound vessels. The deficiencies in the serious business of insuring seaworthiness are frighteningly illustrated in the case of the *Poet*'s emergency transmitter which—like the Coast Guard itself—failed to respond to the emergency.

Since 1974, Emergency Position Indicating Radio Beacons—EPIRB's—have been required by Federal law on U.S. ships. The *Poet* had one. Or so we believe. But the only official certification of

the EPIRB's proper installation was in the ship's log. It is likely that right now both are on the bottom of the Atlantic. Wherever they are, the point remains that an improperly mounted EPIRB is worthless-so is a waterlogged log book—and what is more—so is a regulatory agency that condones carelessness and thoughtlessness in those it regulates and in its own regulators and regulations. The EPIRB is a life-saving device too valuable to make assumptions about.

If the Coast Guard appreciated the vital necessity of an effective on-ship distress signal, it would have insisted on keeping better tabs on the *Poet's* EPIRB than a receipt for an FCC battery check in August and an entry in the master's log that is now as miserably lost as the ship itself.

Why cannot the Coast Guard ask for its own copy of the predeparture certifications of the master's detailed ship examination? Then if questions arise about the ship's equipment or its condition they could be addressed by authorities on shore, where resources are slightly more available than at sea.

It would also be helpful if the Coast Guard were to provide the inspectors with a comprehensive checklist to make their scrutiny more complete. Airline pilots are afforded the luxury of a standardized tally sheet to checkoff during preflight conditions. Why cannot masters on the water be provided with a similar checklist?

The Coast Guard must give these problems more consideration. Another suggestion might be to require more than one EPIRB-type distress beeper onboard oceangoing ships. An EPIRB in each of the *Poet's* inflatable life rafts, for instance, would have given us a considerably better chance to learn her whereabouts.

It would be frightening enough if the Coast Guard's misconduct and bad judgment were limited to its performance at onshore rescue centers and its indifference toward the proper utilization of on-ship emergency transmitters. But the Coast Guard's reprehensible folly, under fire, is far too representative of a more fundamental failure that further mars its efficiency, whether the sailing is smooth or stormy.

That additional fault is the Coast Guard's lack of respect for the vital concern and valuable judgment of a veritable fleet of union officials like myself and the sincere interest of the tens of thousands of mariners we represent. An illustration of this callous disregard is the fact that there are only four maritime union representatives out of the 114 members of the Coast Guard's five advisory committees that are comprised of industrial groups, corporations, and maritime organizations.

If cooperation with and consideration for union interests were the prevailing spirit, my initial inquiries about the *Poet* to Coast Guard officials would have been met with more courtesy and concern instead of ignorance and apathy.

There would have been no flippant replies like: "What's a *Poet*?"

There would have been no barriers to our communications with proper authorities.

There would have been a few more answers to our questions.

And today, there might have been a few less questions about the fate of the 34 Americans aboard the *Poet*.

We decry this ineptitude in hopes that the Coast Guard will learn from its mistakes, correct its errors, and assure the brave mariners it serves that never again will the case of a missing ship be mishandled as was the *Poet.*

Thank you.

The CHAIRMAN. Thank you.

Are there any questions?

The gentleman made a very fine statement. We thank him for his appearance this afternoon.

Our next witness is Mr. Frank Drozak, President of the Seafarers International Union of America.

Will you please stand and take the oath?

Do you solemnly swear that the testimony you are about to give will be the truth, the whole truth and nothing but the truth?

Mr. Drozak. I do.

TESTIMONY OF FRANK DROZAK, PRESIDENT, SEAFARERS INTERNATIONAL UNION OF NORTH AMERICA

Mr. DROZAK. Mr. Chairman, if I may, I have presented a statement, a complete statement. To the committee I would like to, with your permission, enter it into the record, and I would like to make several comments relative to the statement, with your permission.

The CHAIRMAN. Without objection, so ordered.

The complete statement of Mr. Drozak will be placed in the record.

[The following was received for the record:]

STATEMENT OF FRANK DROZAK, PRESIDENT, SEAFARERS INTERNATIONAL UNION OF NORTH AMERICA

Mr. Chairman and Members of the Committee, my name is Frank Drozak. I am President of the Seafarers International Union of North America, AFL-CIO. I am grateful for the opportunity to participate in these hearings concerning the disappearance of the SS *Poet.* It is of mutual concern to all, including the shipping companies, unions and the U.S. Government to ascertain what unsafe facts may have contributed to the disappearance of the SS *Poet* and to take the necessary remedial steps to insure that such a tragedy does not occur again. We hope that our participation will achieve this objective.

At the outset, it is our opinion that the present inspection and certification of United States maritime vessels and the search and rescue activities, particularly with respect to the SS *Poet,* are inadequate. We will endeavor to set forth what our experience has demonstrated in these areas.

The Seafarers International Union (SIU) has a vital interest in these matters. The SIU is the certified collective bargaining representative of the unlicensed seafarers who man many of the merchant vessels sailing under the U.S. flag. Under labor law, the SIU has a duty and obligation not only to bargain for safe working conditions aboard the vessel but also to see that they exist. The SIU is also a joint operator of the Seafarers Harry Lundeberg School of Seamanship, which trains unlicensed seafarers for work aboard merchant vessels. It naturally follows that not only should these personnel be trained in safe working procedures, but also that there is an obligation to see that safe working conditions exist aboard the vessels for which they are trained. When a tragedy and casualty, such as the SS *Poet* occurs, the next-of-kin of the members of the SIU who are lost, request that we help develop and ascertain the facts that caused the casualty and also to see that necessary steps are taken to prevent future tragedies.

The investigation concerning the disappearance of the SS *Poet* and other investigations in which we have participated, has led us to certain conclusions concerning the inadequate inspection and certification of merchant vessels and the search and rescue operation. We will attempt to break these down into certain categories involving the various agencies and parties involved, such as the United States Coast Guard, the American Bureau of Shipping, the National Cargo Bureau, the Federal Communications Commission and the shipping companies.

The first agency involved in a marine casualty which I would like to address is the United States Coast Guard and this will be divided into two parts, namely, the inspection procedure and the search and rescue operation.

U.S. COAST GUARD INSPECTION PROCEDURES

As indicated previously, the present inspection procedures are inadequate. The major problem is that the U.S. Coast Guard inspectors are not adequately and properly trained. The inspection procedures on the SS *Poet* demonstrated this. There is a marked difference between operating a U.S. Coast Guard vessel and a U.S. merchant vessel. The average U.S. Coast Guard inspector does not really have a grasp of the fundamental differences between the two types of operation. Not only are there differences in the equipment involved, but also the method of operation. Anyone inspecting and passing on the seaworthiness of a merchant vessel should be experienced and trained in areas of naval architecture, shipfitting, machinery, welding, pipefitting, construction and design, and most importantly, experience in sailing and operating a merchant vessel. Coast Guard inspectors usually do not have any expertise in these areas.

For example, the U.S. Coast Guard inspector, who made the inspection of the SS *Poet* at Port Arthur, Texas in March, 1980, in our opinion, was not qualified. His experience consisted of 6-months schooling in marine inspection and the inspection of approximately 25 ships, either jointly with others or on his own. Prior to that, most of his experience had been in search and rescue areas with the Coast Guard. To cite another example, is the fact that, just prior to the SS *Poet*'s departure on its fatal voyage from Philadelphia, the inspection was by an officer who had graduated from the academy 3½ years ago with no specialization in marine inspection and his experience consisted of approximately 3 years of marine inspection. He had no expertise or specialized training in shipfitting, construction and design, naval architecture or other similar areas.

A further example was that the Coast Guard inspector who issued violations on the SS *Poet,* while the ship was in port at Philadelphia, was a reservist who did weekend duty. He had no special qualifications. His regular work was that of a detective. During the course of his inspection, he found that the ship had no Loran equipment, as required, and that there were approximately twenty acetylene and oxygen tanks on the deck without any dunnage underneath them. This was a violation of Coast Guard regulations since it would be conducive to fire. The thought never occurred to him that these were an excessive amount of tanks for a ship to have and perhaps there were an undue amount of welding and iron cutting work being performed on the vessel due to its age. When a check was made of the vessel to see whether these two violations were cured, the tanks were still on the open deck in the same state and condition and the Loran was in the process of being installed. The Coast Guard let the vessel sail without actually making a check to see whether these violations were actually corrected.

When inspection are made by the Coast Guard, there is no complete record on hand of outstanding violations, either of the U.S. Coast Guard or the American Bureau of Shipping. These records should be available to the inspector.

Most Coast Guard inspections are usually superficial and not done with any depth. During most inspections, equipment is operated and if it works, it passes. Frequently, equipment may pass inspection in this manner and shortly thereafter breaks down due to some defect, which would have been revealed if the item was dismantled. During inspections, there should be more stripping and dismantling of certain equipment aboard vessels, particularly in the engine room. With regard to inspection of structures, certain sheathing is not removed. If this were done, rust and corrosion could be observed, which otherwise would not. Gauging should be done more frequently.

Concerning housekeeping practices, often the Coast Guard lets shipping companies secure waivers on certain repairs. There is no careful followup to see that these repairs are completed. This is conducive to poor housekeeping practices on vessels, which does, in fact, exist regularly. In the situation of the SS *Poet,* necessary repairs were always made prior to inspections but not routinely throughout the year.

U.S. COAST GUARD SEARCH AND RESCUE OPERATION

The search and rescue operation involving the SS *Poet* was poorly conducted and showed many faults. The SS *Poet* departed Philadelphia on October 24, 1980, and the last message received from the company was at approximately 0800 that morning. Thereafter, the company received no message from the SS *Poet.* This lack of response from the SS *Poet* for 10 days was not brought to the attention of the U.S. Coast Guard by the company until November 3, 1980. The company, according to its

operating manual, required its ships to report their position every 48 hours. In addition, the SS *Poet* reported its position to the AMVER System every 48 hours. The owners of the SS *Poet,* even though it had a 48-hour requirement for its ships to report, neglected to enforce this requirement and permitted its vessels to report beyond the 48-hour period. The captain, who served on the SS *Poet*'s previous voyage, stated that he only reported twice a week as to the ship's position and was not aware of the fact that there was a requirement of reporting every 48 hours. It was because the company allowed its ships to violate the 48-hour requirement of reporting that it was not concerned about not receiving a report from the SS *Poet.* This was even though on October 25 or 26, 1980, there was storms and heavy winds and seas on the route that the SS *Poet* was taking.

When finally the company reported the fact that the SS *Poet* could not be located and was missing on November 3, to the Coast Guard, the Coast Guard itself neglected to conduct an actual physical search until 5-days later on November 8, 1980. Therefore, before the Coast Guard actually commenced its search and rescue, 15 days elapsed since the last message was received from the SS *Poet.* It is important to note that for the past 6 months, the SS *Poet* had reported every 48 hours regularly to USMER, which in turn conveyed this information to AMVER.

The first thing the Coast Guard did when notified of the situation, was to send out messages to all vessels inquiring whether they had seen the SS *Poet.* The Coast Guard was informed of the fact of what the intended route of the SS *Poet* was, and that it was scheduled to arrive in Port Said, Egypt, on November 9. It is also important to note that the ship was due to arrive in the Gibralter Strait area on or about November 3. When it was not sighted on that day, the company then became concerned about the SS *Poet*'s safety. The Coast Guard, in response to its inquiries, received no information concerning the position or location of the *Poet* except that it was not sighted by any vessel. After delaying for 5 days and in essence not doing anything, the Coast Guard, on November 9, sent out planes to search for the vessel. At the Marine Board of Inquiry concerning the disappearance of the SS *Poet,* the Coast Guard officer was asked by our attorney as to why it waited 5 days to commence a search. The answer was that it needed information as to whether any vessel sighted the *Poet.* When questioned as to why it would take five days to receive this information, no satisfactory answer was given.

Furthermore, when questioned as to why the Coast Guard could not have commenced this search on November 3, even though it sought information from other vessels, no satisfactory answer was given. The search was delayed for 5 days by the Coast Guard even though it was aware of the fact that the company had not heard from the vessel for 10 days, that it had not arrived at Gibraltar Straits on November 3 as scheduled, and that the vessel had a history of reporting every 48 hours.

All of this did not disturb the Coast Guard nor motivate it to commence a search immediately, even though the SIU and others requested one. When asked why these factors would not have motivated it, the Coast Guard testified at the hearing that it is not unusual for a vessel to be missing or unreported. When further asked whether the Coast Guard was referring to small vessels or a large vessel of over 500 feet such as the *Poet,* the answer was obviously that they were referring to small vessels, not large ones. The Coast Guard also stated that it had to make a track for the search and that this took 5 days. It was pointed out that since AMVER knew the projected route that the *Poet* was taking, that a track could have been given to the Coast Guard within an hour or two. AMVER personnel so testified at the hearing. The Coast Guard stated at the inquiry that the area that it had to search was vast, but when our attorney asked whether the 5-day delay did not enlarge the search area, the illogical answer given was that it did not enlarge the search area substantially. It should be noted that for 2 days after the departure of the SS *Poet,* there were estimates of seas of up to 40 feet and winds up to 40 knots on its scheduled route. With these conditions existing, each day of delay would enlarge the search area. The Coast Guard wanted to end the search on November 13, only 5 days after its start. Because of the insistence of the SIU and others, the search was extended until November 17, 1980.

Although vessels report to AMVER through USMER every 48 hours, the Government does not require its agencies to notify the Coast Guard of vessels which fail to continue to report. It relies on the company to notify the Coast Guard of a vessel not reporting. This is improper and there should be a requirement that AMVER notifies the Coast Guard when they have information that a vessel is not reporting.

Ironically, the definition of an overdue vessel, according to the Coast Guard officer testifying at the Marine Board of Inquiry, is that a vessel is not overdue until it fails to reach the port as scheduled. The SS *Poet* was due to pass Gibraltar Strait on November 3, and arrive in Port Said, Egypt on November 9. Therefore, according to the Coast Guard, officially the SS *Poet* was not overdue until November 9. The

fact that the vessel did not pass the Gibraltar Strait on November 3, did not indicate that the vessel was overdue to the Coast Guard. This definition certainly is improper and should be revised.

The Coast Guard also indicated that it did not have sufficient equipment to conduct this type of search and had to call upon the U.S. Navy and the Canadian Government for equipment to assist in the search. Therefore, it is obvious that an investigation should be made into what equipment is available to the Coast Guard to conduct a search and rescue operation. Steps should be taken to insure that the adequate and proper equipment is available.

The SS *Poet* was equipped with two E Perb transmitters. When this transmitter hits water, automatically it is activated. The testimony at the Board of Inquiry stated that the E Perb transmitter only transmits signals in an upright position and that airplanes are the ones that would most likely receive it. Further investigation should be made as to the desirability of whether E Perb transmitters should not be constructed and designed so that vessels in the area would receive transmission. No transmission was received from either of the two E Perb transmitters that were aboard the SS *Poet.*

Vice Admiral Robert I. Price, the Atlantic Area Commander, at the briefing sessions held at Governor's Island concerning the SS *Poet,* stated that it was his decision as to when to call off the search. The Coast Guard Marine Board of Inquiry was requested by our attorney to call Vice Admiral Price as a witness so that he could testify as to the basis for his decisions to commence and end the search. This request was refused, and as a result, important information was not produced at the inquiry.

The aforesaid clearly indicates that the search and rescue operation conducted by the U.S. Coast Guard with respect to the SS *Poet,* was totally inadequate and improper. The SIU urges this Committee to look into the following aspects:

(a) When a search should be commenced;

(b) The definition of what is an overdue and missing vessel;

(c) What equipment is available to the Coast Guard to conduct this type of search;

(d) Why the AMVER System is not required to notify the Coast Guard that a vessel is not reporting; and

(e) The method of how E Perb signals are transmitted.

AMERICAN BUREAU OF SHIPPING

The American Bureau of Shipping (ABS) is responsible for seeing that U.S. merchant vessels are maintained in proper classification. The inspection procedures of the ABS, particularly with regard to the SS *Poet,* show that they are inadequate. When ABS inspectors board vessels, an in-depth inspection is not conducted, particularly with regard to the equipment and the structure. In most cases, a visual inspection is conducted.

The equipment is operated to see whether it works. If so, it is passed as seaworthy. On routine inspections, there is no dismantling of the equipment. The inspectors, although having available to them all the ABS records, including outstanding violations, usually do not have these records with them.

When the ABS official inspected the SS *Poet* at Mobile, Alabama in July 1980, the total inspection took about 1½ hours. He did not have any of the existing violations with him, even though they could have been made available to him without any difficulty. Regularly the ABS gives the shipowners waivers on violations and extends the time for too long a period to have the violations corrected.

NATIONAL CARGO BUREAU

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 Inquiry 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. The SS *Poet* was certified as being properly loaded even though the draft showed that it was

down at the bow by over 2 feet. This condition should have been corrected before the ship left. Representatives of the National Cargo Bureau agreed that this should have been done, but yet it was not. The pilot who took the ship out stated that when he left the ship, it was still down at the bow. This type of situation should not be permitted.

THE COMPANY

The facts of this case show that the housekeeping practices aboard the SS *Poet* were poor. Repairs and maintenance were not routinely done by the company. Repairs were made only when an inspection was about to be conducted. An example of this is that just prior to the Coast Guard inspection of the vessel in March, 1980 at Port Arthur, Texas, the ship was put into dry dock at the Bethlehem Shipyard, at Beaumont, Texas for necessary repairs. The same situation occurred again at Philadelphia prior to the *Poet*'s departure on its fatal voyage.

Procedures should be established which require shipping companies to maintain good and regular housekeeping practices in the maintenance of its vessels.

FEDERAL COMMUNICATIONS COMMISSION

There was testimony that the radio officer of the *Poet* found the existing radio equipment aboard unsatisfactory and also with regard to the replacement set. It was not clear as to whether the ship sailed with either the existing radio equipment repaired or with a new set. In any event, whenever a major repair is made to existing radio equipment or a new set of equipment is delivered, the Federal Communications Commission should be notified so that an inspection can be made to guarantee that the equipment meets the Commission's requirements.

COAST GUARD PARTY IN INTEREST

Although 46 U.S.C. Section 239(d) gives the Union the status of party in interest and it has been so held in the case of *Seafarers International Union of North America, AFL-CIO, et al.* v. *Neil Goldschmidt, as Secretary of Transportation, et al.* (U.S. District Court for the Southern District of New York, 78 Civ. 4698), the Coast Guard has adopted a rule which does not permit the Unions to participate actively in the Marine Board of Inquiry. It is a rule setting forth a difference between a party in interest and an interested party. A party in interest according to the rule 46 C.F.R. Section 4.03-10 is any person that the Board finds to have a direct interest in the investigation conducted by it and shall include an owner, a charterer or the agent of such owner or charterer of the vessel or vessels involved in the marine casualty or accident, and all licensed or certified personnel whose conduct, whether or not involved in the marine casualty or accident is under investigation by the Board or investigating officer. The Court in the case just cited held that this rule was an improper interpretation of the statute.

Thus, a party in interest is automatically the owner, its agent or charterer while others can only be a party in interest if their conduct is under investigation and may have contributed to the casualty. This is an erroneous interpretation of the statute. The Coast Guard under its rule does not consider the Union a party in interest but only an interested party, that is one who is just interested in the proceedings. Therefore, the SIU under the Board's improper interpretation cannot participate actively and fully in the hearings conducted by the Board of Inquiry. The Coast Guard in the past has excluded the Union as a party in interest. It was only as a result of the decision that the SIU secured in the aforesaid case of *SIU, et al.,* v. *Goldschmidt, et al.,* that the Coast Guard Board of Inquiry in the *Poet* situation permitted the SIU and the other unions to participate as a party in interest. This was most productive, for our attorney, acting on behalf of the SIU and our members, brought out material facts which will be helpful with regard to the objectives and purposes of the inquiry.

It is interesting to note that the National Transportation Safety Board, which usually holds joint hearings concerning the casualty with the U.S. Coast Guard by its rules, permits unions to participate fully and completely. Under the U.S. Coast Guard rule, only a party in interest can participate fully.

The Coast Guard should be required to do away with its improper rule as held by the Court and follow the statute and the Court decision permitting unions to participate at these Board of Inquiries as a party in interest.

NATIONAL TRANSPORTATION SAFETY BOARD

The Coast Guard should divorce itself from conducting investigations of major casualties. When the Coast Guard acts in this area, they are in essence, being the

trier of the facts, the jury, and the judge. The Coast Guard is passing on its own efficiency with respect to inspections, operations and also search and rescue.

In 1967, the SS *Panoceanic Faith* sank on October 9, after a number of unsafe and unseaworthy conditions occurred during the course of the voyage. This occurred even though the vessel passed its Coast Guard inspection on June 20, 1967. The Coast Guard Board of Inquiry indicated in its report that the vessel was seaworthy. On the other hand, the National Transportation Safety Board stated that it was impossible for this vessel to be in a seaworthy condition when so many unsafe and unseaworthy conditions manifested itself during the course of the voyage. If this vessel was unseaworthy as claimed by the National Transportation Safety Board, naturally it would be a clear indication that the Coast Guard inspection and certification proceedings were inadequate and improper. Another example of why the Coast Guard should not participate in these types of inquiries is the collision that occurred between the SS *Capricorn* and the U.S.C.G. *Blackthorn,* which occurred in the Tampa Channel on January 28, 1980 resulting in a loss of 23 lives.

In this particular situation, you had the anomaly of not only the Coast Guard passing on its inspection procedures and safety and rescue operation, but also as to whether its own personnel operated its vessel properly against a merchant vessel. It is like asking a shipping company to pass on the proper operation of one of its vessels in collision with another vessel of another shipping company. The Coast Guard members of the Marine Board of Inquiry were asked to disqualify themselves from this hearing because of the obvious conflict of interest. This request was refused. The findings of each Board indicate that the request was a proper one. The National Transportation Board, sitting jointly with the Coast Guard, placed almost the entire blame of the collision on the Coast Guard and sharply criticized the Coast Guard officers and personnel in the operation of its vessel and their training. It is obvious that the U.S. Coast Guard in its findings differed sharply from the National Transportation Safety Board with respect to the placing of the blame.

It is respectfully submitted that the National Transportation Safety Board, which conducts, pursuant to law, investigations of major casualties in the transportation field, including air, maritime and bus, should be the Government agency which should conduct such investigations in the maritime field, not the U.S. Coast Guard.

Our comments and observations presented today are derived from our experiences with maritime casualties. We are testifying today with the view that our comments will be productive to this Committee in making recommendations and changes in existing practices concerning maritime casualties. We appreciate the opportunity to appear before the Committee today and offer our assistance to the members to help prevent future maritime catastrophies.

Thank you.

Mr. DROZAK. Mr. Chairman, first of all, I listened earlier this morning about the SS *Poet,* and when that ship was built. The ship, I note, was built in 1944. As I understand, and I certainly would hope that maybe MarAd would clear the situation up later this afternoon, that once a ship is over 25 years old, it is declared not seaworthy. Yet this ship had been given certificate for the past 10 years, allowing it to be seaworthy.

Second, I note too that they were talking about the ballast tanks, and the question of inspection of the ballast tanks. I happen to be a seaman myself, and spent quite a bit of time going to sea. I am certainly familiar with a little of it.

It would seem to me where the ballast tanks are connected to the skin of the ship, which this ship is, and some 35 years of wear and tear on the high seas, and particularly water for ballast in the ballast tanks, it would certainly seem to me that there would be wear and tear on both sides. The gage of the metal over that period of time could possibly become nothing.

I would wonder if the Coast Guard ever tested or drilled the plates, to see how thick it was. It concerns me quite a bit.

I also note, Mr. Chairman, that during my days of going to sea we, the seamen, and the officers onboard the ship, inspected the tanks ourselves. We cleaned those tanks and prepared them for inspection when the ship arrived in port.

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I notice since new automation has taken effect, and the Coast Guard is ambitious to automate personnel off the ship and replace it with high-technical equipment, that they have completely ignored the human lives of people aboard the ship and the human morale of people aboard the ship, and they have so stated, Mr. Chairman, before this committee, that their main interest relative to the ships is the operation of the ship, and not the maintenance and upkeep of the equipment.

That too disturbs me, as to the activity of the Coast Guard. The Coast Guard has, for some time now, been inspecting our ships with what, unqualified people, the office boy, a guy who is just beginning training? And does not have experience, seagoing experience, to determine whether a ship is safe or not?

I can remember, Mr. Chairman, some years ago, that the inspectors came out of the merchant marine, active seamen, who had a knowledge of ships. They had a knowledge of these types of issues and problems, and they knew where to inspect.

But without practical experience, how can a person be fully qualified? I do not care what book he read it from. You have to have some practical experience, and I think this has not been adhered to, or even looked at, relative to the Coast Guard position, relative to ship's inspections.

Two, it disturbs me, while we can send people to the Moon, and we can keep track of them every minute—we have satellites circling in the sky, we keep track of them every minute of every day, and there are thousands and thousands of airplanes in the air every day, and we keep track of those, that there could not have been some system to keep track of ships.

If there are, why was it not put on the ships to keep track of our ships? I do not agree with what the Coast Guard said, that they could not have done it. Certainly they have had the money in the budget to do the job, but they have ignored completely these things, and they ignore the safety of our people, it is not the first time either.

The *Pan-Oceanic State,* when she went down, it was the same thing. How can you, Mr. Chairman, get a fair trial, or be heard properly when the trialer is the person that is on trial? I think that this should be looked at.

It disturbs me when you cannot even be able to participate in these investigations until some few years ago when we filed a suit, and won the suit, allowing us to participate, or at least be present in some of these hearings. This was just done in the last year or year and a half.

I think that the Coast Guard, Mr. Chairman, and the committee, and certainly I had hoped that there would have been more Congressmen present here at this hearing, because I think it is vital and important—certainly I know that they will read the record, and certainly they will determine their position relative to the record.

I certainly believe that we need a full investigation of the U.S. Coast Guard and their activity by this committee, because what has been happening in the last few years has certainly not shown me that we are getting the type of representation we are entitled to by the Department.

I, too, Mr. Chairman, would like to point out that I personally had the opportunity to sit with the subcommittee chairman on Coast Guard some 2 or 3 years ago, and raised these very same issues, and asked him to get labor and the U.S. Coast Guard together so that we could play a better active part in the safety of those ships, because the construction of those ships and the proper manning and maintenance of those ships are important.

We did have two such meetings, and after that we had no more meetings. It was dropped from that point. Well, since then, look what has happened. Certainly whether it would have stopped the *Poet* from sinking or not, I do not know. But I certainly do believe that we are seamen, and people who are seamen certainly have some idea of the safety and safekeeping, and the equipment and the maintenance, and the upkeep of the equipment onboard the ships.

And certainly we should have some input into the determination, the decisionmaking relative to new equipment going aboard the ships, the type of manning and qualifications, the maintenance and upkeep of these ships, sir.

And with that I would certainly like to see that something is done about it, because, if not, we are going to continue to lose crews and ships, and we are all going to suffer and suffer with pain.

Thank you very much.

The CHAIRMAN. Thank you, Frank. And I think you hit the nail on the head in your testimony just a moment or two ago. If we get out of this tragedy, this heartbreak these people are suffering, we can come up with some revisions in the Coast Guard regulations and operations along the lines that you and my friend, Jesse Calhoun, have mentioned, then perhaps all will not have been lost.

And I, for one, am perfectly willing to sit down with you or any of your colleagues at any time and do just that

Mr. DROZAK. Yes, sir, you are right, Mr. Chairman. If I may just add one other point. The Seamen's Documentation Act, which preserves and gives the American seamen their rights of protection under law, which Congress gave—the Coast Guard is so busy now trying to reorganize that documentation and take away the last few rights that the seamen have.

Now, I know that I have been notified that there will be such hearings on this. We, too, on that issue, have discussed it with the Coast Guard; we had several meetings several years ago about this issue, and we told them that we were not for giving up those rights that were guaranteed us by Congress. And I don't see why, until the Coast Guard can prove what they want and their reasoning for these changes. There should be no hearings to even discuss taking away those things that the Congress gave us many, many years ago to protect our rights. I would certainly like to see that looked at, too.

The CHAIRMAN. Mr. Foglietta?

Mr. FOGLIETTA. Thank you, Mr. Chairman. Thank you for your comments, Mr. Drozak.

There is something that I do want to mention, and that is that in Captain Gove's statement, he said that the first notice that he received that the vessel aboard which his son was serving was

reported missing was from the Seafarers Union. I'm sorry. And I want on behalf of that organization compliment you for your attentiveness in determining that and notifying the owner; for, without that, God knows when the decision would ever have been made that the ship or the vessel was missing and action was taken.

Second, I would like to know, and have the record show, whether or not Rear Admiral Bell and Rear Admiral Costello have returned to the hearing room after lunch.

Has any representative of Rear Admiral Bell or Rear Admiral Costello come back to hear the other witnesses testify today? Are there any representatives in the room?

[No response.]

Mr. FOGLIETTA. I would like the record to show that, Mr. Chairman; that neither one of the rear admirals of the Coast Guard returned back here to hear the additional testimony this afternoon on this matter we are hearing today.

The CHAIRMAN. Without objection to the request of the gentleman from Pennsylvania, the record will show that Admiral Bell and Admiral Costello were absent from the afternoon meeting of the oversight hearing on the loss of the *SS Poet.*

Mr. FOGLIETTA. Thank you, Mr. Chairman.

Mr. Drozak, you have heard all of the testimony; I don't want to be redundant. I just want to hear what your comments are on the fact that again it took the owner of this vessel 10 days before he reported to the Coast Guard that the vessel was missing, and during the 10 days he had made periodic attempts to contact the ship—actually, every 2 hours—and it took 10 days before he reported that to the Coast Guard. And, second, after the Coast Guard received that word, it took them 5 days to start this search.

Could you give us a comment on both those situations?

Mr. DROZAK. Well, first of all, I don't believe that the steamship company waited that long to notify the Coast Guard. It is not common practice for them to do this. Of course, I can't speak for the shipowner on that point. But certainly I wouldn't believe so, because his interest certainly would be in the cargo and the ship and the crew aboard that ship and their safety. And if that ship did not arrive or wasn't arriving on time, I certainly would think he would have notified someone at that point.

Now, as far as the Coast Guard waiting for a rescue, I think it was the SIU's attempt and the other unions together that really got them off their dead rusty and really moved on this rescue. We were the people that called Mario Biaggi to start this rescue search going.

Then after 4 days of this rescue, they wanted to drop it. And we contacted Mario Biaggi to continue it, and he did grant the time to continue it, or encouraged Bell to continue this search.

Certainly I think when a ship has not reported on time, immediately an investigation should be made then, and not later; and it's always been pretty common that these things are reported right away. I think the Coast Guard neglected their responsibility and duty, as they have in several cases pertaining to ships and ships' casualties.

Mr. FOGLIETTA. Now, Mr. Drozak, as president of the Seafarers International Union, and from the comments you have given and

the statement you have made, is this committee to assume that you are urging as strongly as you possibly can that this committee take whatever action we can to insist on some sort of reporting system by which a Government agency where the Coast Guard would be knowledgeable or know the fact that a ship is missing after 24 or 48 hours?

Mr. DROZAK. I certainly am. And I would like to add to that that the proper maintenance aboard these ships be maintained and proper people aboard there to maintain these ships. That is one of our big problems.

Mr. Congressman, if I may say, I sat here testifying 2 years ago relative to the issue of improper manning aboard ship, safety with the present manning, and the maintenance could not be done; and the Coast Guard agreed that they certified a ship for operational and safety only. I said, well, what about maintenance? And they said, well, that's the shipowners problem, with maintenance.

Well, you and I know what a shipowner will do unless they are forced to do it. When you have taken and reduced manning to a watch-standing operation, then how can you maintain this equipment which should be inspected daily, if not weekly, when you don't have the proper people aboard?

Now, certainly, I am not for adding people on board the ship. I have supported automation all the way, reduction of crews; but it comes to a point to where it is not even safe any more out there; and I certainly would add that to the request of the investigation relative to this matter.

Yes, sir.

Mr. FOGLIETTA. I appreciate that, but the point that I am trying to make is that if a distress signal is received, both the USMER system and the EPIRB system should notify the Coast Guard immediately.

Mr. DROZAK. They should.

Mr. FOGLIETTA. However, on the other hand, if they receive no communication, there is no way of them knowing or notifying anybody of the fact that no communication has been received. There is no flag that goes up and says X, Z, or Y ship has not communicated with us for 24 hours or 48 hours or 60 hours.

Should there be some sort of a system requiring that if a ship does not report after a given period, that that should be reported?

Mr. DROZAK. It certainly should. It should be mandatory.

Mr. FOGLIETTA. Thank you very much, Mr. Drozak.

The CHAIRMAN. Any questions?

[No response.]

The CHAIRMAN. I believe our next witness is Mr. Penot, Joseph Penot? He is representing the Radio Officers United Telegraphers Union, AFL-CIO.

For the record, let me correct something I said a moment ago.

I was asked if the admirals were excused this afternoon, or words to that effect. During the lunch hour, the admirals asked if they would be needed to testify this afternoon. I said, no, as far as I am concerned, your testimony is over; though you might want to stay there and defend yourself. He laughed, and I assume the——

Mr. FOGLIETTA. I am glad you cleared the record. The fact is that they—although their testimony was over, they could have been here to hear the other witnesses.

The CHAIRMAN. I think they would have enjoyed this testimony this afternoon very much.

Mr. FOGLIETTA. Thank you.

The CHAIRMAN. In fact, they could learn something.

Would you stand, please, sir?

Do you solemnly swear that the testimony you will give before this committee will be the truth, the whole truth, and nothing but the truth?

Mr. PENOT. I do.

The CHAIRMAN. You may proceed.

Thank you, sir.

TESTIMONY OF JOSEPH M. PENOT, RADIO OFFICERS UNION, NEW ORLEANS, LA.

Mr. PENOT. Mr. Chairman and members of the committee.

Mr. Chairman, I wish to thank you for convening this hearing and for the opportunity to appear on behalf of the Radio Officers Union.

I share in the sorrow expressed by so many over the tragic loss of life aboard the *Poet*. Mr. Joseph Vyhnak, a member of this union, was the *Poet*'s radio officer.

Mr. Chairman, I also share in the outrage at the indifference of the U.S. Coast Guard concerning its primary responsibility for search and rescue. As the representative of the one man aboard the *Poet* whose sole purpose was for the safety of life at sea, I can assure this committee that there can hardly be any questions on your minds that we have not asked ourselves a dozen times over.

I believe the two most basic questions asked by everyone concerned with this needless sacrifice of human life are these:

1. Does the present maritime distress system work?
2. Is there an alternative "fail-safe system" presently available or will one be available in the near future?

My position is that the present system does work and has worked since shortly after the sinking of the *Titanic*—provided all elements of the systems are handled by professionals. There is no alternative "fail-safe system" presently available, nor can we expect one in the near future. It is the position of this union that the 500 kHz international radiotelegraph distress system should remain as the primary distress-communication system—but it could conceivably be aided by the addition of other systems that have the potential for assisting in the avoidance of future maritime disasters, such as the one that befell the *Poet*.

Mr. Chairman, I am fully cognizant of the position in which I place myself by volunteering to appear and by the above statement. However, I think that anyone who would take the position that I am appearing before this committee simply to protect the radio officers profession, or to offer any excuse for the failure of the system in a specific instance, would be doing a grave disservice to this committee's purpose and to the men who lost their lives aboard the *Poet*.

Equally important to me is that anything but an offer to cooperate to the fullest concerning the events surrounding this tragic situation would be a disservice to the many radio officers who have willingly given their lives to save their shipmates in both peace and war. This is a very honorable profession with a great tradition. Had this union uncovered any instance of failure of the system, or on the part of the radio officer, or his licensed station, I would have an obligation to call this to your attention.

The almost criminal negligence on the part of one element in the system—the U.S. Coast Guard—prevented the system from functioning as it has in hundreds of similar cases.

Attached to my statement is a statement by another member of the MEBA family, Mr. James Pfister, the radio officer aboard the U.S.-flag vessel *Williamsburgh*. He gives his account of the rescue of the 510 passengers and crew of the ill-fated Dutch cruise ship *Prinsendam*. This statement may help to illustrate how the proper functioning of the international 500 kHz radiotelegraph distress system normally operates.

Again, the question is asked: What went wrong between October 3, 1980, when 510 lives aboard the *Prinsendam* were saved, including many elderly men and women, and 3 to 4 weeks later, when the lives of 34 U.S. merchant seamen aboard the *Poet* were lost?

The simple answer, although perhaps a speculative one, is that the ship was lost before any S O S could be transmitted. Possibly so. Even that tragic assumption cannot excuse the errors surrounding the events that followed.

Most U.S.-flag vessels participate in one of two systems of vessel movement and position reporting. One such system, AMVER, is operated by the U.S. Coast Guard and functions as a part of their search and rescue mission. The other is the MARAD USMER program. The systems parallel each other to a degree, but are different in mission.

AMVER is voluntary, while USMER is compulsory for U.S. vessels on international voyages. It is the union's understanding that the AMVER system has a serious constraint on its ability to share information with other U.S. Government functions concerned with both maritime matters and national defense. These constraints have been imposed by agreements with foreign governments, only a few of which have, in turn, offered our Government limited communications support.

Of prime concern here is the fact that even MARAD, the Navy and defense people, cannot get the information needed from AMVER to keep track of U.S. flag merchant ships. This is a deplorable condition.

MARAD, on the other hand, has statutory powers to require U.S.-flag ships to participate in their own in-house USMER program. USMER does not operate under any constraints as to the dissemination of the information received and does in fact provide both AMVER and other Federal agencies and departments with the information contained in their reporting system.

It is also the union's understanding that neither the AMVER nor the USMER program is required to build into their respective systems any method for identifying a U.S.-flag ship that fails to

report, for whatever reason. Herein lies the basic flaw in both systems, as they pertain to the loss of the *Poet*.

Mr. Chairman, it has always been the policy of this union to cooperate fully with all Federal programs that even remotely hint at the promise of safety of life at sea. Therefore, in the past we encouraged our members to do everything in their power to make both programs work. Knowing that the AMVER system uses a sophisticated computer in their operations, we believe that the U.S. Coast Guard could identify potential ship distress situations, evidenced by nonreporting vessels, and would act swiftly to identify nearby vessels, commence immediate communication searches and begin actual search and rescue operations.

Obviously, AMVER failed hopelessly to do any of these things in the case of the *Poet* and perhaps in the case of many other ships, whose identity we may never know. The tragedy of a faulty but highly publicized AMVER system perhaps now takes on the appearance of an international tragedy and the deadly seriousness of this whole matter is now compounded.

Mr. Chairman and members of this committee, I will attempt to keep my remarks as brief as possible. I could detail numerous recommendations to help prevent another *Poet* incident, but the most significant statement I can make today is that this union will shortly reconsider our past vigorous support of the AMVER system and, instead, explore the possibility of forming a communications committee for a closer working relationships with all maritime labor unions, MARAD's Office of Ship Operations and National Security Plans, the U.S. Navy and its Office of Telecommunications, and obviously with the steamship companies with whom we are associated.

Let me caution everyone that in our anger and frustration here today, I wish to see the record reflect that the vast majority of U.S.-flag shipowners are conscientious and demanding in their concern for the welfare of their crews and vessels. We must not seek a quick solution that will unfairly punish the responsible shipowners for the errors of the U.S. Coast Guard or any individual shipowner.

I feel strongly that it is incumbent upon this union to attempt to provide a realistic and workable program for identifying potential distress situations aboard U.S.-flag ships. We plan to do this through MARAD's USMER program as the base. Our concern is that we provide the best possible protection for U.S. seamen. USMER, since it is not international in scope, and is already mandatory for U.S.-flag vessels on foreign voyages, offers the best means of success in protecting U.S.-flag shipping from the overall standpoint of safety as well as for national defense purposes.

I would like to report back to this committee in 30 days on our progress and present full details of the conferences with MARAD and other agencies with whom we will be working. I would like to report to the committee a final determination within 90 days as to whether our proposals for a more effective USMER system for vessel movement and daily position reporting is workable; and, if not, to provide the committee with a detailed list of alternative recommendations.

While we fight to conceal our tears and emotions, Mr. Chairman, let me assure you that if we can ever get past the powerful forces

of equipment salesmen, pie-in-the-sky communications systems, bureaucracy, dominance by the U.S. Coast Guard in so many maritime matters in general and in maritime communications in particular, this union of professional radio officers and radio electronic officers is confident that we can help the American merchant marine reach its highest level of perfection in the safety of life at sea.

Safety of life is the principal reason for our existence, but it is often difficult to have our voices heard and our recommendations followed.

Mr. Chairman and members of the committee, I would like to offer a few recommendations for the immediate future.

An attempt should be made to have these recommendations begin on a voluntary basis by all parties concerned. This attempt should be made now and should not be delayed. However, I do recommend that the FCC and MARAD be instructed to commence whatever processes may be necessary to accomplish the following recommendations:

1. The USMER reporting system should become mandatory for all U.S.-flag ships on a 24-hour basis while on an intercoastal, coastwise or foreign voyage. USMER messages should be sent to Government stations whenever possible or to a public correspondence station when the former is not possible.

2. All U.S. public correspondence stations should be required to advise the originator of telegrams whenever the station fails to clear traffic with a U.S. merchant ship after it has been on file for 48 hours.

3. All owners or their operating agents should be required to advise MARAD's Office of Ship Operations whenever they know that traffic for a vessel has been on file at a public correspondence station for 48 hours but has not been transmitted. In this circumstance, both parties should then consider a request to the U.S. Coast Guard to immediately initiate search and rescue operations.

4. The U.S. Coast Guard should dispense with a communications search when an owner or operating agent gives assurances that their vessel has not cleared traffic on file in 48 hours and is known to be at sea.

5. All U.S.-flag vessels in the USMER program should be required to report to their owners the loss of any FCC required transmitters, or of high frequency transmitting capability.

Mr. Chairman and members of the committee, I thank you again for your concern, and I will be happy to answer any of your questions at this time.

[The following was received for the record:]

WRITTEN STATEMENT OF JIM PFISTER

My name is Jim Pfister. I have written this account hoping that it will be of value in view of my participation in the radio side of the rescue of more than 500 survivors of the cruise ship S/S *Prinsendam*. I was the first Radio Officer aboard the T/T *Williamsburgh*, and this statement is based on the entries in my radio log. We were one of the first vessels to respond to the S/S *Prinsendam*'s radiotelegraph auto alarm signals and the subsequent SOS. The T/T *Williamsburgh* later acted as the vessel in control of the distress situation, since it was the first vessel to arrive on the distress scene capable of rendering rescue assistance.

The T/T *Williamsburgh* is a U.S. flag tanker of 103,812 gross tons, 1095 feet long that normally carries petroleum products from the Alaska slope to continental U.S.

ports. It is one of the largest ships flying the American flag, and one of the world's larger vessels, though not the biggest.

During the S/S *Prinsendam*'s distress radiotelegraph communications for rescue operations, I was assisted by my assistant Radio Officer, Mr. Dave Ring. Throughout the entire distress period, the Communications Department aboard the S/S *Prinsendam* was under the control of Radio Officer Jack Van Der Zee, of Beek, Holland.

We left San Francisco on September 25, 1980 to load at Valdez, Alaska. When we left San Francisco, I had an assistant Radio Officer, Mr. Dave Ring, aboard. We stood regular 8 hour watches, on 500 kHz. Well before the distress, I had heard the passenger liner S/S *Prinsendam* PJTA on 500 kHz, cruising up the coast enroute to Alaska. When entering the Gulf of Alaska I knew where the S/S *Prinsendam* was, having heard her on 500 kHz., just as I knew where the S/S *Vinedam* was, and where the S/S *Mardi Gras* and other ships were, from having heard them on 500 kHz.

I had worked at San Francisco Coast Radio Station KFS for several years. A ship's Radio Officer knows the ships that are around his vessel and available for direct communications or relaying when necessary. There seems to be a sixth sense for a Radio Officer to know his area and what ships are around him. You just keep this kind of information in your head.

We were southbound after having loaded at Valdez, Alaska on the morning of October 3, 1980, when, at about 0920 GMT, Oct. 4 (1220 Local time) the radiotelegraph auto alarm rang. At first I just heard the long dashes of the radiotelegraph auto alarm signal. While receiving them, I called my assistant and told him: "Get in here quick, we have a real distress emergency." He was in the Radio Room in about five seconds.

Right after receiving the radiotelegraph auto alarm, the SOS was heard:

"SOS De PJTA: Passenger ship S/S *Prinsendam*, position 57.38 north, 140.25 west, fire in engine room, engine room flooded with carbon dioxide, 320 passengers, crew, 190. Master."

I had called the Bridge, while we were still receiving the auto alarm signals, and asked them to stand by. After we got the radiotelegraph SOS distress message, I called the Bridge and called the Captain, and told them: "I just picked up an SOS from a passenger ship and it's real close."

The Captain said "OK, I'll be right down."

When he came into the Radio Room, I gave him their position, and told him "The Bridge is preparing our position right now and should be calling down with our position." He then asked whether I had receipted for the SOS. I told him I had. He asked whether they had requested our assistance, and I said "No. I just acknowledged receipt of their distress message and gave them our call sign." At that point they called down from the Bridge with our position. It appeared that we were very close. Then we received some positions from other ships that had heard the distress. At least 40 or 50 ships checked in immediately. They just continued to check in. It was coming in fast by then.

After the beginning of the distress, the S/S *Prinsendam* told us that the cables leading to the main transmitter had burned and they had to go to the emergency, battery operated 500 kHz transmitter. When the S/S *Prinsendam* was on emergency power, 500 kHz communications continued right on, with no problems at all because they were still putting out a good signal, even though they were on the emergency battery powered transmitter.

At the time their main transmitter burned out, the S/S *Prinsendam* went on reserve power and sent out another auto alarm. On the T/T *Williamsburgh* we sent out a repeat of the SOS, twice.

Although the S/S *Prinsendam* was in constant radio contact with us on 500 kHz, they were in communication on 500 kHz with coastal stations; NOJ Kodiak came through on 500 kHz loud and clear. When we heard the first SOS, the S/S *Prinsendam* was about 90 miles from us. We all had a chance to see how the 500 kHz radiotelegraph system worked; throughout the entire distress, it worked with exemplary effectiveness. The distress traffic was heard on the 500 kHz at San Francisco NMC, approximately 1,400 miles away. From the time we received the radiotelegraph auto alarm on 500 kHz until we actually arrived at the burning passenger ship S/S *Prinsendam*, about six hours later, we were never out of contact with her on 500 kHz radiotelegraph.

At about 0600 local ships time, we had the S/S *Prinsendam* on radar range. At about that time we were finally within VHF range. They had one battery-powered VHF walkie-talkie, since their AC-powered bridge VHF radio was inoperative due to burned out power lines.

After notifying us that they were abandoning ship, their 2182 fell silent, but their 500 kHz radiotelegraph equipment was still sending distress traffic for about an-

other hour: So many passengers had been gotten off; in 3 lifeboats; 4 lifeboats away; 5 lifeboats away; and so on. They told us they had lost a lifeboat and 2 liferafts and so they were going to have to overload a raft or two. After all the passengers and the crew had gotten off, the Radio Officers abandoned ship too. Then, a rescued Radio Officer was brought aboard our ship and came right up into our Radio Room and introduced himself: "I am a Radio Officer from the S/S *Prinsendam*."

The S/S *Prinsendam* never did send a Mayday distress call by voice on 2182 kHz. They didn't need to because ships all over the North Pacific responded to their radiotelegraph distress call on 500 kHz. By 3:00 AM, we had counted at least 40 responding (Japanese, Russian, etc.), in a 200-mile range of the stricken passenger ship. Although the S/S *Prinsendam* did not send a voice Mayday distress call on 2182 kHz, we sent one from the T/T *Williamsburgh*. The only response we got back was from a 65-foot fishing boat, the *Pacific Harvest*. They told us they could not get to the S/S *Prinsendam* until about 2 PM in the afternoon, because they could only make 10 knots in the rough seas.

Helicopters landed on the T/T *Williamsburgh* to discharge some rescued passengers. Others were rescued from lifeboats and liferafts directly to our ship in rough seas. Our Captain estimates we took 100-175 aboard over the side. Our vessel was first on the scene and was the control vessel of the situation. We dismissed vessels not required because of distance; some were over 900 miles away. One ship that responded and with which we communicated by radiotelegraph on 500 kHz was more than 2,800 miles away.

It wasn't necessary for us to relay from the S/S *Prinsendam* to Coast stations; the S/S *Prinsendam* communicated by radiotelegraph on 500 kHz directly with NOJ, Kodiak without difficulty.

The S/S *Prinsendam* Radio Officer knew we were closest because of our signal strength, and told his Captain that the T/T *Williamsburgh* was the closest.

During the distress, the discipline on 500 kHz was superb. The only signals we could hear on 500 kHz were from New Zealand, Japan, Taiwan (these were enormous distances) and they were barely above the noise. We were able to immediately quiet ships that came on 500 kHz without knowing of the distress. Then, for two hours there wasn't a single transmission that didn't have anything to do with the distress, as ships and coast stations became aware of the distress situation.

Because of the language differences of the ships of different nationalities involved in the distress traffic, international radiotelegraph "Q" signals were used so everyone knew what was taking place.

After an hour, we asked them to come up to 2182 kHz for voice communications. The S/S *Prinsendam's* reply was "Not now." We asked again, about a half hour or 45 minutes later, and they repeated, "Deck Officers too busy, can't come up." When we asked a third or fourth time, they finally did come up to 2182 kHz, about 3 or 4 hours into the distress.

No Mayday was sent on 2182 kHz by the S/S *Prinsendam*. S/S *Prinsendam* bridge personnel were busy with the fire and emergency distress situation. They didn't want to go up to 2182 kHz because they were too busy and the Masters of both ships were satisfied with the effectiveness of the distress communications of radiotelegraph on 500 kHz.

From conversation with the S/S *Prinsendam* Radio Officer, I learned that satellite communications were used by the S/S *Prinsendam*, to get in touch with its home office, but the satellite terminal lost power when the main power went, about 2 hours into the distress. After the main power went, 500 kHz radiotelegraph communications continued, uninterrupted, through the entire distress, on the emergency transmitter, using emergency power.

This account is being given for whatever use it may serve in considering how to make the lives of passengers and seafarers safer.

The CHAIRMAN. Thank you very much. You have certainly given us something to think about. I can assure you that this chairman, the committee, or the subcommittee, would be happy to hear from you at any time that you would like to be heard.

Mr. PENOT. Thank you.

The CHAIRMAN. Did you have any questions?

Mr. FOGLIETTA. Thank you, Mr. Chairman. And thank you, Mr. Penot, for your testimony and your suggestions.

On your second recommendation, put in less technical terms, would you be in agreement with what I have asked other witnesses and what I have proposed myself; namely, that if USMER does not

receive communication from a vessel after a 48-hour period, they should then immediately notify the Coast Guard that this vessel has not communicated in 48 hours; is that correct?

Mr. PENOT. To a degree. Let me—possibly there may be a little misunderstanding here with the use of the FCC term "public correspondence station."

A public correspondence station is not a federally operated station; it is a private corporate station, a common carrier station.

Mr. FOGLIETTA. Well, the question I want to address ourselves to is, while the requirement may be made mandatory that the vessels must report every 48 or 24 hours, as you suggest, the problem we see here, and the problem we had with the *Poet,* was that if a vessel does report in and give a distress signal, that assistance would be sent out immediately.

On the other hand, if a vessel does not report in in 24 hours, or 48 hours, or 36 hours, or 72 hours, there is no sort of a red flag that goes up and tells anybody that this vessel has not reported in.

Mr. PENOT. That's correct. That is my understanding.

Mr. FOGLIETTA. And that is what we are trying to correct; is what you are suggesting going to correct it?

Mr. PENOT. I am saying these recommendations will move in that direction. Obviously, this won't correct everything.

With regard to the second recommendation and the question you asked originally, I think it should be pointed out that the public correspondence stations; that is to say, the common carrier stations, that operate for profit, are very powerful coastal radiotelegraph stations. It just seems to me that when they cannot communicate with a piece of paid traffic, it can be very difficult for the Coast Guard, with less power, to be able to do so, particularly in the case of traffic that was pending at Chatham radio for the *Poet.*

Mr. Congressman, Chatham radio is an RCA station; it is probably one of the two or three most powerful and best in efficient communication stations for private traffic; and if they could not transmit their traffic to the *Poet* in a matter of just a few days, I am really wondering how the Coast Guard can say that their communication search is going to do it.

I would also suggest, Mr. Congressman, that in view of some testimony this morning with the various layers, the various degrees of urgency that they have in their system, if they have a problem finding out whether or not a ship can be reached communicationwise, I think they could go to possibly one of the greenest—I think they call them striker communicators, a guy just starting in the business; and he could probably tell the highest admiral in the Coast Guard that if WCC isn't going to get this guy in a matter of a few days, we are not going to get it. There is a problem.

Mr. FOGLIETTA. And I assume that your conclusion is that the Coast Guard's attitude is that if they don't hear from a vessel in 48, or 72 hours, or even for a week, that they assume that something is broken down with the communications, rather than assuming that there might be something wrong shows a disregard for human life?

Mr. PENOT. Congressman—yes. I will have to say in this day and age, with the communications aboard the ships, as one of the admirals said this morning, that the 10-day, 12-day lapse in com-

munication, doesn't present them with a problem. It presents me with a great problem. Because there are a number of pieces of equipment, some required, some voluntary, aboard the ships that are normally carried aboard the ships, even though voluntary; there is some way that that ship is going to communicate.

Mr. FOGLIETTA. Do you agree with me that the delay by the shipowner here in not notifying the Coast Guard for 10 days after not hearing from the vessel, and the additional fact that the Coast Guard, after being notified of the ship's noncommunication, then waited 5 more days before it started a search is unconscionable?

Mr. PENOT. Yes; it is just beyond me that such as this can really say it functions as a station rescue system. Communicationwise, looking at the problem at that angle, I simply don't understand how they could do that.

Mr. FOGLIETTA. Neither do I.

And I thank you, Mr. Chairman.

The CHAIRMAN. Thank you.

Thank you for your appearance here this afternoon.

Our next witness is Ms. Patricia Goldman, member of the National Transportation Safety Board.

Do you solemnly swear that the testimony you will give before this committee will be the truth, the whole truth, and nothing but the truth?

Ms. GOLDMAN. I do.

The CHAIRMAN. Thank you.

TESTIMONY OF HON. PATRICIA A. GOLDMAN, MEMBER, NATIONAL TRANSPORTATION SAFETY BOARD, WASHINGTON, D.C.

Ms. GOLDMAN. Thank you, Mr. Chairman and members of the committee. I am pleased to be here today to present testimony on behalf of the National Transportation Safety Board dealing with the investigation of the disappearance of the cargo ship SS *Poet.* With me at the table, on my right this afternoon, is Mr. Ralph Johnson, a marine safety investigator with the Board.

The CHAIRMAN. Glad to have you, sir.

Ms. GOLDMAN. As you know, the National Transportation Safety Board is an independent agency, and in the Independent Safety Board Act of 1974, Congress directed the Board to investigate and determine the probable cause of selected transportation accidents, including major marine casualties and, in accordance with this act, the Safety Board and the Coast Guard have issued a set of joint regulations that define a major marine casualty as the loss of six or more lives; the loss of mechanically propelled vessels of 100 or more gross tons; property damage of half a million dollars or more; or a serious threat to life, property or to the environment by hazardous materials.

Under the provisions of these regulations, the Coast Guard conducts the preliminary investigation of all accidents and then notifies the Safety Board of all major marine casualties and accidents involving a public and nonpublic vessel. At that time, the Safety Board responds in one of three ways:

One, we conduct an independent investigation.

Two, we participate in a joint investigation with the Coast Guard.

Three, we request the Coast Guard to investigate the accident for the Board.

The specific type of Board response is based on a variety of factors, that I am sure you can appreciate, including:

One, the nature of the accident and the safety issues involved.

Two, the Board policy to avoid unnecessary duplication of effort.

Three, The availability of resources.

I would like to emphasize that even in a joint investigation or a designated Coast Guard investigation, there is Coast Guard involvement only in the factfinding stage of the investigation. In each case, the Safety Board performs its own independent analysis of the evidence and determines the probable cause or causes of the accident.

In the case of the SS *Poet,* the Safety Board and the Coast Guard conducted a joint public hearing in November and December 1980, to determine the facts behind the disappearance of the *Poet.* In the course of these hearings, representatives from the Safety Board and the Coast Guard heard testimony from 25 witnesses, examined 151 exhibits, and conducted numerous technical analyses in an effort to determine the facts of this case.

The Safety Board has completed the initial factfinding phase of its investigation, and has prepared a preliminary factual report on the accident. I have submitted that previously to the staff and I would like and hope that that would be submitted for the record.

[The following was received for the record:]

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

MARINE ACCIDENT REPORT
(PRELIMINARY)

The Accident

At 2346 e.d.t.[1/] on October 16, 1980, the U.S. freighter SS POET arrived at Cape Henlopen, the entrance to Delaware Bay, after completing a 2 month voyage from Pensacola, Florida to Port Said, Egypt carrying 5,606 tons of bagged flour and a return trip in ballast. The POET was originally destined for Galveston, Texas but on October 14, 1980, the owners signed a charter agreement[2/] to carry 13,533 tons of yellow corn from Philadelphia, Pennsylvania, to Port Said, Egypt and diverted the POET to Philadelphia.

At Cape Henlopen, a Delaware Bay pilot boarded the POET and the ship proceeded upriver to Philadelphia where it docked at Girard Point No. 2 Pier at 0736 on October 17. The voyage upriver was uneventful. The pilot testified that the POET'S equipment worked properly and he did not have any difficulties with the crew.

On October 17, the POET was boarded by a National Cargo Bureau (NCB)[3/] surveyor, U.S. Department of Agriculture (USDA) inspectors and representatives of PHILLYSHIP,

1/ All times herein are eastern daylight time based on a 24-hour clock.
2/ The charter agreement was financed under U.S. Public Law 480 which authorizes the U.S. Government to loan certain funds to various countries. One of the requirements under the law is that 50 percent of the cargo be carried on U.S. flag ships if such ships are available. There is a public tender for the commodity and public tender for the freight. In this case, the owners offered the POET as freight and after some negotiating chartered the vessel to the Egyptian government.
3/ The National Cargo Bureau was incorporated as a nonprofit organization in May 1952 and began actual operation on November 19, 1952. The Bureau was created to render assistance to the U.S. Coast Guard in discharging its responsibilities under the 1948 International Convention for Safety of Life at Sea and for other purposes closely related thereto.

a local ship repair firm. The purpose of the NCB surveyor's visit was to check the chief officer's stability calculations for the proposed grain loading and to inspect the cargo holds to insure they were ready for loading grain in accordance with Coast Guard Regulations. The USDA inspectors checked to insure the holds were clean, free of scale and free of any rodent or insect infestation. The USDA rejected Nos. 1 and 2 holds because of water, rust scale and previous cargo, and the NCB survey requested that the chief officer recompute his calculations using a stowage factor[4/] of 49 instead of the stowage factor of 50.7 used by the chief officer. The NCB surveyor knew from experience that the grain loaded at Girard Point #3 pier would stow closer to 49 than 50.7. The chief officer's original calculations using a stowage factor of 50.7 showed that the amount of grain needed to be stowed in No. 1 hold would exceed the allowable heeling moment in the POET'S Trim and Stability Booklet. The representatives of PHILLYSHIP were aboard to perform any voyage repairs required by the ship's owner. Appendix A contains a list of work items completed by PHILLYSHIP during the period October 17 to 23, 1980 on the POET.

On October 18, a second NCB surveyor, a U.S. Coast Guard boarding team and a RCA service representative boarded the POET. PHILLYSHIP continued the requested ship repairs and an independent cleaning gang began scraping and cleaning the holds to meet USDA requirements. The second NCB surveyor reviewed the proposed stability calculations with the chief officer and cautioned

4/ Stowage factor is defined as the volume of the cargo space in a ship in cubic feet divided by the weight of grain in long tons.

him that #1 lower tween deck should be prepared for strapping[5/] in case there was excessive grain. The Coast Guard boarding team consisted of a reserve petty officer and two reserve seamen. The purpose of their boarding was to conduct a routine check for compliance with the navigation regulations contained 33 CFR 164. The Coast Guard boarding team cited the POET for not having a LORAN C or other specified electronic navigation device as required by 33 CFR 164.41(b) and also noted a number of drums and compressed gas bottles stowed without dunnage under them. The RCA service representative was called to service a RCA receiver. The POET'S radio officer wanted the receiver's band switch, RF gain and audio gain replaced. However, the RCA serviceman recommended that the receiver be repaired and took the receiver to his shop in Jersey City, New Jersey. While aboard the POET the serviceman replaced a 2500 ohm, 100 watt resistor in the ship's TIA1000 high frequency (HF) transmitter, corrected an arcing problem with the RM 147 power supply to both the main and HF transmitter and fine tuned all the radio equipment. It was a rainy day, so he also tested the antennas and found them satsfactory. The radio operator had met the ship in Port Said, Egypt and told the RCA serviceman that he was unable to get the HF telegraph equipment to work during the voyage to the United States. The RCA serviceman noted the radio operator was not tuning the equipment properly and instructed the radio operator in the proper procedures.

On Sunday, October 19, PHILLYSHIP continued the repair jobs and the cleaning and scraping of the holds was completed by the cleaning gang. At 0900

5/ Strapping is a method of preventing grain in partly filled hatches from shifting. Strapping requires steel wires secured to the ship structure, 2 solid floors of lumber and separation cloths.

on Monday, NCB and USDA inspectors returned, and re-examined Nos. 1, 2, and 3 holds. The USDA issued its official certificate and the first NCB surveyor issued NCB's certificate of readiness for loading of grain. The second NCB surveyor again reviewed the stability calculations with the chief officer. The first NCB surveyor checked the calculations line by line and certified along with the master that the calculations were in accordance with the applicable grain regulations. Arrangements were then made to move the ship to Girard Point Pier #3 (Tidewater Grain Company).

At 0412 on October 21, the POET shifted to Pier #3 and at 0930, Atlantic & Gulf Stevedores, Inc., began loading Nos. 1, 2 and 3 holds with No. 2 yellow corn. About 1100, USDA ordered the loading of No. 3 hold stopped due to weevil infestation in the cargo and that No. 3 hold be fumigated. The chief mate also ordered the loading of No. 1 stopped because he was concerned that the ship would trim excessively by the bow while loading; however, loading of No. 2 continued until 2300. On October 21, a third NCB surveyor monitored the loading of grain, the RCA serviceman returned and two Coast Guard Marine Inspectors boarded the POET. The ship's radars were serviced and a LORAN C was installed. The RCA serviceman brought back a replacement for the ship's receiver but the radio operator was still not satisfied so the serviceman called his shop to have the original receiver serviced. The purpose of the Marine Inspectors visit was to follow up on the October 18 report that gas cylinders were improperly stowed. They noted about 20 cylinders improperly stowed and requested the master to rectify the situation. One of the marine inspectors also inspected the new LORAN C which was not completely installed when they left. At 2200, the POET began receiving fuel oil from Interstate barge ARGOIL 130.

1 At 0540 on October 22 the fuel oil barge departed after delivering 624 tons
2 of Bunker C. The owner's representative in Philadelphia testified that the amount
3 of fuel oil loaded in Philadelphia was based on the requirement that the POET
4 arrive in Egypt with a draft no greater than 30 feet. The stevedores continued
5 loading No. 1 and 2 holds and resumed loading No. 3 hold after a USDA chemist
6 certified No. 3 gas free. The third NCB surveyor again monitored the loading
7 of grain. At 1500 No. 1 hold was completed, at 1800 No. 2 hold was completed,
8 and loading continued in No. 3 hold until 2300.
9
10 On October 23, the RCA serviceman returned with the POET'S original
11 receiver which had been repaired. The serviceman stated the radio operator
12 accepted the repaired receiver but was not too happy. The master was there
13 when the receiver was returned and asked if the ship was able to communicate
14 on 500 kc, the distress frequency. The RCA serviceman told the master what
15 repairs he had done. The radio operator told the RCA serviceman during his
16 visit on October 18 that he had tested the receiver and transmitter on 500 kc
17 before coming to Philadelphia. The radio operator told the owner's representative
18 that all equipment had been repaired satisfactorily. The stevedores completed
19 loading 13,538 long tons of corn at 1535 with 121 tons of corn in No. 1 tween
20 deck. The third NCB surveyor, who was aboard monitoring the loading, revised
21 the stability calculations to reflect the actual loading configuration of the corn,
22 determined that POET met the regulations without strapping the corn in No.
23 1 tween deck, and issued a certificate of loading indicating it met U.S. Coast
24 Guard grain regulations. The grain in No. 1 tween deck was not strapped. Upon
25 completion of loading, the NCB surveyor and the chief officer read the POET'S
26 draft and measured the freeboards amidship. According to the NCB surveyor's
27 notes, the drafts were 34 feet 8 inches forward and 32 feet 0 inches aft. The

freeboards were 10 feet - 2 inches port and 9 feet - 10 inches starboard. These freeboard readings meant that the POET exceeded its allowable draft by 1 1/2 inches; however, the NCB surveyor testified that he believed that the POET was actually 1 1/2 inches light and that his notes may have been in error. The NCB surveyor stated that both the master and chief mate told him that they were going to reduce the trim by transferring fuel oil. The master also told him that he would probably use a rhumb line to the Straits of Gibraltar. Since he would have eight days steaming before the loadline requirements changed on November 1 and the fuel consumption of the POET resulted in 1 inch less draft per day, he should have no problems meeting the loadline regulations. In addition, around November 1, the POET should be back within the summer loadline zone. The NCB surveyor departed the ship about 1700.

The owner's representative was aboard the POET that evening until the POET's gangway was raised about 0100 on October 24. He observed the crew applying RAMNAK[6/] tape to hatch covers No. 2 and 3, after they were secured, and recorded the amount of cargo, fuel oil, and water, and drafts upon completion of loading. The chief mate told him they planned to shift fuel oil in order to minimize the trim by the head. Prior to the pilot boarding at 0045, October 24. the 2nd mate read the drafts and the trim had been reduced by 8 inches. The master remarked that the POET was not trimming as rapidly as he expected but did not voice any concern other than the pilot might not like the trim. The owner's

6/ RAMNAK is a brand name for sealant tape used on ship hatch covers to prevent entry of water into the cargo holds. It is used as an added protection to that provided by the hatch cover gaskets.

agent boarded about 2400, October 23, and departed when the gangway was raised. Both the master and radio operator told him they were satisfied with all repairs and he recorded pertinent information from the ship's deck log which he then recorded in the POET'S port log. The port log shows the POET sailed with 6,217 bbl of fuel oil, 4,800 gals of diesel oil and 141 tons of water. The master told him that his estimated time of arrival (ETA) was November 9 in Port Said, Egypt and handed him an envelope which contained a copy of the POET'S shipping articles for the Coast Guard.

The docking pilot boarded the POET about 0100 on the 24th of October and noted that after getting underway the ship was sluggish; i.e., the ship was slow in turning. He turned the ship over to the Delaware River pilot about 0145. He recorded in his tugboat's log that the POET'S drafts were 34 feet - 6 inches forward and 32 feet - 6 inches aft. The river pilot also noted the POET to be sluggish in shallow water but once the ship got into deep water the ship steered normally. The trip down Delaware Bay to Cape Henlopen was uneventful at a speed of 13.5 kns. The master told him they were trimming the ship to minimize the trim by the bow but the pilot did not note any changes in trim. Before the pilot departed the master told the pilot he was going to steer 145°T which the pilot said would take the POET between buoys Nos. 5 and 6. The pilot departed the ship at 0820 about 1 mile east of the Harbor of Refuge breakwater entrance. The wind was east 20 kns and waves were 3 feet high.

Subsequent to the pilot's departure, two messages were received from the POET. The first message was sent to AMVER[7/] and USMER[8/] simultaneously

7/ An International Automated Mutual-assistance Vessel Rescue System operated by the U.S. Coast Guard
8/ U.S. Merchant Vessel Locator Filing System operated by the U.S. Maritime Administration.

and is time dated 1300 GMT[9/] October 24, 1980. This message was received by the Coast Guard radio station in Puerto Rico. The message states the POET departed Philadelphia at 1200 GMT on October 24 and was going to take a rhumb line to Gibraltar and then coastal to Port Said. It also requested that the information be passed to AMVER. The second message was sent to the POET'S owners via Chatham Radio Station in Massachusetts and is time dated 1300 GMT October 24. The message states that this is the first message of voyage 10, the ship departed Cape Henlopen at 0830; 4,157 bbls of fuel oil were received, 6,218 bbls total and its ETA Port Said to be 0600 November 9. The last known communication from the POET was a personal radio telephone call at 1200 on October 24. Since that time the POET has not been seen or heard from.

At 1153 on October 30, the POET's owner sent a routine message to the ship regarding the discharging of cargo in Egypt. At 1013 on October 31, the owner sent another routine message telling the master that his discharge port was Port Said, reguesting that the master advise the owner when the ship passed Gibraltar, stating that the owner had not received a message from the POET since October 24, and requesting the master to report the POET'S current position. At 1339 on Saturday, November 1, the owner sent an urgent message to the master of the POET requesting tne ship's position. At 1000 on Monday, November 3, the owner contacted the Coast Guard, told the Coast Guard that he had not heard from the POET since October 24 and asked the Coast Guard to check its AMVER system to determine if the Coast Guard had received any position messages

9/ Greenwich Mean Time

1 from the POET. The Coast Guard informed the owner that the last message
2 received from the POET was the ship's departure message on October 24. The
3 Coast Guard immediately began a series of communication checks to determine
4 if anyone had seen or heard from the POET and to determine the ship's probable
5 trackline.
6
7 The POET'S owner testified that he did not become concerned about the
8 ship until November 3. Up until November 3, the owner believed the lack of
9 communication was due to some radio problem but by November 3 the POET
10 should have passed near the Azores where voice communication could be made
11 or the master could have gone into the Azores for repairs. He further stated
12 that, "It isn't unusual or abnormal for a vessel on a foreign voyage of this type
13 to go three, four, five days without reporting, notwithstanding the fact that they
14 have instructions to report every 48 hours." The owner did state that it was unusual
15 for the POET not to report for 10 days, October 25 to November 3, but did not
16 notify the Coast Guard sooner because he was waiting for the POET to arrive
17 in the vicinity of the Azores.
18
19 At 1344 on November 3, the POET's owner sent another urgent message
20 to its master requesting the POET's position. On November 4 the Coast Guard
21 continued its communication checks and requested Lloyd's of London Intelligence
22 Service to check if the POET had passed through the Straits of Gibraltar. On
23 November 5, the Coast Guard was informed that their was no record of the POET
24 passing Gibraltar. At 0942 on November 6, the owner sent a message to his agent
25 in Piraeus, Greece requesting any information the agent had about the POET.
26 At 1012 on November 7, the owner was informed by his agent in Piraeus
27

that the POET had not been heard from and at 1728, the owner sent a message to the Coast Guard requesting they initiate an "intensive air sea search along the entire route from Cape Henlopen to Gibraltar." At 1400 on November 8, the Coast Guard initiated a search which lasted 10 days and covered 297,000 square miles of the North Atlantic Ocean including the POET's probable trackline between Philadelphia and the Straits of Gibraltar. The active search was suspended at 1400 on November 17 without finding any trace of the POET or its crew. As of March 1981, no crewmen or wreckage have ever been found.

Injuries to Persons

Injuries	POET
Fatal	34
Nonfatal	0
Minor/None	0

Damage to Vessel

The SS POET was a total loss. The ship's estimated value was $1,250,000.

Other Damage

The POET was transporting 13,538 tons of No. 2 yellow corn. The estimated value of the corn was $3,000,000.

1 **Crew Information**

2

3 The POET was manned by 10 officers and 24 crewmen when it sailed on
4 October 24, 1980. The officers and crew were all licensed or documented under
5 United States law. The master of the POET was 57 years old and had been going
6 to sea for 30 years. He had been licensed as a master for the past 5 years. He
7 had become master of the POET in August 1979 and had alternated with a second
8 master since that date. Prior to joining the POET, he had been employed by American
9 Export Lines as a master. The alternate master had been sailing as a deck officer
10 with American Export Lines since 1945 and as master since 1963. The alternate
11 master stated that he and the POET's master had joined American Export Lines
12 at about the same time and that he had been the POET's master for the periods:
13 December 1979 to March 1980, and May 1980 to August 1980.

14

15 On October 24, 1980, the POET's regular chief engineer was not aboard.
16 The POET's first assistant engineer, who was 60 years old, was serving as relief
17 chief engineer. He had been aboard the POET for 9 years. The POET's permanent
18 second assistant engineer was serving as relief first assistant engineer and had
19 been aboard the POET for 2 years. The POET's permanent chief engineer had
20 served aboard the POET since 1965 and had become permanent chief engineer
21 in 1976. He had been aboard the POET from January to August 1980.

22

23 The radio operator aboard the POET was 52 years old, had graduated from
24 high school in 1946 and received an associate degree in electronic engineering
25 in 1979. He had applied for apprenticeship with the Radio Officer Union on November 9, 1979,

26

27

1 and began serving a six-month apprenticeship with another radio operator aboard
2 the PIONEER MOON on January 14, 1980. After completing his six-month apprenticeship,
3 he was assigned to his first ship, the POET, as a qualified radio operator. He met
4 the POET in Port Said, Egypt about October 1, 1980. The RCA serviceman who
5 repaired the POET's radio equipment in Philadelphia stated that the radio operator
6 had been a master chief petty officer and had spent 30 years in the U.S. Navy.
7 The RCA serviceman testified that the radio operator told him that he was used
8 to more sophisticated equipment than that on the POET. He also noted the radio
9 operator's FCC license for radio telegraph equipment.
10
11 Vessel Information
12
13 General-- The POET was one of six sisterships which were converted in
14 1965 from U.S. Maritime Administration (MARAD) Design C-4 troopships into
15 break-bulk cargo ships. The POET's original name was the GENERAL OMAR
16 BUNDY. The ship was built by Kaiser Company, Inc., Richmond, California,
17 in 1944. From March 1945 until May 1946, the ship served as a troop transport
18 for the U.S. Navy and from August 1946 to December 1949 carried troops for
19 the U.S. Army. The ship was then delivered to MARAD, entered the National
20 Defense Reserve Fleet, and was berthed in the James River, Virginia. In 1964
21 the six ships were acquired from MARAD by Calmar Steamship Company; a subsidiary
22 of Bethlehem Steel Corporation, in exchange for Liberty ships. The six ships
23 were converted at the Bethlehem Steel Corporation Shipbuilding Division, Sparrows
24 Point, Maryland, at a cost of $29 million. The six ships were named CALMAR,
25 MARYMAR, PENNMAR, PORTMAR (ex GENERAL OMAR BUNDY), SEAMAR
26
27

and YORKMAR. The ships were used as special product carriers in the U.S. intercoastal trade. They carried steel products westbound and lumber eastbound. About 1976 Calmar Steamship sold all the ships.

The POET was owned by Hawaiian Eugenia Corporation, whose principal stockholder and president is Mr. Henry J. Bonnabel. The ship was operated by International Ship Management and Agency Services, whose president and principal stockholder is also Mr. Bonnabel. Mr. Bonnabel is also principal stockholder in American Coastal and Foreign Steamship Company, which owns the PENNY (ex PENNMAR). The PORT (ex PORTMAR) was purchased from Asbury Steamship Company in 1979 and was renamed the POET. In February 1979 the port and starboard 12-ton tubular booms for No. 4 hold were permanently removed. The ORINOCO (ex CALMAR) and the CARONI (ex SEAMAR) are owned by Compania Anonima Venezolana de Navegacion, La Guarra, Venezuela, the MARY (ex MARYMAR) is owned by Marlin Steamship Company, Inc., and the YORKMAR has been scrapped.

The POET was about 523 feet long, of welded steel construction with riveted frames. The deckhouse was located aft over the machinery space. There were 3 cargo holds forward and a small cargo hold aft of the deckhouse. Appendix B contains the POET's principal characteristics and Figure 1 shows the POET's internal arrangement. The POET's normal service speed was about 15 kns.

The ship was propelled by Westinghouse Electric & MFG. Co. steam turbines and two Babcock & Wilcox Co. boilers which were built in 1944 and produced 9,000 SHP.

For navigation purposes, the POET was equipped with two independent radars, a DECCA Model 202 and a Raytheon Model 1402, an RCA Model AR8714B radio directional finder, a Northstar 6000 LORAN C, two VHF bridge-to-bridge radiotelephones, a Konel Model KR63VBM and an INTECH MARINER 70, a depth sounder, a depth recorder and a gyrocompass.

The ship's lifesaving equipment consisted of two 40-person hand propelled lifeboats, one on each side of the deckhouse, with sheath-screw davits, two SEA-JAY Elliot 20-man liferafts, 18 ring lifebuoys with lights and 47 life jackets.

The machinery spaces, cargo holds, and emergency generator room were protected by a fixed CO_2 fire extinguishing system. There was a fire main system as well as 30 portable fire extinguishers distributed throughout the ship and one semiportable fire extinguisher in the machinery spaces. The emergency diesel generator was located two decks below the radio room. It was a Lorimer 4-cylinder, slow speed diesel 240-volt DC generator, capable of producing 75kw. The emergency generator had sufficient capacity to operate the steering gear or to be used to restart the main plant as well as to provide emergency lighting and power for the ship's radios and radars.

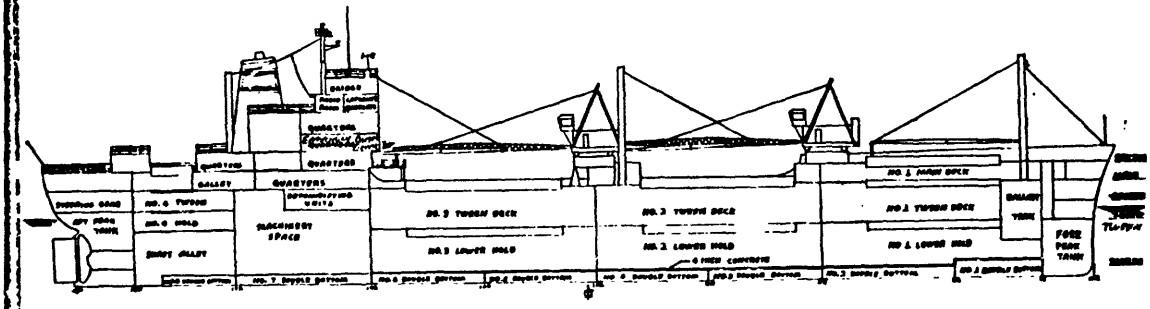


Figure 1 - PCET's Inboard Profile

The owner testified that a standard operating manual is placed aboard all ships. This manual requires that the master report every 48 hours to International Ship Management & Agency Services, Inc., New York, the ship's operating agent. The agent has a procedure for urgent messages to be delivered 24 hours a day to key personnel. In addition, the manual requires that the master notify the operating agent seven days prior to arrival at any bunker port. The manual also states that the operating agent will not weather route a ship unless specifically requested by the master. However, weather routing services are available to the master. Both the alternate master and permanent chief engineer testified that they had never seen a copy of the operating manual aboard the POET. The alternate master stated that his instructions were to report by radio every Monday and Thursday.

Stability-- The POET was required to meet the intact stability requirements contained in 46 CFR Part 93 (See appendix C) but was not required to meet any subdivision or damage stability standards. Upon departure from Philadelphia on October 24, 1980, there was 2976 long tons of grain in the POET's No. 3 lower hold, 3027 in No. 3 tween deck, 2997 in No. 2 lower hold, 2926 in No. 2 tween deck, 1491 in No. 1 lower hold and 121 in No. 1 tween deck. The stowage factor calculated by the NCB surveyor was 49.28 and the test weight[11/] determined by the grain elevator was 56.8.

11/ Test weight is the weight in pounds of a U.S. bushel which is a unit of volume equalling 1.2445 cubic feet.

The grain was stowed in each hold as tightly as possible and was loaded at a rate of up to 400 tons per hour per belt. After filling the bottom of the hold with grain, a Stephens-Adamson Mfg. Co. trimmer was attached to the pipe leading from the grain elevator. The trimmer throws the grain so that the corners and under deck areas of the hold can be filled. Figure 2 illustrates how the trimmer functions. The tween decks in holds Nos. 2 and 3 on the POET are perforated with 3-inch holes and 18" x 14" grain openings outboard of the hatch girders. These holes and openings permit grain loaded in the tween deck to flow into any voids left under the tween deck. The tween deck hatch openings were left uncovered in holds Nos. 2 and 3 and grain was loaded right up into the hatch coamings on the main deck and trimmed level before the main deck hatch covers were put in place. The tween deck hatch covers were stowed on the tank top in the lower holds. There were some void spaces under the main deck in holds 2 and 3. In No. 1 lower hold, the grain was trimmed as tight as possible using the trimming machine and the lower hold hatch covers put in place. Since there are no holes in the No. 1 tween deck, there were some voids under this deck. The remaining 121 tons of grain was loaded in No. 1 tween deck and trimmed level to an average depth of about 1.7 feet.

The chief mate's stability calculations were done assuming 129 tons of fuel oil in double bottom tanks No. 1 port and No. 1 starboard, 189 tons in No. 2 centerline, 103 tons No. 2 port and No. 2 starboard, 172 tons in No. 5 centerline, 163 tons in No. 6 centerline, 139 tons in the aft peak tank, and 24 tons in the port and starboard settlers. The calculations also assumed 50 tons of potable water and 50 tons of fresh water in No. 8 port and starboard double bottom tanks. However, there is no evidence of the actual fuel oil and water distribution for the POET when it departed on October 24, 1980.

STEPHENS-ADAMSON MFG. CO.

SIZE 3-SHIP TRIMMER

(CABLE-SUPPORTED TYPE)

Aurora, Ill.

INSTRUCTIONS FOR OPERATION, LUBRICATION AND MAINTENANCE, PARTS LIST AND RECOMMENDED SPARE PARTS.

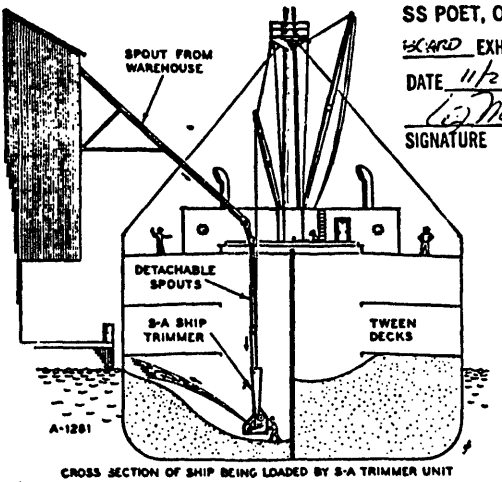
SERVICE MANUAL S-1011

SS POET, O.N. 294731

HCARD EXHIBIT 28

DATE 11/22/56

SIGNATURE



CROSS SECTION OF SHIP BEING LOADED BY S-A TRIMMER UNIT

spect Ship Trimmer Before Using. After receiving equipment inspect it immediately for possible damage during ipment. Turn the belt on the pulleys by hand and be re it runs free. Check to see that electric current availble is the same as that specified on the motor.

st Run. Be sure that motor is connected to run in the ght direction, that is, belt moving away from chute and ward discharge. When testing switch on and off as ickly as possible, because the belt may be damaged by nning even a few seconds in the wrong direction.

ith connections properly made, start the motor but watch refully the running of the belt. If it strays from center makes any noise indicative of rubbing, immediately itch it off and investigate the cause.

means of the hand crank at the rear, change the angle discharge between its upper and lower limits and be re the belt continues to run approximately on center. e above tests have been made at the factory but they ould be repeated to be sure that nothing has been disced or bent in shipping or handling.

e position of the chute at its lower end with relation to belt is important. It should be centered between the discs and it should have its back plate as close to the belt as practical without rubbing. The chute is fastened to the hood by means of four bolts in slotted holes, with shims between flanges which can adjust the chute into correct position. Normally no readjustment is necessary unless the chute is removed for repairs.

Thrower Belt Tension. Too much tension will shorten life of belt and waste power. Too little tension will usually not cause any trouble running empty, but will cause serious trouble under load.

The tension must be enough to hold the belt against the discs in opposition to centrifugal force of the material pressing it outwardly. If the tension is too little to hold the belt on the discs the belt will move away under load leaving a gap. Then the material will leak out sidewise and the belt will probably run to one side and be damaged. Belt tension is determined by torque applied in tightening the screw take-ups. An aluminum plaque attached to the frame shows correct torque (12 foot-pounds) to be applied in tightening the screws. The hold-down bolts of the bearings should be loosened before turning the take-up screws and then they should be securely re-tightened. Also, be sure the nuts turn freely on the take-up screws.

The stability calculations indicated a departure GM[12/] of 4.11 feet and an arrival GM of 3.48 feet compared to a required GM of 1.24 feet. The calculations showed that total assumed heeling moment for the grain as loaded, 18,631 ft-tons, was less than the allowable heeling moment of 22,949 ft-tons. These calculations were based on stability information prepared by Wesley D. Wheeler Associates, LTD., New York, New York, approved by NCB on January 24, 1979, and by the U.S. Coast Guard on February 12, 1979.

Structure-- During December 1976, as part of ABS Special Survey No. 6, ultrasonic gaugings of the POET's hull structure was taken under the supervision of an ABS surveyor. The purpose of the gaugings was to determine the thickness of the structural members for comparison with required values. Gaugings were taken of the entire keel plating. Girth belt gaugings were taken at frames 37 1/2, 80 1/2, 121 1/2 and 185 1/2 which were at holds Nos. 1, 2, 3 and 4, respectively. The girth belt gaugings included shell plating, main deckplating, tank top plating, shell frames, transverse frames in the saltwater ballast tanks, and drain wells and transverse bulkheads near the girth belts. Gaugings were taken of the entire exposed plating on the main deck, poop deck and forecastle deck as well as two strakes of plating around the entire ship at the wind and water area of the hull. The ABS reviewed the results of the gaugings and stated in a letter dated January 24, 1977 to the owner's of the POET that the gauging indicate that the condition of the POET's plating was satisfecory and there were no outstanding recommendations resulting from the gauging review.

12/ GM means metacentric height and is a measure of a vessel's ability to return to the upright after it has experienced a heel from an external force.

On January 10, 1978, while berthed in Matadi, Zaire, the POET was struck by another vessel and sustained minor damage. On February 10, 1978, while on a voyage from Pensacola, Florida, to Houston, Texas, the POET had a fire in No. 2 cargo hold, causing a crack in the main deck which required welding when the ship reached Houston, Texas. In December 1978, an ABS surveyor examined the POET while the ship was drydocked in Jacksonville, Florida, and recorded the following damage:

1. Poopside plate port side aft, Plate SK11, (20.40) upper edge (approximately 30") set in between Frames 178 and 184. Shell frames (5) distorted. One bracket attaching side shell frame to deck beam buckled.

   Deck plate at sheer strake set up and down between Frames 178 and 184, weld attaching deck to sheer fractured and temporarily welded.

2. Starboard side shell plate SH15 between Frames 148 and 153, horizontally creased over five (5) frame spaces approximately 1" in depth over 14".

3. Starboard side shell plate SH15 indented to a depth of approximately 4" over 5' between Frames 153 and 155, with minor indents scattered between Frames 155 and 158. Frame 155 set in and tripped, bracket at deck buckled and deck beam distorted. Frames 154, 155 and 156 distorted. Scupper guard for ice machine overboard discharge buckled and weld fractured. Shell nipple distorted.

4. Shell plate, starboard side set in approximately 4" across plates SH14 and SG14 (29.32# Plate) between Frames 134 and 136. Shell frame No. 134 set in and fractured at upper tween deck. Tween deck plate set in and buckled between Frames 134 and 136. Deck beam, tween deck at Frame 134, outgoard 30" distorted. Plate shell bracket attached to deep web frame distorted.

Shell plate starboard side, SH14 and SG14 indented 3" to 5" between frames 142 through 146, along welded seam and at butt between frame 144 and 145.

Shell frames 142 through 146 set in above tween deck 3" to 5".

The surveyor stated in his report that he did not consider permanent repairs necessary at that time although temporary repairs were made"by sealing off indent with cement on port side poop deck plate SK-11." The surveyor further states that permanent repairs are deferred until the next scheduled regular drydocking. At the same drydocking the surveyor recorded the following damage to No. 1 Hatch Cover:

Cargo Hold No. 1, forecastle deck, watertight steel hatch cover after section knuckled approximately 9" up from ends at center port side, with skirt and gasket retaining channel buckled inboard. Four plate intercoastal fore and afters were knuckled in between transverse hatch beams.

The surveyor did not consider permanent repairs necessary at that time but supervised the following temporary repair:

> Cropped out "A" shaped section of damaged side skirt plate approximately 4' wide with gasket retainer between cover plate and bottom edge of skirt. Pull hatch cover down in place, secure with existing steel dogs. Sealed area watertight, hose-tested and considered satisfactory.

Permanent repairs were deferred until the next regular drydocking. The surveyor examined the repairs made as a result of the fire in No. 2 hold and found them satisfactory. Starboard side "B" strake, plate B-10, was found holed and set in. A new plate (4'6" x 7') was inserted between frames 123 and 125. Other minor structural repairs were also completed during this drydocking.

On March 4, 5 and 6, 1980, both U.S. Coast Guard inspectors and ABS surveyors examined the structure of the POET while in drydock in Beaumont, Texas. The only structural problem noted by the Coast Guard inspector was "considerable amount of erosion" on the sternpost but he did not consider this excessive. The ABS surveyor had ultrasonic girth belt gaugings taken at frames 104 1/2 and 114 1/2, the keel plating gauged at frames 121, 143 and 160 and the remaining bottom plating gauged at various locations. A 14" weld fracture, located on the port side of No. 1 cargo hold hatch, was gouged out and rewelded with a doubler plate added. The outstanding items from the 1978 drydocking were examined and the surveyor found no evidence of any further deterioration. At the owner's request, permanent repairs were deferred until the next regular drydocking.

On June 21, 1980, while the POET was entering Santo Domingo Harbor at slow speed, the ship touched botton and stopped. The POET's log states:

> Full ahead was rung on the engine, with repeated right and left rudder orders and slowly the vessel moved into deeper water. The pilot stated that the entrance is shoaling, due to swells, and occasionally vessels touch mud bottom. The SS POET was drawing 31 feet even keel. Bilges were sounded as a precaution but nothing was amiss.

On August 19, 1980, an ABS surveyor conducted an annual survey of hull and machinery, an annual load line inspection and an intermediate survey. Although available to him through a terminal in his office, the surveyor did not obtain a survey status report for the POET. This status report would have told him that an intermediate survey was completed in March 1980 and listed the outstanding items from the 1978 drydocking. The surveyor found no structural problems with the POET.

Radio Equipment-- The POET had the following radio equipment in addition to the equipment used for navigation:

Main Transmitter	RCA Model ET 8051A
High Frequency Transmitter	RCA Model CRM T1A-1000M
Emergency Transmitter	RCA Model ET 8043
Main Receiver	RCA Model CRM-R6A
Emergency Receiver	RCA Model AR 8510

Auto Alarm	RCA Model AR 8603
Auto Alarm Keyer	RCA Model AR 8651
Lifeboat Transceiver	ITT Mackay 401 A
Single-Sideband Radiotelephone	CAI Model CA-35MS-KW
Emergency Position Indicating Radiobeacon (EPIRB)	MARTECH WHALER EB 2BW

Also, the radio operator had his own receiver aboard the POET. According to an electronics engineer with the Federal Communication Commission (FCC) the main transmitter on the POET was capable of transmitting up to 100 nmi; the emergency transmitter, 70 nmi; the high frequency transmitter from 50 to 3000 nmi, according to atmospheric conditions; the lifeboat radio from 25 to 50 nmi; and the EPIRB over 25 nmi for 48 hours.

On August 16, 1979, the POET was issued a license for the following equipment:

RADIOTELEPHONE	1600-4000 kHz	4000-23,000 kHz	156-158 mHz
RADIOTELEGRAPH	405-535 kHz	2000-26,000 kHz	SERIES: W17 W4
SURVIVAL CRAFT	500 kHz	8364 kHz	ID: WKFP20
RADAR	2900-3100 mHz	9300-9500 mHz	
EPIRB	121.5 mHz	243 mHz	

On August 19, 1980, a FCC inspector boarded the POET and checked all the ship's required radio equipment, including its EPIRB. The inspector found all the equipment to be operating satisfactorily and issued a Cargo Ship Radiotelegraphy Certificate

which was valid for one year. On May 9, 1980, the POET was issued an Exemption Certificate from certain provisions of the 1974 International Convention for the Safety of Life at Sea valid until May 25, 1981. The POET was exempted from Regulations 7(b), 10(a)(ii) as it relates to radiotelephone distress frequency watch receiver only 10(h)(iv), 10(i)(ii), 17, and 18. These regulations are contained in Appendix D.

The alternate master testified that the POET's EPIRB was normally stowed in a metal box with a wooden cover outboard of the after bulwark of the starboard bridge wing. The FCC engineer stated that the POET's EPIRB would transmit on 121.5 mHz and 243 mHz if activated. As these are aircraft frequencies, most ships would not be able to receive the EPIRB distress signal. The auto alarm is a device which can receive distress signals when the radio operator is not on duty and automatically sounds an alarm on the ship. The auto-alarm keyer is a device to automatically transmit a distress signal from the vessel.

The FCC engineer who inspected the POET's equipment in August 1980 stated he could not "comprehend the total failure of all of that equipment at the same time." The RCA repairman who serviced the equipment in Philadelphia in October, 1980 stated that the POET's radio equipment was in "rather good condition." He estimated that the equipment was manufactured around 1965 and has found this type of equipment reliable during his 9 years as an RCA serviceman.

Radio Communications-- The following information was obtained from a record of messages sent to USMER by the POET on a voyage from Port Said,

Egypt to New Orleans, Louisiana from April 28, 1980 to May 14, 1980:

Date and Time* of Position	Position
04 28 0000	31° 16' N, 32° 18'E Port Said
05 01 1200	sic (26°) 46' N, 31'W
05 03 1300	34° 57' N, 14° 18'W
05 05 1400	32° 47' N, 28° 57'W
05 07 1400	33° 45' N, 43° 32'W
05 09 1500	30° 22' N, 58° 24'W
05 11 1700	26° 56' N, 73° 19'W
05 13 1700	26° 07' N, 86° 40'W
05 14 0700	29° 57' N, 90° 03'W New Orleans

*-- Greenwhich mean time

The next group of messages from the POET covered the period August 23, 1980 to September 10, 1980 for a voyage from Pensacola, Florida to Port Said:

Date and Time of Position	Position
08 23 1300	30° 24'N, 87° 13'E Pensacola
08 25 1600	28° 58'N, 78° 40'W
08 27 1600	33° 46'N, 65° 53'W
08 29 1500	37° 07'N, 52° 25'W
08 31 1400	38° 12'N, 38° 37'W
09 02 1300	37° 52'N, 23° 57'W
09 04 1200	36° 17°N, 9° 46'W
09 06 1100	37° 10°N, 4° 52'[W] sic
09 08 1100	35° 5'N, 19° 15' E
09 10 1000	31° 16'N, 32° 18' E Port Said

The last group of messages was for the return voyage from Port Said to Philadelphia, Pennsylvania, covering the period October 1, 1980, to October 17, 1980.

Date and Time of Position	Position
10 01 1800	31° 16'N, 32° 18'E Port Said
10 06 12000	36° 42'N, 2° 4'W
10 07 0000	36° 8'N, 5° 21'W
10 10 1000	31° 22'N, 31° 50'W
10 12 0900	29° 37'N, (6°) 24'W sic
10 15 0100	32°N, 61° 57'W
10 17 0400	39° 57'N, 75° 8'W Philadelphia

Machinery-- During February 1979, the POET's port and starboard boilers were hydrostatically tested under the supervision of a Coast Guard inspector and several other pressure vessels were either examined or tested in accordance with Coast Guard regulations. During February and March 1980, the port and starboard boilers were examined by both Coast Guard and ABS surveyors. The examination covered both fireside and water side, internally and externally. Boiler mountings were opened, removed, and examined, including the drum and superheater safety valves. After raising steam on both boilers the safety valves were set to relieve at the following pressures:

	Drum	Superheater
Port Boiler	518/521 psig	488 psig
Starboard Boiler	519/526 psig	485 psig

Both the Coast Guard and ABS inspectors found all of POET's machinery in satisfactory condition.

The POET's regular chief engineer testified he never had a major equipment failure during the past 14 years. He also stated the POET consumed about 300 bbls. of fuel oil per day. To enable the crew to make minor repairs during a voyage

it normally carried 5 bottles of acetyline gas and 10 bottles of oxygen. He did not ever remember having sea water enter the cargo holds due to bad weather. The only problem that he could remember was he had difficulty pumping some high viscosity oil which was purchased in Egypt. It took 1 to 2 days to heat the oil before it could be pumped and there were some leaks in the heating coils in No. 3 and 5 centerline fuel oil tanks. He stated he had a regular maintenance program for all machinery.

Waterway Information

The POET was on a voyage from Philadelphia, Pennsylvania to Port Said, Egypt via the Straits of Gibraltar. See figure 3. After the pilot disembarked at Delaware Capes, the master could either proceed out the Cape Henlopen to Five Fathom Bank Traffic Lane on a course of 092°T or the Cape Henlopen to Delaware Traffic Lane on a course of 143°T. The master stated he was going to steer a rhumb line course to the Straits of Gibraltar. The rhumb line from Cape Henlopen to Gibraltar is 093°T, which passes about 15 miles south of the Azores at Latitude 36°40'N. The ocean currents along this route, although not very strong, are favorable.

Under the 1966 International Load Line Convention, the oceans of the world are divided into various zones and seasonal areas according to the probable severity of the weather. During the winter season in certain areas when more severe weather may be expected, the vessel is not permitted to load as deep as in the summer. In the North Atlantic Ocean, the Summer Zone is from 20°N to 36°N and the North Atlantic Winter Seasonal Zone is from 36°N to 45°N. At the Azores,

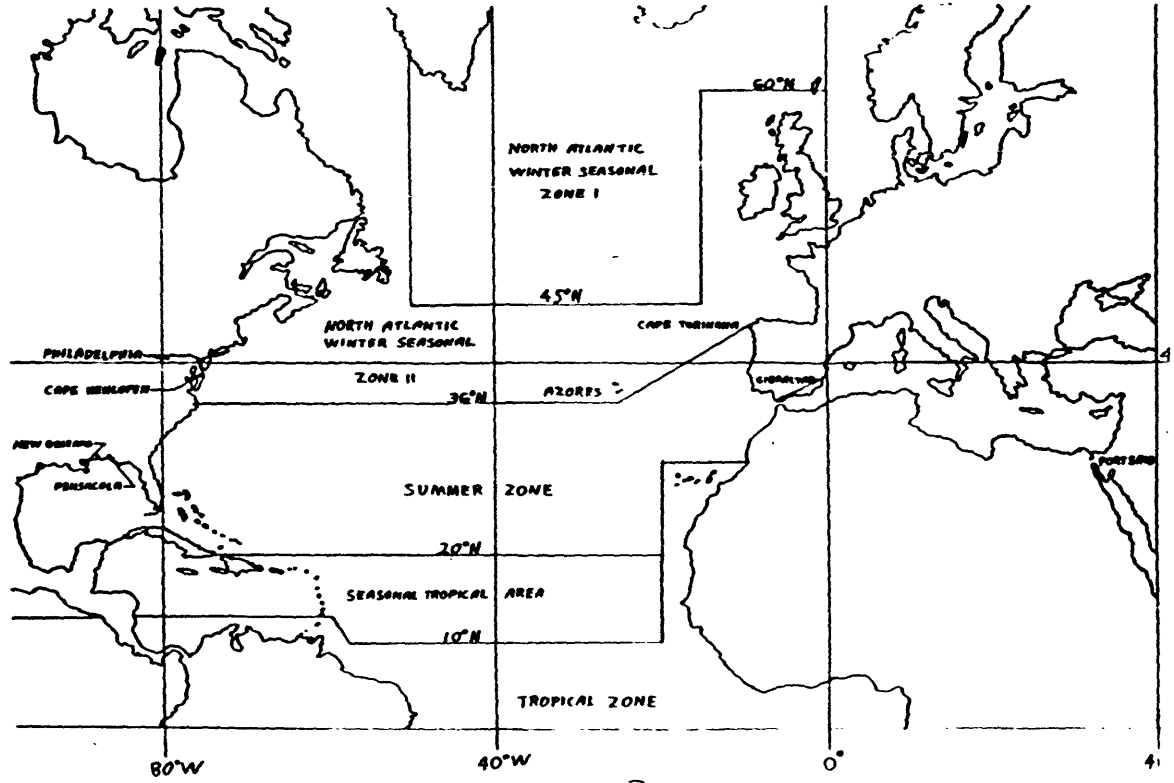

NORTH ATLANTIC
WINTER SEASONAL
ZONE I
60°N
45°N
NORTH ATLANTIC
WINTER SEASONAL
ZONE II
PHILADELPHIA
CAPE HENLOPEN
36°N
AZORES
NEW ORLEANS
PENSACOLA
SUMMER ZONE
20°N
SEASONAL TROPICAL AREA
10°N
TROPICAL ZONE
80°W
40°W
0°

Figure 3

the Summer Zone's northern boundary turns northward until it reaches 43°N at Cape Torinana, Spain. In the Summer Zone, a vessel may not submerge its summer loadline marks. In the North Atlantic Winter Seasonal Zone, a vessel may not submerge its summer load line marks from April 1 to October 31 nor its winter marks from November 1 to March 31.

A rhumb line course from Cape Henlopen to the Straits Gibraltar passes through an area of the North Atlantic Ocean where there is frequent ship traffic especially where the shipping lanes from the Carribbean to North Europe cross it. Normal trade routes from the northeast United States to ports in the Mediterrean Sea pass close to the Azores. The following information was obtained from USMER and shows U.S. ships that were in the vicinity of POET's intended trackline for the period of October 24 to October 28, 1980.

VESSEL NAME	POSITION	TIME OF REPORT	REMARKS
AMERICAN ARCHER	45 31N/044 13W	251610Z[13/]	HEAVY WEATHER ANTICIPATED REDUCED SPEED NEXT 12 HOURS
SAM HOUSTON	36 03N/055 15W	261600Z	NONE
THOMPSON LYKES	37 41N/044 30W	261600Z	ADVERSE WEATHER
SEALAND PACKER	37 29N/040 48W	261735Z	NONE
CV STAGHOUND	43 25N/057 44W	261900Z	NONE
COLUMBIA	35 09N/067 40W	262000Z	DIVERTED COURSE BECAUSE OF ADVERSE WEATHER
ARGONAUT	38 25N/058 05W	271900Z	HEAVY SEAS
MARJORIE LYKES	43 29N/052 13W	281500Z	VARIED COURSE AND SPEED DUE TO ADVERSE WEATHER
SEALAND PACER	38 25N/058 44W	281800Z	NONE
MERRIMAC	36 52N/058 52W	281900Z	NONE

13/ Greenwich Mean Time

Meteorological Information

During the period from 1200,[14] October 24, 1980, to 1200, October 27, a low pressure area moved from a position approximately 250 miles east of Jacksonville, Florida to a position east of the Hudson Bay passing over the Virginia Capes at 1200 on the 25th. As the low moved northward it deepened rapidly and moved closer to a high pressure area moving east from a position over central New England developing a very strong pressure gradient and the attendant strong south to southeast winds and rain shower activity. The worst conditions in the vicinity of the estimated track of the POET were during the period from the very early morning on October 25, through the evening of the 26th. The maximum wind and wave conditions occurred at 0000 on October 26, 1980, when the computed wind speed was 46 kns from the south with a significant wave height of 23 feet at 38.3°N, 64.0°W. Appendix E contains detailed information of the meteorological conditions along POET's intended trackline.

Based upon the estimated track of the POET, the ship probably came under the influence of the north wall of the Gulf Stream between 0000 and 1200 on the 25th. Within 50 miles of the north wall on the cold water side, winds are frequently 15 knots greater and seas 5 feet higher than would be expected for the same conditions away from the north wall. Appendix E contains the U.S. Navy Eastern Oceanography Center statements concerning the Gulf Stream north wall from October 24 to October 31, 1980.

14/ Greenwich mean time

The following are the winds at 18,000 feet (500 mb.) over the estimated position of the POET. These winds are based upon an analysis of the contour pattern and the reported winds in the vicinity.

October 24,	1200:	Southwest 30 knots
October 25,	0000:	Southwest 30 knots
October 25,	1200:	Southwest 30 knots
October 26,	0000:	South-southwest 40 knots
October 26,	1200:	Southwest 55 knots
October 27,	0000:	West-southwest 70 knots
October 27,	1200:	West 55 knots

As projected, the POET stayed to the east of the highest winds aloft but at a reduced speed the ship would have been beneath higher winds; 90 to 100 knots during the period from the 25th of 1200 to the 27th at 0000.

Mr. Bart Dunbar, captain of the ketch WANDERING ANGUS reported a "rogue wave" estimated to be 40 to 50 feet high which capsized his ship at approximately 1500 on October 25 at 38° 44' north, 69°37' west. At the time of this incident the WANDERING ANGUS was between 50 and 60 miles from the north wall of the Gulfstream as positioned by the Navy Eastern Oceanography Center at 1200 on the same day.

The yacht POLAR BEAR enroute to Burmuda from Shelter Island, New York via Montauk Point encountered increasing winds and seas on Saturday the 25th, the wind increasing to 60 and possibly 70 knots after shifting to the

1 south. The captain of the yacht took down all sails by late in the day on Saturday,
2 and the ship sank in high seas late in the afternoon on Sunday the 26th. There
3 was no information in the testimony to accurately position the yacht or to establish
4 the height of the waves. The location where the crew was picked up by the ship
5 ZEMIA GDANSKA, 37°46' north, 62°45'west was very close to the estimated position
6 of the POET on October 26, at 1200.
7
8 The offshore forecast issued by the National Weather Service at 1039 October 24
9 for the area from Manasquan, New Jersey to Cape Henlopen, Delaware and to
10 20 miles offshore, and Delaware Bay included a small craft advisory. The forecast,
11 in part, called for east to southwest winds increasing to 15 to 30 knots on the
12 night of the 24th and 25th to 40 knots on the 25th with offshore seas of 4 to 8 feet
13 overnight, becoming 6 to 12 feet on the 25th.
14
15 The National Weather Service Offshore Forecast for the area between 32 degrees
16 north and 40 degrees north and west of 65 degrees west at 0339 on the 24th included
17 a gale warning for the area west of 70 degrees west and south of 37 degrees north.
18 The 0939 corrected forecast expanded the gale warning to all of the forecast
19 area west of 70 degrees west. This warning was continued until the 2134 forecast
20 on October 24 when the gale warning was extended to cover the whole forecast
21 area. The 0939 forecast on October 25 established a storm warning for the northeast
22 portion of the forecast area and continued the gale warning for the remainder
23 of the area north of 34 degrees north. The 2139 forecast on October 25 dropped
24 the storm warning and retained the gale warning for the whole forecast area.
25 This warning remained in effect through the 0939, October 26 forecast, the last
26 forecast information available.
27

At 1100, October 24 the National Weather Service issued a storm warning for a storm to move across the estimated path of the POET. This forecast continued in effect and was repeated every 6 hours through 0100, October 26, as the storm center moved up the coast from east of Jacksonville, Florida at 1100 on the 24th to over eastern New York at 0100 on the 26th. Forecast conditions ahead of the storm were for conditions as severe as winds 35 to 50 knots seas 12 to 22 feet.

Wreckage

As of March 1981, no wreckage, lifeboats, liferafts, liferings, lifejackets or any other object belonging to the POET has been found.

Medical and Pathological Information

As of March 1981, no member of the crew aboard the POET has been found.

Survival Aspect

At 0959 on November 3, 1980, the Coast Guard's Rescue Coordination Center (RCC) in New York City received a telephone call from the POET's owners, Hawaiian Eugenia Corporation, reporting that the vessel had not been heard from since departing the Delaware Capes on October 24, 1980. The last message received from the ship was at 1300 GMT on October 24, 1980. The following is a summary of the search and rescue efforts concerning the POET on November 3 as recorded by RCC personnel:

1000 - RCC requested information on POET's trackline from AMVER.

1135 - AMVER calculated the POET's anticipated position at 1600GMT on November 3 as 36.7°N, 1.2°E on a course of 083°T at 15 kns. AMVER also provided the information that the ships ETA at Port Said was 0400 GMT on November 9 and AMVER's prediction was an ETA of 0200GMT November 8.

1140 - RCC briefed ship's owner on AMVER data and owner stated that they would contact their agent in Port Said to obtain information on POET's location.

1254 - RCC requested Lloyds of London Intelligence[15/] Service to provide RCC with any information they had on the POET.

1358 - AMVER advised RCC that the last message received from the POET was on October 24, 1980.

1403 - Owner informed RCC that the POET normally used Chathan Radio Station, Massachusetts.

15/ Lloyd's of London Intelligence Service is an agency of Lloyd's of London, the international insurance organization. The Intelligence Service records movements of all shipping worldwide from information received from its agents.

1405 - RCC called Chatham Radio Station and was informed that they had been calling the POET approximately every two hours since the morning of October 27 with no reply.

1436 - Lloyds advised RCC that they had no information on the POET since its departure from Philadelphia.

1500 - RCC checked the Coast Guard Atlantic Area Law Enforcement computer file for possible sightings of POET but the results were negative.

1540 - RCC called Commander, U.S. Navy Atlantic Fleet and requested any information the Navy had on the POET.

1611 - RCC directed Coast Guard radio station Portsmouth, Virginia to make an Urgent Broadcast by voice and telegraph to all shipping requesting information regarding the POET.

1636 - U. S. Navy reported that they had no information on the POET.

1730 - The Defense Mapping Agency directed that HYDROLANT[16/] and NAVAREA IV[16/] Broadcasts for the North Atlantic be made concerning the POET.

16/ HYDROLANT and NAVAREA IV Broadcasts are made by U. S. Navy radio stations around the world to all shipping at various designated times each day.

On November 4, Coast Guard personnel from Group Cape May, New Jersey, contacted the Delaware Pilots Association and determined that the POET departed Cape Henlopen at 0820 on October 24. At 1200, RCC requested Lloyd's to check with their agents in Gibraltar[17/] to determine if the POET had entered the Mediterrean Sea. At 0332 on November 5, Lloyds advised RCC that they had no record of the POET passing their Gibraltar Signal Station. At 1741, RCC contacted the owner and determined that no further information had been received by him. The Coast Guard does not have any record of action taken by it on November 6th concerning the POET. The Coast Guard Chief of Operations for the Atlantic Area testified that on November 3, 4 and 5 the Coast Guard made all the usual checks and was waiting for some positive response.

On November 7, the Coast Guard began receiving telephone calls from several seaman's union representatives and concerned relatives that the Coast Guard should take further action and RCC was told that the POET had reported to USMER every 48 hours as required on previous voyages. At 1330, RCC again contacted the Navy Atlantic Fleet Command and was informed it had no information. At 1520, the Navy informed RCC that the POET had an excellent past record for reporting every 48 hours to USMER. The Coast Guard then began to look back to October 24, 25 and 26 when the POET began its voyage. A severe storm had passed along the Atlantic coastline during that period and the Coast Guard had had a very busy time searching for vessels in trouble. The Coast Guard then considered that the POET may have experienced some problem during that

17/ Lloyds records the movement of all shipping through the Straits of Gibraltar.

1 period. At 1840 RCC contacted the Navy's Oceanographic Center in Norfolk.
2 Virginia and was advised that the POET would have encountered the heaviest
3 weather conditions between 1200GMT October 25 and 1200GMT October 26.
4 The Chief of Operations testified that although the Coast Guard became apprehensive
5 about the POET's whereabouts, the fact that it had not yet been reported passing
6 Gibraltar did not concern the Coast Guard. The POET probably had reduced
7 speed because of heavy weather and may not reached Gibraltar by November 7.
8 Lloyd's told RCC that on occasion, they have missed some ships. Around 1900,
9 the Chief of Operations ordered RCC to analyze the situation and develop a search
10 plan in the event the Coast Guard would begin to actively search for the missing
11 vessel on November 8.
12
13 The next morning, the Coast Guard developed a search plan for the POET.
14 It covered an area of about 185,000 square miles. It was assumed that the POET
15 experienced trouble in the first 48 hour period of its voyage during the severe
16 storm and that it traveled the rhumb line course from Cape Henlopen to Gibraltar
17 as per its departure message to AMVER. However, the Coast Guard planned
18 to search the entire trackline from Cape Henlopen to Gilbraltar in the event
19 the POET was proceeding at some reduced speed due to machinery problems.
20 At 1400 on November 8, the Coast Guard initiated an active search with four
21 Coast Guard C-130's and two Navy P-3's. The search covered an area of 34,850
22 square miles. At 1500 on November 8, the Coast Guard met with the seaman's
23 union representatives and relatives of the crewmembers. The purpose of that
24 meeting was to inform all interested parties of the Coast Guard's search plan
25 and to seek any additional information. In the meantime, the Coast Guard also
26 prepared a computer assisted search plan. Information covering the estimated
27

720 mile long trackline of the POET during the first 48 hours was entered into the Coast Guard's computer program. The computer took about 8 hours to analyze the information and about midnight on November 8, the Coast Guard had a plan ready to put in operation on November 9. This computer assisted plan was then updated each day of the search.

The search continued until November 17. The following Table (Table I) is a summary of area searched each day and Figure 4 shows the area of the North Atlantic Ocean searched. Inaddition, the Coast Guard conducted searches along the POET's entire probable trackline from Cape Henlopen to Gibraltar. The Chief of Operations pointed out that the search area included portions of the Gulf Stream and as a result, there would be considerable drift and dispersion of debris from the POET if it sank in that vicinity.

TABLE I

Summary of Coast Guard's Search for POET

Date	Area Searched in Square Miles	Aircraft[18/]			
		USCG	USN	USAF	CAN
November 8	34,850	4	2	0	0
November 9	85,000	5	2	1	1
November 10	16,000	2	0	0	0
November 11	32,000	4	2	0	0
November 12	10,000	3	1	1	0
November 13	14,500	3	2	0	0
November 14	41,250	2	4	0	0
November 15	18,500	2	4	0	0
November 16	35,700	2	3	0	0
November 17	9,600	1	2	0	0
Total	297,400	28	22	2	1

18/ USCG - U. S. Coast Guard
USN - U. S. Navy
USAF - U. S. Air Force
CAN - Canadian

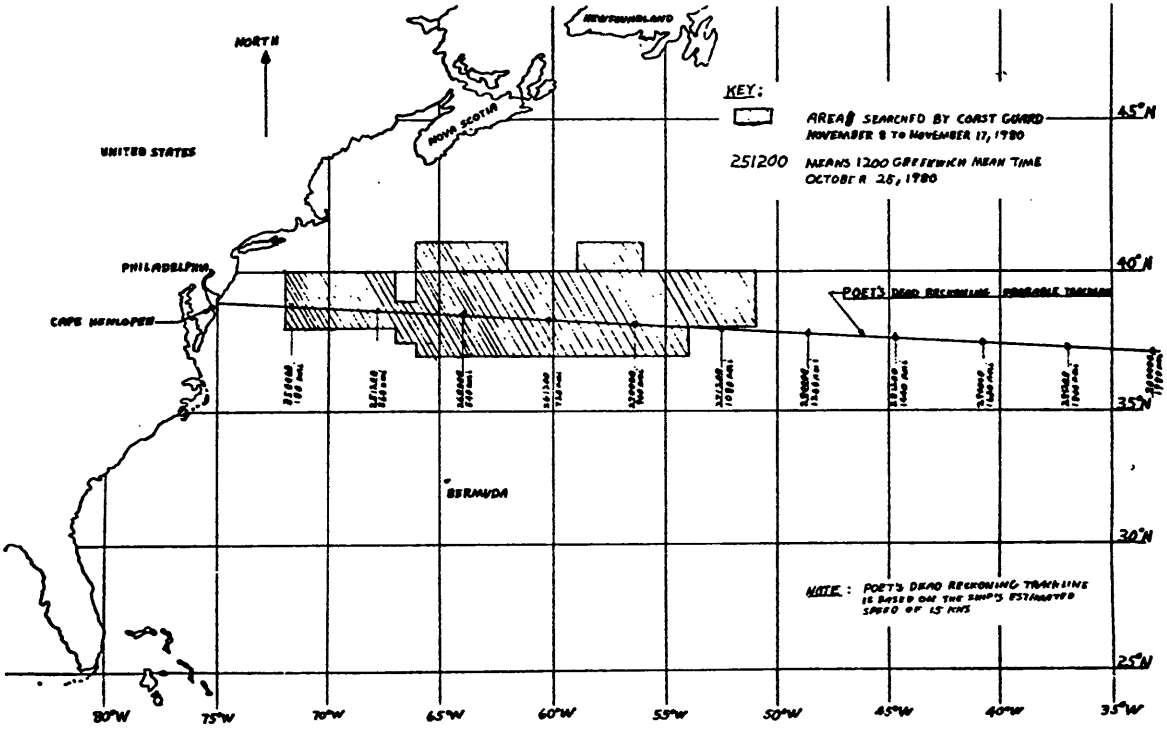


Figure 4 - POET'S Probable Dead Reckoning Trackline and Coast Guard Search Area

1 On October 10, the Coast Guard met with interested parties, National Cargo
2 Bureau representatives, American Bureau of Shipping representatives and the
3 POET's alternate master. The purpose of this meeting was similar to that on
4 November 8, but no further information concerning the location of the POET
5 was obtained. On the evening of November 12, the Chief of Operations and another
6 officer called the interested parties, told them that there would be a third meeting
7 on November 13 and that the Coast Guard was considering terminating the active
8 search on November 14 unless something was found on November 13. The Chief
9 of Operations testified that by November 13, the Coast Guard search efforts
10 had reached huge proportions. He said, "In my memory and the memory of everybody
11 that was involved here, we had not conducted such a massive search for a long
12 time." He said it was massive in terms of, "the amount of area that was being
13 covered, the amount of resources that was being used, and the duration of the
14 search."
15
16 On November 13, the Commandant of the Coast Guard began receiving
17 messages from relatives, union representatives, U.S. Senators and U.S. Representatives
18 requesting the Coast Guard to continue the search. As a result of these requests,
19 the Coast Guard agreed to continue searching until November 17. On November 17,
20 the Coast Guard held a fourth meeting and announced that no trace of the POET
21 had been found. The active search was suspended at 1400 although the communications
22 checks and the urgent marine broadcasts are continuing to this day.
23
24 The Chief of Operations explained during his testimony, that some of the
25 factors which determine when an active search is to be terminated are: duration
26 of the search, extent of the search, number of resources required and the physical
27 ability of the air and sea search personnel to continue. In the case of the POET,

the calculated drift had extended the search area to a point midway between Bermuda and the Azores. Because of the distances involved the aircraft searching in that area were all U. S. Navy aircraft operating from bases either in Bermuda or the Azores. It took 3 to 4 hours flying time to get to that area before the aircraft could begin the search pattern. To conduct an effective search at this time, the Coast Guard estimated that they would require ten times the number of available aircraft.

The Chief of Operations also stated that only very few ships the size of the POET are ever reported overdue or even unreported each year and they eventually do turn up. On October 25 and 26, the Coast Guard had one aircraft flying a search pattern both days looking for the sailboat ALDEVRON. Based on its assumed course and speed the POET would have passed through this search area sometime on October 25. Both these aircraft were capable of detecting signals from an EPIRB, had there been any such transmission in the area they were flying. This search area extended from Latitude 37.5°N to 39°N and from Longitude 67°W to 69°W.

Other Information

Search and Rescue--The National Search and Rescue Manual promulgated by the Secretaries of the Army, Navy, Air Force and Transportation states in part:

1 909 Terminating the Search

2 If, at the completion of the planned search effort,
contact has not been made, the planner must decide if
3 further search is justified. It is quite possible that adverse
weather may have reduced the probability of detection
4 to an unacceptable level. In such a case, the area must
be given an additional search or searches until the probability
5 has been raised to the planned level.

6 Once probability has reached the point at which
the planner can, with reasonable confidence, feel that
7 the target could not have gone undetected in the area,
consideration must be given to whether or not further
8 effort is called for. This often becomes a subjective matter
involving humanitarian and other considerations and must
9 be determined on the merits of each case. While no one
wishes to close a case with people missing, there is a limit
10 to the length of time and effort that can be devoted to
each search. It should also be realized that in some cases,
11 no one survives the distress incident.

12 When terminating an operation, either because survivors
have been found and rescued or because a determination
13 is made that futher search would not be justified, the
SMC[19] shall notify the operating agency of the distressed
14 craft and all participating agencies and facilities of the
termination and the reasons therefore.
15

16 AMVER--The Automated Mutual-Assistance Vessel Rescue (AMVER) had
17 its origins in 1958. At that time the system was manually operated and only
18 covered the Atlantic Ocean. In 1960, AMVER was computerized and became
19 a worldwide system. The AMVER system, operated by the U. S. Coast Guard,
20 is a voluntary maritime mutual assistance program that provides important aid
21 to the development and coordination of search and rescue (SAR) efforts in the
22 oceans of the world. Merchant vessels of all nations making offshore passages
23 of more than 24 hours are encouraged to send four types of messages to the AMVER
24 Center in New York. Type 1 is a departure message and contains: name of vessel,
25 call sign, report
26
27

19/ SMC means search and rescue mission coordinator.

type, position, date-time, sailing route (rhumbline, great circle or coastal), speed, destination and ETA. Type 2 messages are position messages sent at intervals of 15 degrees of latitude or longitude. Type D messages are deviation reports which are to be sent when a ship's actual position varies more than 25 miles from the data provided in a previous-message. A type 3 message is sent when a ship arrives at its destination.

There is no charge for these radio messages when they are sent through one of the cooperating AMVER radio stations. Appendix F contains a list of these radio stations as well as AMVER's recommended contact frequency charts for the fall of 1980. Information from these messages is entered into a computer that generates and maintains dead reckoning positions of participating vessels throughout their voyages. On an average day AMVER will have 2500 vessels in its computer with vessels from 90 countries participating.

The benefits to shipping include: (1) improved likelihood of rapid aid in emergencies; (2) reduced number of calls for assistance to vessels not favorably located and (3) reduced time lost for vessels responding to calls for assistance. The predicted locations and SAR characteristics of all vessels within a given area are furnished upon request to recognized SAR agencies of any nation for use during an emergency. Predicted vessel locations are disclosed only for reasons related to maritime safety and an AMVER participant is under no greater obligation to render assistance during an emergency that a vessel that is not participating.

1 AMVER is voluntary for U. S. vessels, although the requested information
2 is automatically sent to AMVER for the U. S. vessels required to participate
3 in the USMER reporting systems. Norway requires its vessels to participate in
4 AMVER and the 1979 International Convention on Maritime Search and Rescue
5 states that parties to the Convention should establish free and voluntary reporting
6 systems similar to AMVER for search and rescue regions for which they are responsible.
7
8 USMER--The U. S. Merchant Vessel Locator Filing System was established
9 in 1975 by the U. S. Maritime Administration (MARAD) under Section 212(A)
10 of the Merchant Marine Act of 1936. The purpose of USMER is to keep agencies
11 of the Federal Government concerned with the mobilization of the merchant
12 marine informed concerning arrivals, departures and at-sea locations of U. S.
13 flag merchant vessel and particular foreign flag U. S. owned vessels throughout
14 the world.
15
16 All U. S.-flag merchant vessels of 1,000 gross registered tons and over
17 engaged in the foreign commerce of the United States and not operating under
18 the control of the Military Sealift Command, and non U. S.-flag vessels, that
19 are covered by a "war risk" insurance binder issued by the U. S. Government,
20 must submit USMER reports. USMER reports must be sent upon departure and
21 arrival at each port and at sea beginning at noon of the second day following
22 departure and every 48 hours thereafter. Revised at-sea reports are to be submitted
23 whenever ETA changes more than 24 hours or if the ship's destination changes.
24 USMER reports must state the actual times of events in Greenwich Mean Time
25 but are to be sent only during the radio officer's normal duty hours.
26
27

1 USMER reports for vessels in the Atlantic Ocean and Mediteranen Sea are
2 sent simultaneously to the Naval Ocean Surveillance Information Center (NOSIC),
3 AMVER, Fleet Numerical Weather Center Monterey, California and MARAD.
4 NOSIC stores the information in a computer for mobilization purposes but does
5 not routinely track any ships. USMER messages sent to AMVER satisfy AMVER
6 reporting requirements. The Fleet Numerical Weather Center utilizes any weather
7 information that the messages may contain. MARAD, as the administrator of
8 USMER, conducts a one month check of USMER messages from all ships required
9 to report every 3 months. Neither MARAD nor NOSIC check to determine if
10 a ship is reporting on a daily basis. Normally, if a ship is found deliquent in reporting
11 during the quarterly review MARAD writes a letter to the ship's owner. However,
12 MARAD does have the authority to levy a $50 penalty on the owner if a ship
13 does not report.
14
15 The USMER system receives about 110 messages per day from the approximately
16 300 ships in the system. The requirements for making USMER reports were published
17 in the Federal Register before the system went into operation and are also contained
18 in the Defense Mapping Agency Publication 117A and B which is required to be
19 carried on all merchant ships. USMER messages must be sent through U. S. Navy
20 or U. S. Coast Guard radio stations. In this way, there is no cost to the ship owner.
21 A MARAD representative stated that if a ship can not communicate with a government
22 radio station, the ship would not normally use a commercial radio station since
23 MARAD does not reimburse the owner for utilizing the commercial station.
24
25 The MARAD representative stated that although USMER and AMVER are
26 parallel systems, they serve different purposes. AMVER is an international system
27 used only for search and rescue and cannot by international agreement pass the

information to any other U. S. government agency. AMVER stations will not accept USMER messages free of charge. However, a line regarding the ship's route was added to the USMER message format after the USMER system was initiated so that USMER messages would satisfy AMVER reporting requirements.

EPIRBS--The POET was required to have an Emergency Position Indicating Radiobeacon (EPIRB) by Coast Guard Regulations, 46 CFR 94.60. The technical specifications for the MARTECH Whaler EB-2BW EPIRB carried aboard the POET are found in Federal Communications Commissions Regulations, 47 CFR 83.145. They state in part that a Class A EPIRB must:

> (1) Operate on frequencies 121.5 and 243 mHz and must have a manually activated test switch or comparable device, associated test circuit, and output indicator;
>
> (2) Activate automatically when it floats free of a sinking vessel;
>
> (3) Have an antenna that deploys automatically when the EPIRB activates automatically;
>
> (4) Float in calm water with at least the upper two inches of the EPIRB out of the water and the base of the antenna at least two inches above the water;
>
> (5) Be ballasted to right itself from a position of 90° from its upright position in one second or less;
>
> (6) Meet the requirements of paragraphs (1) through (5) above after free fall into water 3 times from a height of 60 feet; and
>
> (7) Must be marked with the manufacturer's name, with the type number and with the indication Class A.
>
> (8) Have the batteries replaced after the date specified in §83.144(h) upon which 50 percent of its useful life has expired or after the transmitter has been used in an emergency situation.

On May 12, 1980, the Federal Communications Commission (FCC) issued a memorandum to its field supervisors which stated in part:

> "1. This office began testing the Martech, Whaler EB-2BW by floating the unit approximately two years ago when it was discovered that the test light and toggle switch would show the unit to be operating properly when in fact the water activated pressure switch was inoperative. This office has noticed an approximate 25 percent failure rate of the water activated switch even though the test function indicated proper operation."
>
> "An external receiver should be used to check these EPIRB as there have been instances where the test light was illuminated and the EPIRB was definitely not radiating."

On August 19, 1980, a FCC inspector tested the POET's EPIRB by immersing it in water for one minute and verified that the EPIRB was transmitting on 121 1/2 mHz using the radio officers personal radio since the ship's radios are not capable of receiving the EPIRB's signal. On August 13, the FCC sent a letter to Martech, Inc. stating there was a need for Martech to improve its service manual for the Whaler EB-2BW EPIRB because of maintenance problems which have occurred during the replacement of the battery. Figure 5 is a sketch of the Whaler EB-2BW EPIRB and figure 6 shows the EPIRB's float free container. The Whaler EB-2BW specifications are as follows:

Power Output	75 nw PERP minimum end of 48 hrs. at -20°C
Operating Life:	Typical useable life over 100 hrs. at +25°C
Operating Temperature Range:	-20°C to +55°C
Transmitter Frequency:	121.5 mHz and 243 mHz simultaneously
Frequency Tolerance:	± .005%
Number of Channels:	2
Voltage Requirements:	Self contained 7.5 battery pack (P/N 760011)(2 year service life)
Modulation:	Downward swept tone 700 Hz between 1600 and 300 Hz at sps. ± sps.
Activation:	Water activated
Test:	Manual test position with momentary switch
Weight:	3.5 lbs.
Dimensions:	3" cylinder, 16" long, antenna extends 22" when in water

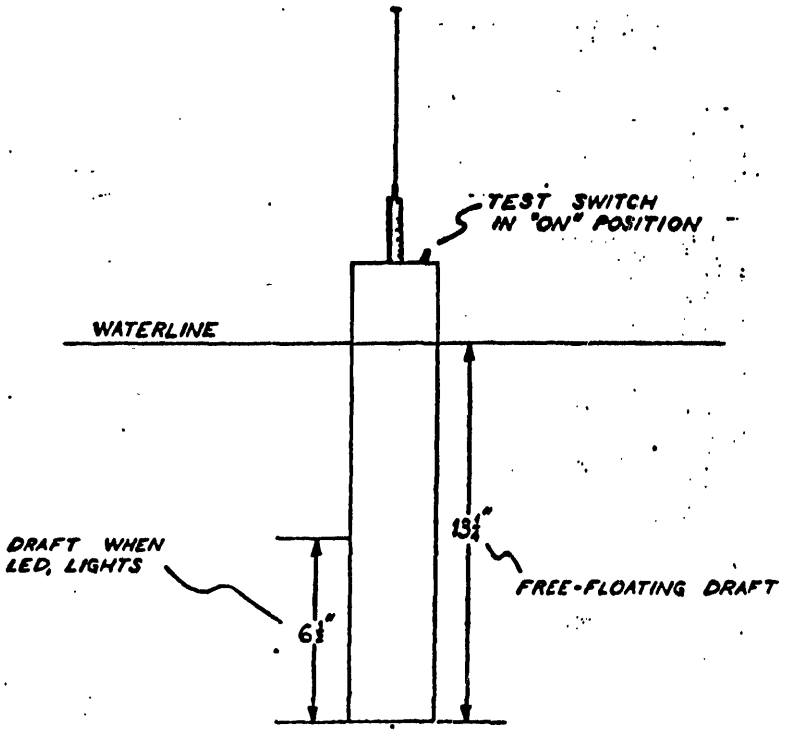
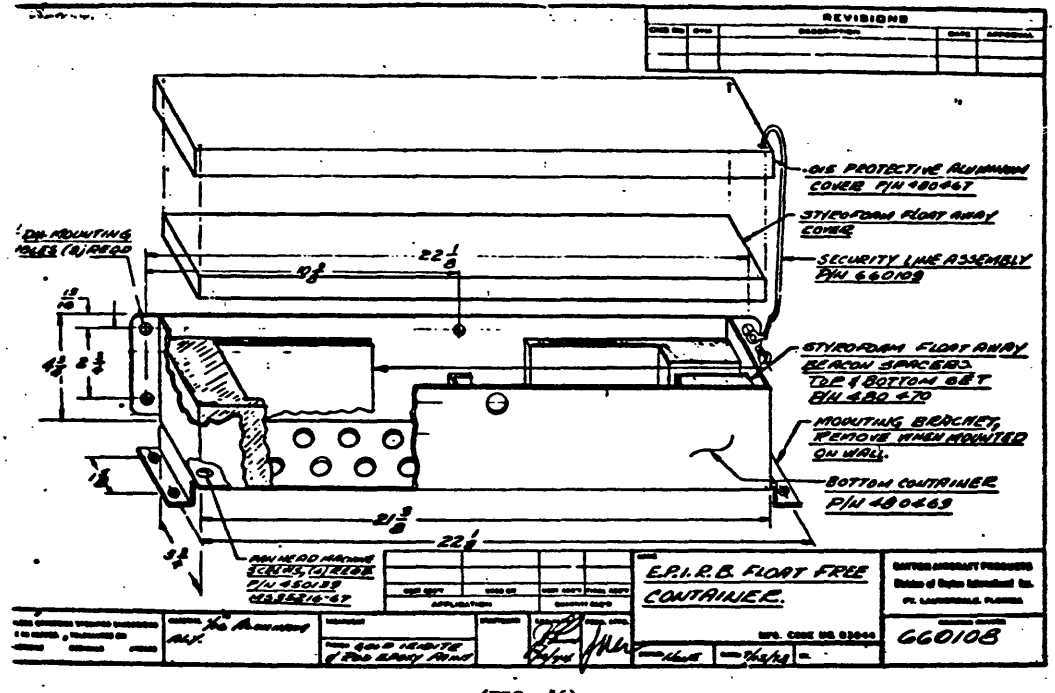


Figure 5 - Sketch Marleck Whaler EB-2BW EPIRB



(FIG. #6)

Float-Free Mounting Bracket

1 Radio Procedures--The port representative for the Radio Officers Union
2 a licensed marine radio operator, stated that at various times of day transmissions
3 may be poor on a certain frequency band but if the POET's radio equipment was
4 working properly, the radio operator should always be able to transmit and receive
5 messages including the required USMER traffic. He also stated that it should
6 take from 30 to 40 seconds for a radio operator to get a distress message off from
7 the time he is informed. The only requirement is for the radio opertor to switch
8 the main transmitter on, set it on 500 kHz and activate on the automatic signal
9 keyer. If the emergency transmitter was used, the emergency batteries should
10 provide power for several hours. International regulations require that a silent
11 period be observed for two periods each hour. Between 15 to 18 minutes and
12 45 and 48 minutes after the hour, regular transmission on 500 mHz is prohibited.
13 These two periods of silence were established so that vessels in distress could
14 transmit emergency signals without interference and ships and would be listening
15 on 500 kHz.
16
17 The Union representative stated that a radio operator is required to be
18 on watch eight hours of each 24 hour day while a vessel is at sea. The radio equipment
19 includes an auto alarm which monitors 500 KHz when the radio officer is off
20 watch. If a distress signal is received, the auto-alarm sounds bells both on the
21 bridge and in the radio operator's stateroom.
22
23 Grain Properties--Grain commonly shipped in bulk on ships includes barley,
24 corn, oats, rye, soybeans and wheat. The president of the National Cargo Bureau
25 stated that there is some risk of grain fires due an electrical hazard in a cargo
26 hold but they are of a smouldering nature and generally not serious. However,
27 there have been no instances of fires due

to spontaneous combustion. There is no hazard from grain expanding if it should get wet. The National Cargo Bureau has conducted experiments and observed ships where grain has gotten wet and there is no noticeable expansion of the grain.

The reason grain is a regulated cargo under the International Safety of Life at Sea (SOLAS) Convention and U.S. Coast Guard regulations is that grain will flow under certain conditions. If there are void spaces in a cargo hold, the grain may flow into these spaces resulting in the ship taking a permanent heel which could lead to the foundering of the ship.

Grain Stability—The 1948 SOLAS Convention set forth requirements for the carriage of grain which included the extensive use of bin, feeders and shifting boards. With the introduction of bulk carries and as a result of the success of the 1948 Convention requirements, the requirements for carrying grain were modified in the 1960 SOLAS Convention. These new requirements were not adequate due to a number of false assumptions. As a result a number of ships were lost and shifting boards were again required until adequate standards could be developed.

An international task force was formed including representatives of the United States, Canada and the United Kingdom. Extensive tests and research was conducted on the behavior of grain in ships. In 1969, the Intergovernmental Maritime Consultative Organization (IMCO) published Equivalent Grain Regulations on an experimental basis. After a successful trial period and some minor modifications, the new requirements were adopted by the 1974 SOLAS Convention.

The president of the National Cargo Bureau stated that there have been no casualties as a result of the new regulations but a U.S. flag vessel did experience a grain shift in 1979, when it experienced extreme sea conditions. The regulations assume some shifting under extreme conditions and allow for the shifting. This ship made it to port with less than 5 percent of its cargo damaged.

APPENDIX A

POET Repairs by PHILLYSHIP
October 17 to 23, 1980

FURNISHED ALL NECESSARY LABOR, EQUIPMENT, MATERIAL, SUPERVISION, TRANSPORTATION AND WORKED OVERTIME AS AUTHORIZED AND DIRECTED TO PERFORM AND COMPLETE THE BELOW DESCRIBED WORK AS INSTRUCTED BY THE SUBJECT VESSEL'S REPRESENTATIVE, MASTER & CHIEF ENGINEER.

(1) LUBE OIL LEAKS - #1 CRANE

As per the request of the vessel's representative, renewed one (1) 1/2" nipple in the bottom of the engine and repaired three (3) leaks on the valve covers.

(2) RADIATOR INSTALLATION - #1 CRANE

Removed the door from the back of the #1 crane and rigged aside. Unbolted and removed the radiator as instructed. Rigged the spare radiator from the crane house and placed into position. Secured the new radiator and installed new hoses. Fabricated and installed a new frame for the door by welding same. Drilled 3/8" holes on 3" centers as original. Bolted the door to the frame using 3/8"x1" stainless nuts and bolts. Rigged the old radiator to the crane house and secured to the bulkhead.

(3) LUBE OIL LEAK - #2 CRANE

Repaired a leak on the 1 1/2" line at the muffler pipe. Furnished and installed a new valve cover with a gasket to replace the damaged one.

(4) EVAPORATOR FEED WATER LINE

Boarded the vessel and surveyed the pipe work with the vessel's Chief Engineer. Removed approximately 30' of 3" feed water line and renewed same. Removed the old piping and installed a ship furnished valve as instructed. Transported the piping to our shop and set in targets. Fabricated various flanged sections, overall length 30' with six (6) 45 degree els., five (5) 90 degree els., and six (6) flanges. Transported the piping to the vessel and installed complete with nuts, bolts, and gaskets. Tested the line for leaks and found tight. All work was performed to the satisfaction of the vessel's Chief Engineer.

(5) BOILER REPAIRS

Removed one (1) boiler door and tested the boiler. Found two (2) hand hole gaskets leaking. Installed two (2) vessel furnished gaskets and retested. Found all to be in good order. Reinstalled the boiler dor and secured.

(6) RADAR MAST

Furnished the labor to remove a total of twenty (20) cable clips between the chart room and the radar antenna on the mast.

(7) WINCH GEAR COVER

Fabricated a new steel gear cover for the forward winch as directed. The top cover consists of 1/2" plate rolled to a 26° inner radius with 25" of straight leg on one (1) end and 3" flanges on both sides to enclose the main gear. Inserted a hinged opening for inspection. The lower guard sizes overall length 48" cut to the circumference of the gear and secured to a 2"x2"x1/4" angle, which is bolted to the winch housing. Drilled and tapped new holes in the housing to secure the upper guard.

(8) #1 HATCH PORT VANG WINCH

Faired up the 40" diameter wheel and welded the foot brake to the deck as directed.

(9) #1 CRANE CAB

Removed the crane cab front window. Faired up the frame and cut two (2) pieces of Lexan, 28 1/2 x 40's x 1/4" and installed in the frame. Fabricated two (2) glass holder rods 42" long as required. Fabricated a new window holding pin. Transported the window to the vessel and installed on the crane cab window.

(10) WATCH COVERS

Welded doublers onto the hatch sealing surfaces as directed by the vessel's representatives. All doublers were cut from 3"x3/8" flat bar and welded in various areas as follows:

A) #1 HATCH AFT - One (1) 15" and one (1) 8".

B) #2 HATCH STARBOARD - Three (3) 6", one (1) 6", one (1) 11", and one (1) 13".

C) #2 HATCH PORT - One (1) 10", one (1) 8", one (1) 3", one (1) 5 1/2", one (1) 6'," one (1) 12", and one (1) 11".

D) #3 HATCH STARBOARD - Four (4) 10", one (1) 11" and one (1) 12".

E) #3 HATCH PORT - Two (2) 8", one (1) 15", two (2) 17", and one (1) 14".

All work was performed to the satisfaction of the vessel's representative.

(11) MAIN DECK REPAIRS

Cut, fit and welded two (2) 3/8" thick steel doublers. One (1) doubler was 11" in diameter and one (1) double was 12" in diameter. The doublers were welded to the main deck over the Lazzerette area.

(12) CARGO FLOODLIGHT HOLDERS

Furnished electricians to find the faults on the Kingpost lights. Removed and cleaned the sockets. Found the wire in the fixtures burnt. Pull new wire through and reconnected. Reinstalled sockets and lights. Tested and found all in good order.

(13) FIRE MAIN REPAIRS

Furnished and installed a 2 1/2" pipe hanger on the fire main at midship house, port side. Cut and installed one (1) fire hose guard at the midship fire station, 25" long 3" wide x 1/4" thick.

(14) CRANE REMOVAL

Furnished the services of mobile shore crane with operating crew, and flat bed trailer and riggers to rig from the aft outboard side of the vessel, one (1) cherry picker, weight 22 tons and transported to our yard while awaiting further instructions.

(15) PORT SIDE PASSAGEWAY DOOR

Removed the wheel from the water tight door and transported to our shop. Replaced the hub and fitted to the wheel. Transported the wheel to the vessel and reinstalled.

(16) SPARE PARTS

Purchased, picked up at the vendor and delivered to the vessel the following:

A) Six (6) head gaskets for crane valve covers.

B) One (1) spare crane valve cover.

All spares were received on board in good order.

(17) OVERTIME

Worked all necessary overtime as authorized and directed in order to perform and complete the described work herewith, prior to vessel's sailing schedule.

(18) TRANSPORTATION

Furnished all necessary transportation to transport men, equipped and materials to and from vessel.

APPENDIX B

POET'S PRINCIPAL CHARACTERISTICS

Length Overall	522 Feet ---	10 1/2 inches
Beam, Molded	71 feet ---	6 inches
Depth, Molded	43 feet ---	6 inches
Summer Loadline Draft to Bottom of Keel Saltwater	32 Feet ---	9 7/8 inches
Summer Loadline Draft, freshwater	33 feet	6 1/2 inches
Freeboard to Top of Deck Plating	10 feet	10 inches
Gross Tons	11,421	
Net Tons	7,636	
Displacement	22,094 tons	

CAPACITIES

DRY CARGO

SPACE	FRAMES	VCG ABV.	LCG FROM	BALE CU. FT.
No. 1 - MAIN DECK	13-58	47.23	154.75F	32,247
No. 1 - TWEEN DECK	13-58	34.91	155.46F	68,747
No. 1 - LOWER HOLD	13-58	15.27	152.59F	67,589
No. 2 - TWEEN DECK	58-102	34.68	58.96F	123,352
No. 2 - LOWER HOLD	58-102	15.13	58.76F	137,629
No. 3 - TWEEN DECK	102-146	34.62	49.33A	124,412
No. 3 - LOWER HOLD	102-146	14.87	48.46A	132,305
No. 4 - MAIN DECK	172-194	47.42	196.54A	17,480
No. 4 - TWEEN DECK	172-194	39.17	192.81A	19,346
No. 4 - LOWER HOLD	172-194	30.31	189.05A	13,083
TOTAL DRY CARGO		26.59	26.03F	736,190

FUEL OIL AND SALT WATER BALLAST

No.	TANK	FRAMES	VCG ABV	LCG FR	FUEL OIL - 98% FL TONS	S.W. BAL TONS
1-P	DOUBLE BOTTOM	13-32	4.4	197.4F	64.0	-
1-S		13-32	4.4	197.F	64.0	-
2-P		37-58	2.8	134.7F	51.8	-
2-C		32-58	2.5	148.6F	188.7	-
2-5		37-58	2.8	134.7F	51.8	-
3-P		58-80	2.6	89.4F	110.0	119.5
3-C		58-80	2.5	89.2F	171.3	-
3-S		58-80	2.6	89.4F	110.0	119.5
4-P		80-102	2.6	32.1F	-	147.2
4-C		80-102	2.5	32.7F	163.6	-
4-S		80-102	2.6	32-1F	-	147.2
5-P		102-124	2.6	21.4A	-	141.1
5-C		102-124	2.5	23.8A	171.3	-
5-S		102-124	2.6	21.4A	-	141.1
6-P		124-146	2.8	73.9A	-	91.3
6-C		124-146	2.5	77.3A	162.4	-
6-S		124-146	2.8	73.9A	-	91.3
	TOTAL DBL BOT.				1309.0	998.2
	FOREPEAK	13 - FWD	14.8	230.6F	-	82.5
	AFTPEAK	194 - AFT	30.1	230.6A	139.3	-
	TOTAL PEAKS				139.3	82.5
	F.O. SETTLING - P	172-178	12.4	176.9A	35.9	-
	F.O. SETTLING - S	172-181	12.5	180.0A	37.2	-
	TOTAL SETTLING				73.1	
	GRAND TOTAL				1521.3	1,080.7

FRESH WATER

No.	TANK	FRAMES	VCG ABV	LCG FR	100% FULL GALS.	TONS
7-P	DOUBLE BOTTOM	147-172	2.8	134.6A	24,090	89.5
7-S	DOUBLE BOTTOM	147-172	2.8	134.3A	24,560	91.2
8-P	DOUBLE BOTTOM	172-188	2.9	186.2A	6,990	25.9
8-S	DOUBLE BOTTOM	172-188	2.9	186.2A	6,990	25.9
	DISTILLED WATER-P	168-171	11.5	164.4A	1,798	6.7
	DISTILLED WATER-S	168-171	11.5	164.4A	1,798	6.7
	TOTAL FEEDWATER	-	-	-	66,226	245.9
	PORTABLE WATER-P	161-172	38.8	151.8A	13,750	51.0
	PORTABLE WATER-S	165-172	38.8	161,8A	8,760	32.6
	TOTAL PORTABLE WATER	-	-	-	22,510	83.6
	TOTAL FRESH WATER	-	-	-	88,736	329.5

LUBRICATING AND DIESEL OIL

TANK	FRAMES	VCG ABV	LCG FR	GALS.	100% FULL BBLS	TONS
LUB OIL SETTLING-P	159-164	30.5	144.4A	1915	45.6	6.0
LUB OIL STORAGE-P	159-162	30.4	142.0A	1920	45.7	6.0
LUB OIL GRAVITY-P	159-162	50.7	141.7A	1055	25.1	3.3
LUB OIL GRAVITY-S	159-162	50.7	141.7A	1055	25.1	3.3
DIESEL EMERGENCY	150-152	74.1	118.4A	355	8.5	1.2
DIESEL, GALLEY & COLD START	150-152	74.1	11.4A	1610	38.3	5.4
DIESEL CRANES	147-153	36.8	115.5A	5917	140.9	18.8

APPENDIX C

46CFR Part 93-Stability

Subpart 93.01—Application

§ 93.01-1 General.

(a) The provisions of this part shall apply to the following vessels:

(1) All vessels contracted for on or after November 19, 1952, on an international voyage.

(2) Any other vessel whose stability is questioned by the Commandant or the Officer in Charge, Marine Inspection.

Subpart 93.05—Stability Test

§ 93.05-1 When required.

(a) Except as otherwise provided in this section, each vessel to which this part pertains shall be subjected to a stability test conducted under the supervision of the Coast Guard and the results of the test shall be approved before the vessel is placed in service.

(b) The Commandant may allow the stability test of a vessel to be dispensed with provided basic stability data are available from the stability test of a sister vessel and it is shown to the satisfaction of the Commandant that reliable stability information for the exempted vessel can be obtained from such basic data.

(c) The Commandant may also allow the stability test of an individual vessel or class of vessels, especially designed for the carriage of liquid or ore in bulk, to be dispensed with when reference to existing data for similar vessels clearly indicates that due to the vessel's proportions and arrangements more than sufficient metacentric height will be available in all probable loading conditions.

§ 93.05-5 Procedure.

(a) *Stability tests.* Stability tests conducted on or after November 19, 1952, shall meet the requirements of this section.

(b) *Plans required.* (1) The following plans are essential for use in conducting the stability test and determining the results, and if these plans have not been previously submitted, they shall be made available at the time of the test:

Lines plan.
Curves of form, or hydrostatic curves.
General arrangement plan of decks, holds, inner bottoms, etc.
Inboard and outboard profile.
Midship section.
Capacity plan showing capacities and vertical and longitudinal centers of gravity of cargo spaces, tanks, etc.
Tank sounding tables.
Draft mark locations.

(c) *Stability test preparations.* (1) Preparations as noted in this paragraph shall be made to place a vessel in suitable condition for a stability test. The Coast Guard representative supervising the stability test may relax from these standards in a particular instance if, in his opinion, such relaxation is warranted and will not materially affect the reliability of the results of the test.

(2) To obtain dependable stability results, all tanks on the vessels, as far as practicable, shall be either completely empty and dry or fully pressed up and without air pockets. Where this is impracticable, slack tanks may be accepted provided their free surface can be readily and accurately determined for the angles of heel to be obtained during the stability test.

(3) The vessel shall be as nearly complete as practicable when the test is conducted. If additional material or equipment is to be installed after the test, a complete list of such items by weight and location shall be prepared.

(4) All dunnage, tools, and other items extraneous to the completed

vessel shall be removed before the test.

(5) The vessel shall be moored in a location reasonably protected from broadside wind, waves, and tide. The depth of water shall be sufficient to provide ample clearance under the vessel against grounding. Mooring lines shall be arranged so that they will not interfere with the free rolling or listing of the vessel.

Subpart 93.07—Stability Standards

AUTHORITY: 46 U.S.C. 375, 391, 416; 49 U.S.C. 1655(b); 49 CFR 1.4(b) and 1.46(b).

SOURCE: CGD 73-120, 38 FR 17004, June 28, 1973, unless otherwise noted.

§ 93.07-1 Application.

(a) The provisions of this Subpart apply as a minimum to all vessels contracted for after July 1, 1973 for an international and coastwise voyage and any other vessel whose stability is being considered by the Officer in Charge, Marine Inspection. Vessels contracted for prior to July 1, 1973 must meet the requirements in § 93.07-90.

§ 93.07-5 General.

All vessels within the purview of this part must be designed so as to be able to provide sufficient stability in an intact condition in all service conditions.

§ 93.07-10 Weather criteria.

The required minimum metacentric height (GM) in feet at any particular draft is obtained from the following formula:

$$GM = PAh/\Delta \tan \theta$$

Where:

$P = 0.005 + [L/14{,}200]^2$ tons/ft^2 for oceans, coastwise service and for the Great Lakes in winter (Oct 1-Apr. 15).

$P = 0.0033 + [L/14{,}200]^2$ tons/ft^2 for partially protected waters such as lakes, bays, sounds and for the Great Lakes in summer (Apr 16-Sept 30).

$P = 0.0025 + [L/14{,}200]^2$ tons/ft^2 for protected waters such as rivers and harbors.

L = Length between perpendiculars in feet.

A = Projected lateral area in square feet of portion of vessel above water line.

h = Vertical distance in feet from center of A to center of underwater lateral area or approximately one-half draft point.

Δ = Displacement in long tons.

θ = Angle of heel to one-half the freeboard to the deck edge or 14 degrees whichever is less. (For vessels having a discontinuous weather deck or abnormal sheer, the angle to one-half the freeboard may be suitably modified.)

§ 93.07-15 Special cases.

(a) The criteria specified in § 93.07-10 are generally limited in application to flush deck mechanically powered vessels of ordinary proportions and form which carry cargo below the main deck. For other vessels, additional calculations showing that the vessel has a safety level equivalent to that achieved by § 93.07-10 must be submitted. The extent of such calculations will be determined by the Commandant.

§ 93.07-90 Existing vessels.

(a) Vessels contracted for prior to July 1, 1973, must meet the requirements specified in this section.

(b) Existing arrangements, materials, and facilities previously approved will be considered satisfactory so long as they meet the minimum requirements of this section and they are maintained in a suitable condition to the satisfaction of the Officer in Charge, Marine Inspection. Minor repairs and alterations may be made to the original standards.

(c) In general, the standards of stability previously attained should be maintained. In this regard, no change or modification may result in a lower level of stability than that which existed before the change or modifications. This is intended to include the normal additions and subtractions which occur over the life of the ship.

Subpart 93.10—Stability Information for Operating Personnel

§ 93.10-1 Information supplied to master.

(a) Based on the results of the stability test, information shall be prepared by the owners, approved by the Commandant, and furnished to the master

which sets forth the stability data necessary to permit efficient handling of the vessel. In general, this information shall be such that the master can, for any condition of loading, by rapid and simple process, obtain accurate guidance as to the stability of the vessel and determine the freeboard.

(b) In the case of a vessel which due to its design or type of service, etc., requires special consideration of its stability characteristics, the information shall also include an indication of any operating conditions which must be maintained to assure the safety of the vessel.

(c) Where any alterations are made to a vessel so as to materially affect the stability information supplied to the master, amended stability information shall be provided. If necessary the vessel shall have a new stability test.

Subpart 93.13—Ballast

§ 93.13-1 When needed.

(a) In view of the wide range of cargo weight and distribution placed in a cargo vessel, the use of ballast may be necessary in order to provide satisfactory immersion, trim and stability.

§ 93.13-5 Fixed ballast.

(a) When fixed ballast is installed, its amount and location shall be included in the stability information provided the vessel.

(b) Fixed ballast shall not be removed from the vessel or relocated unless first approved by the Commandant, except that such ballast may be temporarily moved for examination or repair of the vessel and then only under the supervision of a marine inspector.

§ 93.13-10 Liquid ballast.

(a) Liquid ballast may be used when necessary to provide satisfactory draft, trim, weight distribution, or stability.

(b) The liquid ballast used in an oil tank must be discharged in accordance with—

(1) Section 311 of the Federal Water Pollution Control Act, as amended (86 Stat. 816; 33 U.S.C. 1321);

(2) Section 12 of the Oil Pollution Act, 1961, as amended (75 Stat. 404; 33 U.S.C. 1011); and

(3) 33 CFR parts 151, 155, and 156.

(Sec. 8, 75 Stat. 404; 33 U.S.C. 1007)

[CGFR 65-50, 30 FR 16988, Dec. 30, 1965, as amended by CGD 73-58R, 39 FR 18767, May 30, 1974]

Subpart 93.15—Stability Letter

§ 93.15-1 Posting.

(a) Each vessel subject to the requirements of this part shall have posted under glass in the pilothouse a stability letter issued by the Coast Guard before the vessel is placed in service.

§ 93.15-5 Information contained in stability letter.

(a) Stability letters issued to vessels subject to the provisions of § 93.05-1(a) or (b) will record approval of the information required by Subpart 93.10 and will set forth the master's responsibility for maintaining satisfactory stability conditions at all times.

(b) Stability letters issued to vessels which are exempted from a stability test in accordance with § 93.05-1(c), will record this fact.

Subpart 93.20—Bulk Grain Cargoes

AUTHORITY: International Convention for the Safety of Life at Sea 960 and E.O. 11382, November 23, 1967.

SOURCES: CGD 74-182, 40 FR 36343, Aug. 20, 1975, unless otherwise noted.

§ 93.20-01 Application.

The provisions of this subpart apply to all vessels that load grain in bulk after September 19, 1975 except:

(a) U.S. tank vessels which meet the requirements of 46 CFR 31.10-33.

(b) Vessels engaged on voyages solely between ports within the limits of the Great Lakes and the St. Lawrence River as far east as a straight line drawn from Cap de Rosiers to West Point, Anticosti Island, and east of line along the 63rd meridian from Anticosti Island to the north shore of St. Lawrence River.

§ 93.20-05 General.

(a) Each cargo vessel or barge that carries grain in bulk must comply with the Annex to Inter-Governmental Maritime Consultative Organization (IMCO) Resolution A.264(VIII). As used in Resolution A.264(VIII), the term "Administration" means "U.S. Coast Guard." Copies of Resolution A.264 (VIII) may be obtained from the National Cargo Bureau, Inc., One World Trade Center, Suite 2757, New York, N.Y. 10048; the Commandant (G-M/82), U.S. Coast Guard, 400 Seventh Street, SW., Washington, D.C. 20590; or the office of any Coast Guard District Commander or Officer in Charge, Marine Inspection. The provisions of IMCO Resolution A.264(VIII) are published separately in U.S. Coast Guard Navigation and Inspection Circular No. 3-75 dated August 20, 1975.

(b) Notwithstanding the provisions of 46 CFR 56.50-50, bilges must be properly prepared and sounding pipes in place, clear and operable. If bilges are not present, suctions must be boxed.

(c) When calculating the minimum required metacentric height (GM), a free surface allowance must be made for slack liquids. The free surface allowance used must be equal to or greater than the free surface allowance for the following combination of tanks:

(1) The maximum free surface for the pair of tanks, port and starboard, of each type of consumable liquid, having the largest free surface.

(2) The maximum free surface of the fuel oil settlers.

(3) The free surface at 5 degrees heel for all fuel tanks assumed 98% full except for the pair considered in paragraph (c)(1), of this section.

§ 93.20-10 Document of authorization.

(a) Before it can load grain, each vessel that carries grain in bulk must have a document of authorization issued in accordance with one of the following:

(1) If the document of authorization is issued on or after September 19, 1975, Regulation 10, Part A of the Annex to IMCO Resolution A.264(VIII).

(2) If the document of authorization is issued before September 19, 1975, 46 CFR 144.20-32 or Navigation and Vessel Inspection Circular No. 10-69 dated November 20, 1969.

(b) The Commandant recognizes the National Cargo Bureau, Inc., One World Trade Center, Suite 2757, New York, N.Y. 10048, for the purpose of issuing documents of authorization in accordance with paragraph (a)(1) of this section.

§ 93.20-15 Certificate of loading.

(a) Before it can sail, each vessel that carries grain in bulk must have a certificate of loading issued by an organization recognized by the Commandant for that purpose. The certificate of loading may be accepted as prima facie evidence of compliance with these regulations.

(b) The Commandant recognizes the National Cargo Bureau, Inc., One World Trade Center, Suite 2757, New York, N.Y. 10048, for the purpose of issuing certificates of loading.

§ 93.20-20 Exemptions for certain voyages.

(a) Vessels on a voyage that is within the inland waters of the United States are exempt from the regulations in this subpart.

(b) Vessels on a voyage between (1) United States ports along the East Coast as far south as Cape Henry;

(2) Wilmington, N.C. and Miami, Fla.;

(3) United States ports in the Gulf of Mexico;

(4) Puget Sound ports and Canadian West Coast ports or Columbia River ports, or both;

(5) San Francisco, Los Angeles, and San Diego; or

(6) Great Lakes ports and St. Lawrence River ports as far east as a straight line drawn from Cape de Rosiers to West Point, Anticosti Island, and east of a line drawn along the 63rd meridian from Anticosti Island to the north shore of the St. Lawrence River; are exempt from 46 CFR 93.20-05(a) if—

(i) The master is satisfied that the longitudinal strength of his vessel is not impaired;

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(ii) The master ascertains the weather to be encountered on the voyage;

(iii) Potential heeling moments are reduced to a minimum value by carrying as few slack holds as possible;

(iv) Slack surfaces are leveled; and

(v) The metacentric height (GM) in feet on the vessel throughout the voyage after correction for liquid free surface, is in excess of the required metacentric height (GM), in feet as obtained from Table 93.17-15(b).

TABLE 93.17-15.—*Calculation of GM*

GM = L × tabular value

where:

L = Total length of slack surfaces

B = Maximum breadth of slack surfaces

Δ = Displacement of vessel in 1,000 long tons

[Tabular value: If the ratio of available freeboard to beam is more than 0.268 the required GM in order to shift the vessel shall be calculated by multiplying the applicable figure below by the total length of slack surface. If the ratio found above is less than 0.268 the tabular values shall be adjusted by multiplying by 0.268 and dividing by the actual ratio found]

Displacement of vessel (in 1,000 long tons)	Breadth (feet)												
	40	45	50	55	60	65	70	75	80	85	90	95	100
10	0.0094	0.0134	0.0184	0.0244	0.0317	0.0403	0.0504	0.0619	0.0752	0.0902	0.1070	0.129	0.1468
20	.0047	.0067	.0092	.0122	.0159	.0202	.0252	.0310	.0376	.0451	.0535	.062	.0739
30	.0031	.0045	.0061	.0081	.0106	.0134	.0168	.0206	.0251	.0301	.0357	.042	.0489
40	.0023	.0033	.0046	.0061	.0079	.0101	.0126	.0155	.0188	.0225	.0268	.031	.0367
50	.0019	.0027	.0038	.0049	.0063	.0081	.0101	.0124	.0150	.0180	.0214	.025	.0294
60	.0016	.0022	.0031	.0041	.0053	.0067	.0084	.0103	.0125	.0150	.0178	.021	.0245
70	.0013	.0019	.0026	.0035	.0045	.0058	.0072	.0088	.0107	.0129	.0153	.010	.0210
80	.0012	.0017	.0023	.0031	.0040	.0050	.0063	.0077	.0094	.0113	.0134	.015	.0184
90	.0010	.0015	.0020	.0027	.0035	.0045	.0056	.0069	.0084	.0100	.0119	.014	.0163
100	.0009	.0013	.0018	.0024	.0032	.0040	.0050	.0062	.0075	.0090	.0107	.012	.0147

NOTES.—In those portions of length which are divided by a centerline bulkhead ¼ of the tabular value may be used.

The table is calculated for wheat. If necessary the GM may be adjusted for other grains by multiplying by the following factors.

Stowage Factor approximately 50 corn, rye, soybeans	0.9
Stowage Factor approximately 56 barley	.8
Stowage Factor approximately 70 oats	.8

[CGD 74-182, 40 FR 36343, Aug. 20, 1975; CGD 74-182, 40 FR 42195, Sept. 11, 1975]

APPENDIX D

Excerpts from 1974 International Convention For Safety of Life at Sea, 1974, Chapter IV

Regulation 7

Watches – Radiotelephone

(a) Each ship which is fitted with a radiotelephone station in accordance with Regulation 4 of this Chapter shall, for safety purposes, carry at least one radiotelephone operator (who may be the master, an officer or a member of the crew holding a certificate for radiotelephony) and shall, while at sea, maintain continuous watch on the radiotelephone distress frequency in the place on board from which the ship is usually navigated, by use of a radiotelephone distress frequency watch receiver, using a loudspeaker, a filtered loudspeaker or radiotelephone auto alarm.

(b) Each ship which in accordance with Regulation 3 or Regulation 4 of this Chapter is fitted with a radiotelegraph station shall, while at sea, maintain continuous watch on the radiotelephone distress frequency in a place to be determined by the Administration, by use of a radiotelephone distress frequency watch receiver, using a loudspeaker, a filtered loudspeaker or radiotelephone auto alarm.

Regulation 10

Radiotelegraph Installations

(a) Except as otherwise expressly provided in this Regulation:

(i) The radiotelegraph station shall include a main installation and reserve installation, electrically separate and electrically independent of each other.

(ii) The main installation shall include a main transmitter, main receiver, radiotelephone distress frequency watch receiver, and main source of energy.

(iii) The reserve installation shall include a reserve transmitter, reserve receiver and reserve source of energy.

(iv) A main and a reserve antenna shall be provided and installed, provided that the Administration may except any ship from the provision of a reserve antenna if it is satisfied that the fitting of such an antenna is impracticable or unreasonable, but in such case a suitable spare antenna completely assembled for immediate installation shall be carried. In addition, sufficient antenna wire and insulators shall in all cases be provided to enable a suitable antenna to be erected. The main antenna, if suspended between supports liable to whipping, shall be suitably protected against breakage.

(b) In installations on cargo ships (except those on cargo ships of 1,600 tons gross tonnage and upwards installed on or after 19 November 1952), if the main transmitter complies with all the requirements for the reserve transmitter, the latter is not obligatory.

(c) (i) The main and reserve transmitters shall be capable of being quickly connected with and tuned to the main antenna, and the reserve antenna if one is fitted.

(ii) The main and reserve receivers shall be capable of being quickly connected with any antenna with which they are required to be used.

(d) All parts of the reserve installation shall be placed as high in the ship as is practicable, so that the greatest possible degree of safety may be secured.

(e) The main and reserve transmitters shall be capable of transmitting on the radiotelegraph distress frequency using a class of emission assigned by the Radio Regulations for that frequency. In addition, the main transmitter shall be capable of transmitting on at least two working frequencies in the authorized bands between 405 kHz and 535 kHz, using classes of emission assigned by the Radio Regulations for these frequencies. The reserve transmitter may consist of a ship's emergency transmitter, as defined in and limited in use by the Radio Regulations.

(f) The main and reserve transmitters shall, if modulated emission is prescribed by the Radio Regulations, have a depth of modulation of not less than 70 per cent and a note frequency between 450 amd 1,350 Hz.

(g) The main and reserve transmitters shall, when connected to the main antenna, have a minimum normal range as specified below, that is to say, they must be capable of transmitting clearly perceptible signals from ship to ship by

	Minimum normal range in miles	
	Main transmitter	Reserve transmitter
All passenger ships, and cargo ships of 1,600 tons gross tonnage and upwards	150	100
Cargo ships below 1,600 tons gross tonnage	100	75

day and under normal conditions and circumstances over the specified ranges.* (Clearly perceptible signals will normally be received if the R.M.S. value of the field strength at the receiver is at least 50 microvolts per metre.)

(h) (i) The main and reserve receivers shall be capable of receiving the radiotelegraph distress frequency and the classes of emission assigned by the Radio Regulations for that frequency.

(ii) In addition, the main receiver shall permit the reception of such of the frequencies and classes of emission used for the transmission of time signals, meteorological messages and such other communications relating to safety of navigation as may be considered necessary by the Administration.

(iii) The radiotelephone distress frequency watch receiver shall be preset to this frequency. It shall be provided with a filtering unit or a device to silence the loudspeaker if on the bridge in the absence of a radiotelephone alarm signal. The device shall be capable of being easily switched in and out and may be used when, in the opinion of the master, conditions are such that maintenance of the listening watch would interfere with the safe navigation of the ship.

(iv) (1) A radiotelephone transmitter, if provided, shall be fitted with an automatic device for generating the radiotelephone alarm signal, so designed as to prevent actuation by mistake, and complying with the requirements of paragraph (e) of Regulation 16 of this Chapter. The device shall be capable of being taken out of operation at any time in order to permit the immediate transmission of a distress message.

(2) Arrangements shall be made to check periodically the proper functioning of the automatic device for generating the radio-

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* In the absence of a direct measurement of the field strength the following data may be used as a guide for approximately determining the normal range:

Normal range in miles	Metre-amperes[1]	Total antenna power (watts)[2]
200	128	200
175	102	125
150	76	71
125	58	41
100	45	25
75	34	14

[1] This figure represents the product of the maximum height of the antenna above the deepest load water-line in metres and the antenna current in amperes (R.M.S. value). The values given in the second column of the table correspond to an average value of the ratio

$$\frac{\text{effective antenna height}}{\text{maximum antenna height}} = 0.47$$

This ratio varies with local conditions of the antenna and may vary between about 0.3 and 0.7.

[2] The values given in the third column of the table correspond to an average value of the ratio

$$\frac{\text{radiated antenna power}}{\text{total antenna power}} = 0.08$$

This ratio varies considerably according to the values of effective antenna height and antenna [illegible]

telephone alarm signal on frequencies other than the radiotelephone distress frequency using a suitable artificial antenna.

(i) The main receiver shall have sufficient sensitivity to produce signals in headphones or by means of a loudspeaker when the receiver input is as low as 50 microvolts. The reserve receiver shall have sufficient sensitivity to produce such signals when the receiver input is as low as 100 microvolts.

(j) There shall be available at all times, while the ship is at sea, a supply of electrical energy sufficient to operate the main installation over the normal range required by paragraph (g) of this Regulation as well as for the purpose of charging any batteries forming part of the radiotelegraph station. The voltage of the supply for the main installation shall, in the case of new ships, be maintained within ± 10 per cent of the rated voltage. In the case of existing ships, it shall be maintained as near the rated voltage as possible and, if practicable, within ± 10 per cent.

(k) The reserve installation shall be provided with a source of energy independent of the propelling power of the ship and of the ship's electrical system.

(l) (i) The reserve source of energy shall preferably consist of accumulator batteries, which may be charged from the ship's electrical system, and shall under all circumstances be capable of being put into operation rapidly and of operating the reserve transmitter and receiver for at least six hours continuously under normal working conditions besides any of the additional loads mentioned in paragraphs (m) and (n) of this Regulation.*

(ii) The reserve source of energy is required to be of a capacity sufficient to operate simultaneously the reserve transmitter and the VHF installation, when fitted, for at least six hours unless a switching device is fitted to ensure alternate operation only. VHF usage of the reserve source of energy shall be limited to distress, urgency and safety communications. Alternatively, a separate reserve source of energy may be provided for the VHF installation.

(m) The reserve source of energy shall be used to supply the reserve installation and the automatic alarm signal keying device specified in paragraph (r) of this Regulation if it is electrically operated.

The reserve source of energy may also be used to supply:

(i) the radiotelegraph auto alarm;

(ii) the emergency light specified in paragraph (g) of Regulation 9 of this Chapter;

(iii) the direction-finder;

(iv) the VHF installation;

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* For the purpose of determining the electrical load to be supplied by the reserve source of energy, the following formula is recommended as a guide:

½ of the transmitter current consumption with the key down (mark)

+ ½ of the transmitter current consumption with the key up (space)

+ current consumption of receiver and additional circuits connected to the reserve source of energy.

Regulation 17

VHF Radiotelephone Stations

(a) When a VHF radiotelephone station is provided in accordance with Regulation 18 of Chapter V, it shall be in the upper part of the ship and include a VHF radiotelephone installation complying with the provisions of this Regulation and comprising a transmitter and receiver, a source of power capable of actuating them at their rated power levels, and an antenna suitable for efficient radiating and receiving signals at the operating frequencies.

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* For the purpose of determining the electrical load to be supplied by batteries required to have six hours reserve capacity, the following formula is recommended as a guide:

½ of the current consumption necessary for speech transmission

+ current consumption of receiver

+ current consumption of all additional loads to which the batteries may supply energy in time of distress or emergency.

(b) Such a VHF installation shall conform to the requirements laid down in the Radio Regulations for equipment used in the VHF Maritime Mobile Radiotelephone Service and shall be capable of operation on those channels specified by the Radio Regulations and as may be required by the Contracting Government referred to in Regulation 18 of Chapter V.

(c) The Contracting Government shall not require the transmitter R.F. carrier power output to be greater than 10 watts. The antenna shall, in so far as is practicable, have an unobstructed view in all directions.*

(d) Control of the VHF channels required for navigational safety shall be immediately available on the bridge convenient to the conning position and, where necessary, facilities should also be available to permit radiocommunications from the wings of the bridge.

Regulation 18

Radiotelephone Auto Alarms

(a) The radiotelephone auto alarm shall comply with the following minimum requirements:

(i) the frequencies of maximum response of the tuned circuits, and other tone selecting devices, shall be subject to a tolerance of ± 1.5 per cent in each instance; and the response shall not fall below 50 per cent of the maximum response for frequencies within 3 per cent of the frequency of maximum response;

(ii) in the absence of noise and interference, the automatic receiving equipment shall be capable of operating from the alarm signal in a period of not less than four and not more than six seconds;

(iii) the automatic receiving equipment shall respond to the alarm signal, under conditions of intermittent interference caused by atmospherics and powerful signals other than the alarm signal, preferably without any manual adjustment being required during any period of watch maintained by the equipment;

(iv) the automatic receiving equipment shall not be actuated by atmospherics or by strong signals other than the alarm signal;

(v) the automatic receiving equipment shall be effective beyond the range at which speech transmission is satisfactory;

(vi) the automatic receiving equipment shall be capable of withstanding vibration, humidity, changes of temperature and variations in power supply voltage equivalent to the severe conditions experienced on board ships at sea, and shall continue to operate under such conditions;

* For guidance purposes, it is assumed that each ship would be fitted with a vertically polarized unity gain antenna at a nominal height of 9.15 metres (30 feet) above water, a transmitter R.F. power output of 10 watts, and a receiver sensitivity of 2 microvolts across the input terminals for 20 db signal-to-noise ratio.

(vii) the automatic receiving equipment should, as far as practicable, give warning of faults that would prevent the apparatus from performing its normal functions during watch hours.

(b) Before a new type of radiotelephone auto alarm is approved, the Administration concerned shall be satisfied by practical tests, made under operating conditions equivalent to those obtained in practice, that the apparatus complies with paragraph (a) of this Regulation.

APPENDIX E

Meteorological Conditions

The following are the analytical conditions at the six hourly estimated positions of the POET during the period from 1200 October 24, to 1200 October 27.

The data blocks include the following information:

1. The estimated position of the POET based on a probable DR track.

2. The analyzed observed wind. This is the best estimate of the wind based upon observations in the vicinity of the estimated position.

3. The computed wind, which is 65 percent of the geostrophic wind.

4. The analyzed sea state. This is the best estimate of the sea state based upon observations in the vicinity of the estimated position. Where only wind sea reports are available these are reported as such. Where both wind sea and swell are reported, the root mean square of the two heights is given.

5. The computed sea is the sea height computed by the U.S. Navy Fleet Numerical Oceanography Center.

6. The weather is the best estimate of the cloud cover and precipitation based upon the weather pattern and observations in the vicinity of the POET's estimated position.

October 24, 1200

1. Estimated position: Mouth of Delaware Bay
2. Analyzed observed wind: NNE 10 knots
3. Computed wind: NE 14 knots
4. Analyzed sea state: Wind sea 5 feet.
5. Computed sea: 3 feet.
6. Weather: Broken clouds, no precipitation

October 24, 1800

1. Estimated position: 38.6°N, 73.3°W
2. Analyzed observed wind: ESE 20 knots
3. Computed Wind: ESE 22 knots
4. Analyzed sea state: Wind sea 4 1/2 feet.
5. Computed sea: 7 1/2 feet
6. Weather: Broken to overcast cloudy, no precipitation.

✓ Greenwich mean time

October 26, 1200

1. Estimated position: 38.0°N, 60.2°W
2. Analyzed observed wind: SSW 40 knots
3. Computed wind: SW 26 knots
4. Analyzed sea state: R.m.s. sea/swell 17 feet.
5. Computed sea: 15 1/2 feet.
6. Weather: Overcast clouds, rain or rain showers likely.

October 26, 1800

1. Estimated position: 38.0°N, 58.3°W
2. Analyzed observed wind: SW 28 knots
3. Computed wind: SW 25 knots
4. Analyzed sea state: R.m.s. sea/swell 15 feet.
5. Computed sea: 15 feet.
6. Weather: Overcast clouds, rain or rain showers likely.

October 27, 000

1. Estimated position: 37.9°N, 56.4°W
2. Analyzed observed wind: (No observations)
3. Computed wind: W 9 knots
4. Analyzed sea state: (No observations)
5. Computed sea: 14 feet
6. Weather: Broken to overcast clouds, rain showers likely.

October 27, 0600

1. Estimated position: 37.9°N, 54.5°W
2. Analyzed observed wind: (No observations)
3. Computed wind: SW 14 knots
4. Analyzed sea state: (No observations)
5. Computed sea: 13 1/2 feet.
6. Weather: Scattered to broken clouds, precipitation unlikely.

October 27, 1200

1. Estimated position: 37.8°N, 52.6°W
2. Analyzed observed wind: W 23 knots
3. Computed wind: W 9 knots
4. Analyzed sea state: R.m.s. sea/swell 11 feet.
5. Computed sea: 12 feet
6. Weather: Broken to overcast clouds, possible rainshowers.

October 25, 0000

1. Estimated position: 38.5°N, 71.4°W.
2. Average observed wind: E 20 knots.
3. Computed wind: ESE 23 knots
4. Analyzed sea state: Wind sea 4 1/2 feet.
5. Computed sea: 7 1/2 feet.
6. Weather: Broken to overcast clouds, no precipitation.

October 25, 0600

1. Estimated position: 38.4°N, 69.9°W
2. Analyzed observed wind: ESE 25 knots
3. Computed wind: SE 25 knots
4. Analyzed sea state: R.m.s. Sea/swell 15 feet
5. Computed sea: 7 1/2 feet
6. Weather: Overcast clouds, no precipitation

October 25, 1200

1. Estimated position: 38.3°N, 67.8°W
2. Analyzed observed wind: ESE 28 knots
3. Computed wind: SE 25 knots
4. Analyzed sea state: R.m.s. sea/swell 14 feet
5. Computed sea: 9 1/2 feet
6. Weather: Overcast clouds, possible rain.

October 25, 1800

1. Estimated position: 38.3°N, 65.°W
2. Analyzed observed wind: SE 30 knots
3. Computed wind: SSE 33 knots
4. Analyzed sea state: Wind sea 20 feet
5. Computed sea: 12 feet.
6. Weather: Broken to overcast clouds, possible rain.

October 26, 000

1. Estimated position: 38.3°N, 64.0°W
2. Analyzed surface wind: (No observations)
3. Computed wind: S 46 knots
4. Analyzed sea state: Wind sea 23 feet.
5. Computed sea: 14 1/2 feet
6. Weather: Overcast clouds, rain likely.

October 26, 0600

1. Estimated position: 38.1°N, 62.1° W
2. Analyzed observed wind: (No observations)
3. Computed wind: S 33 knots
4. Analyzed sea state: (No observations)
5. Computed sea: 16 feet.
6. Weather: Overcast clouds, rain likely.

During the period from October 24, 1980 to October 31, 1980, the U.S. Navy Eastern Oceanography Center, Norfolk, Virginia issued the following North Wall statements:

240000Z Oct. 80

You are advised that a cold northeasterly flow within 50 NM of the North Wall of the Gulf Stream can cause temporary conditions of winds 15 knots and seas 05 feet higher than those forecast in paragraph 2. The North Wall was located October 23 at the following points: 33.1N77.2W, 34.ON76.OW, 35.0N75.0W, 36.0N74,0W, 37.2N71.8W, 36.9N70.6W, 38.0N69.0W, 37.6N67.2W, 39.0N66.0W, 38.0N64.0W,39.5N64.0W, 39.9N62.8W, 39.0N59.0W, 39.0N57.0W, 40.8N58.2W, 41.2N55.0W.

250000Z Oct. 80
Based on the U.S. Navy Eastern Oceanography Center, Norfolk, Virginia SST analysis on October 24, 1980, North Wall of Gulf Stream lies near 33.0N77.7W, 34.0N77OW, 35.0N75.0W, 36.0N74.0W, 37.3N72.3W, 37.5N70.0W, 39.1N66.5W, 38.1N64.0W, 40.0N62.8W, 39.2N60.0W, 39.6N59.8W, 41.1N60.8W, 41.3N55.0W. Weather/wind/sea conditions in vicinity North Wall may be significantly higher than in surrounding areas, particularly during cold outbreasks from the continent.

251200Z Oct. 80

Based on the U.S. Navy Eastern Oceanography Center, Norfolk, Virginia SST analysis on October 24, 1980, North Wall of Gulf Stream lies near 32.0N578.9W4, 33.0N677.1W5, 33.8N76.8W, 34.2N75.8W, 35.5N74.8W, 36.8N72.2W, 37.6N69.0N. Weather/wind/sea conditions in vicinity North Wall may be significantly higher than in surrounding areas, particularly during cold outbreaks from the continent.

260000Z Oct. 80

You are advised that a cold northeasterly flow within 100 NM of the North Wall of the Gulf Stream can cause temporary conditions of winds 10 knots and seas 05 feet higher than those forecast in paragraph 2. The North Wall was located October 23 at the following points: 36N74W, 37.3N72.3W, 37.5N70W.

261200Z Oct. 90

Based on the U.S. Navy Eastern Oceanography Center, Norfolk, Virginia SST analysis The North Wall of Gulf Stream lies near 32N78.5W, 36.9N72.1W, 37.4N69.6W, 37.8N69.5W, 38.0N67.6W, 38.5N66.5W, 38.5N65.0W. Weather/wind/sea conditions in vicinity North Wall may be significantly higher than in surrounding areas, particularly during cold outbreasks from the continent.

291200Z Oct. 80

A cold northwesterly flow with 100 NM of the North Wall of the Gulf Stream can cause temporary conditions of winds 15 knots and seas 5 feet higher than those forecast in paragaraph 2. The North Wall was located 24 Oct. at the following points: 33N77.7W, 34N77W, 35N75W, 36N74W, 37.3N72.3W.

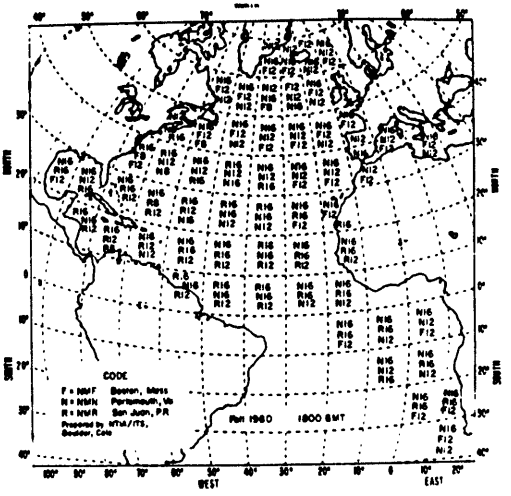
APPENDIX F

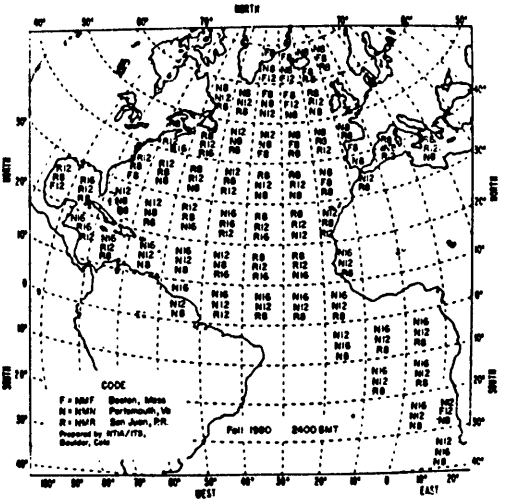
Radio Wave Propagation Charts, Fall 1980

and AMVER Radio Stations Worldwide

Radio Wave Propagation Charts Fall 1980

The eight AMVER contact frequency propagation charts printed here and on the following pages indicate recommended U.S. Coast Guard radio stations and CW frequencies for the upcoming season. Each ocean area is represented by four charts, each of which designates the appropriate frequencies for one quarter of the day. The letter and number of each point correspond to a specific radio station and frequency. The letter designates the last letter in a particular radio station's call sign (for example, "F" for NMF). The number designates the frequency band (8, 12, 16 or 22 MHz). The order of contact is indicated by the order of the three numbers in each 10-degree area. For example, the breakdown N12, F12, N8 indicates that the radio officer's first choice of contact is NMN on 12 MHz, the second choice is NMF in the 12-MHz band, and the last recommended choice is NMN in the 8-MHz band. Please forward any comments regarding the reliability of these charts to Commander (Atc), Coast Guard Atlantic Area, Governors Island, New York 10004.





Briefs cont.

(Continued from page 7.)

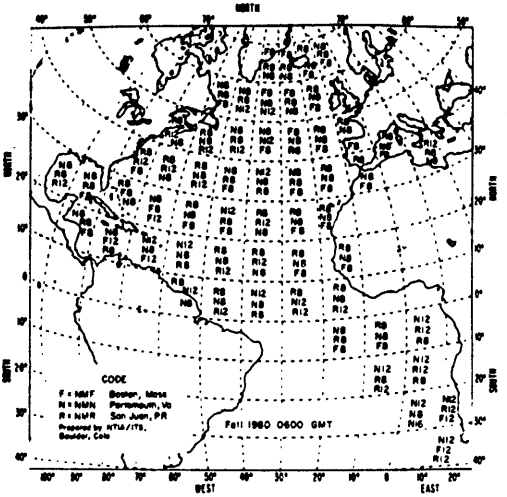
Another sailor was rescued by an AMVER participant 600 miles west of the Azores on May 22. The American had left Martha's Vineyard, Mass., May 7 aboard his catamaran, Godiva Chocolatier. The single-handed sailor was bound for Plymouth, U.K., when his vessel capsized. The signal from his ELT was picked up by military aircraft and a U.S. Air Force C-130 later spotted the man on the hull of his vessel. A Navy P-3 also sighted the catamaran.

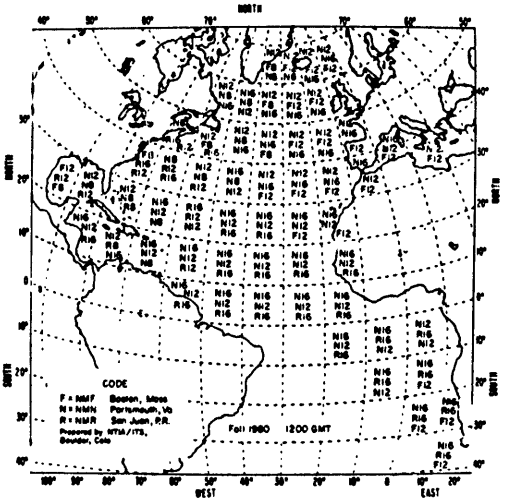
The U.S. Coast Guard provided an AMVER SURPIC with a 200-mile radius from the position 39-47N 40-16W. The SURPIC revealed that the M/V Star Victoria/SZMI, bound for Lisbon, had a closest point of approach a mere 15 miles away. The Coast Guard asked the Greek vessel to divert. The ship proceeded to the scene and picked up the man who had been clinging to the hull of his capsized catamaran for 50 hours. He was reported in good condition.

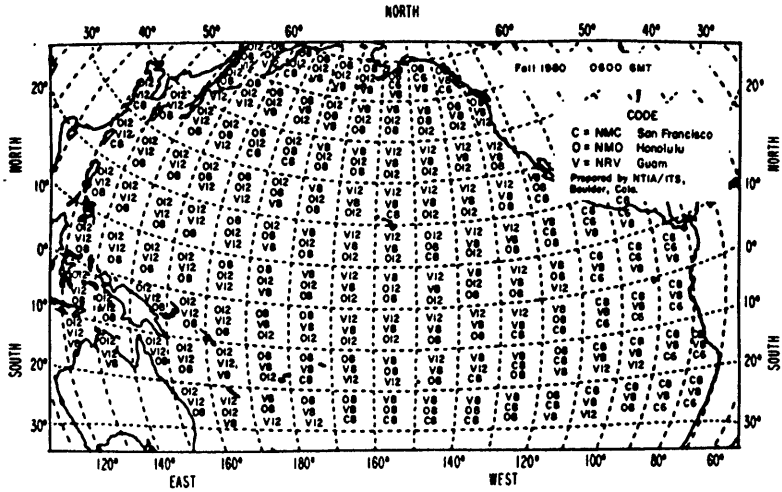
Transmissions between the Coast Guard and the Star Victoria were relayed by the M/V Eeklo/ONEE, another AMVER participant, also on plot.

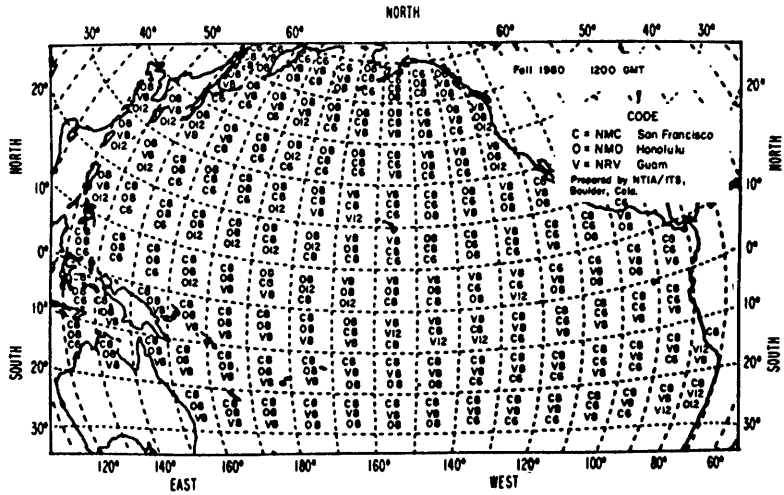
• • • •

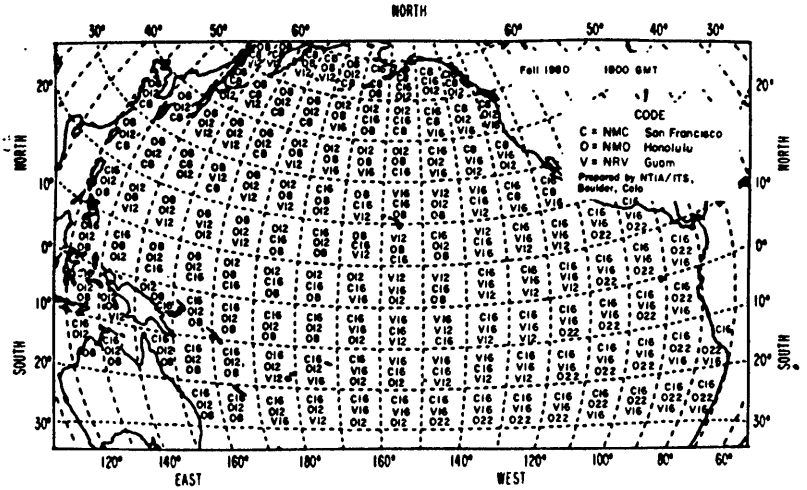
Last month the M/V Finneagle, another AMVER participant, picked up an injured crewman from a German yacht and carried him to port for medical assistance. The crewman was aboard the yacht Janinna en route to France when he severely injured his right thumb. The Janinna, in position 40-25N 49-00W contacted the Finneagle requesting medical advice for the injured man. The master of the Finneagle decided to pick up the yachtsman and then sought medical advice. The Coast Guard obtained advice from the U.S. Public Health Service. It was recommended that the patient be evacuated. The Finneagle diverted to Bermuda where the injured man was landed in good condition.

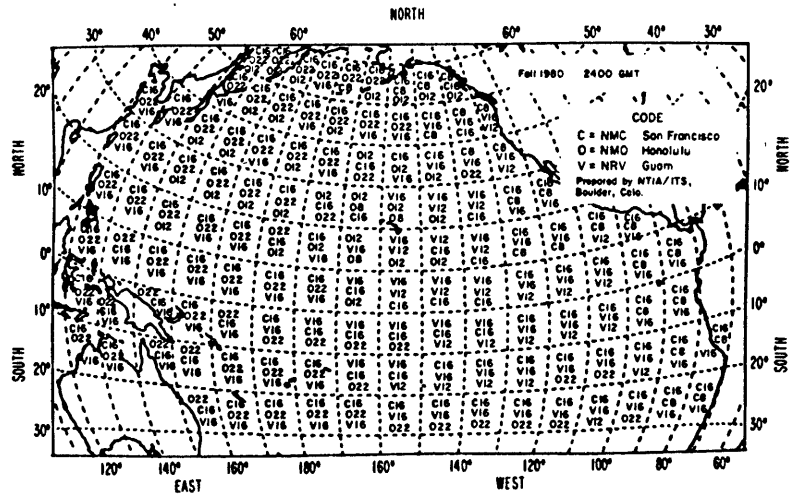





NORTH
SOUTH
EAST
WEST
Fall 1980 0600 GMT
CODE
C = NMC San Francisco
O = NMO Honolulu
V = NRV Guam
Prepared by NTIA/ITS, Boulder, Colo.


NORTH
SOUTH
EAST
WEST
Fall 1980 1200 GMT
CODE
C = NMC San Francisco
O = NMO Honolulu
V = NRV Guam
Prepared by NTIA/ITS, Boulder, Colo.


NORTH
SOUTH
EAST
WEST
Fall 1980
1800 GMT
CODE
C = NMC San Francisco
O = NMO Honolulu
V = NRV Guam
Prepared by NTIA/ITS, Boulder, Colo


NORTH
SOUTH
EAST
WEST
Fall 1980
2400 GMT
CODE
C = NMC San Francisco
O = NMO Honolulu
V = NRV Guam
Prepared by NTIA/ITS, Boulder, Colo.

81-355 O 81 - 11

Atlantic Communications Chart

CALL	LOCATION	BANDS GUARDED DAY	BANDS GUARDED NIGHT	WORKING FREQUENCY
	WESTERN NORTH ATLANTIC			
	CANADA			
VFF	PROBISHER NT	500 kHz 2206 kHz	500 kHz 2206 kHz	430 kHz 2582 kHz
			RADIOTELEGRAPHY	
		4195 0 kHz 6292 5 kHz 6360 0 kHz 12585 0 kHz	4195 0 kHz 6292 5 kHz 6463 0 kHz 12585 0 kHz	4236 5 kHz 6463 0 kHz 6443 0 kHz 12671 0 kHz
VAW	IGLUMIEK NT[6]	500 kHz 2206 kHz	500 kHz 2206 kHz	484 kHz 2582 kHz
VOJ	STEPHENVILLE NF	500 kHz 2206 kHz	500 kHz 2206 kHz	416 kHz 2582 kHz
VOO	COMFORT COVE NF	500 kHz 2206 kHz	500 kHz 2206 kHz	430 kHz 2582 kHz
VCM	ST ANTHONY NF	500 kHz 2206 kHz	500 kHz 2206 kHz	448/488 kHz 2582 kHz
VON	ST JOHN'S NF[6]	500 kHz 2206 kHz	500 kHz 2206 kHz	458/478 kHz 2582 kHz
VCP	ST L AWRENCE NF	2206 kHz	2206 kHz	2582 kHz
VCK	SEPT ISLES PQ	500 kHz 2206 kHz	500 kHz 2206 kHz	430 kHz 2582 kHz
VCG	RIVIERE-AU-RENARD PQ	500 kHz 2206 kHz	500 kHz 2206 kHz	434 kHz 2582 kHz
VCN	GRINDSTONE MAGDELENE ISLAND PQ	500 kHz 2206 kHz	500 kHz 2206 kHz	440 kHz 2582 kHz
VAR	SAINT JOHN NB	2206 kHz	2206 kHz	2582 kHz
VCO	SYDNEY NS	500 kHz 2206 kHz	500 kHz 2206 kHz	484/488 kHz 2582 kHz
VCS	HALIFAX NS	500 kHz 2206 kHz	500 kHz 2206 kHz	438 kHz 2582 kHz
			CALLING FREQUENCIES (Channels 3-6-11)	
		8 MHz 12 MHz 16 MHz	4 MHz 8 MHz 8 MHz 12 MHz	4295 0 kHz 6491 5 kHz 8440 0 kHz 12974 0 kHz 16948 5 kHz
VAU	YARMOUTH NS	500 kHz 2206 kHz	500 kHz 2206 kHz	488 kHz 2582 kHz
	UNITED STATES			
NMF	BOSTON MA[5]	500 kHz	500 kHz	427/472 kHz
			CALLING FREQUENCIES (Channels 4 5-8)	
		8 MHz 12 MHz	8 MHz 12 MHz	8458 0 kHz 12753 0 kHz
			DIRECT PRINTING RADIOTELETYPE SELCALL 1 01095 (Assigned Frequency Shown)	
		*4176 0 kHz *6262 0 kHz 8349 5 kHz *12487 0 kHz 16666 0 kHz *22198 0 kHz	*4176 0 kHz *6262 0 kHz 8349 5 kHz 12487 0 kHz *16666 0 kHz *22198 0 kHz	4355 5 kHz 6500 0 kHz 8718 5 kHz 13077 0 kHz 17203 0 kHz 22567 0 kHz
			SSB VOICE FREQUENCIES (Carrier Frequency Shown)	
		6200 0 kHz	6200 0 kHz	6506 4 kHz
NMN	PORTSMOUTH NH[5]	500 kHz	500 kHz	427/472 kHz
			CALLING FREQUENCIES (Channels 4-5-8)	
		8 MHz 12 MHz 16 MHz	8 MHz 12 MHz	8465 0 kHz 12718 5 kHz 16978 0 kHz
			SSB VOICE FREQUENCIES (Carrier Frequency Shown)	
		1200-0200GMT	0200-1200GMT	
		6200 0 kHz 8241 5 kHz 12342 4 kHz	4134 3 kHz 6200 0 kHz 8241 5 kHz	4428 7 kHz 6506 4 kHz 8765 4 kHz 13113 2 kHz

CALL	LOCATION	BANDS GUARDED DAY	BANDS GUARDED NIGHT	WORKING FREQUENCY
	WESTERN NORTH ATLANTIC (Cont.)			
	UNITED STATES			
NAR	NEW ORLEANS LA	500 kHz	500 kHz	432/484 kHz
			SSB VOICE FREQUENCIES (Carrier Frequency Shown)	
		200-0200GMT	0200-1200GMT	
		6200 0 kHz 8241 5 kHz 12342 4 kHz	4134 3 kHz 6200 0 kHz 8241 5 kHz	4428 7 kHz 6506 4 kHz 8765 4 kHz 13113 2 kHz
NMA	MIAMI FL	500 kHz	500 kHz	440 kHz
			SSB VOICE FREQUENCIES (Carrier Frequency Shown)	
		6200 0 kHz	6200 0 kHz	6506 4 kHz
NMR	SAN JUAN PR	500 kHz	500 kHz	466 kHz
			CALLING FREQUENCIES (Channels 4 5-8)	
		8 MHz 12 MHz 16 MHz	8 MHz 12 MHz	8471 0 kHz 12700 0 kHz 16983 2 kHz
	BERMUDA			
ZBM	ST GEORGE	500 kHz 2182 kHz 156 8 MHz	500 kHz 2182 kHz 156 8 MHz	476 kHz 2582 kHz 156 5 MHz 156 8 MHz
	PANAMA			
NBA	BALBOA	500 kHz	500 kHz	470 kHz
			CALLING FREQUENCIES (Channels 5-6-10)	
		8 MHz 12 MHz 16 MHz	4 MHz 8 MHz 12 MHz	4222 0 kHz 8614 0 kHz 12683 0 kHz 17136 8 kHz
	EASTERN NORTH ATLANTIC			
	OCEAN STATION SHIPS			
CTL	56-00N 20-00W	2182 kHz	2182 kHz	**
CTM	66-00N 02-00E	2182 kHz	2182 kHz	**
CTR	47-00N 17-00W	2182 kHz	2182 kHz	**
	NORWAY			
LGA	ALESUND	500 kHz	500 kHz	487 kHz
LGN	BERGEN	2442 kHz 500 kHz	2442 kHz 500 kHz	1722 kHz 416 kHz
LGP	BODØ	2463 kHz 500 kHz	2463 kHz 500 kHz	1743 kHz 487 kHz
LGZ	FARSUND	2139 kHz 500 kHz	2139 kHz 500 kHz	2656 kHz 476 kHz
LGL	FLORØ	2470 kHz 2132 kHz	2470 kHz 2132 kHz	1750 kHz
LGI	HAMMERFEST	500 kHz 2442 kHz	500 kHz 2442 kHz	438 kHz 1722 kHz
LGN	HARSTAD	500 kHz 2456 kHz	500 kHz 2456 kHz	518 kHz 1738 kHz
LFO	ØRLANDET	2118 kHz	2118 kHz	
LGD	ÅRVIK	500 kHz 2576 kHz	500 kHz 2576 kHz	441 kHz 1757 kHz
LGT	TJØME	500 kHz 2456 kHz	500 kHz 2456 kHz	438 kHz 1736 kHz
LGE	TROMSØ	500 kHz 2470 kHz	500 kHz 2470 kHz	444 kHz 1750 kHz
LGV	VARDØ	500 kHz 2449 kHz	500 kHz 2449 kHz	522 kHz 1729 kHz
LGO	ROGALAND	500 kHz 2449 kHz	500 kHz 2449 kHz	518 kHz 1729 kHz
			CALLING FREQUENCIES (Channels 3-6-13)	
LFW		+4 6 MHz	+4 6 MHz	4325 0 kHz
LGU		+6 8 MHz	+6 8 MHz	6432 0 kHz
LFU		+8 8 MHz	+8 8 MHz	8487 0 kHz
LFN		8 MHz	8 MHz	8527 5 kHz
LGS		8 MHz	8 MHz	8574 0 kHz
LFB		8 MHz	8 MHz	8678 0 kHz
LGJ		12 MHz	12 MHz	12727 5 kHz
LFJ		12 MHz	12 MHz	12876 0 kHz
LFI		12 MHz	12 MHz	12961 5 kHz
LFT		16 MHz	16 MHz	16952 4 kHz
LGX		16 MHz	16 MHz	17074 4 kHz
LFF		16 MHz	16 MHz	17185 6 kHz
			CALLING FREQUENCIES (Channels 3-6)	
LGB		+22 MHz	+22 MHz	22425 0 kHz
LFG	ROGALAND	+22 MHz	+22 MHz	22473 0 kHz

Atlantic Communications Chart

CALL	LOCATION	BANDS GUARDED DAY	BANDS GUARDED NIGHT	WORKING FREQUENCY
	EASTERN NORTH ATLANTIC (Cont.)			
	SWEDEN			
			CALLING FREQUENCIES (Channels 5-6-11)	
SAB2	GOTHENBURG	4 MHz	4 MHz	4362.8 kHz
SAB3		6 MHz	6 MHz	6372.8 kHz
SAB4		8 MHz	8 MHz	8496.8 kHz
SAB5		8 MHz	8 MHz	8646.0 kHz
SAB6		12 MHz	12 MHz	12990.5 kHz
SAB7		12 MHz	12 MHz	12750.5 kHz
SAB8		16 MHz	16 MHz	17075.4 kHz
			CALLING FREQUENCIES (Channels 3-4-7)	
SAB9		22 MHz	22 MHz	22413.0 kHz
			CALLING FREQUENCIES (Channels 8-C)	
SAB10	GOTHENBURG	25 MHz	25 MHz	25461.0 kHz
	DENMARK			
OXZ	LYNGBY	FREQUENCIES AND TIMES IN ACCORDANCE WITH I T U LIST OF COAST STATIONS - LIST IV		
	GERMANY			
DAN	NORDDEICH	FREQUENCIES AND TIMES IN ACCORDANCE WITH I T U LIST OF COAST STATIONS - LIST IV		
//NOTE//	AMVER Messages relayed through NORDDEICH RADIO/DAN should be addressed - AMVER Frankfurt am Main			
	NETHERLANDS			
PCH	SCHEVENINGEN	800 kHz 8030 kHz	800 kHz 8030 kHz	421/461 kHz 1764 kHz
			CALLING FREQUENCIES (Channels 3-4-9-10)	
		4 MHz	4 MHz	4250.8 kHz
		6 MHz	6 MHz	6404.4 kHz*
		8 MHz	8 MHz	8562.0 kHz
		12 MHz	12 MHz	12760.0 kHz
		16 MHz	16 MHz	16800.3 kHz
			CALLING FREQUENCIES (Channels 3-4-5-6)	
PCH	SCHEVENINGEN	22 MHz	22 MHz	22530.0 kHz
PCS	SCHEVENINGEN		SSB VOICE FREQUENCIES (Carrier Frequency Shown)	
		4075.4 kHz	4075.4 kHz	4300.8 kHz
		4125.0 kHz	4125.0 kHz	4418.4 kHz
		6203.1 kHz	6203.1 kHz	6509.5 kHz
		6215.9 kHz	6215.9 kHz	6521.0 kHz
		8272.8 kHz	8272.8 kHz	8786.4 kHz
		8257.0 kHz	8257.0 kHz	8780.0 kHz
		12387.3 kHz	12387.3 kHz	*13130.0 kHz
		12392.0 kHz	12392.0 kHz	*13132.8 kHz
		16546.5 kHz	16546.5 kHz	17341.4 kHz
		16572.0 kHz	16572.0 kHz	17294.9 kHz
		22012.4 kHz	22012.4 kHz	22606.4 kHz
PCS	SCHEVENINGEN	22062.0 kHz	22062.0 kHz	22656.0 kHz
	IRELAND			
EJM	MALIN HEAD	500 kHz	500 kHz	429 kHz
EJR	VALENTIA ISLAND	2182 kHz 500 kHz 2182 kHz	2182 kHz 500 kHz 2182 kHz	1641 kHz 431 kHz 1827 kHz

CALL	LOCATION	BANDS GUARDED DAY	BANDS GUARDED NIGHT	WORKING FREQUENCY
	EASTERN NORTH ATLANTIC (Cont.)			
	GREAT BRITAIN			
GKA	PORTISHEAD	FREQUENCIES AND TIMES IN ACCORDANCE WITH I T U LIST OF COAST STATIONS - LIST IV		
GKR	WICK			
GKD	STONEHAVEN			
GCC	CULLERCOATS			
GKZ	HUMBER			
GKF	NORTHFORELAND			
GKI	WITON			
GLD	LANDSEND			
GIL	ILFRACOMBE			
GLV	ANGLESEY			
GPK	PORTPATRICK			
GKE	OBAN			
	ITALY			
IRM	ROME		CALLING FREQUENCIES (Channels 3-5-7-8-9)	
		*4 MHz	*4 MHz	4342.5 kHz
		*6 MHz	*6 MHz	6365.0 kHz
		8 MHz	8 MHz	8651.0 kHz
		12 MHz	12 MHz	*12762.0 kHz
		*12 MHz	*12 MHz	*12748.0 kHz
		16 MHz	16 MHz	*17101.0 kHz
IRM	ROME	22 MHz	22 MHz	22525.0 kHz
	SPAIN			
EAC	TARIFA	500 kHz	500 kHz	484 kHz
EAJ	VIGO	500 kHz	500 kHz	450/484 kHz
EAT	SANTA CRUZ DE TENERIFE	500 kHz	500 kHz	416 kHz
	SOUTH ATLANTIC			
	ARGENTINA			
LPD4	GENERAL PACHECO	500 kHz	500 kHz	444.5 kHz
LPD60		4 MHz	4 MHz	4268.0 kHz
LPD65		8 MHz	8 MHz	8645.0 kHz
LPD68		12 MHz	12 MHz	*12683.5 kHz
LPD45		16 MHz	16 MHz	*17043.5 kHz
LPD91	GENERAL PACHECO	22 MHz	22 MHz	22419.0 kHz
	SOUTH AFRICA			
ZSJ2	MAYCOMICEN CAPE		CALLING FREQUENCIES (Channels 3-5-8-10)	
ZSJ2			4 MHz	4283.0 kHz
ZSJ3			6 MHz	6365.5 kHz
ZSJ4			8 MHz	8546.0 kHz
ZSJ5		12 MHz		*12845.0 kHz
ZSJ6	MAYCOMICEN CAPE	16 MHz		*17334.5 kHz

NOTES TO AMVER COMMUNICATION CHARTS

0 - NAVIGATION SEASON ONLY
* - AVAILABLE ON REQUEST
- - BANDS GUARDED WHEN ON CALL SLIP ONLY
§ - ACCEPTS ICE REPORT MESSAGES FOR INTERNATIONAL ICE PATROL
** - WORKING FREQUENCY TO BE ARRANGED AFTER INITIAL CALL ON 2182KHZ

AMVER Messages should be sent to the Radio Station that is being worked
i.e. AMVER YARMOUTH or AMVER GOTHENBURG

INMARSAT equipped vessels may send AMVER Messages without charge. Messages must be less than one minute in length, and sent via TELEX. This does not apply to the Indian Ocean Satellite
AMVER TELEX - 127504/AMVER NYK

New Frequency Name. The U.S. Coast Guard is adopting a new frequency identification which will include all AMVER frequency names. The new identification is to be known as Contact and Long Range Liaison (CALL) FREQUENCIES. CALL Frequencies are HF's providing long range communications between vessels and U.S. Coast Guard Communication/Radio Stations for the purposes of AMVER Messages, navigational, safety, distress, medical or other non-public correspondence messages.

In addition to the frequencies listed on the Atlantic Charts, all stations guard 2182kHz with the exception of U.S. Coast Guard Communication Stations Boston/NMF and Portsmouth/NMN, and U.S. Coast Guard Radio Stations Miami/KMA and San Juan/NMR.

Pacific Communications Chart

CALL	LOCATION	BANDS GUARDED DAY	BANDS GUARDED NIGHT	WORKING FREQUENCY
	EASTERN PACIFIC			
	CANADA			
VFU6	COPPER MINE NT[0]	4000 2 kHz	4000.2 kHz	4363 6 kHz
VFC	CAMBRIDGE BAY NT[0]	2142 kHz 4000 2 kHz	2206 kHz 4000 2 kHz	2558 kHz 4363 6 kHz
			RADIOTELEGRAPHY	
		6292 5 kHz 12545 0 kHz	6292 5 kHz 12545 0 kHz	6493 0 kHz 12761 0 kHz
VFA	INUVIK NT[0]	2142 kHz 4000 2 kHz 6292 5 kHz	2142 kHz 4000 2 kHz 6292 5 kHz	2558 kHz 4363 6 kHz 6335 5 kHz
VAJ	PRINCE RUPERT BC	500 kHz 1630 kHz 2054 kHz	500 kHz 1630 kHz 2054 kHz	420 kHz 1630 kHz 2054 kHz
VAG	BULL HARBOR BC	500 kHz 1630 kHz 2054 kHz	500 kHz 1630 kHz 2054 kHz	484 kHz 1630 kHz 2054 kHz
VAE	TOFINO BC	500 kHz 1630 kHz 2054 kHz	500 kHz 1630 kHz 2054 kHz	478 kHz 1630 kHz 2054 kHz
VAK	VICTORIA BC	500 kHz 1630 kHz 2054 kHz	500 kHz 1630 kHz 2054 kHz	500 kHz 1630 kHz 2054 kHz
VAI	VANCOUVER BC	500 kHz 1630 kHz 2054 kHz	500 kHz 1630 kHz 2054 kHz	420 kHz 1630 kHz 2054 kHz
			CALLING FREQUENCIES (Channels 4 5-6)	
		4 MHz 6 MHz 8 MHz 12 MHz 16MHz	4 MHz 6 MHz 8 MHz 12 MHz 16 MHz	4385 3 kHz 6518 8 kHz 8737 5 kHz 13119 4 kHz 17254 6 kHz
	UNITED STATES			
NOJ	KODIAK AK (In addition to transmitters located at Kodiak NOJ remotely keys 500kHz with transmitters located in Adak, AK)	500 kHz 2182 kHz	500 kHz 2182 kHz	470 kHz 2670 kHz
			SSB VOICE FREQUENCIES (Carrier Frequency Shown)	
		6200 0 kHz	6200 0 kHz	6506 4 kHz
NMC	SAN FRANCISCO CA (In addition to transmitters located in San Francisco NMC remotely keys 500kHz with transmitters located in Long Beach CA and Astoria OR)	500 kHz 2182 kHz	500 kHz 2182 kHz	420/448 kHz 2670 kHz
			CALLING FREQUENCIES (Channels 5 6-11)	
		8 MHz 16 MHz	6 MHz 8 MHz	6363 0 kHz 8574 0 kHz 16680 0 kHz
			DIRECT PRINTING RADIOTELETYPE SELCALL 1 01096 (Assigned Frequency Shown)	
			*4178 0 kHz *6268 0 kHz	*4355 5 kHz *6504 4 kHz
		6353 5 kHz 12501 0 kHz 16670 0 kHz 22202 0 kHz *25065 8 kHz	6353 5 kHz 12501 0 kHz 16670 0 kHz 22202 0 kHz	8714 5 kHz 13081 0 kHz 17207 0 kHz 22571 0 kHz *25340 0 kHz
			SSB VOICE FREQUENCIES (Carrier Frequency Shown)	
		1200-0200GMT* 4134 3 kHz 6200 0 kHz 8241 5 kHz 12342 4 kHz	0200 1200GMT 4134 3 kHz 6200 0 kHz 8241 5 kHz 12342 4 kHz	4428 7 kHz 6506 4 kHz 8765 4 kHz 13113 2 kHz
	PANAMA			
HBA	BALBOA	500 kHz	500 kHz	470 kHz
			CALLING FREQUENCIES (Channels 5-6-10)	
		8 MHz 12 MHz 16 MHz	4 MHz 8 MHz 12 MHz	4222 0 kHz 8614 0 kHz 12963 0 kHz 17136 8 kHz
	ECUADOR			
HCS	GUAYAQUIL	500 kHz 6360 8 kHz	500 kHz 6360 8 kHz	488 kHz 8476 0 kHz
			RADIOTELEGRAPHY	
	CHILE			
CBV	VALPARAISO	500 kHz	500 kHz	438/464 5 kHz
			CALLING FREQUENCIES (Channels 1-3-6)	
		4 MHz 12 MHz 16 MHz	8 MHz	4349 0 kHz 8478 0 kHz 12174 0 kHz 16845 0 kHz
			CALLING FREQUENCIES (Channels 1-3-4)	
		22 MHz		22473 0 kHz
CBA	ANTOFAGASTA	500 kHz	500 kHz	416 5/477 kHz

CALL	LOCATION	BANDS GUARDED DAY	BANDS GUARDED NIGHT	WORKING FREQUENCY
	CENTRAL PACIFIC			
	OCEAN STATION			
4YP	30-00N 140-00W	500 kHz 2182 kHz	500 kHz 2182 kHz	480 kHz **
	UNITED STATES			
NMO	HONOLULU, HI	500 kHz 2182 kHz	500 kHz 2182 kHz	440 kHz 2670 kHz
			CALLING FREQUENCIES (Channels 5 6 11)	
		8 MHz 12 MHz	8 MHz	8650 0 kHz 12886 5 kHz
			(Channels 3-4)	
		22 MHz		22476 0 kHz
			SSB VOICE FREQUENCIES (Carrier Frequency Shown)	
		4134 4 kHz 6200 0 kHz 8241 5 kHz	4134 3 kHz 6200 0 kHz 8241 5 kHz	4428 7 kHz 6506 4 kHz 8675 4 kHz
KUO	PAGO PAGO AMERICAN SAMOA	500 kHz	500 kHz	450 kHz
			CALLING FREQUENCIES (Channels 5-6 17)	
		6 MHz 8 MHz	6 MHz 8 MHz	6361 0 kHz 8585 0 kHz
	FRENCH POLYNESIA			
FJA	MAHINA TAHITI	500 kHz 2182 kHz 8291 8 kHz	500 kHz 2182 kHz 8291 8 kHz	432 kHz 2670 kHz 8805 7 kHz
	FIJI			
3DP	SUVA	500 kHz 2182 kHz	500 kHz 2182 kHz	518 kHz 2111 kHz
			SSB VOICE FREQUENCIES (Carrier Frequency Shown)	
		6215 5 kHz	6215 5 kHz	6215 5 kHz
			CALLING FREQUENCIES (Channels 4 5)	
		0540-0555/ 0940-0955GMT 8 MHz	2140 2155/ 0040 0055GMT 12 MHz	8690 0 kHz 12700 0 kHz
	AUSTRALIA			
VIS	SYDNEY	500 kHz 2201 kHz 4125 0 kHz	500 kHz 2201 kHz 4125 0 kHz	476 kHz 2201 kHz 4125 0 kHz
			CALLING FREQUENCIES (Channels 4 5)	
			4 MHz 6 MHz	4245 0 kHz 6464 0 kHz
			(Channels 5-6)	
		8 MHz 12 MHz 16 MHz	8 MHz 12 MHz	8521 0 kHz 12952 5 kHz 17161 3 kHz
			(Channels 3-4-9)	
		22 MHz		22474 0 kHz
VIP	PERTH	500 kHz 2201 kHz 4125 0 kHz	500 kHz 2201 kHz 4125 0 kHz	484 kHz 2201 kHz 4428 7 kHz
			(Channels 5-6-16)	
		8 MHz 12 MHz 16 MHz	8 MHz 12 MHz 16 MHz	8587 0 kHz 12954 0 kHz 16647 6 kHz
			(Channels 3 4 10)	
		22 MHz	22 MHz	22315 5 kHz
	NEW ZEALAND			
ZLD	AUCKLAND	500 kHz 2182 kHz 4125 0 kHz	500 kHz 2182 kHz 4125 0 kHz	487 5 kHz 2207 kHz 4125 0 kHz
ZLB	AWARUA	500 kHz 2182 kHz 4125 0 kHz	500 kHz 2182 kHz 4125 0 kHz	515 kHz 2473 kHz 4125 0 kHz
			CALLING FREQUENCIES (Channels 5-6 17)	
		8 MHz 12 MHz 16 MHz	4 MHz 8 MHz	4277 0 kHz 8504 0 kHz 12740 0 kHz 17175 4 kHz
			(Channels 3-4-9)	
		22 MHz		22533 0 kHz
ZLW	WELLINGTON	500 kHz 2182 kHz 4125 0 kHz	500 kHz 2182 kHz 4125 0 kHz	417 5 kHz 2153 kHz 4125 0 kHz
ZLC	CHATHAM ISLAND	2182 kHz	2182 kHz	2104 kHz

Pacific Communications Chart

CALL	LOCATION	BANDS GUARDED DAY	BANDS GUARDED NIGHT	WORKING FREQUENCY
	WESTERN PACIFIC			
	JAPAN			
JDT	YOKOSUKA	500 kHz	500 kHz	480 kHz
JHX	KUSHIRO	500 kHz	500 kHz	464 kHz
JHA	SHIOGAMA	500 kHz	500 kHz	464 kHz
JBC	YOKOHAMA	500 kHz	500 kHz	464 kHz
JDT	NAGOYA	500 kHz	500 kHz	464 kHz
JBO	KOBE	500 kHz	500 kHz	472 kHz
JHA	MOJI	500 kHz	500 kHz	464 kHz
JNJ	KAGOSHIMA	500 kHz	500 kHz	478 kHz
JNB	OKINAWA	500 kHz	500 kHz	472 kHz
	UNITED STATES			
NRV	GUAM	500 kHz	500 kHz	466 kHz
		2182 kHz	2182 kHz	8570 kHz
			CALLING FREQUENCIES (Channels 5-6-11)	
		2100-0800GMT	0800-2100GMT	
			8 MHz	8570.0 kHz
		12 MHz	12 MHz	12743.0 kHz
		16 MHz		17146.4 kHz
			SSB VOICE FREQUENCIES (Carrier Frequency Shown)	
			6200.0 kHz	6506.4 kHz
		12342.4 kHz		13113.2 kHz
	PHILLIPINES			
DZG	LAS PINAS	500 kHz	500 kHz	483 kHz
			CALLING FREQUENCIES (Channels 4-5)	
		8 MHz	8 MHz	8441.0 kHz
		8 MHz	8 MHz	8632.0 kHz
		12 MHz	12 MHz	12946.0 kHz
		16 MHz	16 MHz	17176.0 kHz
			(Channel 1)	
		22 MHz		22502.0 kHz

NOTES TO AMVER COMMUNICATION CHARTS

@ - NAVIGATION SEASON ONLY
* - AVAILABLE ON REQUEST
+ - BANDS GUARDED WHEN ON CALL SLIP ONLY
$ - ACCEPTS "ICE REPORT" MESSAGES FOR INTERNATIONAL ICE PATROL.
** - WORKING FREQUENCY TO BE ARRANGED AFTER INITIAL CALL ON 2182kHZ

AMVER Messages should be sent to the Radio Station that is being worked i.e. AMVER VALPARAISO or AMVER SYDNEY

MARISAT equipped vessels may send AMVER Messages without charge. Messages must be less than one minute in length and sent via TELEX. This does not apply to the Indian Ocean Satellite.
AMVER TELEX - 127564 / AMVER NYK

New Frequency Items - The U.S. Coast Guard is adopting a new frequency identification which will include all AMVER frequency Bands. The new identification is to be known as Contact and Long-Range Listen (CALL frequencies). CALL Frequencies are HF's providing long range communications between vessels and U.S. Coast Guard Communication/Radio Stations for the purposes of AMVER Messages, navigational safety, distress, medical or other non-public correspondence messages.

In addition to the frequencies listed on the Pacific Charts all stations guard 2182kHz

Ms. GOLDMAN. The Safety Board has not completed its analysis nor determined the probable cause of the disappearance of the *Poet*. Therefore, it would be inappropriate for me to speculate concerning casual factors. I would be happy, Mr. Chairman, however, and members of the committee, to briefly summarize our factual report, which is in the record.

SUMMARY OF PRELIMINARY FACTUAL REPORT

The facts indicate that the SS *Poet* departed Philadelphia, Pa., at 0100 on October 24, 1980. At 0800 the same day, after clearing the Delaware Capes, the *Poet*'s master sent departure message to the ship's owner, Hawaiian Eugenia Corp., to AMVER, the Coast Guard's depository of vessel movement information, and to USMER. The messages indicated the master was planning to steer a rhumb line course to the Straits of Gibraltar. Except for a personal radiotelephone call at 1200 on October 24, 1980, these were the last known communications with the *Poet*.

On November 3, the *Poet*'s owner called the Coast Guard in New York and asked if the Coast Guard had any information concerning the *Poet*'s position because the ship had not been heard from since departing the Delaware Capes on October 24, 1980. The Coast Guard immediately made a series of communications checks with negative results.

On November 8, 1980, upon the urging of the owner, union representatives, and relatives, the Coast Guard began an active search for the *Poet*. The search covered 297,000 square miles, including the entire intended trackline of the *Poet* between the Delaware Capes and the Straits of Gibraltar. On November 17, 1980, after finding no trace of the vessel or its crew, the Coast Guard suspended its active search.

The *Poet* was manned by 10 officers and 24 crewmen when it sailed on October 24, 1980. The officers and crew were all licensed or documented under the U.S. law. The master of the *Poet* was 57 years old and had 30 years of seagoing experience. The *Poet* was carrying 13,538 long tons of yellow corn, in cargo holds Nos. 1, 2, and 3. The draft was 34 feet 6 inches forward and 32 feet 6 inches aft.

The *Poet* was one of six ships which were converted in 1965 from U.S. Maritime Administration design C-4 troopships into break-bulk cargo ships. She was built in 1944 and served as a troopship from 1945 to 1949, when she was placed in the national reserve fleet, to remain there until her reactivation and conversion.

During December, 1976, as part of an American Bureau of Shipping Special Survey, ultrasonic gagings of the *Poet*'s hull structure were taken. ABS reviewed the results of the gagings and determined that the condition of the *Poet*'s shell plating was satisfactory. On March 4, 5, and 6, 1980, both U.S. Coast Guard inspectors and ABS surveyors examined the structure of the *Poet* while she was in drydock in Beaumont, Tex. Both ABS and the Coast Guard found the *Poet* in satisfactory condition. On August 19, 1980, an ABS surveyor conducted an annual survey of hull and machinery, an annual loadline inspection and an intermediate survey. All structures and equipment surveyed were found to be in satisfactory condition.

Also, on August 19, 1980, a Federal Communications Commission inspector boarded the *Poet* and tested all the ship's required radio equipment. The inspector found all the radio equipment to be operating satisfactorily. This inspection included placing the *Poet's* EPIRB in water and checking the distress signal on a portable radio.

Before departing Philadelphia on October 24, 1980, the *Poet* had some minor voyage repairs made to the hull structure. The *Poet's* radio equipment was checked, repaired, and fine tuned. The loading of grain was supervised by the National Cargo Bureau following a checking and modification of the ships' stability calculations.

Although the *Poet* was required to report its position to USMER every 48 hours and all USMER messages are passed to AMVER, there was no established method for either USMER or AMVER to detect that the *Poet* was not reporting. AMVER is a voluntary system. Both systems accepted updated information on a vessel's position but were not programed to automatically provide data on those vessels which did not report every 48 hours.

The Safety Board's investigation is focusing on the following: the fact that no radio distress signals were received from the *Poet;* the structural integrity of the *Poet* while exposed to the severe weather conditions that it probably encountered on October 25 and 26; the stability characteristics of the *Poet* as it was loaded; AMVER and USMER reporting systems; and the Coast Guard's search and rescue operations as they related to the *Poet.*

The Safety Board hopes to complete its analysis of the facts and to issue a final report on the disappearance of the *Poet* by the end of July. Crucial to our analysis will be several structural and stability studies currently being completed. While I am not in a position to comment on the probable cause of the disappearance on behalf of the Board, I would be happy to respond to questions relating to our investigative process or the facts we have uncovered in the case, and submitted to you earlier.

Mr. Chairman, that concludes my formal statement. I would be happy to respond to some questions.

The CHAIRMAN. Any questions of this witness?

Mr. FOGLIETTA. Thank you, Mr. Chairman.

I am just trying to verify these dates.

In October 1980, the U.S. Department of Agriculture and the National Cargo Bureau inspected the SS *Poet* and found that holds contained too much water and rust to allow cargo to be loaded. And then on October 20, the cargo holds were reinspected by the U.S. Department of Agriculture and NCB and found safe for loading.

Did you direct a determination as to what inspections were made to make that change in determination?

Ms. GOLDMAN. I am sorry; I have difficulty with the acoustics. What was the last part of your question?

Mr. FOGLIETTA. Did your investigation determine what inspection was made to change the results of that inspection from unsatisfactory to satisfactory between those dates?

Ms. GOLDMAN. I believe—and I can refer to the exact portion of this—that there was certain maintenance that had to be done to the hold. I believe it involved cleaning of the holds to properly

accept the cargo, scraping, and so forth—cleaning it up from the previous cargo, which was not related to that cargo. So it was more——

Mr. FOGLIETTA. And that was done?

Ms. GOLDMAN. Pardon me?

Mr. FOGLIETTA. And that was done?

Ms. GOLDMAN. That was done, in order to accept the new cargo.

Mr. FOGLIETTA. Ms. Goldman, would you tell us about the investigation that your organization made and the report you made? Was there any investigation into the fact that the owner waited 10 days from the time he knew that this vessel was not communicating with his station and second, that when the Coast Guard was notified by the owner they waited 5 days before starting a search?

Did you question any members of the Coast Guard hierarchy or the owner about either one of those circumstances?

Ms. GOLDMAN. I was not present at the hearings, but Mr. Johnson was. He could speak to the testimony that was made there; but one of the things that we have done with the investigation is to track the normal pattern that this company and the master himself followed so that we could determine whether or not the pattern exhibited in this case should have been looked at as unusual. In fact I believe the factual part of the investigation showed that this master had a habit of reporting in regularly, so that should have been viewed as something unusual when he did not report in, as had been the regular case.

In terms of the Coast Guard, they were questioned at the time in the hearing as to their step-by-step procedure from the first time that they became aware until they began the search-and-rescue operations. In terms of the analysis of that, we have to look at the factual portion in terms of patterns of action.

Mr. FOGLIETTA. I think that the crux of the investigation, as you stated, is that the circumstances were certainly unusual; that when the Coast Guard got the information that the vessel had not been heard of for 10 days prior to their being notified—they investigated that fact for 5 more days before sending a search out.

Ms. GOLDMAN. We indicated——

Mr. FOGLIETTA. Any comment whatsoever?

Ms. GOLDMAN. We indicate in there the actions that were taken from the time of first notification—I would have to refer to specific portions—but I believe we document there the various checks that were made with the various communications systems. They made, initially, a fairly extensive communications check. But as to the adequacy of that from the communications steps to the initiation of the active search and rescue, we haven't made an analysis of whether we think that appropriate or not with actual standards.

The facts are here, but the analysis of that will come in the conclusions of our final report.

Mr. FOGLIETTA. Did you also hear Captain Hobdy's statement that the search under normal circumstances, in his opinion, should have been instituted within 24 hours?

Ms. GOLDMAN. I understand that was his statement.

Mr. FOGLIETTA. Any comment on that?

Ms. GOLDMAN. I could only speak for myself, and I am not sure that that would be appropriate in terms of the Board. In terms of

what took place, and what they expected, I am afraid I am not prepared to comment on that for the Board.

Mr. FOGLIETTA. Thank you.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you.

Our next and final witness is Mr. Bruce McAllister, Deputy Assistant Secretary of Commerce for Maritime Affairs.

Raise your right hand, please, sir.

Do you solemnly swear that the testimony you will give before the committee will be the truth, the whole truth and nothing but the truth?

Mr. MCALLISTER. Yes, sir.

The CHAIRMAN. You may proceed.

TESTIMONY OF HON. 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. Mr. Chairman and members of the committee, I am Bruce McAllister, Deputy Assistant Secretary for Maritime Affairs, Department of Commerce. I am accompanied by Mr. Richard O. Thomas, Director of our Office of Policy and Plans, and Mr. Ronald K. Kiss, Director of our Office of Ship Construction. They are present because of MARAD's activities which appear to be of interest to the committee today concerning the USMER system, which is part of a defense-oriented mission which MARAD has. Mr. Thomas, as the Director of the Office of Policy and Plans, is immediately responsible for those plans. Mr. Ronald Kiss can respond to any questions that the committee might have with respect to engineering data, hull structures stability, and naval architectural soundness, et cetera, insofar as MARAD has information with respect to those questions.

I would like to preface my statement, if I may, with a couple of comments.

First, Mr. Frank Drozak raised a question and asked that we respond to it, and I would like to do that.

With respect to the 25-year life of a vessel—and the *Poet* was somewhat over that period—the 25-year statutory life refers to a promotional and regulatory desire on the part of the Government for a modern and efficient merchant marine. It has only a very limited significance, if any, with respect to structural stability and soundness. As the committee probably knows, there are many vessels which pass classification inspections year after year and are deemed to be structurally sound which exceed 25 years; and those vessels sometimes exceed 40 years of age.

Mr. Penot also made some comments which we at MARAD found to be interesting and accurate. We have had discussions with Mr. Penot in the recent past with respect to the development of what we might call a flagging system; a system which would flag missing vessels, I would simply like to say that all of us at MARAD, especially in view of this tragic event, pledge our cooperation to design and implement such a system. We pledge our cooperation with the Coast Guard and any other agency which the Congress

deems appropriate. I appreciate the opportunity to appear before you to present the view of MARAD with respect to the loss of the *Poet*. Specifically, Chairman Jones has requested that our testimony include an explanation of USMER, its relationship with AMVER, and how this system can be expanded or changed to assist in Coast Guard search-and-rescue missions.

USMER and AMVER are two distinct reporting systems that are carried out for different purposes.

As pointed out by the witness for the U.S. Coast Guard this morning, search-and-rescue operations are a mission of that service. AMVER, an acronym for automated mutual-assistance vessel rescue system, is a voluntary system operated by the U.S. Coast Guard to aid in such search-and-rescue operations. Any nation may participate in the AMVER system. The stated purpose of the system is to enable the Coast Guard, in the event of a marine casualty, to locate and notify vessels in the vicinity of that casualty. As we understand AMVER, it was not set up to flag missing vessels.

USMER, on the other hand, is a mandatory reporting system. USMER is an acronym for the United States Merchant Ship Locator Filing System. At the request of the Department of Defense, this system was established by the Maritime Administration in 1975, generally to provide current information on the position of U.S.-flag merchant vessels and certain other vessels so that such ships may be called up for the military in an orderly manner during periods of national emergency.

I think it is readily apparent that a general locator system for mobilization is very different from a flagging system for search and rescue. Thus far, USMER is fulfilling its defense purpose very well.

The function of USMER is to provide the position of these vessels. National defense plans assume that in a period of crisis, military forces might be ordered to deploy to a foreign area with little or no warning.

Should this occur, unit equipment cargo, ammunition, and resupply cargo would be ready at loading ports within a few days. The information provided by USMER would enable the Maritime Administration to identify ships of the required types and sizes that can be requisitioned, made ready for loading, and put on berth by the required loading dates. At the same time that we are requisitioning vessels for the use of the military, USMER would provide us with the information necessary to notify the owners of vessels not then required to continue with critically important commercial operations.

The continuing ship plot provided by USMER must be maintained at all times if this information is to be immediately available when needed. Without this information, the Maritime Administration would have to rely on the operating companies who, in some cases, do not possess accurate information. Without accurate information, days could be required to establish an adequate ship plot. Ship marshaling without a plot would be on a catch-as-catch-can basis, with no possibility of selecting the most suitable ships or the ships that could be made available most efficiently.

The basic data for USMER are provided by the vessels involved. Pursuant to the authority set forth in two sections of the Merchant

Marine Act, the Maritime Administration requires all U.S.-flag vessels of 1,000 gross tons or over engaged in the foreign commerce of the United States, and certain foreign-flag vessels, to file USMER reports by radio message.

These reports cover arrival and departure at foreign ports, arrival at the first port of call in the United States, and departure from the last port of call in the United States.

Departure reports include the route to be followed, and arrival reports close out a particular voyage. When the vessel is at sea, it must report every 48 hours, beginning at noon of the second day following departure from port. The at-sea reports include the time of day, latitude, longitude, compass course and speed.

These position reports are transmitted from the vessel to shore stations operated by the United States Coast Guard or the United States Navy. These stations then enter the reporting messages in the Department of Defense communications system, which distributes the information to the Naval Ocean Surveillance Information Center, also called NOSIC, the United States Coast Guard AMVER Center, and other addressees, including the Maritime Administration.

The information from these required position reports is then programed into two separate computers. It is programed by the United States Navy into the NOSIC computer for use in the USMER program. In times of national emergency, the Maritime Administration would use the information provided by the NOSIC computer to call up merchant vessels required by the military. The information from these required position reports is also programed by the U.S. Coast Guard into their AMVER computer as supplemental information for that program.

The Maritime Administration is responsible for monitoring compliance with the USMER system. Keeping in mind the purpose for which the system was designed, overall compliance is good, although it varies from day to day.

Current data are generally on file for 90 to 95 percent of the ships required to report. There are a number of reasons why compliance is not complete. The main problem, however, is uncertain communications.

Many U.S.-flag ships are still equipped with Morse key telegraphy equipment. Atmospheric conditions sometimes make transmission impossible. Some radio officers have reported that during an entire Atlantic voyage, they have been unable to make contact with a shore station.

In addition, the Navy no longer teaches Morse operation, and the U.S. Coast Guard provides the only Government shore station capable of receiving Morse transmissions. The Navy, Coast Guard, and commercial shore stations are all converting equipment to handle high-frequency radio teletype and MARISAT transmissions. With the decline in Morse handling capability, the queues awaiting an opportunity to transmit by key telegraphy grow increasingly long. All of these factors affect the completeness of USMER reporting.

The key to improving USMER reliability is to upgrade the communications equipment on U.S.-flag merchant ships. Our objective is to equip all U.S.-flag ships with satellite terminals backed up with high-frequency radio teletype. When that has been done, we

should be able to expect a considerable improvement in USMER reporting.

Mr. Chairman, I would like now to address your inquiry as to how USMER could be modified to assist the U.S. Coast Guard in their search and rescue efforts.

In this regard, I am pleased to be able to inform you that discussions have been held during the past few years between the Maritime Administration and the U.S. Coast Guard regarding the possibility of merging the USMER and AMVER systems.

The reasons why they have not been merged to date are the nonmandatory nature of AMVER, and certain perceived barriers to the use of search and rescue mission information for U.S. national defense purposes.

Although it would be premature to say that these problems can be resolved, there are now indications that this may be possible. Such action would require legislation making AMVER mandatory, plus suitable provisions for the clearing of search and rescue system information on U.S.-flag ships for defense use, with a continuing safeguard against such use in the case of foreign-owned foreign-flag ships. Our discussions with the Coast Guard on these subjects are continuing.

Neither AMVER nor USMER was designed as a fail-safe system to detect the disappearance of ships so that timely search could be initiated. However, either USMER, which has mandatory reporting, or AMVER, could be developed into a fail-safe system if the currently unreliable ship-to-shore communications equipment I refer to earlier was replaced.

For the long term, perhaps 5 years hence, a satellite-based search and rescue system being developed under the auspices of the International Maritime Consultative Organization, otherwise known as IMCO, is in prospect. That system, which is called the future global distress and safety system, will use the emergency position indicating radio beacon referred to in earlier testimony; and they will also use a system which the U.S. Coast Guard has been working on with NASA and the Department of Defense, a search and rescue satellite, sometimes called SARSAT. An international agreement between the United States, Canada, France, and the U.S.S.R. is expected to allow tests of SARSAT in about 1982.

International trials of various satellite radio beacon systems are being planned for 1982 and 1983. The results of these trials are expected to enable the IMCO secretariat to adopt satellite subsystems as an international standard for distress alerting.

This new system should reduce the need to develop AMVER or USMER so that those systems will themselves detect missing ships. But we would defer to the Coast Guard for an opinion on that point.

This concludes my prepared statement. Mr. Thomas, Mr. Kiss and I would be glad to answer any questions the committee might have.

The CHAIRMAN. Thank you very much, Mr. McAllister. You have been very helpful and I do want to commend you and others for the haste with which you have read these statements for this hearing today.

What would be your reaction to putting your Department over with Transportation so that you could work more closely with the Coast Guard?

Mr. McALLISTER. I will paraphrase an answer that Mr. Nemirow gave this morning at another hearing; that is that I have some personal views but I would be reluctant to express them on the record.

The CHAIRMAN. Good enough.

Any questions, Mr. Foglietta?

Mr. FOGLIETTA. Thank you, Mr. Chairman. I do have a question.

I would think that probably at this time anybody in the room could answer the question, as far as that is concerned.

But prior to asking those questions, I want to ask this:

What is the penalty for a ship which is required to report into USMER every 48 hours for not reporting?

Mr. McALLISTER. The penalty set forth in the statute I believe is $50 per violation.

Mr. FOGLIETTA. When was that $50 penalty instituted?

Mr. McALLISTER. I am not sure; but I believe it was instituted when the system was instituted, in 1975.

If I may elaborate on that a bit, sir; that penalty has never been invoked, as far as I know. The system is one in which MARAD plays a strong part, but so do the companies and so do the radio officers aboard the vessels.

Thus far, we feel that by correcting errors in transmission, notifying companies when transmissions are not made, cooperating with the radio officers aboard the vessels, through correspondence, issuance of manuals, et cetera, that we have been able to develop a good working system. And thus far we have not found the need to use a punishment or a penalty to get good cooperation.

Mr. FOGLIETTA. How could you possibly say it is a good working system when a vessel was not reporting, did not report for a total of 14 days, and no action was taken during that time?

Mr. McALLISTER. I can't say that a system which permits that to happen, if you are thinking in terms of a search and rescue system——

Mr. FOGLIETTA. I am thinking in terms——

Mr. McALLISTER. And if you are thinking of——

Mr. FOGLIETTA. I am thinking in terms of a vessel at sea which has lost its communication, is in distress in some manner, which does not communicate with USMER for a period of 1 week to 10 days, and nothing—no red flags go up, and nothing is done to notify the Coast Guard or anybody else that there must be some problem. How could you possibly say that's a good system? I think it is a deplorable system.

Mr. McALLISTER. If I may just say, with respect to protection of life at sea, USMER is a terrible system. I couldn't agree more. It wasn't designed for that purpose.

For the purpose for which it was designed, it is working well. I can only deplore the tragedy of the *Poet* and wish that the USMER system or some other system might have been in effect.

Mr. FOGLIETTA. Do you advocate such a system which would keep track of vessels on a 24-hour basis?

Mr. McALLISTER. I think you can probably glean from my statement and from the work that has been done domestically and in international meetings that it is the universal policy to make seagoing as safe an occupation as possible; and as I say, MARAD pledges its cooperation with the Coast Guard, with this committee, with any other interested agencies.

Mr. FOGLIETTA. Someone said in his statement that if we can keep track of satellites, and we can keep track of airplanes, literally thousands and thousands of airplanes, and know exactly where they are at every given moment, anywhere in the sky, why is it such a monumental and earth-shattering job to be able to keep track of vessels? Why can't we know where they are at any given time and be able to know when they are in distress within a matter of hours? I just don't understand that.

Mr. McALLISTER. The capability, the technology is there, I should say. Ships simply aren't equipped with the kind of communications gear that are on a space sattelite.

Mr. FOGLIETTA. I wish to go one step further, Mr. Chairman, if I may.

The technology is there, yet we are not doing it? Why aren't we doing it? Whose fault is it? Is it because this Congress will not appropriate the money, which I don't think is a problem; is it because the owners don't want to do it? Is it because the maritime service is not anxious to do it? Somebody must be——

Mr. McALLISTER. It is only about—my memory might fail me here, but I think it is only about 50 years ago when Judge Learned Hand made it negligent for a vessel not to have a radio aboard, of any kind. There have been tremendous technological changes in the last 50 years and tremendous social changes, too, in our consciousness of Government's obligation to mandate safety procedures.

I would prefer not to point the finger of blame at anyone. I would rather learn a lesson.

Mr. FOGLIETTA. You think we will learn a lesson?

Mr. McALLISTER. I hope so.

Mr. FOGLIETTA. One final question and that is, you have heard this question five or six times before me asking other witnesses. I would like to have your comment on the fact that the owner of this vessel, after calling for every 2 hours, waited 10 days before notifying the Coast Guard. And after he notified the Coast Guard, the Coast Guard then waited another 5 days before initiating a search for this vessel.

Could you comment on either one of those delays, or both of them?

Mr. McALLISTER. Congressman, I want to be helpful. I don't think that comments from me on matters which are not in my jurisdiction are helpful. But I will do anything to help, where it is in my power or jurisdiction.

Mr. FOGLIETTA. You say this is not in your jurisdiction?

Could you tell me whether or not the Coast Guard should have had a search within 24 hours, as was stated by Captain Hobdy? Or whether or not the owner should have notified the Coast Guard within 24 hours or 48 hours or 32 hours, rather than waiting 10 days? That's not within your jurisdiction?

Mr. McALLISTER. No, sir.

Mr. FOGLIETTA. I have no further questions, Mr. Chairman.

The CHAIRMAN. Before we adjourn, I want to thank each and every one of you that appeared today. I am well aware of the emotion, the sadness that is in the hearts of many of you, the disappointment; I am well aware of some of the animosities that have been expressed at some of our Government agencies. In terms of an undercurrent of unrest, never have I presided over a more orderly procedural committee than this; and I want to thank you very much, particularly those of you who are from out of town. I hope you have a very pleasant trip home. This does not conclude our investigation, because I am not going to adjourn this hearing but recess it subject to the call of the Chair, to wait for Mr. Henry Bonnabel, president of the Hawaiian Eugenia Corp., to be able to come down here and testify.

With no further business, the committee stands in recess subject to the call of the Chair at a later date.

[The following was received for the record:]

THE FIFTH INTERNATIONAL SYMPOSIUM, 1979, SPONSORED BY SAFETY AT SEA

The 1979 "Safety at Sea" Symposium, the fifth annual event, held on October 31st/November 1st at the Institute of Marine Engineers in London, is entitled "Lifesaving and Rescue in the 1980's". Held two months before the start of the new decade, it also heralds in a major advance in maritime safety, the ratification and implementation of the IMCO SOLAS 74 convention. In addition IMCO recently introduced a new SAR convention designed to improve marine search and rescue in the future.

These conventions are the cornerstone of the papers published here which give a wide cross section of current and future thinking in Lifesaving and Rescue. Inevitably it is difficult to crystal ball gaze ten years hence but our authors have risen to the challenge and we think the reader will find much food for thought.

It would be fascinating to jump those ten years and see what the standard lifesaving and rescue techniques will be in 1989. What, sadly, seems certain is that the systems, whatever form they turn out to have, will be as much used as those of today—marine casualties, we fear, will occur then nearly as frequently as now but hopefully with less loss of life.

In conclusion, I would like to personally thank the authors and chairman, and their organizations and companies for all their help and assistance during the preparation of this symposium.

JOHN BARNES,
Editor, "Safety at Sea"

[The committee adjourned at 4 p.m.]

DISAPPEARANCE OF THE SS "POET"

WEDNESDAY, JUNE 24, 1981

HOUSE OF REPRESENTATIVES,
COMMITTEE ON MERCHANT MARINE AND FISHERIES,
Washington, D.C.

The committee met, pursuant to notice, at 2:10 p.m., in room 1334, Rayburn House Office Building, the Honorable Walter B. Jones (chairman) presiding.

Present: Representatives Jones, Studds, Mikulski, Foglietta, Patman, Carney, Dougherty, and Fields.

Staff present: Edmund B. Welch, Cher Brooks, Gene Gleason, John Cullather, Sue Waldron, Barbara Cavas, Molly Dominick, Marvadell Zeeb, Ric Ratti, Rudy Cassani, Dave Parker, Duncan Smith, John Bruce, Gerry Seifert, Bill Woodward, and Jack Sands.

The CHAIRMAN. The committee will come to order, please.

The Chair would like to announce consent that persons be permitted to tape these proceedings, provided there is no objection on the part of the committee. According to the rules of the House, if any subpenaed witness who shall appear this afternoon objects to being taped or photographed, he or she will have the right to object. At that time photographers and media people will be asked to cover their lenses and turn off any microphones to be used for coverage.

Today is the second day of public hearings conducted by this committee inquiring into the fate of the U.S.-flag freighter, the SS *Poet,* which disappeared with all hands sometime after she left port Philadelphia and cleared Cape Henlopen, at 8:30 a.m. last October 24.

The first hearing was on April 9, at which time testimony was taken from all the appropriate Government agencies, expert witnesses and representatives of the families of the missing crewmembers.

Today, we will hear from Admiral Price and Henry Bonnabel, the principal owner of the SS *Poet.* At the time of our first hearing, Mr. Bonnabel was out of the country and unable to testify. He was promised at that time the opportunity to appear here and to provide the committee with the information he has concerning the loss of the vessel and the 34 men who have disappeared with her.

I should point out that the loss of a U.S.-flag vessel of this size without a trace is unheard of. In modern times, there is no other incident of this type on record. In our first hearing, retired Coast Guard Capt. Arthur Gove, whose son was third mate on the *Poet,* asked that we find out what happened to the *Poet,* "* * * so that my son shall not have died in vain."

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That is the purpose of this hearing today. We intend to pursue this matter until some reasonable answer is forthcoming to explain the loss of the vessel and the 34 souls aboard her. And then we intend to take whatever steps are necessary to insure that similar disasters are avoided in the future.

At this time, the Chair recognizes the gentleman from Pennsylvania, Mr. Foglietta.

Do you have any statement you would like to make?

Mr. FOGLIETTA. No, Mr. Chairman.

I want to compliment the Chair for this hearing and taking the necessary legal steps to have the owner of the vessel as well as Admiral Price here to answer questions that the families of these people so richly deserve.

I am quite upset by what has happened here. I know that not only the members of this committee, the U.S. Congress, families of the crewmen who were lost and just the general public are absolutely and totally concerned about precautions that were taken, which precautions were taken before this ship was allowed to set sail, what actions were taken, what concern was expressed by the U.S. Coast Guard and the owners of this vessel over the lives of the men after it was determined that they were in danger and, Mr. Chairman, see what can be done to prevent this kind of thing from happening again.

I, Mr. Chairman, will pledge my efforts to do whatever is necessary to prevent this kind of catastrophe from ever occurring.

The CHAIRMAN. Thank you, Mr. Foglietta.

The Chair will recognize Mr. Carney on my left, if he has any comments.

Mr. CARNEY. I think it would behoove us all to get right down to the testimony, and I commend you for holding these hearings.

The CHAIRMAN. Thank you, sir.

The Chairman recognizes Mr. Henry J. Bonnabel of the Hawaiian Eugenia Corp. of Philadelphia.

First, if you will, would you raise your right hand, please, sir?

[Whereupon, Henry J. Bonnabel was first duly sworn by the chairman, and gave the following testimony.]

The CHAIRMAN. Do you have any objections to the taping of your testimony by the TV cameras?

You have a right to object if you see fit.

Mr. BONNABEL. I am advised by counsel to object, yes.

The CHAIRMAN. I'm sorry?

Mr. BONNABEL. I'm advised by counsel to object.

The CHAIRMAN. You protest?

Mr. BONNABEL. Protest.

The CHAIRMAN. The cameras are instructed not to be operated during this time. This applies to television and still cameras, under House rules, and after this witness has finished, you will be permitted to televise the remainder of the hearing.

The Chair recognizes you for your statement.

TESTIMONY OF HENRY J. BONNABEL, PRESIDENT OF HAWAIIAN EUGENIA CORP.

Mr. BONNABEL. Thank you for giving me an opportunity to appear before you.

All of us who have had any involvement with the *Poet* have been hurt by the tragic loss. The vessel was a good ship manned by officers who homesteaded the vessel. Some of the officers have sailed on this vessel for long periods of up to 14 years. It is inconceivable that they would knowingly take a vessel to sea if they had the least feeling that it was not seaworthy in every respect. Unfortunately, their reputation, as well as the owner's, has been besmirched by outrageous stories and innuendo that appeared in the media alluding to allegations of marine fraud, hijackings or trading heroin in collusion with Iran or carrying secret explosives for the U.S. military to Egypt. None of these stories or false charges of the vessel's unseaworthiness deserve to be compounded by this committee.

Unfortunately, this vessel was probably the victim of a killer storm that proceeded up the east coast on October 23-26. This was not the only vessel that was lost during that storm, nor the men lost with the vessel the only victims. The Coast Guard has reports of at least four other vessels that were lost as well as damage to other ships at sea.

You have heard testimony that the vessel was probably lost on the night of October 25-26. During that time, when the vessel, bound on an easterly course, the wind and waves veered from forward on her starboard bow to astern on her starboard quarter. Although we may never know for sure what happened, we do know that the vessel was staunch, seaworthy, properly loaded, and well-manned. We can anticipate that based upon the best technical advice, the vessel probably capsized with the seas on her starboard quarter.

At that time, no identifiable messages were heard from the *Poet*, not even by the Coast Guard planes that were conducting search and rescue operations on the weekend of October 25-26 in the area. Neither was there any trace of any part of the vessel or cargo found.

Hindsight could create many speculations on what the officers and crew should have done during the storm. I do not believe that I nor people sitting behind desks should now attempt to criticize those onboard the *Poet* while they were maneuvering the vessel.

Respectfully submitted.

The CHAIRMAN. Thank you, Mr. Bonnabel.

Thank you very much.

I have one or two quick questions here, if you don't mind.

I know you have covered this ground on previous occasions and I would like to do it one more time for the record.

The last official communication from the *Poet* was on October 24, 1980, at 0836 hours local time, just offshore from Cape Henlopen, Del. The vessel is under orders to report every 48 hours.

Precisely when was it that you became concerned for the ship's safety?

Mr. BONNABEL. I never gave it any thought, of the ship sinking, sir. We often have communication problems with ships at sea. I testified that it is very common ships go 4 and 5, sometimes 6 days without being able to communicate with shore stations.

We have had it happen many times far in excess of 6 days.

I think one of the senior Coast Guard officers testified that during the same period of time a ship went 13 days without being heard from and eventually showed up safely in port.

There was no thought in my mind of this ship being lost at that time, sir.

The CHAIRMAN. When did you ask the Chatham radio to try to contact the *Poet*?

Was it approximately October 27?

Mr. BONNABEL. That sounds like a reasonable date; yes, sir. It was a couple of days.

The CHAIRMAN. The record also shows that Chatham radio advised you on October 30 that they had tried for 3 consecutive days to reach the *Poet,* but were unsuccessful, is that correct?

Mr. BONNABEL. That is correct, sir.

The CHAIRMAN. Yet, it was only on November 3 that you contacted the Coast Guard for information on the *Poet*, and on that same day you contacted one of the unions to determine if they had any messages from the vessel, is that correct?

Mr. BONNABEL. Yes, sir.

The CHAIRMAN. And it was actually on November the 7th that you first officially notified the Coast Guard that you feared for the ship's safety.

What inspired that decision?

Mr. BONNABEL. It wasn't done on the 7th, sir. It was on the 3d.

The CHAIRMAN. The Coast Guard record shows November 7.

Mr. BONNABEL. I am sorry. It was a Monday, if someone has a calendar.

The CHAIRMAN. The information we have is that you called the Coast Guard perhaps informally on November 3 and asked them to run a radio check and you officially notified the Coast Guard to run the search and rescue on November 7, is that correct?

Mr. BONNABEL. I don't consider that correct; no, sir.

Ms. MIKULSKI. Could you speak louder?

The room is crowded and I'm having difficulty.

Mr. BONNABEL. I'm sorry.

The CHAIRMAN. Well, the thing we ought to cover is you told our staff that it was not at all uncommon for a ship to go for as long as 6, 7, and even 8 days without radio contact.

I believe you testified that it was common practice, so forth and so on.

What was on your mind when you first asked Chatham radio to contact the *Poet* on October 27?

If you are accustomed to long periods of radio silence, why did you try to reach the ship when it was less than 72 hours out of port, from October 24 to October 27?

Mr. BONNABEL. We also endeavored to reach the ship, sir, in the hopes even if we don't get a message from them, they are getting a message from us.

The Chatham radio or any other radios we used were instructed to let us know if they make contact with the ship, if your message is delivered, we will know. If it isn't delivered, we will also know.

The CHAIRMAN. It is contrary to your statement a few minutes ago, you are accustomed to going, 6, 7, or 8 days without contacting a ship.

This attempt to reach the *Poet* early on in its voyage seems curious to me. You are making the decision to contact the *Poet* on the evening of October 26 or early on October 27.

Is it a coincidence that it was during that period of time that the coastal storm was at its peak?

Nowhere do you try to contact your vessels during the height of the storm, normally?

Mr. BONNABEL. We don't normally try to contact them during a storm for any specific reason. We try to contact them on a regular basis. It could be a coincidence that this was the regular time for us to establish contact with the ship whether or not there had been a storm.

The CHAIRMAN. I guess I am going to skip some of these questions.

This intrigued me quite a bit.

You are a graduate of the Maritime Academy?

Mr. BONNABEL. U.S. Merchant Marine Academy.

The CHAIRMAN. You have been working with the maritime trade for more than 35 years.

Are you saying that on October 27 that you were not concerned for a 36-year-old ship in a storm of that magnitude?

Mr. BONNABEL. That is right, sir.

The CHAIRMAN. You told our staff that all ship owners and operators are reluctant to alert the Coast Guard when a ship is late in reporting because of the distress it causes the families of the seamen.

Wasn't this a special case, however, when an aging ship fully loaded, was caught in a killer storm and then goes unreported for days?

Mr. BONNABEL. I'm sorry sir.

I didn't quite follow your question.

The CHAIRMAN. I will break it down.

You indicated to staff that shipowners are reluctant to report missing vessels because it caused so much distress to the families of those aboard.

My question is, Wasn't this a special case, however, when an aging ship, fully loaded, was caught in a killer storm, and was unreported for 10 days. Should it not have been reported to the Coast Guard much sooner than it was, sir?

Mr. BONNABEL. If I understand your question, sir, when I gave that information to members of your staff, the questioning went along the line of: "Why didn't you do it 48 hours later?"

As I say, we don't normally, no shipowner that I know of when they don't hear from the ships for 48 hours, or 72 hours, or 96 hours, calls the Coast Guard and we would have nothing but 50 percent of the American population being Coast Guard people, running out for maydays everyday, if you didn't hear from a ship every 24 or 48 hours.

It's very common, as they say, you go 4, 5, 6 days.

The CHAIRMAN. Well, sir, the *Poet* left Cape Henlopen, Del., on the morning of October 24 and that was a Saturday.

The storm hit the coast on Sunday and raged on through Monday.

Where were you during that time, Mr. Bonnabel, and what kind of schedule did you keep for the next 10 days?

Were you traveling or were you in the office? Was it business as usual? What took place?

Mr. BONNABEL. I was in the office on that Saturday and Sunday, sir.

The CHAIRMAN. Well, you notified the Coast Guard and the unions on Monday, November 3, yet it was a full work week before you requested a search-and-rescue operation to begin on Friday, November 7.

On that Friday, you spent several hours with retired Coast Guard Capt. Donald F. Hall, the father-in-law of Robert W. Gove, the third mate on the *Poet.*

Didn't Captain Hall persuade you to formally notify the Coast Guard that the vessel was missing rather than have some third party make the declaration?

Mr. BONNABEL. Captain Hall was extremely helpful to me during that period of time. Of course, it had been reported to the Coast Guard days before I, myself, and of course, the unions were aware of it, were aware of the fact we had not heard from the ship prior to the third.

The CHAIRMAN. There seems to be some confusion about dates, Mr. Bonnabel.

I have in my hand a copy of a telegram formally notifying the Coast Guard on November 7 that your ship was missing. According to this copy, a telegram which I have dated November 7, 1980, to the Commander of the 3d Coast Guard District, Governors Island, N.Y., you urged the Coast Guard to engage in a search and rescue.

"I formally asked the Coast Guard four days later, November the 7th" according to the telegram, "to engage in a search and rescue." Is that correct, sir?

Mr. BONNABEL. I wouldn't call my notification on the 3d informal, sir.

The CHAIRMAN. You didn't demand search and rescue?

Mr. BONNABEL. I didn't do what?

The CHAIRMAN. You didn't demand an active search and rescue operation?

According to our records, you asked for an attempt at radio contact which I think the Coast Guard tried to follow through on.

Mr. BONNABEL. I don't instruct the Coast Guard how to run their business. We reported the ship as being unheard from. They promised to help try to make contact and as far as I know, they made many efforts, every effort.

The CHAIRMAN. If that would be true, why did you follow it up with a telegram asking for a search and rescue?

Mr. BONNABEL. As I say, sir, Captain Hall was of tremendous help to me. Being a retired Coast Guard captain, he was kind enough to come to my office on several occasions to help me, as I have said, during this period, and he knew much better than I from experience, how to get action from the Coast Guard.

He was not satisfied we were getting the proper action on the basis of our previous advices to the Coast Guard.

The CHAIRMAN. As a matter of fact, Captain Hall was the composer of this telegram, in the main, was he not?

Did he furnish the language of the telegram?

Mr. BONNABEL. He and I worked it together.

The CHAIRMAN. In the final analysis, Mr. Bonnabel, in your opinion, what do you believe happened to the *Poet*?

Mr. BONNABEL. Based on the information that has come into my hands within the last 48 hours, I am convinced that the vessel suddenly capsized without warning and there was no opportunity for any one to do anything at that particular point.

The CHAIRMAN. When did you finally concede to yourself that the *Poet* and crew were lost? What period in time did you give up completely?

Mr. BONNABEL. It was a number of weeks after the ship was due in the Azores off Gibralter because I kept hoping and praying that the ship had simply lost power and was still floating around out there somewhere so it was a number of weeks before I gave up.

I came to the office, slept in the office several days, several nights, hoping to hear, have a message come in.

We have regular procedures for phone calls at home in case messages come in. I didn't even want to rely on the phone call procedures.

I stayed by the telex machines and in touch with the cable companies night and day.

There was a point several weeks later where I had to acknowledge to myself that there was no chance that the ship was afloat, nor in my mind was any chance of her being hijacked and all of these other weird stories that have been written.

The CHAIRMAN. Mr. Bonnabel, our staff researched some rather interesting facts for me. I am sure you have a satisfactory answer to some questions stemming from the facts about your corporate ownership.

You are 75-percent owner of the *Poet* through the Hawaiian Eugenia Corp. The corporation also owns the SS *Flora,* also a bulk carrier.

Within 1 week near the end of last October, one-half the total assets of the corporation were lost when the *Poet* disappeared. The other half of the assets are of dubious value since the *Flora* went dead in the water in the North Atlantic the same week and may never sail again. Subsequently, you purchased the remaining 25 percent of the corporation from your partner, thereby becoming solely responsible for some $30 million in lawsuits by the families of the missing men.

What is the logic in that move?

Mr. BONNABEL. I feel responsible for it, sir, in the sense that any business undertaking I go into with someone, I will stand up to for better or worse.

The CHAIRMAN. How many vessels do you own or operate that depend almost entirely on Public Law 480 cargo for the business?

Mr. BONNABEL. You say currently, sir?

The CHAIRMAN. Yes, sir.

How many vessels do you own or operate that depend almost entirely on Public Law 480 cargo for your business, one, two, three, four?

Mr. BONNABEL. Currently, one.

The CHAIRMAN. Only one?

Mr. BONNABEL. Yes, sir.

The CHAIRMAN. Were there more in the past?

Mr. BONNABEL. There has been various ships in the past; yes, sir.

The CHAIRMAN. Mr. Bonnabel, when was the last time you were actually aboard the *Poet* prior to her disappearance?

Mr. BONNABEL. I couldn't give you an accurate date, sir. But I have been aboard the ship.

The CHAIRMAN. Was it 1 week, 1 month, 6 months, or 1 year, or 2 ago, when?

Mr. BONNABEL. It was within the last year prior to her——

The CHAIRMAN. Within the last year?

Mr. BONNABEL. Yes, sir.

The CHAIRMAN. You considered her, indeed, seaworthy, is that correct?

Mr. BONNABEL. Definitely; yes, sir.

The CHAIRMAN. You have reviewed the technical study, conducted by the Coast Guard, regarding the stability, strength, and sea keeping characteristics of the *Poet.*

At several places in that lengthy study, did it suggest that the *Poet* capsized in high seas?

Do you believe that?

Mr. BONNABEL. I believe the technical information.

I do not represent myself as being an expert on the paper that has been written on the incident, but I have sufficient knowledge of the sea and marine background to accept what I consider to be the conclusion that the vessel capsized very suddenly without warning.

The CHAIRMAN. In airline crashes we frequently hear of pilot error.

Applying that principle to the *Poet,* might the crew in any way have contributed to the loss of the vessel if it capsized as the Coast Guard suggests?

Mr. BONNABEL. Sir, as I have stated in my opening statement, I would—I do not feel competent to sit behind a desk and tell a captain or a mate on watch what he should have been doing during those very violent moments when the sea was tossing the ship about like a matchstick.

As I say, I don't think any one here should try to second-guess these men. They did what they thought was best under the circumstances.

The CHAIRMAN. I guess my final question or two would be this, do your ships have an operating manual, and does that manual require the captain to report to you every 48 hours?

Mr. BONNABEL. Yes, sir.

The CHAIRMAN. Apparently, the *Poet* did not always follow that manual.

Have you ever taken any action against the master for not reporting on time?

Mr. BONNABEL. It isn't a question of not their wanting to contact us, sir. It more is a problem of either atmospheric conditions or of marine traffic that they cannot get through sometimes for many days at a time.

You cannot reprimand a captain or a radio operator for not establishing a contact under impossible circumstances.

We discuss it with them frequently and they give you this answer, that the atmospheric conditions did not permit them to get through. All you can do is try better next time, try harder next time.

The CHAIRMAN. Mr. Bonnabel, proposals have been made to require the mandatory reporting of vessels to AMVER, and for a system of flagging vessels that are late in reporting.

How do you feel about that?

What kind of penalties would you recommend?

Mr. BONNABEL. Well, sir, I have volunteered my services to your committee or any other committee that is ever formed to try to—excuse me——

Ms. MIKULSKI. Mr. Chairman, should the committee recess for 5 minutes until the witness has an opportunity to compose himself?

Mr. BONNABEL. That's all right. I'm sorry.

The CHAIRMAN. Mr. Bonnabel, let me assure you, this is no witch hunt.

We are not trying to cross-examine you as such.

We are searching for as much truth as we can find in order to enact legislation, for which I am sure you would concur to avoid this sort of thing ever happening again, if at all possible.

Mr. BONNABEL. That's right, sir.

That is why I volunteered my services, no cost to any one, if we can ever find a way to avoid it.

I have been in touch with RCA, various communications people, as to what might be done in the future at least to improve transmission of messages from ships at sea.

There are a number of very much improved systems right now in operation, as recent as yesterday RCA told me that anybody that buys a unit today is making a big mistake. Within 3 months, they will have another unit that will outmode anything on the market today.

So it is a continuing thing, must be gone into every year, every time a new machine or new gadget comes out, must be tried until we get the right combination, that a ship at sea can reach a shore station any hour of the day and night, anywhere in the world.

This present system that is in operation which will be outmoded within a few months is very good, I am told. Its three main Earth stations is one in New England, in Connecticut, one in California, and there is one in Japan. These Earth stations with the proper equipment can reach many—most ships that have the compatible equipment today.

When a new system comes up, there will be more Earth stations, more satellites and, hopefully within 6 months, something can be done to insist a better system be put into operation.

The CHAIRMAN. One final question, I guess.

As the operator, would you have any objections to legislation which would require certain reporting systems to update and upgrade the communications between the vessel and the men?

Mr. BONNABEL. I think somewhere along the line the proper equipment becomes available, and if the radio operator's license is put at stake, that he must get through or else have a very good reason for not getting through, that you will find better compliance.

There is nothing we can do but take the man's word for it when he tells us he couldn't get through. We are taking his word for it.

If he had to appear before a board like this and swear he couldn't get through, maybe you'll get a little better compliance. I don't say you will.

Something must be done, yes.

The CHAIRMAN. Mr. Bonnabel, thank you very much for your testimony this afternoon.

I think you have been very candid in your answers.

I think at this time I recognize the gentleman from Massachusetts, Mr. Studds.

Mr. STUDDS. I have no questions.

The CHAIRMAN. Mr. Foglietta?

Mr. FOGLIETTA. Thank you, Mr. Chairman.

Mr. Bonnabel, I know that you are under distress in answering these questions.

However, I am going to ask you some questions and the reason for asking those questions is to learn as much about the *Poet* as we can, and about the fate of the *Poet,* basically for the sake of the families of those lost seamen to attempt to answer questions which I am sure arise in their minds during the day, during the night, every moment of their lives, and probably will for the rest of their lives.

So we hope we will be able to answer as many of those questions as possible for them.

Our second concern here in these hearings might prompt us, in conjunction with the Coast Guard and owners, to take such action as is necessary to prevent anything like this from happening again.

How old was the *Poet?*

Mr. BONNABEL. The *Poet* was originally built in 1944 or 1945, and it was completely—made a couple of trips during the war, was put into mothballs in freshwater, preserved, as you would preserve anything you want to lay up in a permanent basis in the U.S. Government, and she was taken out of mothballs in 1965.

So, basically, she was a 15-year-old ship, as far as wear and tear is concerned.

Mr. FOGLIETTA. You have stated that it is not unusual for a vessel to not communicate with the owner or with the Coast Guard for 6, 7, 8, 10, as many as 13 days; is that correct?

Mr. BONNABEL. Yes, sir.

Mr. FOGLIETTA. What was the record for the *Poet* in communications in the past?

Mr. BONNABEL. Well, I testified at the Coast Guard hearings that on the return voyage from Egypt immediately prior to this eastbound sailing she had gone, if I recall, correctly, 5 days without reporting.

Mr. FOGLIETTA. Five days without communication?

Mr. BONNABEL. Yes.

Mr. FOGLIETTA. Because of some deficiency or defect in the communicating system, I understand?

Mr. BONNABEL. Atmospheric conditions.

Mr. FOGLIETTA. What had been the record of the *Poet* for communications prior to that?

This committee has been informed the *Poet* had an excellent record of communicating every 48 hours for a long number of years.

Mr. BONNABEL. When conditions were proper, she had a very good record for reporting to us. I understand she had a very good record, perhaps even a better record of reporting to USMER.

I don't have USMER's record. I understand there was testimony they had more reliable contact with the ship than we had.

Mr. FOGLIETTA. That was my next question.

The information we had was that the *Poet* had an excellent record for contact with USMER for many, many years, that up until the time that the last contact for that 5-day period you just referred to, it had not lost contact for many, many years.

You are not familiar with that information?

Mr. BONNABEL. I have heard of that. I am not familiar with it. I am not familiar with USMER's records. I heard what you have stated, which makes it all the more—USMER not having heard 48 hours later, 96 hours later, wouldn't have come to us in some way to find out what was going on.

This is common with us. We don't hear. If they say it isn't common with them, I would imagine they should have perhaps inquired about it.

Mr. FOGLIETTA. An article appeared in the Philadelphia Inquirer on June 14, 1981, which raised some very serious questions about the safety standards of older ships like the *Poet* which received Government subsidies for carrying grain under the food for peace program, and about your operations in particular.

Are you familiar with that article?

Mr. BONNABEL. I have seen an article. I am not sure it is the one that you're referring to. I have seen one of these very scandalous articles.

Mr. FOGLIETTA. I am holding up the article and I would gladly show it to you to ask you whether or not you are familiar with it.

I wouldn't say it was a scandal sheet.

Mr. BONNABEL. Yes, I have seen this.

Mr. FOGLIETTA. Mr. Bonnabel, the article states that you have, you, Mr. Bonnabel, and I quote: "A record of operating old freighters that have experienced serious mishaps that have left the ships helpless and vulnerable to catastrophe on the high seas," and that you have, "either owned or operated five old ships including four involved in the grain trade that either sank or developed potentially catastrophic problems at sea over the last 6 years."

Is that statement correct?

Mr. BONNABEL. I would have to go back into the number of ships we operate, sir.

Mr. FOGLIETTA. Let me try to refresh your memory, then.

The ships which the article refers to are the *Poet,* the *Penny,* the *Flora,* the *Silver Dove,* and the *Pilgrim.*

Is that an accurate statement that you were owner or part owner or operator of those ships?

Mr. BONNABEL. I am certainly familiar with them all; yes, sir.

Mr. FOGLIETTA. That was not my question.

Were you the owner or operator of those ships, or any of them?

Mr. BONNABEL. If we may take them one by one.

Mr. FOGLIETTA. Let's take it one by one.

Were you, as the article states, the president of the corporation which owned the *Silver Dove,* a ship which sank in the Pacific in 1973, after cracks developed in the hull?

Mr. BONNABEL. I am under oath. I must answer you truthfully.

Mr. FOGLIETTA. I hope you do.

Mr. BONNABEL. I don't remember.

You asked if I was president of that company. I don't remember if I was or not, but I am familiar with the *Silver Dove.*

Mr. FOGLIETTA. What was the name of the corporation that owned the *Silver Dove* at that time?

Mr. BONNABEL. I don't remember, sir. I gave your committee a list of ships that we have operated in the last 24 months.

Mr. FOGLIETTA. How about the Oswego Shipping Co.?

Mr. BONNABEL. Oswego Steamship Co. sounds familiar.

Mr. FOGLIETTA. Are you president of the Oswego Steamship Co.?

Mr. BONNABEL. I would have to look at the records to find out.

Mr. FIELDS. Would the gentleman yield?

Mr. FOGLIETTA. OK.

Mr. FIELDS. If the gentleman would yield?

Mr. FOGLIETTA. Yes.

Mr. FIELDS. Do you own a substantial interest in that particular company my colleague just referred to?

Mr. BONNABEL. You see, it is going back 8 years in my memory. You are asking me a question 8 years back in my memory. I am not trying to avoid the answer.

If I say yes, I could be wrong. If I say no, I could be wrong.

Mr. FIELDS. Did you ever own any interest in the company my colleague mentioned?

Mr. BONNABEL. It is possible. It is possible that I owned the complete interest. It is possible.

Mr. FIELDS. I thank the gentleman for yielding.

Mr. FOGLIETTA. Thank you.

Mr. BONNABEL. There are—incidentally, there were Coast Guard hearings on this incident. All of this is on record.

Mr. FOGLIETTA. Sir, did you testify at that hearing before the Marine Board of Inquiry on the sinking of the *Silver Dove?*

Mr. BONNABEL. To my knowledge, there was no—I am not sure if there was a Marine Board of Inquiry. I did not testify before the Marine Board of Inquiry.

Mr. FOGLIETTA. Was there any Federal inquiry?

Mr. BONNABEL. I don't know.

Mr. FOGLIETTA. I thought you just said it was on the record.

Mr. BONNABEL. My testimony was on the record.

Mr. FOGLIETTA. Where was your testimony given?

Mr. BONNABEL. The testimony was all taken before at least 10 or 15 lawyers in the offices of Hit, Best in New York.

Mr. FOGLIETTA. Under whose auspices?

Mr. BONNABEL. Right off, I can't tell you. All I know, I was subpenaed or requested, and usually no one has to subpena me to appear anywhere.

Mr. FOGLIETTA. In what capacity were you subpenaed?

Mr. BONNABEL. I think you're trying to get me to say as president, and I don't remember if I was president.

Mr. FOGLIETTA. I am not trying to get you to say anything. In 1973, 8 years ago——

Mr. BONNABEL. Yes, sir.

Mr. FOGLIETTA. I certainly never owned a ship. I owned automobiles, things like that. I remember every one I ever owned in my life, going back 25 years.

A ship is not something you forget about owning or having a financial interest in 8 years ago.

My question is, If you search your recollection, do you remember, or can you remember, whether or not you did own or had any substantial ownership in the *Silver Dove* which sank in the Pacific in 1973?

Mr. BONNABEL. I think I have testified that I don't recall but I am familiar with the incident.

If you would wish to ask questions about the incident, I will try to answer.

Mr. FOGLIETTA. Were any lives lost on that ship?

Mr. BONNABEL. None whatever.

Mr. FOGLIETTA. What is your connection with the African Supply & Purchasing Co., owner of the SS *Pilgrim?*

Mr. BONNABEL. I was a major stockholder in that company.

Mr. FOGLIETTA. Have you heard the story about the *Pilgrim* being on its way to a ship graveyard when it was determined to pick up a load of food for peace grain, and it then developed a perilous 45-degree list off Capetown, South Africa?

Mr. BONNABEL. I am sorry, I didn't get the question.

Mr. FOGLIETTA. The SS *Pilgrim*——

Mr. BONNABEL. Yes, sir.

Mr. FOGLIETTA. Was it on its way to a ship graveyard when the owners of that vessel were offered a deal to pick up a load of food for peace grain in which a profit could be made, the ship, the vessel stopped on its voyage to its own graveyard, manned with a crew and sent out to pick up grain, and on its way, or if it had picked up the grain, developed a list and almost sank off the coast of Capetown, South Africa; are you familiar with that situation?

Mr. BONNABEL. I am familiar with the situation, yes, sir.

Mr. FOGLIETTA. Now, what is your relationship, if any, with the African Supply & Purchasing Corp., owner of that SS *Pilgrim?*

Mr. BONNABEL. I was a major stockholder.

Mr. FOGLIETTA. Where was the corporate——

Mr. BONNABEL. May I say something?

Mr. FOGLIETTA. Certainly.

Mr. BONNABEL. My counsel advises that in our mutual compound, I didn't even consider it a question, but the last few words, a few minutes ago, that so many things were said, and I said I am familiar with them, that it could lead someone to believe that everything you said was true, which is far from being the truth.

Mr. FOGLIETTA. Would you tell us what was true, then?

You said you were familiar with the story concerning the SS *Pilgrim.*

Mr. BONNABEL. It was not true that the ship was en route to a graveyard, nor did she develop a 45-degree list.

If you could take one point at a time, I would be glad to say——

Mr. FOGLIETTA. Let me ask you this: Were you an officer of the African Supply & Purchasing Corp., president and secretary, vice president, treasurer?

Mr. BONNABEL. I don't know, but it is possible that I was.

Mr. FOGLIETTA. Do you remember signing a contract on behalf of the African Supply & Purchasing Corp. with the food for peace corporation?

Mr. BONNABEL. We signed contracts for many of our clients. It is possible that I signed it for one of our clients.

Mr. FOGLIETTA. The article also states that the SS *Penny* lost its power system 15 times as it crossed the Gulf of Mexico between Tampa and Galveston, that it was repaired in Galveston, passed Coast Guard inspection, and shortly after it left Tampa on October 30, 1980, began breaking down, wallowing in the Atlantic without power and steering, sometimes without power for radio.

Is that correct?

Mr. BONNABEL. Not in the form that you asked, it is not correct, no, sir.

Mr. FOGLIETTA. What happened after—immediately prior to and after October 30th, of 1980, to the SS *Penny?*

Mr. BONNABEL. Is it possible you have a little tip to give me where she was on October 30th?

Mr. FOGLIETTA. I just said, it lost power 15 times as it crossed the Gulf of Mexico between Tampa and Galveston.

Mr. BONNABEL. All right.

Mr. FOGLIETTA. It was repaired in Galveston, passed Coast Guard inspection. Shortly after it left Tampa, October 30, 1980, began breaking down.

Geographically, I think you know where that area is?

Mr. BONNABEL. Well, as I say, you lost me because you say it sailed from Tampa on the 30th. I'm trying to follow you. Sailed from Tampa on the 30th, went to Galveston and you said it sailed to Tampa again.

I am not trying to avoid anything you asked me. I would be glad to answer it. It goes on.

Mr. FOGLIETTA. It left Tampa, went to Galveston?

Mr. BONNABEL. That is correct.

Mr. FOGLIETTA. It was repaired in Galveston.

Mr. BONNABEL. It was repaired in Tampa before it went to Galveston.

Mr. FOGLIETTA. It passed Coast Guard inspection?

Mr. BONNABEL. Passed Coast Guard inspection, went through months of what we call the special survey in Tampa. We had it there for several weeks in Tampa.

Mr. FOGLIETTA. Where was it tested by the Coast Guard?

Mr. BONNABEL. In Tampa, we'd had her there several weeks doing about 80 percent of what we call a special survey which is a very difficult survey.

Mr. FOGLIETTA. After it left Tampa, did it run into difficulty?

Mr. BONNABEL. We had crew problems after it sailed from Tampa, yes, sir.

Mr. FOGLIETTA. Did it have any power problems?

Mr. BONNABEL. It was problems with the crew keeping power.

Mr. FOGLIETTA. I wish you would let us know, they refused to operate the ship?

Mr. BONNABEL. I wouldn't say they refused to operate it. That particular crew apparently couldn't operate it. We perhaps—it isn't in your records, but we got a message from the ship saying that they lost power. We sent a tugboat out together with a few shoreside technicians. The technicians transferred onto the tugboat, onto the *Penny.*

They radioed back there was absolutely nothing on, prior to the technicians going on. We sent a message to the ship asking what parts they need, what parts were required. They cabled us back that no parts were required.

And we cabled them back, what is wrong, and they said, well, they don't have power. So we sent the shore technicians out by way of tug, they transferred from the tug onto the ship and 2 hours later they had it going.

No new parts were installed, no repairs were effected, all they did was get the plant back on line.

The men that we sent out got the plant back on line, left it in charge of the crew, went up and got some sleep. They had been on this little tugboat during the previous 48 hours, whatever it took to get out to the ship, got the plant going, left the engineroom to go get some sleep.

A new change of watch came on, and they also lost power on the ship. They went up and got the shoreside technicians to come back down and start the plant again, and this happened—I don't say it happened 15 times. It happened a number of times. The only people that could run the plant were the shore people we sent out there, and every time they left the engineroom to get the sleep they lost power again.

Mr. FOGLIETTA. How old was the SS *Penny,* again?

Mr. BONNABEL. The SS *Penny* is the same age and circumstances as the *Poet.* It has nothing to do with engines. Something to do with the men that run the engines. In other words, if you have an automobile and you're in the middle of Times Square and you're stuck, everybody that passes you by says, "Look at that doggone fool breaking down in the middle of Times Square."

It could have been nothing more than you not putting water in the car or putting oil in the car.

Mr. CARNEY. Would the gentleman yield for a clarification?

You say, we, sir, when you describe sending out a tugboat and sending out a shore crew of technicians to get it running, you referred in your statement to "we" on several occasions.

Would you clarify who "we" are?

Mr. BONNABEL. For the purposes of this hearing, we is myself. I never like to refer to myself—if something good is done, I say we. If something bad is done, I usually say "I."

Mr. CARNEY. Why would you have had concern, though, about that particular ship, the *Penny?*

Mr. BONNABEL. Why would we have had—have had the concern? We had a message saying she had lost her power.

Mr. CARNEY. If you had a message from the SS *United States,* under those circumstances, would you send out a crew to them?

Mr. BONNABEL. I think any shipowner would send a tug and shoreside crew to a ship in distress or without power, yes, sir.

Mr. CARNEY. Did anyone else respond to that distress, was it a distress call?

Mr. BONNABEL. It was not a distress call. It was a call to us——

Mr. CARNEY. Why did they call you?

Mr. BONNABEL. To tell us they lost power.

Mr. CARNEY. Why didn't they call some other outfit, why did they call you?

Mr. BONNABEL. Apparently, they didn't think they were in distress.

Mr. CARNEY. Why did you send someone out to the ship?

Mr. BONNABEL. To find out what was wrong with the ship.

Mr. CARNEY. Is there a connection between you and that ship?

Mr. BONNABEL. The *Penny*, yes, sir.

Mr. CARNEY. You didn't know if you owned it before?

Mr. BONNABEL. No, no.

We weren't talking about the *Penny* before, sir.

That is why we have to stick to one ship at a time. I did not testify that I did not own or knew nothing about the *Penny*.

Mr. CARNEY. Then you own the *Penny*?

The CHAIRMAN. The Chair would say to the gentleman, Mr. Carney, that you will be recognized for questions, if you can withhold now at this point?

Mr. CARNEY. Yes, sir.

The CHAIRMAN. Mr. Foglietta?

Mr. FOGLIETTA. In October 1980, same month we are talking about the *Penny*, the *Flora*, another ship owned by you, I assumed it was owned by you in 1980?

Mr. BONNABEL. *Flora* is also owned by me, yes, sir.

Mr. FOGLIETTA. The *Flora* lost power off the Azores and after floating helplessly in the Atlantic had to be towed and is now out of commission, is that correct?

Mr. BONNABEL. That is correct; yes, sir. For the same reasons.

Mr. FOGLIETTA. Mr. Bonnabel, are there any other ships which you own or operate or have owned or operated in the last 8 years which have suffered the same kind of mishaps during the last 8 years other than the ones I mentioned?

Mr. BONNABEL. Practically all ships at one time or another—I think I can truthfully say that the American merchant marine has some of the best officers and men in the world. They also have a few of the worst, and once in a while you get stuck with a few of the worst.

Mr. FOGLIETTA. You said the American merchant marine has some of the best and the worst in the world. You also said in answer to my questions about the SS *Penny* that it was the crew not being able to get the power which was a problem.

Mr. BONNABEL. Right, sir.

Mr. FOGLIETTA. Are you familiar with a Mr. Joseph Vyhnak?

Mr. BONNABEL. Would you be able to spell his last name?

Mr. FOGLIETTA. V-y-h-n-a-k.

Mr. BONNABEL. It doesn't ring a bell right off.

Mr. FOGLIETTA. He was a radio officer aboard the *Poet*, sir, the person who was supposed to be operating the radio equipment to

notify the Coast Guard or to receive any communications from you or the Coast Guard.

Mr. BONNABEL. I am sorry, when you spelled the name, I thought you said "B-y" something. I think his name started with a "V."

Mr. FOGLIETTA. I said "V-y-h-n-a-k."

Mr. BONNABEL. The name now that you have put it in proper perspective, the name sounds familiar, and I know that I talked to this gentleman on two or three occasions.

Mr. FOGLIETTA. Do you know he is a Czechoslovakian national?

Mr. BONNABEL. I saw that from the crew list, yes, sir.

Mr. FOGLIETTA. Are you aware of the fact that a ship leaving a U.S. port with a non-American officer is in violation of the United States Code?

Mr. BONNABEL. We have no control over the crew that are assigned to the ship. The unions do that.

Mr. FOGLIETTA. Are you aware of the fact this person was not in accordance with the laws of the United States who was a radio officer aboard the *Poet?*

Mr. BONNABEL. I was not aware of it.

Mr. FOGLIETTA. You are not aware of it.

Mr. Bonnabel, with this kind of background, and I am not casting any aspersions, legal or otherwise, of you being in the business of operating antiquated ships at least five of which have had difficulties over the last 8 years, and some very serious difficulties like sinking and running out of power and losing radio control, that being in that kind of a business, operating that kind of a ship, that here you have owned the *Poet* which, again, was an old ship, and you found out on the 27th that was in the midst of what you describe is a killer storm and yet you did nothing for 5 more days about that situation.

Any comment on that, sir?

Mr. BONNABEL. Yes, sir. I think I have commented on it. It is very frequent that we go 5 days without hearing from a ship, and I think as far as your alluding to these vessels as old, antiquated vessels, I think every major U.S. flag operator including down the line, Sea-Land, every one of them have ships that are in years of service older than the *Penny* and the *Poet,* every one of them.

Mr. FOGLIETTA. I just for the life of me cannot see—when did you find out about the storm?

Mr. BONNABEL. I knew there was a storm. I was in the office that day. I know there was a lot of wind and rain that day.

Mr. FOGLIETTA. There was a killer storm?

Mr. BONNABEL. I did not know it at the time.

Mr. FOGLIETTA. When did you find other vessels were lost and disabled in that storm?

Mr. BONNABEL. It was not until—I suppose those meetings in the Coast Guard offices that I learned it.

Mr. FOGLIETTA. That would be on the 3d of November?

Mr. BONNABEL. No, sir. I think the meetings were held—I am not sure of the day of the meeting.

Mr. FOGLIETTA. You finally did notify the Coast Guard on the 3d of November?

Mr. BONNABEL. Yes, sir.

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Mr. FOGLIETTA. Now, again, with all this background, and the ships that you have been operating, problems you have with the ships, and here we had the 23d of October and you knew there was a storm out there which you later found out was a killer storm, you went to them on the 3d of November. At that time did you ask, urge, demand that a search start immediately?

Mr. BONNABEL. As I say, we do not tell the Coast Guard what to do, what they should do.

Mr. FOGLIETTA. Sir, you had been the owner of a ship on which there were 34 men which had not been heard from for 10 days which had been involved in a killer storm. And now you are sitting there telling me you do not have the—whatever it takes to demand that the Coast Guard initiate an immediate search, but rather sat back and waited 5 more days before they started searching for this.

If there had been any survivors, they would have been out in the elements, not 10 days or 15 days.

Mr. BONNABEL. I do not see how you can say I waited 5 more days.

Mr. FOGLIETTA. Did you ever demand the Coast Guard start a search immediately?

Mr. BONNABEL. When I called them and report a ship missing, I assume that they are starting a search immediately, yes, sir.

Mr. FOGLIETTA. You are aware of the fact the search did not start for 5 days after that notification, is that correct?

Mr. BONNABEL. It depends on how you describe a search. I think they started immediately.

Mr. FOGLIETTA. Admitted by the Coast Guard their search did not start until the 8th of November, you notified them on the 3d. That is 5 days.

Mr. BONNABEL. I cannot comment on their testimony. All I know is that I was told that——

Mr. FOGLIETTA. When you notified them on the 3d——

Mr. BONNABEL. Yes, sir.

Mr. FOGLIETTA. When you notified them on the 3d you had not heard from the ship for 10 days?

Mr. BONNABEL. Yes, sir.

Mr. FOGLIETTA. Did you assume that on the morning of the 4th that planes were out there looking for the *Poet*?

Mr. BONNABEL. I did not assume that they were or were not. I assume the Coast Guard was doing their job to locate the vessel.

Mr. FOGLIETTA. Weren't you curious?

Mr. BONNABEL. Yes, I called them.

Mr. FOGLIETTA. Did you call them on the 4th?

Mr. BONNABEL. Frequently, every half hour.

Mr. FOGLIETTA. Did you ask them whether they were searching for the ship yet?

Mr. BONNABEL. I do not recall the words. I asked if there were any words from the ship, yes.

Mr. FOGLIETTA. I just—Mr. Chairman, I just cannot see how you notified them on the 3d, they didn't start a search for 5 days, and you were calling them constantly and did not know that they were not searching for the ship, and did nothing about this fact the search did not start for 5 more days. It is completely incomprehensible to me, sir.

The CHAIRMAN. Thank you, Mr. Foglietta.

The Chair recognizes Mr. Carney now for any questions you might have.

Let the Chair observe that usually this committee operates on a 5-minute rule allowing each member 5 minutes for questioning. The Chairman violated terribly to begin with, so I cannot ask the fellows to do any less than I did.

I would suggest that you confine your questions to making this as condensed as possible so we might get another round. We have another important witness.

The gentleman is recognized.

Mr. CARNEY. Mr. Chairman, you can be assured I will be mercifully brief.

If I might ask of Mr. Bonnabel, how much did you pay for the remaining 25 percent of the Hawaiian Eugenia Corp.?

Mr. BONNABEL. I paid 25 percent of the capital investment. I do not recall the figure right off. The capital investment was relatively small because the balance of it was put up as—put up in the company as a loan.

Mr. CARNEY. There was some question as to whether the vessel *Poet* was carrying cargo other than what is stated. Since the Hawaiian Eugenia Corp. of New York bought the *Poet,* it is my understanding it sailed 10 times and each of those 10 times it carried wheat or bagged urea or bagged flour or corn.

Would you dispute that?

Mr. BONNABEL. No, sir.

Mr. CARNEY. That is all the vessel had ever carried since it had been in the ownership of——

Mr. BONNABEL. To my recollection.

Mr. CARNEY [continuing]. Hawaiian Eugenia Corp.?

Mr. BONNABEL. Yes.

Mr. CARNEY. I was curious, I know this is coming back to a question you answered quite a while ago, but at one point in your testimony you said that you believed it capsized without warning.

Mr. BONNABEL. Yes, sir.

Mr. CARNEY. I was curious as to why you believe that there was no warning?

Mr. BONNABEL. Well——

Mr. CARNEY. In view of the fact there had been high seas and storms, that type of thing?

Mr. BONNABEL. Well, as I also testified, I will not represent myself as an expert on the technical paper that has been produced at the request of the Coast Guard. However, I do have enough marine background and knowledge to be able to perhaps comment, and if it is of any interest to the committee, give you a personal explanation with the understanding it is not an expert explanation. I do not represent myself as being an expert.

Mr. CARNEY. I fully appreciate that. I do not think anyone could do anything but speculate as to when the ship capsized and what the weather conditions were. I was just wondering, you seem to indicate that there was absolutely no warning. I was wondering why you felt that way?

Mr. BONNABEL. Well, sir, according to my interpretation of a technical paper, extremely technical, very few people in the world

will be able to understand all the technicalities that go into a study. And there will be many people that will try to tear it apart, but hopefully it will stand up as being accurate technical information.

This ship got into a synchronous roll. It is something—everything has to be perfect almost for it to happen. If you take as an example, to try to use every day language so that some people will understand it a little better, if you take a boxer hitting a punching bag, he can hit that bag and just hit it with his arms and hands for half an hour without ever missing that bag. If you walk up there and hit that bag, before I can move my fist that bag comes back and hits my fist and stops. The average ship at sea, under normal sea-going conditions, you are rolling and you are pitching and everything, but you are not in synchrony with the waves. A number of things have to happen almost perfectly for this synchronization to happen. You have to have the proper—maybe I should use the word "improper" speed. You have to have the improper course. You have to have the improper wave height. You have to have the improper wind. Your wind direction, a number of things have to happen simultaneously which will cause a synchronous roll, that means this ship, any ship, does not matter the age whatsoever, it means that any ship can develop a synchronous roll. It rolls with the waves and everything being just right to make it go an eighth of an inch or an inch each time further because like this boxing bag, as long as you keep hitting it right it will keep moving. As soon as you hit it wrong, it will stop.

The same thing with a ship, if it hits the waves and the wind wrong, it will stop motion and there is a way of getting back on an even keel. But if you do not stop the synchronization, eventually inch by inch the next time she takes a quarter inch more, quarter inch more, finally there is a point of no return. That is it. It is going—probably before that time, there is nobody able to stand at the wheel. I am just saying probably. You do reach a point, be it 45 or 50 degrees, that I would say it is impractical that anybody would be standing at the boilers in the engine room or wheel, at the helm on the bridge.

This does happen. This one great roll comes and the point of no return is like the sailboat. Once a sailboat starts over, there are two things you can do to prevent that sailboat from going over. You can head into the wind right away or let out on your sheet. Either one will bring that boat back up right away, and you can start from scratch.

The fastest way to do it is to let go of the sheet, let it go and the boat will immediately come right back up. If you do not let it go, you can turn the helm, maybe if you can turn the helm, you already lost your center of gravity and you have gone over. It is the same type of thing that happened in the ship.

Mr. CARNEY. So that a synchronous roll, it must take some time, I would imagine?

Mr. BONNABEL. According to the report, it took something like a hundred and some seconds, less than 2 minutes, as I understand.

Mr. CARNEY. To get into a synchronous roll?

Mr. BONNABEL. Yes, sir.

Mr. CARNEY. That is all the questions I have.

The CHAIRMAN. Thank you, Mr. Carney.

The Chair recognizes Ms. Mikulski.

Mr. BONNABEL. That report has been made available to the committee. We have seen to it that your representatives have copies of it.

The CHAIRMAN. Ms. Mikulski?

Ms. MIKULSKI. Thank you very much, Mr. Chairman.

I have no wish to repeat the very fine questioning by both yourself and Mr. Foglietta.

I do have a couple of questions.

What is the report you are referring to, Mr. Bonnabel, is that the one where you said that you have information in the past 48 hours that you think—what you think happened to the ship?

Mr. BONNABEL. Yes, that report only came into my possession in the last 48 hours.

Ms. MIKULSKI. That was a report done by the U.S. Coast Guard?

Mr. BONNABEL. For the U.S. Coast Guard. Maybe they prepared it.

Ms. MIKULSKI. I will ask——

Mr. BONNABEL. Exhibit 166.

Ms. MIKULSKI. I have not had an opportunity to review their report.

One of the things, areas that I have a concern about is that there have been no distress signals received from the *Poet*. And my understanding of marine broadcasting is that, No. 1, a distress signal can be mobilized in a matter of seconds. It goes on a special kilowatt and that it is marine practice to go aside twice an hour, twice every couple hours to listen for distress signals.

One of the concerns I have had, why didn't we hear from the *Poet* in terms of distress signals. One would have to have inadequate equipment, do you think this explains it?

Mr. BONNABEL. I think you have an excellent question, and I think the problem that could have been encountered on board when this ship gets into the synchronous roll, it is very difficult to move about the ship, assuming that the radio operator or no one else was concerned about the ship capsizing or anything else happening to the ship at that particular moment, at midnight, we assume that this catastrophe happened between midnight and 4 a.m., somewhere in that general time limit.

It is safe to assume if they were not in any fear of this ship capsizing, he was in his room sleeping, and that by the time this thing reached its maximum synchronous roll, there was no way for him to get to the radio equipment to set up any alarm. There is an alarm in his room that could possibly have been——

Ms. MIKULSKI. Some of these questions need to be referred to the experts who get the report.

But I am just stunned to hear of a ship being into a synchronous roll of that size and slipping over in 2 minutes.

Mr. BONNABEL. It is very unusual.

Ms. MIKULSKI. Because of the time, a roll usually means you roll once, twice, three, four, and then with each roll your depth into the water increases geometrically, am I right?

Mr. BONNABEL. Not necessarily. As I have pointed out with a boxing bag, you reach a point you get out of synch and the next

wave will stop you and you will perhaps start over again. Very frequently, a seaman can get misled, a ship is rolling violently and all of a sudden you feel it start to ease up. You say, "Thank God, that is over."

All it is doing is building up for the next series. It is possible.

Ms. MIKULSKI. Some of those questions will be pursued by the Coast Guard. What we are here trying to ascertain today, it seems we are not a court or trying to fix liability to decide whether we can prevent this in the future, what type of legislation would be necessary for prevention of a further accident so that lives—we can save as many lives as is possible.

One of the things that we keep coming back to is why didn't you make the report earlier. You have given your response.

I wonder, Mr. Bonnabel, could you tell me, starting on or about October 26, what went through your mind in terms of the boat, what did you start to think about when it had not reported when it had been its custom to report every 48 hours; did you start to think about it, did you start to worry about it, did you start to think about doing something? And I wonder, then, as a man—an experienced marine manager and also a mariner himself, what did you decide to do and not decide to do, or what criteria did you use. Should we think about legislation in that area?

Mr. BONNABEL. Well, to answer the first part of the question, I think the first slight concern that came to my mind was on a Thursday, if I am not mistaken, 30th of the month, Thursday was the 30th, I think. There was not a serious question in my mind, not having heard from the ship. I thought to miss it is rather strange, so I will try to find out if any of the unions have heard from the ship, because frequently the crew members will cable their head office: "Please see that my wife gets $50," or whatever they may request. Some of the seamen very frequently do not even have a next of kin, so they rely on the union to take care of their business for them.

So, starting on that Thursday, I did make calls to the union offices to see if they had heard from the ship.

Friday, again, I had made some calls.

Incidentally, on Thursday I was not able to reach any of the union officials. They were all in Washington on some hearing. I do not know what they were here on. There certainly must be a record somewhere of what all——

Ms. MIKULSKI. Probably marine safety.

Mr. BONNABEL. Maybe. They were all here on that Thursday.

Friday I tried to contact them, also without success, left word I was trying to contact them.

Finally, if I am not mistaken, it was Friday night, I did reach one official, told him of the fact that I—I asked him had he heard from the master or any of the crew. He said he had not.

Ms. MIKULSKI. In the meantime, were you worried?

Mr. BONNABEL. Concerned enough to see if somebody else may have heard from the ship.

When we did not hear from anyone, we both decided that it probably was atmospheric or radio conditions or the antenna could have blown away. Do not forget, the antenna could have blown away. Without the antenna, the radio is inoperable.

Anyhow, it was decided that let us give it another day or two for the simple reason we do not think anything is wrong with the ship.

Mr. FOGLIETTA. Would the gentlewoman yield for a question?

Ms. MIKULSKI. If I could finish this one.

Why do you think something was wrong with the ship after that amount of time, and the fact they had not heard, that the unions had not heard?

Mr. BONNABEL. Because she was absolutely too seaworthy and strong of a ship. No, I would never, never have thought that this ship would be in trouble without sending out at least one distress signal, which did not happen.

Ms. MIKULSKI. Records indicate on October 27 you contacted Chatham Radio, asked them to contact the *Poet*.

Why did you do that if you were not concerned?

Mr. BONNABEL. If I saw the contents of that cable, I could perhaps answer your question more accurately. It could have just been a business contact we were making with trying to establish for the ship. I am sure Chatham will have the contents of our communication on file and our records which all have been presented to the Coast Guard.

Ms. MIKULSKI. You are saying when you contacted Chatham Radio to contact the *Poet*, it was not to see if they were——

Mr. BONNABEL. Definitely not. At that point there was nothing but business communications.

Ms. MIKULSKI. I would be happy to yield to the gentleman from Pennsylvania.

Mr. FOGLIETTA. It may be not necessary. Your last question was my question.

I also wanted to know why you were not concerned about the safety of the vessel until the 30th, why you had Chatham Radio contact them on the 27th, the night after the storm?

Mr. BONNABEL. That certainly had nothing—as I say, the message, I am sure is on file with the Coast Guard, as all our documents involved in this. And there would have been no concern in a cable on the 27th about asking, "How did you ride out the storm," or anything else. We would have assumed if he had any problems, he would have contacted us. It probably was nothing more than every day cable such as, "Please advise the quantity of bunkers passing outward the Cape," something like that. The message is on file. It is not a secret. We will get it for you.

Mr. FOGLIETTA. Since you yielded, my last question I had is: When you notified the Coast Guard on the 30th, what method of communication did you use on the third——

Mr. BONNABEL. What method did I use?

Mr. FOGLIETTA. Yes.

Mr. BONNABEL. Telephone, sir.

Mr. FOGLIETTA. Did you make the phone call?

Mr. BONNABEL. The initial call since I was in the process of trying to establish contact with USMER, and the unions and various other people. The initial call to the Coast Guard was made by my secretary while I was on the other phone to these other people.

Mr. FOGLIETTA. Do you know what the nature of her instructions were or did she at that time ask for a search?

Mr. BONNABEL. As I say, I could not say that she asked for a search. We reported the ship as being unheard of—unheard from, and I think even the Coast Guard asked us is it possible it was just a radio problem.

Mr. FOGLIETTA. Therefore, getting down to the first time of getting the Coast Guard to search for the vessel is when you did cable on the 7th, which they received on the 8th of November?

Mr. BONNABEL. I think it is a matter of interpretation. I consider that I asked them to search——

Mr. FOGLIETTA. It is not a matter of interpretation, either the 2d, or the 3d, or either you, at your direction had them start a search or didn't ask them to start a search?

Mr. BONNABEL. I was in contact with them also, in addition to my secretary. She made the initial call. I was in touch with them a number of times. I cannot testify before you that the word "search" was used, but the words that the ship had been "unheard of" and "were concerned" were used.

Ms. MIKULSKI. One final question:

I understand, also, Chatham Radio notified you on October 30 that their attempt to reach the *Poet* every couple of hours had failed, so that they notified you on October 30 that they had been unable to reach the *Poet*.

Why, then, have you had Chatham Radio tell you that they had been doing this without reaching them, why then did you not respond sooner?

Mr. BONNABEL. It is back to the same question again, there was no need to think that the ship was in trouble. There are all sorts of emergency ways of handling messages on the ship had she been in trouble, had she been afloat and had she been in trouble. Not having heard, the antenna could have been carried away. Atmospheric conditions could have interfered. The radio operator could have been—the ship radio operator was ill, something happened to him——

Ms. MIKULSKI. Are you telling me on a seagoing vessel, there is only one person that knows how to run that radio?

Mr. BONNABEL. I did not say that. I said I would—I think most of the deck officers have training in operating equipment.

Ms. MIKULSKI. So that in fact a radio officer was ill or whatever, there would have been another mariner step forward to broadcast?

Mr. BONNABEL. I could not answer that. I could not say yes to that. I could not say no. There are many ham operators on board ships that are not even officers. Even in the crew are many ham operators that carry equipment that they can reach all over the world. There may have been numerous other people on the ship, I don't know.

Ms. MIKULSKI. Mr. Chairman, with the Chair's indulgence, I have one final question, and that is that we have heard testimony rather extensively, and appreciate your comments, but now in retrospect, looking at it, what would you have done differently if you had to do it all over again? And, second, based on your experience, what would you recommend to the Congress taking as legislative action to prevent future occurrences of this type?

Mr. BONNABEL. Well, I am not trying to avoid your question, ma'am, but as I have said, it is easy for anyone now sitting behind

a desk to try to say what should have been done. You do in an emergency situation, the crew does what they think is proper, the man behind the desk does what he thinks is proper.

If you prematurely report a vessel lost or unheard of, and 24 hours later it shows up, you have created a lot of problems not only for the Coast Guard who are out——

Ms. MIKULSKI. You stated that already.

I am asking you, what would you have done differently having said that you were a man who believes that you learn by mistakes, you critique situations, so on, what would you do differently? And, second, what should Congress require so that these, any type of preventative——

Mr. BONNABEL. I think Congress should require, as I also tried to bring out, some better communication systems on ships when a better one is available. It should be mandatory that the ships install such equipment.

Then, I think when you have reliable communications, you do not have to, say, contact me every 48 hours; and then if you do not hear within 4 or 5 days, have to live with it. We have to live with these things, too, you know. The proper communications are developed, you can ask the guy to call you every 12 hours, every 5 hours, every 24 hours, something like that so that you can keep a better track. When these fellows leave shore, you do not know when your next message will be. You hope it will be within 48 hours. It is not always.

We had a ship—this is difficult for you to believe—we had a ship within the last 2 months that was in a port, in a port for 10 days and we were not able to get one word of information out of the ship or the agent whether that ship was afloat, sunk or whatnot.

Now, we didn't report it to the officials for the one slight saving to me, life saving reason, that other ships sailing from that port who were able to contact them and find out from them that everything is all right on the ship. We had no word from that ship for 10 days from the agent, from the ship.

Ms. MIKULSKI. Thank you, Mr. Chairman.

The CHAIRMAN. The Chair recognizes Mr. Dougherty.

Mr. DOUGHERTY. I will be brief, to follow up on Ms. Mikulski's comments.

Do you have written programs—I am repeating some questions earlier that I have.

Do the ship masters that take your ships to sea have a set procedure as to when they must call in, to report in?

Mr. BONNABEL. They have instructions to call in every 48 hours.

Mr. DOUGHERTY. They are instructed to call you every 48 hours. They are to check in every 48 hours?

Mr. BONNABEL. Basically, give us their position, the fuel remaining, quantity of fuel remaining on board, the revolutions.

Mr. DOUGHERTY. OK. I can appreciate that.

The point I want to make, it is standard procedure for the ship to call in every 48 hours.

Are the masters employed by you?

Mr. BONNABEL. They are employed by the company, yes, sir.

Mr. DOUGHERTY. Have you ever fired a master for not reporting in within the time frame that has been allotted?

Mr. BONNABEL. I do not ever recall firing a master because, as I say, all they had to do is say atmospheric conditions, and there is no way I can argue with them.

Mr. DOUGHERTY. Let us say, perhaps, if you have a procedure, that normal procedure would be to follow the instructions the company gives out, the impression that is being created here this afternoon is that it is a rather lackadaisical approach at best whether or not a ship reports in. I think as an owner of the company, you give an instruction that a ship is to report in every 48 hours and they do not, it seems to me you have to do something about the people that are running your ships?

Mr. BONNABEL. Well, sir, apparently they have not yet made it quite clear. It is not what they want to do. It is what they are capable of doing under the atmospheric conditions.

Mr. DOUGHERTY. Based on your testimony and from counsel here, the *Poet* was rather religiously reporting every 48 hours on other trips.

Is that correct?

Mr. BONNABEL. Not to us, no, sir.

Mr. DOUGHERTY. But to the appropriate parties?

Mr. BONNABEL. As I understand it from other testimony, but I do not know this——

Mr. DOUGHERTY. When you gave your instruction to the ship master to check in every 48 hours, do you get a verification that they have checked in; is your company knowledgeable of the fact that your ships are checking in every 48 hours?

Mr. BONNABEL. Every cable that comes in from a ship comes to me.

Mr. DOUGHERTY. So that in the previous voyages the *Poet* religiously checked in every 48 hours, normally speaking?

Mr. BONNABEL. No, sir.

Mr. DOUGHERTY. You say no. Well, there is testimony here from the counsel of the committee that indications are that the *Poet* made it a point to check in every 48 hours on other voyages.

I guess my problem, Mr. Bonnabel, in the same sequence that you have a ship, your company had instructions for vessels to check in every 48 hours. We have been made aware of testimony that the *Poet* normally followed that instruction and did try to report in every 48 hours. When she did not report in on the 28th, 26th, it would seem to me that if it was my ship and I was concerned not only about the lives but the cargo on board, I would have made it a point to try to find out why the ship had not reported in. And I think you said on the 30th you had checked with Chatham Radio, you indicated there was no sense of urgency.

Is that a fair statement, there seemed to be no sense of urgency?

Mr. BONNABEL. At different dates there was a different sense of urgency.

I think if I may try to clarify in your mind on one point, this 48-hour religious reporting you are talking about is not to us. I have stated in front of the Coast Guard and here that this is not a fact. The ship did not report every 48 hours, and I do not blame it on the master or the radio operator, because I am always told when you ask the question, that was atmospheric conditions, so you cannot——

Mr. DOUGHERTY. How long have you been in the shipping business, Mr. Bonnabel?

Mr. BONNABEL. Since I have been 14 years old.

Mr. DOUGHERTY. Do most of your ships sailing for two different ports go on the same given route?

Mr. BONNABEL. No.

Mr. DOUGHERTY. If you were sending cargo to Port Said, you are sending one tomorrow, it may go on a different route?

Mr. BONNABEL. Definitely.

Mr. DOUGHERTY. In all the years you are not used to atmospheric conditions presenting problems?

Mr. BONNABEL. We are familiar.

Mr. DOUGHERTY. Are you familiar with different parts of the ocean, you have problems with radio in different parts of the ocean?

Mr. BONNABEL. Not so much ocean as cloud formations and other atmospheric conditions, Sun spots, whatever may be occurring at that particular time.

Mr. DOUGHERTY. Did you have other ships at sea the same day?

Mr. BONNABEL. I have to check the record. I am sure we did.

Mr. DOUGHERTY. Did you make other attempts to reach other ships to have those ships to check and see if they could raise the *Poet*?

Mr. BONNABEL. At one point in time we did, yes, sir.

Mr. DOUGHERTY. What would that point in time be?

Mr. BONNABEL. I would have to look at the records. It would certainly not have been before I reported to the Coast Guard.

Mr. DOUGHERTY. It would seem to me if you have an instruction and your ships do not meet the instruction, you have a problem in the way you run your company.

The other point would be, though, if you knew you had a severe storm at sea and a ship did not report in, it would seem to me that a presumption should be, that perhaps they got into trouble, rather than the presumption that—rather than your presumption that everything was OK.

Mr. BONNABEL. I think your presumption would be wrong, sir, because as I tried to state when something goes wrong you usually hear. If a ship is in trouble, there are so many different ways they could make themselves known as being in trouble, and do not forget perhaps you are not aware of this fact: The Coast Guard had planes and ships in this very vicinity at the very time that this ship is presumed to have been lost.

Mr. DOUGHERTY. I know. I guess that is what bothers me. If you had proper procedures wherein the ship did not report within 24 hours, 48 hours, and you knew that the ship had been involved in a serious storm and you knew the Coast Guard was in fact at sea on various rescue missions, it seems to me you have not plugged them, it seems to me the appropriate procedure would be to plug in with the Coast Guard immediately and ask them to try to determine the status of the *Poet* in view of the fact it had not checked in and there had been a severe storm.

I have also been given by staff a document that indicates that the *Poet* representative for the radio officers union stated various times of the day transmissions may be poor on a certain frequency.

If the *Poet*'s radio equipment was working, probably the radio should also be able to transmit and receive messages. Did the *Poet* have a backup radio system on board?

Mr. BONNABEL. On this particular voyage, the radio operator told me he had his own personal——

Mr. DOUGHERTY. I am not talking about personal. Does the *Poet* have backup radio systems, if one radio goes down you have the ability to come up on another radio?

Mr. BONNABEL. Yes, sir.

Mr. DOUGHERTY. Just one or two more questions.

It seems to me that if I am at sea on a ship and have lost my antenna, there are other ways to jerry-rig an antenna?

Mr. BONNABEL. That is right.

Mr. DOUGHERTY. Competent radio operators had certainly that capability. Therefore, if indeed the *Poet* had lost its radio antenna, could not transmit, and was still afloat and in decent shape, the normal procedure would be for the radio operator to jerry-rig something to contact somebody. I just cannot believe that the committee should accept that a ship can be at sea, lose his antenna, and the ship would just be unheard of until it reached its next port.

Mr. BONNABEL. You are a 100 percent right, sir. If the antenna, main antenna is down, the radio operator can usually rig a jerry system. He already has backup systems.

Mr. DOUGHERTY. That reinforces my feeling.

But when you say that perhaps they lost the antenna, that is why she did not check in in 48 hours, it seems to me that certainly with the capability that you have admitted to, the radio operator would have to jerry-rig something to take the place of the antenna. If they had not checked in, and it was not because all radio systems failed or there had been a severe storm, then I think the option should have been a worse case situation. Then the best advantage should have been made of resources at hand on the night of the 26th which would have had the Coast Guard still out on patrol instead of waiting 10 days before deciding maybe it was lost.

That is all I have, Mr. Chairman.

Mr. FOGLIETTA. Mr. Chairman?

The CHAIRMAN. Mr. Foglietta.

Mr. FOGLIETTA. I have a few more questions I would like to ask, two more questions.

The CHAIRMAN. All right, sir.

Mr. FOGLIETTA. Mr. Bonnabel, you stated that the problems in communication on this occasion, probably prior occasions, may have been caused by some atmospheric problems.

I have been informed, and I am not an expert in this field, I have been informed that a new communication system has been developed called the Marisat communication system which is connected from the transmitter to the transmittee via satellite, which avoids atmospheric interference.

I have been further informed that these systems cost somewhere between $25,000 and $65,000 per unit.

In view of the experiences that you have had, in view of the fact that the ships that you own and/or operate are for the most part an old ship or old ships, do you intend, and would you tell this

committee that you intend to install these Marisat systems for the system you are now operating or own?

Mr. BONNABEL. I have testified earlier in this hearing, before this honorable committee, that within 3 or 4 months that particular system will be outmoded. So I am told. There will be a newer, better system in 3 or 4 months than the one you are referring to. If that be true, let us hope we can all go to the newer, better system which will cost four or five times the figures that you have just mentioned.

But if they will save lives, they are worth the expenditure. We can only get that system when it comes out in 4 or 5 months.

To buy one of the systems you are referring to now and have it outmoded in 3 or 4 months, I do not know if that would be the answer.

Mr. FOGLIETTA. Again, sir, this system, the Marisat system is the system you are talking about is now national and will be going international in the next 6 months or 1 year.

Are you telling this committee that you will—because I think this is one of the things we are concerned about, what we can do in the future. I think this is definitely something that we can concretely state that we have extracted from these hearings, that is a promise from you or commitment from you that you will install the systems in the ships that you own or operate within the next year.

Mr. BONNABEL. I would say that is a reasonable request, suggestion, and certainly will be complied with when we are convinced that the system is in operation, and that people who perhaps are subsidized lines, who are subsidized by the Government buy these units, when they find that they are in operation and operating properly, we will certainly install them on any offshore ships we have.

Mr. FOGLIETTA. Thank you, sir.

The CHAIRMAN. Mr. Bonnabel, thank you for your appearance here today.

It may be that our committee may develop further questions for you as the staff examines the record you have supplied, and may supply in the future in response to our subpena.

I hope that you will be forthcoming in responding to these written questions, and that you will supply any additional records to us in compliance with the subpena.

Do I have that assurance, sir?

Mr. BONNABEL. You need not send any subpenas to me, sir. I am available to your committee any time, 7 days a week, 24 hours a day.

Mr. FOGLIETTA. With my apologies, there was one other serious question I had to ask.

One question, Mr. Bonnabel, on these occasions which I have referred to in my questioning of you, concerning problems that you had with vessels that you owned or operated losing power and other serious difficulties, it is, as I understand, a requirement of the U.S. Coast Guard that you file a report with the Coast Guard on each one of those incidents, is it not?

Mr. BONNABEL. The master and/or the chief engineer are supposed to file reports.

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Mr. FOGLIETTA. Do you have copies of those reports?

Mr. BONNABEL. I don't have anything with me, no, sir.

Mr. FOGLIETTA. Do you have them available to your office?

Mr. BONNABEL. If the masters and chief engineers filed them.

Mr. FOGLIETTA. Are they required to file these?

Mr. BONNABEL. My impression is that they must report to the Coast Guard any serious injuries, accidents.

Mr. FOGLIETTA. They must send you a copy?

Mr. BONNABEL. And breakdowns.

Mr. FOGLIETTA. They must send you a copy?

Mr. BONNABEL. Yes, sir.

Mr. FOGLIETTA. Would you supply the committee with copies of all such reports which are filed with the Coast Guard by ships owned or operated by you over the last 8 years?

Mr. BONNABEL. I do not know if our records go back that far. Whatever point in time our records go back to, we will be glad to present you with them. If the masters and the chief engineers did not file such reports, naturally they will not be in our records.

Mr. FOGLIETTA. Those reports you have.

Mr. BONNABEL. Yes, sir.

Mr. FOGLIETTA. Thank you, sir.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Mr. Foglietta.

One final comment, Mr. Bonnabel, this report issued yesterday, the National Transportation Safety Board concludes in part, and I quote: "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."

Do you care to make any comment on that at all, sir?

Mr. FOGLIETTA. Well, sir, the only comment I can make is that it is rather odd they did not go one step further and indicate where the debris was found. If there is anything that got off of this ship, either be it a life preserver, an oil drum gotten off of the ship, it is 6 months later now, it seems to me somebody would have found some type of debris somewhere. So it would, I think, behoove the National Transportation Board to also indicate where this debris is.

The CHAIRMAN. Have you seen this report?

Mr. BONNABEL. I have heard of it. I have not seen it.

The CHAIRMAN. Again, thank you for your presence this afternoon, and this concludes our questioning of you. We appreciate your cooperation very much.

Our next witness is Adm. Robert I. Price, commander, 3d District, U.S. Coast Guard.

Admiral Price, the Chair recognizes you, sir.

TESTIMONY OF ADM. ROBERT I. PRICE, COMMANDER, 3D DISTRICT, U.S. COAST GUARD

Admiral PRICE. Mr. Chairman and members of the committee, good afternoon. I am Vice Adm. Robert I. Price, commander, Coast Guard Atlantic Area.

I have——

The CHAIRMAN. Admiral, may I interrupt you just a minute, sir.

Let me interrupt you. We have sworn in all the witnesses of this hearing as well as the ones in the past, so if you don't mind, raise your right hand.

[Whereupon, Admiral Price was sworn in by the chairman.]

The CHAIRMAN. Thank you, sir. You may proceed.

Admiral PRICE. I have been asked to testify as to the area commander's responsibility in the prosecution of a search and rescue [SAR] case concerning an unreported major vessel.

Specifically, my testimony is directed toward the SS *Poet* case.

As commander, Atlantic area, it is my responsibility as SAR coordinator of the Atlantic maritime region—includes all navigable waters off our shores in the Gulf of Mexico, most of the Caribbean Sea and the Atlantic Ocean to its approximate midpoint—to insure that SAR operations can be prosecuted, whenever necessary, with the best use of resources that are available. This responsibility has been fulfilled through the existence of a SAR system which includes: First, rescue coordination centers which are manned around the clock by highly qualified and well-trained coordinators; second, comprehensive and current standard procedures and guidelines which are established by the "National SAR Manual," the Atlantic area SAR plan, and SAR plans of lower echelon commands from larger districts to group commands within districts, and finally to the individual stations consisting of one or two boats and a dozen or so personnel; third, close liaison and agreements with other services, agencies, and organizations having a SAR potential; and fourth, a communication system which effectively ties together and provides for effective coordination among the elements of the SAR system.

The U.S. Coast Guard is responsible for the maritime region of the SAR system and the U.S. Air Force is responsible for the inland region within the boundaries of the U.S. coastline and borders. The SAR system has stood the test of time. It is the recognized model for nations of the international community that are seeking to establish their own SAR capability. With respect to the SS *Poet*, the SAR system operated efficiently and correctly based on well-established guidelines and well-tested procedures.

You have been previously supplied with the national SAR plan, and various Coast Guard-published SAR procedures. In addition, I have enclosed a paper I prepared for presentation at the Fifth International Safety at Sea Symposium 1979, entitled "A Perspective of Maritime Safety" and also submitted for your attention a copy of the "International Conference on Maritime Search and Rescue" done at Hamburg, Germany, April 9 through 27, 1979.

[See p. 218 for the above-mentioned enclosures.]

Basically, I have overall administrative responsibility for SAR cases within the Atlantic area. I rarely interject my judgment into the prosecution of ongoing cases. Of course I have the ultimate authority to commence a search and to terminate a search. I exercised that authority in the case of the *Poet*. I personally was not advised on the SS *Poet* until Friday, November 7, 1980.

My initial knowledge about the *Poet* came by way of a telephone call from Fred Schamann, vice president, Marine Engineers Beneficial Association, about noon Friday, November 7. He informed me that the SS *Poet*, a U.S. freighter which was carrying grain—

corn—to Egypt, should have been at Gibraltar 3 days earlier and had not been heard from since October 25. The estimated time of arrival in Egypt was November 9. I passed the information to my staff, which was already aware of the unreported status of the vessel. I was informed that urgent marine information broadcasts and a communications search had started on November 3 and inquiries to Lloyds and other intelligence sources had been made with negative results to date.

My staff received several followup calls later that day from various sources, including union representatives and retired Captains Gove and Hall. During these calls, Mr. Gove and Mr. Parente, who is a member of the Brotherhood of Marine Officers, stated that the *Poet* reported religiously to the U.S. Merchant Vessel Locator Filing System every 48 hours on previous voyages. Throughout Friday evening and early Saturday morning the 7th and 8th of November, my staff received a barrage of telephone calls requesting information abut the *Poet* and the level of Coast Guard involvement. On Saturday morning, I was fully briefed on the affair and, contrary to recommendation of my staff, I ordered an aerial search to commence, based on a worst-case assumption.

Gentlemen, from my standpoint that is the sequence of events leading to the search of the SS *Poet*, and is the question posed to the Commandant which was passed to me, by way of the letter that you sent, Mr. Chairman, to the Commandant requesting we respond.

That concludes my prepared testimony, sir.

The CHAIRMAN. Admiral, thank you very much.

Before I begin my questioning, I would like to say something nice about you.

Admiral PRICE. It is always appreciated.

The CHAIRMAN. Seriously, I would like to congratulate you on your 36 years of service in the Coast Guard. I read your resumé and you contributed many talents to the Coast Guard. I admire your dedication to the service and your contributions to the Coast Guard in the past 36 years. Best of luck to you, on my part and from this committee, on your retirement.

Incidentally, being a little personal, have you made any plans with your retirement?

Admiral PRICE. Sir?

The CHAIRMAN. Have you made any plans regarding your retirement, in private enterprise, double dipping?

Admiral PRICE. I have left it to the gentleman who intends to sign the paycheck to make the announcement when it best suits him. I do intend to remain active in our merchant marine, and I hope to be able to continue to make a contribution there, too.

The CHAIRMAN. There will be a place for you, Admiral.

Admiral PRICE. Thank you, sir.

The CHAIRMAN. Under the circumstances of this case, was an active search ever appropriate? Because of the fact that the ship had not been heard from in 15 days before the search, was it unlikely there was anything left of the vessel or its crew? Furthermore, because the vast area to cover, would the degree of likelihood of ever finding any sign of a ship be too great to all for a search?

Admiral PRICE. I am sorry, sir, that is a large dose of questions. Would you try me one more time?

The CHAIRMAN. To break it down to simple language, sir, was the case such that you would have deemed it not productive to ever conduct the search at all?

Admiral PRICE. Sir, there is a lot of parts to that. Let me try to break it down into pieces.

It depends on what assumptions one chooses to make, and we have a chart which was prepared at my request only last week which I call a "fault tree analysis" which attempts to structure the situation we found ourselves in, in having a vessel unreported.

We have a possibility of putting that up for people to see. We also have some handouts which the committee may wish to examine close up.

It depends on what assumptions you are prepared to make. The best assumption is a vessel is out of radio communication, a not uncommon situation whatsoever.

He could also have been on course and on speed which would have put her by then in the Mediterranean.

He could have been on course and behind schedule.

He could have been both off course and off speed and he could have been disabled.

There are altogether, before we get to the presumption that the vessel is no longer afloat, four or five possibilities. In no case do we know precisely where the ship is. We have nothing to base a search upon.

If we did go beyond that and start moving toward the worst possible case, we eventually find ourselves at the unthinkable, something that we have never experienced since the loss of the *Marine Sulphur Queen* some 18 years ago, the loss of a U.S. ship. It is true that there was a trace found of the *Marine Sulphur Queen*, but not initially, not during the search phase. The gear that came ashore, came ashore almost 1½ months later, if my memory serves me correct.

What I am trying to say, it depends on what assumption we are prepared to make.

If the crew went in the water without the benefit of lifesaving equipment in the form of life rafts or life boats, then they were at the mercy of the temperature of the sea and, therefore, they would have expired. It depends on when they went in the water, which brings us back to at what position were they when that happened.

If they had gone in just for argument's sake on the 14th day, if that is a supposition, they would have been in the Mediterranean.

If they would have gone into the water on the 10th day, assuming that the vessel had been operational up until that time, they would have been somewhere off of Gibraltar.

The CHAIRMAN. Well, then, assuming your responsibilities, did you think it appropriate to conduct the search in the first place, given all the conditions to which you just referred?

Admiral PRICE. I think that if you were to examine the publication that I submitted for the attention of the committee, namely, the Convention on Search and Rescue which is a document ratified only last year by the U.S. Senate, you would find that in one chapter it deals rather succinctly but thoroughly with the method-

ology to be applied in the case of a vessel whose position and condition are unknown.

We adhered to the tenets of that particular procedure which since it has been ratified by the Senate, while it is a much simpler document, sums up the entire procedures under which we work, and represents internationally accepted sound practice.

Under those provisions, the first measure to be taken is to conduct intensive intelligence and communications checks, which we did, and we instituted as soon as we were told the vessel was unreachable.

The question has been raised before, what was the advantage of doing that. We were not trying to communicate with the *Poet*, as Chatham Radio was proposing to do, we were attempting to reach all and sundry who might have passed, seen, heard, picked up any message whatsoever from that ship, which is an entirely different proposition.

The CHAIRMAN. All right, sir.

Yesterday, as you probably know, the National Transportation Safety Board released their findings of fact and probable cause of the *Poet*'s disappearance.

The NTSB found that the delay by the owner in notifying the Coast Guard may have contributed to the loss of life and, further, the failure of the Coast Guard to make adequate preparation, and its delay in commencing active search, decreased the possibility of finding survivors. That is the National Transportation Safety Board language.

Do you care to comment on that?

Admiral PRICE. I am not familiar with the report. The only thing I saw of that is the squib in this morning's Times, sir.

Actually, I do not happen to agree with it.

The CHAIRMAN. The statement I just read, I did not make it up.

Admiral PRICE. I assume that you are quoting it correctly, sir.

If that is the correct statement as quoted, then I do not agree with it.

The CHAIRMAN. Well, let me go a step further.

Your case study demonstrates you have no suggestions or admissions, that the Coast Guard procedures might be improved in future cases.

In light of the NTSB study, and the congressional study done by this Committee, both of which found the Coast Guard search to be delinquent, do you still believe every step taken by the RCC office was perfectly sufficient?

Admiral PRICE. Yes, sir.

The CHAIRMAN. Finally, after the search for the *Poet* was finally canceled, what action have you taken, if any, to modify, improve or change Coast Guard procedures in the 3d District?

Admiral PRICE. I have taken no measures, sir, because the measures that were taken were correct, and they are adequate.

The CHAIRMAN. Have you investigated your inspection officer to determine if the inspection was adequate?

Admiral PRICE. I called on the Commandant to create a Marine Board of Investigation when it became clear to me that our search efforts, which went on for 10 days, were not leading to any positive end, and I would expect that the findings of that board when

published would give us a rationale to work from on the question of the maintenance and upkeep of the ship.

The CHAIRMAN. Have you held any staff meetings to discuss how to improve search and rescue in the 3d District, or are you satisfied with reports you now have?

Admiral PRICE. I am satisfied with the outcome of this case. I have had considerable time to think about it.

If you wish, sir, I can give a full elaboration of this matter, but I feel that I will wait until your questions have run their course.

The CHAIRMAN. All right, sir.

I guess that is all the questions I have at this time.

Wait a minute. Let me see if you concur with Mr. Bonnabel's testimony that failure to hear from the ship for several days is a common occurrence. Has that been your experience?

Admiral PRICE. Sir, that is absolutely correct, and it is impossible for me to comprehend why we cannot seem to get that point over.

We have been dealing with radio communications in the state that Marconi left it some 60 or 70 years ago.

Now, it does not seem possible to get across to people unreliable radio communications are a fact of life. This is what we are still stuck with. There are prospects in store for doing something better, but we do not have it to work with today.

The CHAIRMAN. Are you suggesting, then, perhaps that the Congress itself should pass legislation requiring more modern, more sophisticated communications equipment on these vessels?

Admiral PRICE. I think, if I could put it this way, sir, there are three things that are involved here: The slow speed of a ship, the difficulty of radio communications, and the vastness of the sea. All three factors. They are going to continue to make sea voyages a period of uncertainty.

Of those three elements, the sea is unchanging and constant. The speed of a ship is not going to be susceptible of any significant change either.

If we are going to improve in any place, it is going to be improvement in radio communications. If something positive is to come out of these hearings, it will have to be your strong support in seeking to finance improvements in this particular sector.

The CHAIRMAN. Finally, Admiral, the Congresswoman from Maryland asked me to propound this question to you:

Can you tell us whether or not the Coast Guard is being sued by the families of the crew and officers as a result of the *Poet* search, and where the suit is filed? What do they amount to in terms of money, if indeed they have been filed?

Admiral PRICE. I understand that is true, sir. I do not know the particulars. I am told we have not been served with any suit.

The CHAIRMAN. Mr. Foglietta.

Mr. FOGLIETTA. Thank you, Mr. Chairman.

Admiral, I take issue of the position that you are having such a difficult time in not being able to get your point across to people that the communications system is ineffective. You seem a little upset with that.

I am equally upset with the fact that here we have a system whereby a vessel sets out, sets out for sea with 34 human beings aboard, is out there, goes into a killer storm as was described to us,

is not heard from for 10 days, and it takes 10 days before the Coast Guard is notified and after the Coast Guard is notified, 5 days elapse before any search is commenced. And if there was any possibility whatsoever of ever saving any of these men's lives, it would have been made impossible for those people who were in charge for having to search for this vessel. These are the things I cannot understand, and it seems to me that the conclusion that seems to be getting across to me and other members of this committee which I cannot accept, is no one seemed to be taking responsibility for this vessel, neither the owner nor the Coast Guard.

We are saying that something happened out there, nobody knows what happened out there. We are just going to forget about it. I for one will not forget about it. I do not think the members of this committee will forget about it. I do not think the families of the lost seamen are going to let anyone forget about this matter.

Now, my questions are:

No. 1, I want to get some background straight. In your initial statement, you describe yourself as a commander, Atlantic area. OK.

Now, are you not, sir, also 3d District Commander?

Admiral PRICE. Yes, sir.

Mr. FOGLIETTA. That is not stated in the statement which you presented or were starting to read to this committee, and which has been presented to this committee.

As 3d District commander, are you not specifically designated by the national search and rescue manual as the search and rescue coordinator?

Admiral PRICE. This case, and the reason for the remarks being opened with the title area commander, starts with the fact of the letter from the chairman to the Commandant asking for the responsibilities of the area commander.

As respects to why the search was conducted under the auspices of the area, it is because we knew that we were dealing with a transocean voyage and the responsibility for transocean search which would probably have required a wider spectrum of Coast Guard resources than any district possessed.

Mr. FOGLIETTA. OK, I agree with that. I accept that answer.

However, are there not only administrative responsibilities but also substantive nuts-and-bolts, day-to-day operations which are the responsibility of the district commander and not the area commander?

Admiral PRICE. The task has been subdivided, yes, to provide district commanders with coastal stretches for their immediate responsibility. They do not proceed very far out to sea.

Mr. FOGLIETTA. For instance, the district commander is required under the manual to follow the mission closely and I quote: "And also to receive a day to day operational report every 24 hours, to receive a timely situation report."

Is that correct?

Admiral PRICE. I have not read the search and rescue manual as intimately as, obviously, you have recently, sir.

Mr. FOGLIETTA. OK.

Now, if while you are wearing your other hat as the district commander you are required by the search and rescue manual to

receive, to get, obtain, a daily situation report, then would you not have received in your daily report of the November 3 notice that Mr. Bonnabel and his agent on two separate occasions called and notified the Coast Guard that the *Poet* had not been heard from for approximately 10 days, whatever the message was?

Admiral PRICE. By November 3, the ship was presumed to be in the vicinity of Gibraltar. The information came in, I am told, by way of the area staff, and I was not advised of the proceedings which were by then routine and conducted routinely, to conduct communications checks and intelligence checks which fit the pattern of an unreported ship at that particular time. I was not informed because they were going on routinely and they go on routinely day in and day out.

Mr. FOGLIETTA. I think we are trying to get to the point of pinpointing some responsibility.

On November 3, you said that you did not get a report—you got no report because it was being handled in a routine manner?

Admiral PRICE. Yes, sir.

Mr. FOGLIETTA. Do you have any information, or can you let us know what was said to the Coast Guard by Mr. Bonnabel or his agent on the 3d?

Admiral PRICE. I believe Captain Suzich, the area operations officer who received that information testified to that before the joint board of investigation.

Mr. FOGLIETTA. Are you familiar with that testimony?

Admiral PRICE. Sir?

Mr. FOGLIETTA. Are you familiar with that testimony?

Admiral PRICE. Only by being briefed on it, not on this particular detail you are asking of, sir.

I am told that the committee staff has this for the record, the specifics.

Mr. FOGLIETTA. The point I am trying to make, sir, is that you were not notified until the 7th. We would have an entirely different situation if you were notified on the 3d, and then no action was taken, official action as per the manual, daily reports, staff meetings, et cetera, between the 3d and the 8th. If you were notified on the 3d and no action was taken, we have an area of responsibility. If you were notified on the 3d——

Admiral PRICE. I was not.

Mr. FOGLIETTA. I think this is the crux of the matter. If you had been notified on the 3d, rhetorically, then there are certain things according to this manual you should have done between the 3d and the 7th, that were not done because you said you were not notified. You could not have known then if you were not notified. So, therefore, you were not notified.

Admiral PRICE. That is right.

Mr. FOGLIETTA. And you are telling this committee now, the first information that you received that there was anything wrong, any problems which had occurred with the *Poet*, was on the 8th?

Admiral PRICE. No, sir, on the 7th.

Mr. FOGLIETTA. Sent on the 7th, I assume was received on the 8th. Was it received on the 7th?

Admiral PRICE. I stated I received a telephone call on the 7th.

Mr. FOGLIETTA. Wait a while. Did your office receive a telephone call from Mr. Bonnabel on the 3d?

Admiral PRICE. I am told that, sir. That is in the record.

Mr. FOGLIETTA. On the 7th, I understand there was a cable?

Admiral PRICE. I did not see any cable from Mr. Bonnabel. I said I was notified by telephone call from Mr. Fred Schamann of the MEBA about noon on the 7th.

Mr. FOGLIETTA. So we have here a communication, this is a cable, directed to the Commander of the 3d Coast Guard District, U.S. Coast Guard, Governor's Island of New York, addressed to you on November 7.

Admiral PRICE. I do not know when that was delivered.

Mr. FOGLIETTA. You have never seen this cable?

Admiral PRICE. Probably saw that on the 8th.

Mr. FOGLIETTA. On the 8th.

Admiral PRICE. I would like to see just for recollection sake.

I do not remember precisely seeing this particular piece of paper, but I am sure I must have.

Mr. FOGLIETTA. I am glad we are clearing these things up. I thought this was the official notification which started the search or started the activity on the part of the Coast Guard.

Now I understand it was not. It was, rather, a phone call?

Admiral PRICE. Well, let us get things sorted out.

On the 3d, Mr. Bonnabel called, I am told, and the consequence was to get things started indeed. We did start something. We started in accordance with the prepared and accepted procedures with communications and intelligence searches on that day.

The CHAIRMAN. Would the gentleman yield just a minute along that particular line?

As I recall, Mr. Bonnabel testified earlier this afternoon that he thought all he had to do was make that one phone call and a search and rescue would immediately be instituted. Is there anything in past Coast Guard services which would cause him to make that assumption?

Admiral PRICE. I have not any idea where he got that assumption. All I know, he reported he had been unable to raise the ship.

The CHAIRMAN. The gentleman may proceed.

Mr. FOGLIETTA. Thank you, sir.

What prompted you to start the search?

Admiral PRICE. I think that is a good question, sir, because I went against guidance from some of the smartest, sharpest, most dedicated people that we have, and they do not go in this business without being well trained.

First of all, by that point, we had had 4 days of communications and intelligence checks, and we produced nothing. We have had some indications of heavy weather during a storm.

I want to come back to that business of the killer storm. That, sir, is a piece of hindsight on labeling it a killer storm. We had countless ships of comparable size to the *Poet* come through that storm unscathed. In fact, none of the craft I am aware of that were affected by the storm were major vessels at all. They were small craft, recreational boats and fishing vessels. No major vessel.

But in any case, we had had a storm. The vessel had by then the prospect of approaching Gibraltar. She had not been sighted and

even if she had been delayed, by then she should have been heard from or seen in the confluence area, entering the Mediterranean. There was the allegation she was a religious reporter to the USMER program. You need to get that straightened out, because on the previous voyage, she was not. That was found out later.

Mr. FOGLIETTA. Was that just the one prior voyage?

Admiral PRICE. The only one we researched.

Mr. FOGLIETTA. The only one there was a lack of communication on?

Admiral PRICE. The only one that was researched.

I am told in order to research this question, it had to be done by hand sort methods because the self-same officer who reported to us that the ship had missed those reports, and it was our liaison officer at the center, first told us that she was a religious reporter.

We later went through a hand sort and found on the preceding voyage that was not true, because of a false alarm on at least three occasions. We did not go back and do it on any other voyage. The assertion may be true or not true. However, these things taken together collectively raised the possibility something had happened during the heavy weather. I think we are back to that business of the staff being fully conscious they had saturated the area in the *Poet's* track at the time of the storm with other craft, with Coast Guard craft looking for other vessels in distress.

The second factor was that this was a U.S. vessel with U.S. crew members aboard.

And third, there was an extraordinary high level of interest and concern being presented by a great many callers, certainly apparent to me that no amount of logic or reasoning was going to belay these understandable fears and emotions. I was being told to do something even if it is wrong. I do not like to operate on that basis.

I concluded that the only satisfactory course of action I could take that made anything sensible out of it was to initiate an aerial search on grasping the worst possible case which was to go to the unthinkable, that at that point we had lost a major ship in that storm.

But that is the bottom line of all the suppositions that are possible.

Based on the fact that we had an unreported vessel, I went from the most reasonable assumption that the vessel was afloat and in no distress but out of communication to the most unreasonable assumption that she had gone down suddenly with no opportunity to communicate a distress, that her EPIRB which she carried had malfunctioned, all radio communication emergency gear which are required to be carried so they can be taken in lifeboats and life rafts, such as a Gibson girl, could not be heard.

I do not have the foggiest idea if I searched in the right tracks or location. I searched in the only place I could identify under any of the scenarios that we had as a possibility.

You can certainly conclude from the fact we did not find anything, maybe we did not look in the right place.

I think that returning to something that the chairman got into earlier on, I think we need to have some appreciation of the limitations and the factors that we are facing using aircraft in this type of search.

They are equipped with radar, but it is effective only in looking for large objects. They have a relatively narrow scope width when you are looking for vessels. We are still conducting very much the visual daylight only search. That means that when we are looking for small objects, we have to look for them at a lower altitude, the sweep width is much narrower. It may be at 10 or 15 miles looking for a major vessel. It will be down to perhaps 3 miles if we are looking for a boat or a life raft, and it will be virtually nil if we are looking for people in the water. Weather on the surface caused by wind and wave action, clouds, all of these things are impediments to the ability to see anything.

There are long distances to be flown to the scene. The aircraft has a relatively short on-scene search time, and has a long trip home and all of that means a large fatigue factor for all the searchers and a low probability of detection when they are looking in open water for small objects such as rafts and persons in the water.

Now, contrast that, sir, with the fact that 90 percent of the time or better we turn up the location of the vessel through a radio communications check or intelligence or communications check.

That is why we do what we do and is why the procedures are internationally recognized.

In order to look for the *Poet,* we have to take a catastrophe of such magnitude that total loss of a vessel had occurred. Therefore, we are going to be looking not for the vessel, but for small objects. We are in a no-win situation. We needed a miracle and we just did not get one.

Mr. FOGLIETTA. One area I still want to clear up. I think it is really hazy to me and I would assume it is to other people.

At one point you said that you were not under—had not received any information that there was any problems with the *Poet,* or was any distress until November 7.

Admiral PRICE. Yes, sir.

Mr. FOGLIETTA. And at another point, you said that on the 3d you started certain procedures, search procedures.

What prompted those search procedures?

Admiral PRICE. The search procedures——

Mr. FOGLIETTA. On the 3d?

Admiral PRICE. On the 3d, part of the standing routine, they are conducted always—that is the first thing we start.

Mr. FOGLIETTA. Prompted by what, the phone call?

Admiral PRICE. The phone call from Bonnabel, I presume.

The reason I am saying I presume, sir, is because the center runs 24 hours a day, 7 days a week. It runs in my presence, in my absence. It has its regimen, which is laid down and totally accepted nationally and internationally.

Mr. FOGLIETTA. You told us what you started to do on the 3d?

Admiral PRICE. Right.

Mr. FOGLIETTA. And about your decision on the 7th. You told us what you started to do on the 3d.

Admiral PRICE. Yes.

Mr. FOGLIETTA. What I want to know is what triggered the decision to do those things on the 3d?

Admiral PRICE. That is ordinarily—ordinary garden-type business so far as I know, it was Mr. Bonnabel's call. I am pretty sure that that can be verified in Captain Suzich's report.

Mr. FOGLIETTA. That said you do not know exactly what that conversation was?

Admiral PRICE. No, sir.

Mr. FOGLIETTA. Whatever that conversation was, did that require you as district commander to get a 24-hour report between the 3d and the 7th?

Admiral PRICE. In the first place, the report was handled at that point by the area operations officer. I wear two hats, and sometimes have to remember who I am today.

It was coming in through the area side because of the time frame and the location by then of the potential search. It did not come to me by way of district staff. The rescue coordination center serves me in both capacities. The same people will handle the search. The search officer or coordinator in this case was the area operations officer, Captain Suzich, and he testified at length before the board in Philadelphia.

Mr. FOGLIETTA. If you had received the phone call you received at noon on the 7th from some union——

Admiral PRICE. Mr. Schamann.

Mr. FOGLIETTA. From the union, or if you had received this telegram, or cable which says—one of the paragraphs:

> We, therefore, beseech you to use all means at your disposal to establish an intensive area sea search along the entire route from Cape Henlopen to Gibraltar.

If you had received either of those communications on the 3d rather than the 7th or 8th, would you have operated any differently in between the 3d and the 8th than you did?

Admiral PRICE. No, sir.

Let us take that proposal that we conduct at the outset a line search. That is what you are describing.

In the first place, it is 3,300 miles from Henlopen to Gibraltar. It would take us four aircraft to conduct the full line. I am not being stingy about the resources. I am trying to make a point. We can only sweep out for each leg perhaps a 20-mile swath. We are presuming the vessel is on course, and the aircraft is precisely on position. That is a lot of presuming.

Mr. FOGLIETTA. I think I can ask you one question which will—why did you not do on the 3d what you did on the 8th?

Admiral PRICE. I was not informed of the case until the 7th.

Mr. FOGLIETTA. I think we have gone through that enough.

On the *Poet* case, you prepared for the Commandant in February 1981, a report which you made some recommendations, the final recommendation—first recommendation was to require two EPIRB's could be carried on vessels. Second, was to establish a mandatory reporting and alerting system, and the final recommendation was not to sanction the imposition of outside influences.

Could you tell us what you mean by the outside influences?

Admiral PRICE. We were getting proposals that we search based on people's communications with—what I guess I will call the "other world," whatever that is. We were getting suggestions of all kinds, none of them founded on any positive facts. They were certainly disrupting the orderly conducting of our search.

I am well aware that we are dealing with an emotional, unfortunate event, and I share the full sympathy of this committee for those who have experienced this grievous loss. But the people in the search and rescue center are breaking their necks and putting in terribly long hours trying to do an intelligent job, and when we are getting pressured we ought to divert and search some other location because someone has some crumb of information which turns out not to have any substance behind it, that is what we were directing that comment to.

Mr. FOGLIETTA. That is what you referred to, you referred in the next paragraph to the concern of uneducated citizens?

Admiral PRICE. That is what I am talking about. I am not talking about the survivors or any of that sort of thing. We had people who, I guess, would be considered as mystics, whatever you want to call them. I do not happen to deal in astrology. I try to deal in facts.

Mr. FOGLIETTA. All right, Admiral, you talk about the vastness of the sea and I agree and everyone agrees it is vast. However, I think it must take second place in vastness to the atmosphere. From my limited knowledge of flying vehicles, we could track almost any aircraft whether it is propeller operated, jet operated or nuclear operated, anywhere in the atmosphere, anywhere in space. At any particular time, someone will know which aircraft are where throughout the entire atmosphere. Why cannot we have the same kind of communication and regulation with ships at sea as we have with aircraft?

Admiral PRICE. I think we go back to speed, first, for starts. The duration of an aerial flight is short. Let us take a transoceanic flight from Europe. It is 8 hours. By the time the aircraft is off the ground and clear of London, an hour or so has transpired and then it is in the transatlantic crossing. The pilot is in constant excellent communications because he is dealing almost always line of sight, and he is dealing verbally like a telephone because he is dealing line of sight with the place he just left and the place he is just going to. By the time, let us say 5 hours have passed, he is starting to make approaches on Kennedy, they are telling him what he should do. In other words, he is under constant scrutiny.

We are back with the ship and the fellow with the key, "dot, dot, dot," that is something that doesn't work the same way because we are not dealing with line of sight. We are dealing with the curvature of the Earth, ionosphere, and all sorts of mysterious things which behave completely irrationally as far as we humans are concerned.

Mr. FOGLIETTA. There is a system which I talked about earlier, the name of which escapes me for the moment—the Marisat system—could overcome the problems concerned with the curvature of the Earth and the atmospheric interference, would you advocate a system that requires under very severe penalty like loss of license the ship to keep in 48-hour communication with some central point so that in these kinds of instances there would be a method of knowing that a ship was in distress or at least had lost its radio communication equipment?

Admiral PRICE. I would like to carry you one step further than that. If I may, if I may be allowed, Mr. Chairman, I would like to

resort to a discussion of AMVER, on what is it, what is its status today. I would like to talk about what it could be, then we will talk, perhaps, if you permit me on where you and I and everyone wants to really be, with exactly the kind of coverage that transocean aircraft enjoy.

The CHAIRMAN. The gentleman may proceed.

Admiral PRICE. Sir, thank you.

First of all, there has been a lot of misunderstanding about the AMVER program. It is a program that is 22 years old. It has been in place that long and has done a world of good for the mariners of all nations.

What it does is tie together good Samaritans, people who agree that they will divert if asked to go to a distress in their vicinity. They do this voluntarily, entirely voluntarily. We cannot require it and we do not try. We only use it for safety purposes.

When the master who is participating leaves a port, he provides the course, speed, destination, and whether he has medical facilities on board. The world's radio stations including the satellite program carry this message traffic at no cost. This identifies healthy ships, not ships in distress, which are available and will divert to a distress situation. It expands our resources enormously. The data goes into a computer which is located at my headquarters on Governor's Island, and the computer then records the advances of the ship according to the data that was given over the duration of the voyage. It does not identify distress situations. It was never intended to.

Today some 25 or 50 percent of the world's shipping participates. We have 2,500 ships on plot any day. Most of the vessels report in, according to what we ask for, a periodic update. Some of them provide a followup when they make a deviation. Some do not. Few, if any, of them conform to a 48-hour criteria, and they rarely check out when they finally arrive at their port.

When I took up my post in 1978, and I had oversight for AMVER, I started the same line of inquiry we are inquiring of here, why cannot we have the same kind of transocean ship coverage that we have for transocean aviation. And, I ran right full tilt into the problem of the unreliability of radio communications.

What I was after, was essentially what we want here, is alerting. I also ran into a practical problem of a great number of ships that are at sea at any one time, and the amount of message traffic that this would bring about if we were going to something like a 48-hour periodic requirement.

I encountered another dichotomy, the fact that Norway and Canada have made AMVER mandatory for their merchant fleet, and the United States has not.

I looked at the USMER program which is run by MarAd, Maritime Administration, and the AMVER program and perceived them to be somewhat duplicative. I thought there was a potential of resolving the duplication.

I came to the conclusion we could not reach the goal of transocean ship coverage for American ships with frequent reports until we found something available like transponders coupled with satellite communications.

In other words, an automatic seeking system. We do not really want the radio communications. We want something that is going to automatically scan and integrate and only report when it doesn't get a product. That is within the, I suppose, state of the art. It is an investment problem yet to come.

The fact that that did not exist was fully recognized in that blue covered document I gave you because if you read recommendation 6 of the Hamburg Conference on SAR, an internationally conducted conference, it talks about a global reporting system and it recognizes that it is yet to come. I did see some prospects of improvement of AMVER as an interim effort. What we needed to do was to increase the number of ships on plot using the present reporting limitations, but that still wouldn't produce an alerting scheme. So we went about it as we have for 10 years by soliciting support of all ships, foreign and domestic, through an awards program. A ship that is religiously a participant is given some token at a ceremony trying to encourage others to participate.

I encouraged my district commanders to visit the ships, and in the course of visiting the ships that did not participate, there be a followup with the agent, owner, and master, encouraging them to participate.

I proposed that we seek from IMCO international support, that AMVER be given greater participation by the world's fleet as an interim measure. And, I personally contributed to the drafting of a statement which eventually was submitted to and emerged from the Safety of Navigation Subcommittee of IMCO, and I think by now has been blessed by the Maritime Safety Committee of IMCO, that AMVER should be fully supported by world shipping.

My move was to bring AMVER into international mandatory support.

I also pursued the initiative of eliminating the duplication of USMER and AMVER, and I am pleased to be able to say, Mr. Chairman, only within the past month, in a personal meeting with Mr. Sam Nemirow, the Maritime Administrator, we have reached an agreement that will fuse these two systems and resolve the problem of the mandatory support of AMVER. The Maritime Administration has the power to make that mandatory. The Coast Guard does not.

One of the benefits that will arrive from this procedure, we will get greater coverage of the world, AMVER will cover places where there is no search and rescue capability. We will at least know there are merchant ships transiting that can be interrogated. It will provide a greater ability to interrogate a ship in the proximity or assumed proximity of an unreported ship.

If the capability of a ship to broadcast on full power is for some reason reduced, it is possible a ship in that location might pick up a feeble signal. We would be able to go with a rifle instead of a shotgun to certain ships, interrogating them, "Can you raise or have you raised this ship?"

We would also have a possibility of a greater field of resources to turn to if we had to ask for someone to divert to a position in a distress.

I have to say, all of that is interim. It is still not an alerting scheme.

Now, sir, to get where we would like to be, we need to tie together satellite or some other reliable communication scheme with transponders. You really want to take the human element as much as possible out of the equation, then I think we will be at the place where everyone in this room would like to be, where we know merchant ships are around the globe all the time.

I am sorry I have been so long.

Mr. FOGLIETTA. I thank you very much.

I have no further questions.

The CHAIRMAN. Thank you very much.

Without objection, at this point in the record I would like to include by unanimous consent, yesterday's report and findings of the National Transportation Safety Board.

[The document referred to may be found on p. 75 of the April 9 hearing.]

The CHAIRMAN. Admiral, thank you very much for your appearance here, and I am not trying to start any argument, but am I correct in saying that the primary reason you ordered the search was the pressure from family, unions, and certain Members of Congress?

Admiral PRICE. I think I answered the question earlier, Mr. Chairman, when it was put by Mr. Foglietta.

The CHAIRMAN. Thank you very much.

Admiral PRICE. If I could have one last word, sir, before making my review, I would like to provide the committee for insert in the record the German Government's investigation of the *Munchen*. This was a relatively new vessel and much larger than the SS *Poet*, and there are certain vessels of this class called the "lash carrier" or lighter aboard ship, which operate under the American flag. This vessel was lost with all 28 persons in the Atlantic north of the Azores in December 1978, and there are two major factors in that case.

One is a frequent unreliability of Atlantic radio communications. The vessel could not raise anything in Belgium, but signals were reported to have been heard in Boston. And, a second is a difficulty of finding even a large vessel when its position has been reported in error by the ship itself. The position of the *Poet* when the catastrophe struck has not been and may never be known. The position of the *Munchen* was apparently reliable within 100 miles, and she was not spotted by aircraft on the first day of the search even though there was evidence she was still afloat at that time.

There is also a problem of knowing what decisions are being made on board.

There is a case within this past spring of the Israel ship *Masada* stricken 90 miles off of Bermuda. The forward hatch carried away and the master advised he did not need assistance. And the next day, sent out an SOS. Ships, and aircraft, fixed wing and helicopters, arrived quickly—there was a surface ship on the scene in 4 hours. And as the ship went down, some 24 of the 35 crew members were lost, which points to that hard fact about the survival of people in water, either in life rafts or small boats or without. It is not for any long duration.

Thank you, sir.

The CHAIRMAN. Thank you, Admiral, very much.

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In closing, I would like to thank my colleague, Mr. Foglietta, for his patience and endurance here this afternoon and very informative questions which you asked and commend you on your interest in this case.

Mr. FOGLIETTA. Thank you, Mr. Chairman, for the opportunity to ask these questions.

The CHAIRMAN. I would also like to thank the staff who did an excellent job in researching some of our questions and who developed some very interesting facts and figures.

In summary, I would like to thank the witnesses today for their cooperation. Our committee will not end its investigation today. We will pursue the questions in the future and the committee will issue a report on its findings. I hope we will develop legislation that may, in some small way, help prevent future tragedies like that.

As I noted earlier, our responsibility is not to accuse, but to correct and help, so that the welfare and safety of our mariners can be enhanced.

And with that, the committee stands adjourned.

A PERSPECTIVE OF MARITIME SAFETY

(By Vice Adm. R. I. Price)

Note: The opinions expressed in this paper are those of the author and do not necessarily reflect those of the United States Coast Guard or the Department of Transportation.

This Symposium of "Lifesaving and Rescue in the 1980's" comes at a time when many established practices are under reappraisal as a consequence of increases in the cost of energy. Furthermore, all forms of transport have recently come in for considerable attack. Confidence in engineering achievement has been badly shaken by a combination of fictional disasters in films and the occasional failure of important systems in reality. This type of criticism was once largely devoted to shipping, with intense focus on accidents involving tankers. It is unusual for the same sort of outrage, invented and real, to be directed toward aviation. Public perception seems to be that as old as seagoing is as an activity of man, by now all of its problems should have been solved. The maritime field has been seen by many as antiquated and anachronistic while other forms of transport, especially aviation, are viewed as modern and forward thinking. Seamen are conservative by nature, faced as they are with the unchanging hostility of the sea. Nonetheless, the maritime world has seen a great many changes in the past twenty years. The arrival of IMCO in 1959 coincided with an era of growth in maritime activity, and made possible a more comprehensive and disciplined approach to maritime safety. In IMCO, a structured program of Subcommittees and Panels on terms of reference along disciplinary planes, has been in place since 1961. Deliberating in regularly scheduled sessions, these groups have provided the detailed requirements underlying many international conventions on maritime safety and environment developed over the past twenty years.

Unfortunately, the magnitude of this effort is not widely known or appreciated. Perhaps, this is because the scope a maritime safety program must embrace to be effective is not understood except within the limited brotherhood of seafarers. The purpose of this paper is to review that scope as background to discussion of "Lifesaving and Rescue in the 1980's". This subject is usually considered from the point of view of the rescuer, especially of the professional rescue service of which the U.S. Coast Guard is an obvious example. However, I propose to examine the matter from the position of what is to be done as concerns the potential survivor, an extraordinarily detailed and expansive treatment which receives little recognition by the disaster film industry or the news media.

Four elements are common to all modes of transport. These are: (1) the vehicle (vessel), (2) the operating personnel, (3) the cargo carried and (4) the route traversed. These elements have a bearing on (A) the likelihood of any accident and, if one should occur, (B) how serious it may be or become, and, in the case of a very serious event, (C) the prospects of survival for the persons involved. In maritime transport

these four elements are each capable of a great many significant variations and variables. A listing of a number of them, by way of displaying this diversity, follows:

1. Vessel

Dimensions—Length, beam, depth, draft, freeboard, heel, trim, hog, sag, flare, sheer, camber
Function/mission
Capcity
Age
Registry
Number of type
Materials of construction
Hull arrangement
Mode of propulsion
Fuel
Horsepower
Speed
Stability
Subdivision
Damage stability
Permeability
Watertight integrity

2. Operating Personnel

Number at risk
Skill level (training and qualification)
Age
Language
Physical strength
Endurance
Endomorphs
Ectomorphs

3. Cargo

Passengers

Number
Age
Health
Language
Endomorphs
Ectomorphs

Solid (Break Bulk)

Permeability
Stowage requirements (shifting)
Compatibility
Hazardous properties

Liquid

Flammability
Toxicity
Reactivity
Specific gravity
Temperature
Pressure
Viscosity

4. Route

Current
Tide
Wind
Proximity to shore
Depth of water
Charting accuracy
Hydrography
Availability of assistance forces
Communications
Navigational aids
Water temperature
Air temperature

Predictability of weather
Density of marine traffic

The list is not to be thought complete. This complexity in number of significant parameters is not approached by any other form of transport. The range of ship proportions and properties provides further proof:

TABLE I.—CHARACTERISTIC SHIP PROPERTIES

	Low	High
Length (feet)	10	1,135
Beam (feet)	4	175
Depth (feet)	2	105
Draft (feet)	0	79
Speed (knots)	0	80
Power (horsepower)	0	220,000
Passengers	0	+3,000
Crew	1	1,090
Capacity (tons)	0	550,000

At the low end of the scale, the recreational boat becomes significant for safety purposes at about 10 feet in length. Recently one of that size crossed the Atlantic. At the upper limit, the dimensions are those of a supertanker. As to speed, vessels operate at a near standstill to about 80 knots in surface effect ships and sophisticated hydrofoils. Installed power extends from 0 to 220,000 in the SS *"United States"*, whose crew numbered 1,090. The number of persons carried in a vessel runs from none in an unmanned barge to better than 3,000 in some ferries. The capacity of vessels varies from the ability to carry one person to the lift of half a million deadweight tons of oil in a VLCC.

As to function, vessels may be categorized as recreational, commercial and research. The commercial category includes passenger, cargo or freight, tanker; and industrial vessels.

The possible hull forms which may be employed include conventional displacement hulls, hydrofoils, surface effect ships, catamarans, and submersibles. Hull material could be steel, aluminum, wood, reinforced fiberglass, concrete or plastic. For the propelling means there are sail, water screw, water jet, air screw and air jet. Propulsion systems include outboard engines, inboards, inboard-outboards, reciprocating steam, steam turbines, gas turbines, diesels, diesel electric, turbo-electric. Fuel runs the gamut from coal to nuclear energy. The dollar value of marine vehicles varies from 50 dollars for a very simple boat to the millions in larger vessels.

The marine vehicle is a highly complex and sensitive manmade system in which an accident in one location may easily, through a domino effect, have fatal consequences. A minor failure or discrepancy may escalate and bring on the loss of the vessel for, unless the water happens to be dead calm, it is not a safe condition to be disabled in a seaway. Although the perilous condition could arise from any of a number of possible failures, the initiating cause will be found to be either an internal deficiency of design, maintenance operation or external factors that should have been anticipated.

A vessel is immersed virtually all its life in a liquid. Beneath the surface, pressure increases with depth, approximately one pound per square inch for every two feet of depth. The liquid is always seeking entry, and the vessel is therefore at hazard even when it is at rest. In the case of offshore structures such as drilling rigs, the hazard exists despite the rig being bottom-supported. The sea is corrosive and so is the atmosphere immediately above the interface in the vapor zone. The reliability of materials and components is under constant attack.

An effect maritime safety program is concerned with five perils:

a. Flooding—sinking.
b. Listing—capsizing.
c. Fire—explosion.
d. Loss of control.
e. Personnel hazards.

A disciplined approach is essential with first priority going toward prevention. The actions to be taken in sequence are to:

a. *Avoid* occurrence of casualty or accident (to vessel or personnel);

b. *Minimise* the effects of a casualty or accident (the probability of the vessel being lost or becoming uninhabitable as a result of casualty or accident); and

c. *Escape* from an untenable, indefensible or unreliable situation.

The first two actions (to avoid and to minimise) are highly regulated. Few other human activities have the detailed control imposed on design and operation by such International Conventions as Safety of Life at Sea, Prevention of Collision at Sea, Loadline, and Standards of Training and Watch Keeping. However, this Symposium is focused upon the last of the three actions, Escape. The reader might wonder why take time discussing the actions which go before. The third action, Escape, may not be considered in exclusion. There are many possible platforms from which escape will be made and a great variety of conditions necessitating that action. Each instance of escape is unique, never to be repeated the same way—never, surely, involving all the same people. To deal successfully with this fateful event requires anticipation of all possibilities including the behavior of the persons at risk.

The action of Escape may be considered to have five distinct phases:

1. Preparation and outfitting.
2. Abandonment.
3. Endurance (survival).
4. Positioning-locating.
5. Recovery.

A brief discussion of these phases follows:

1. PREPARATION AND OUTFITTING

This phase requires the designer and the national Administrator to assess not only the circumstances which may exist at the time of Escape, but which will prevail during the life of the ship. It is no oversimplification to say that what is not aboard or in working condition cannot be used when needed.

For example, concerning survival craft (lifeboats, floats, rafts), the following must be determined as part of the certification process:

Types,
Number of each,
Distribution aboard,
Readiness for use,
Conditions of storage,
Ease of operation,
Capability in adverse sea and weather,
Frequency of maintenance required,
Launching points,
Frequency of training required, and
Equipment.

A similar list can be drawn up relative to personal flotation devices (lifejackets, ring buoys, etc.).

In striving for balance in the certification process, two principles conflict. It is reasonable that safeguards required be in proportion to the risk. It is also reasonable that safeguards provided be in proportion to the capability of the craft involved. As ships grow larger they offer increased risk in the capability to carry more people, yet greater capability to carry emergency equipment. On the other hand, the risk can be significantly reduced by greater internal compartmentation which is only attainable in larger ships. Compartmentation improves the likelihood of the injured ship remaining afloat. To apply these principles to administrative processes for defining the equipment required for abandonment is highly complex. One wishes the discipline of risk analysis were not as imperfect as it happens to be.

2. ABANDONMENT

The decision to abandon ship is a cruel one, made under the most trying conditions, on the basis of flawed and insufficient information about the true state of the craft involved. One wonders if the tradition of the captain going down with the ship does not stem from the recognized difficulty of proving long after, in places far from the scene, the finality of the situation. To know circumstances to be so hopeless that the best solution is to take to the deep in a small survival boat ought to require the very best judgment. Unfortunately, The circumstances do not permit. The speed with which a ship approaches its final moments may be slow, with progressive deterioration of internal systems and erosion of morale, or swift with no warning to those onboard. The annals of the sea have plenty of accounts of premature abandonment, occasionally with the ship surviving and the personnel reboarding the vessel or with the vessel being salved by someone else. There are also instances of delay until conditions favoring a successful escape passed. In still other instances, panic,

rumor, or poor communications have overridden the decision, however imperfect, to be made by that one individual who is never free of responsibility, the master.

For abandonment to be successful it must be possible to launch lifesaving craft without power, with little illumination, with poor communications, and in extreme adverse list. Lifesaving equipment must be disposed around the ship to avoid losing all to an accident in one location. It should be possible to launch survival craft swiftly but so that it be neither swept away nor caught beneath the overhang of the sinking hull. Preferably, rescue craft should be capable of being launched with personnel already onboard in control of the descent and detachment rather than require someone to remain onboard the distressed ship to carry out those functions. Personal flotation gear must be accessible in sufficient number and allowance must be made for the added bulk of persons when wearing lifejackets or vests. The height from assembling points to the sea surface may be considerable and a difficulty for persons in fit condition to move the aged, infirm or injured through that distance is a formidable problem.

Survival craft should be capable of being boarded from the water and fitted with handgrabs for persons to hold to until recovered into the craft. Rescue craft should be released automatically to prevent a sinking ship taking survival equipment to the bottom of the sea.

Perhaps the most crucial requirement is that the master put aside his reluctance to admit to the world his difficulties and summon assistance while still having communication.

3. ENDURANCE

To survive requires buoyancy, protection against heat or cold depending on the location of the distress, sustenance, and medical assistance for the treatment of injuries and seasickness. What has been summed up in one sentence may appear simple, but the equipment for these purposes must be protected from loss or deterioration until needed. This is not so easy to do. For example, shortsighted persons have been known to pilfer emergency craft containers and emergency ration packets looking for drugs, or out of curiosity. Having once broken the seals which defend the contents, they rapidly deteriorate.

The countering action by the ship's administration is often to make the stowage so secure that the equipment is unavailable in an emergency.

There must be a capability to prevent loss of rations and equipment from within the survival craft. It is also necessary to be mindful that potential users vary from those with survival training to those with none, from those who can understand the language of instructions to those who may not.

4. POSITIONING-LOCATING

The farther to sea the disaster occurs, the less likelihood of being located. Out to sea, fewer ships are available to be diverted to the scene. The endurance of aircraft to search a position far from land is restricted by their diminished fuel supply. Unless some knowledge of a distressed ship's plight is conveyed to the world outside it, there is no reason to expect a search to be mounted. Modern electronic navigation aids such as Loran-C, Omega and Satellites permit a reliable fix of position to be determined quickly. But what of those situations when the vessel goes down too rapidly to permit a signal to be sent? The earliest warning may come from failure of the craft to make its regularly scheduled report, assuming that arrangements were made for such reports before the voyage began. Otherwise, the survivors must find aboard the rescue craft means to enhance the probability of being found. An emergency radio which permits direct communication is the best. Next, comes the Electronic Position Indicating Radio Beacon or EPIRB. Less effective, but still beneficial, is a radar reflector. Flares, mirrors and smoke signals are also essential aids to detection. Survivors are difficult to see even when a rescue ship or aircraft is on scene and the survival craft should be of a highly visible coloration. For an individual survivor to be recovered by a group of survivors, his personal flotation device should also be of high visibility, fitted with a whistle and a small light.

A special problem not yet mentioned is the unscheduled abandonment or man overboard.

In most cases, man overboard is an accident, although there are instances of attempted suicide or foul play. Most occurrences are during heavy weather. Against losing personnel overboard, lifelines should be rigged across open decks in preparation for a storm. Venturing topside should only be out of necessity by persons wearing personal flotation gear or wet suits.

Learning someone is unaccounted for at sea causes consternation regardless of the size of the craft. A program of regular musters on a daily basis at the very least

should be part of the ship's routine. To locate a man overboard in a seaway, especially at night, is more difficult than finding the needle in the haystack. Most waters of the world are so cold that there is a poor chance of a person being located within the time span of human tolerance of low temperature, even wearing a wet suit. Nonetheless, from time to time there are incredible stories of locating the man gone overboard after long absence. One wonders whether there is not some way of increasing these lucky instances by an electronic signalling device crew members would wear that would only be actuated once outside the envelope of own ship, not only causing a locating signal to be emitted, but a warning onboard the vessel that someone has made an unscheduled departure.

5. RECOVERY

There is no way to predict the quality of assistance that will reach the survivors. Exhausted and enfeebled by this point, the survivors of a distress at sea are extremely vulnerable. In numerous "rescues," their lives in the hands of the rescuers are dependent upon their skill and seamanship, survivors have been lost moments from recovery. Illumination at night, attention to the drift rate, forming a lee, ladders, nets, swimmers with lifelines are aspects of the careful preparation that should precede a recovery attempt. If the seas are high, it may be wisest to wait or to launch a lifeboat than to risk bringing the rescuing ship into the proximity of the survivors.

If recovery is by helicopter, good airmanship is required. However, it is unlikely that a helicopter would be employed by other than a professional rescue service. Here it is the helicopter that is vulnerable during the recovery phase. If the cable is not handled properly it may be fouled on the survival craft, jeopardizing both rescuer and survivor. The survivor cannot be relied upon to know what to do. The noise level of the helicopter is high, and there is also a possibility of a language difference.

I will not elaborate further on this phase which is the province of the Rescue Organization. This Symposium will doubtless develop in detail Search and Rescue with its highly specialized and disciplined procedures. The contribution I have endeavored to make is to direct attention to the survivor, sine qua non, after all.

As should be evident, we are dealing with a problem of almost infinite variety. For the most effective result, a lifesaving system should be tailored to the individual ship and its particulars. However, there is no practical possibility of requiring such a solution. The costs associated with limited production inherent in equipment special to each situation would be far too great. It is therefore necessary to go to the opposite extreme, to equipment and craft of more general capability. In making this compromise, there is a risk that equipment will be applied to situations for which it is quite unsuited, because any limiting assumptions may not have been identified. Failure to state the assumptions also encourage mistakes as changes in maritime operations occur. The best example of this necessary compromise is the general flotation device. It takes at most 12 pounds of excess buoyancy to support virtually every variation of the human body with the head clear of the water to be able to breathe. It is easy enough to increase the buoyancy of a life preserver, but it is not easy to apply buoyancy where it is needed. The buoyancy must be fastened to the body by means of a vest or jacket. The resultant vector of effective buoyant support is therefore differently disposed for each individual. In the ideal solution, a life preserver would be a personal item tailored to the individual, not likely to be used by another person.

In the 1980's, fuel costs will continue to rise. Along with virtually all other human activity, lifesaving and rescue will not escape the impact of this increase. The consequences are not favorable. A shipmaster may be less likely to divert to lend assistance if the cost of the voyage is thereby significantly increased. Rescue services, notwithstanding their humanitarian function, do have budgets and will of necessity be obliged to reduce the length of searches, especially by aircraft. There is as yet no serious effort to design either rescue ships or rescue aircraft for reduced fuel consumption.

The expansion of these same resources into other mission areas such as pollution prevention and fishery law enforcement, together with economic considerations, make imperative the most effective use of search and rescue forces. Investigative techniques and search planning procedures must assure that search resources are diverted to locations of most probable recovery.

It is essential to intensify preventive efforts with more attentive maintenance and housekeeping, more competent navigation training and performance of shipboard personnel, supervision of the special stowage requirements of various cargoes, and adherence to the rules of the nautical road. Because the ship is always its own best lifeboat, there should be a determined effort to improve the odds on the vessel

surviving as a platform. At present international standards do not require cargo vessels, except those carrying hazardous cargoes, to have the capability of surviving the flooding of even one compartment. Without this minimal requirement, rapid sinking or capsizing will follow the flooding from a relatively minor injury.

Shipowners whould insist that their masters participate in the Automated Merchant Vessel Reporting Service (AMVER). Because of the loss without trace of the "*Birge Istra*", the Government of Norway has made participation in AMVER obligatory for ships of Norwegian registry. Canada has also made it a national requirement. This otherwise voluntary scheme presently receives dedicated support from about 25 percent of the world fleet over 1,000 gross tons. With more extensive participation the availability of rescue and medical assistance at sea would be vastly improved. AMVER, which automatically dead reckons the advance of a ship by computer, can also give an excellent first estimate of position upon receiving notice the vessel is overdue.

To reduce the potential for protracted searches, craft intended to venture any distance from land should be obliged to carry the EPIRB. The U.S. Coast Guard has in progress jointly with Canada and France and, potentially, with the Soviet Union, a project for a more effective use of this device. The concept is to employ operational meteorological satellites which would determine the position of the distressed craft by the Doppler frequency offset caused by the angular motion of the satellites with respect to the stationary EPIRB.

The 1980's promise that there will be more people at risk upon the seas chiefly as a consequence of the increased use of the oceans as a source of protein, minerals, and energy. Many persons involved in these ventures will not be professional seafarers, but industrial personnel with competence of their activity. The benefit of the Symposium convened today is that through sharing of experience, positive and negative, and with the promotion of cooperation among those dedicated to safety, we may be successful in meeting this challenge.

INTER-GOVERNMENTAL MARITIME
CONSULTATIVE ORGANIZATION

INTERNATIONAL CONFERENCE
ON

MARITIME SEARCH AND RESCUE, 1979

Final Act of the Conference, with
attachments, including
the

International Convention on
Maritime Search and Rescue, 1979

LONDON 1979

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FINAL ACT OF THE INTERNATIONAL CONFERENCE ON MARITIME SEARCH AND RESCUE, 1979

1 By its Resolution A.405(X) of 17 November 1977, the Assembly of the Inter-Governmental Maritime Consultative Organization decided to convene an international conference to consider the adoption of a convention on maritime search and rescue.

2 Upon the invitation of the Government of the Federal Republic of Germany, the Conference was held in Hamburg from 9 to 27 April 1979. The following States were represented by delegations at the Conference:

Algeria
Argentina
Australia
Belgium
Brazil
Bulgaria
Canada
Chile
China
Cuba
Cyprus
Denmark
Finland
France
Gabon
German Democratic Republic
Germany, Federal Republic of
Greece
India
Indonesia
Ireland
Italy
Ivory Coast
Japan
Kuwait
Liberia
Mexico
Netherlands
New Zealand
Nigeria
Norway
Poland
Portugal
Saudi Arabia
Singapore
Spain
Sweden
Switzerland
Thailand
Trinidad and Tobago
Tunisia
Turkey
Union of Soviet Socialist Republics
United Kingdom of Great Britain and Northern Ireland
United Republic of Cameroon
United States of America
Uruguay
Venezuela
Yemen
Yugoslavia
Zaire

3 Bolivia and the Dominican Republic were represented at the Conference by observers.

4 Hong Kong, an Associate Member of the Inter-Governmental Maritime Consultative Organization, sent an observer to the Conference.

5 The following organizations in the United Nations system sent representatives to the Conference:

Office of the United Nations High Commissioner for Refugees (UNHCR)
International Civil Aviation Organization (ICAO)
International Telecommunication Union (ITU)
World Meteorological Organization (WMO)

6 The following non-governmental organizations sent observers to the Conference:

International Chamber of Shipping (ICS)
International Confederation of Free Trade Unions (ICFTU)
International Radio-Maritime Committee (CIRM)
International Shipowners' Association (INSA)
International Federation of Shipmasters' Associations (IFSMA)

7 The Conference was opened by Mr. C.P. Srivastava, Secretary-General of the Inter-Governmental Maritime Consultative Organization. On behalf of the Government of the Federal Republic of Germany Mr. H. Ruhnau, Secretary of State, made a statement welcoming the delegates. Mr. J. Steinert, Senator of the Free and Hanseatic City of Hamburg, also welcomed the delegates.

8 Dr. G. Breuer, Head of the delegation of the Federal Republic of Germany, was elected President of the Conference.

9 The following were elected Vice-Presidents of the Conference:

Capitán A.A. Torre (Argentina)
Mr. Wu Ying Cheng (China)
Mr. G. Marchand (France)
Mr. S. Kobayashi (Japan)
Dr. M. Kayal (Saudi Arabia)
Mr. A. Baouab (Tunisia)
Mr. G. Kolesnikov (USSR)
H.E. Mr. J.-B. Beleoken (United Republic of Cameroon)
Commander A.J. McCullough (United States)
Contralmirante N. Sánchez Luna (Venezuela)

10 The Secretariat of the Conference consisted of the following officers:

Secretary-General:	Mr. C.P. Srivastava
Executive Secretary:	Mr. G. Kostylev
Deputy Executive Secretary:	Mr W.S.G. Morrison
Secretary to the Plenary:	Mr. W. de Goede

11 The Conference established the following Committees with officers as indicated:

Steering Committee

Chairman:	Dr G Breuer (Federal Republic of Germany) President of the Conference

Committee I

Chairman:	Mr. G.S. Santa-Cruz (Chile)
Vice-Chairman:	Mr. A.R.M. Al-Yagout (Kuwait)

Committee II

Chairman:	Mr. E.J. Salvesen (Norway)
Vice-Chairman:	Lieutenant-Commander G.J. Dakoury (Ivory Coast)

Drafting Committee

Chairman:	Mr. P.D. Hamilton-Eddy (United Kingdom)
Vice-Chairman:	Mr. H. Güvener (Turkey)

Credentials Committee

Chairman:	Mr. R. Drummond de Mello (Brazil)

12 The following documentation formed the basis for the work of the Conference:

- a draft International Convention on Maritime Search and Rescue and related resolutions prepared by the Group of Experts on Search and Rescue of the Inter-Governmental Maritime Consultative Organization and approved by its Maritime Safety Committee
- proposals and comments thereon submitted to the Conference by governments and interested organizations.

13 As a result of its deliberations, recorded in the summary records of the plenary meetings, the Conference adopted the INTERNATIONAL CONVENTION ON MARITIME SEARCH AND RESCUE, 1979, which constitutes Attachment 1 to this Final Act.

14 The Conference also adopted the Resolutions contained in Attachment 2 to this Final Act.

15 The text of this Final Act, including its attachments, is established in a single original text in the Chinese, English, French, Russian and Spanish languages and is deposited with the Secretary-General of the Inter-Governmental Maritime Consultative Organization. Official translations of the Convention shall be prepared in the Arabic, German and Italian languages and shall be deposited with this Final Act.

16 The Secretary-General of the Inter-Governmental Maritime Consultative Organization shall send certified copies of this Final Act together with the Resolutions of the Conference, certified copies of the authentic texts of the Convention and, when they have been prepared, of the official translations of the Convention, to the Governments of the States invited to be represented at the Conference, in accordance with the wishes of those Governments.

IN WITNESS WHEREOF the undersigned* have affixed their signatures to this Final Act.

DONE AT HAMBURG this twenty-seventh day of April one thousand nine hundred and seventy-nine.

* *Signatures omitted*

ATTACHMENT 1

INTERNATIONAL CONVENTION ON MARITIME SEARCH AND RESCUE, 1979

THE PARTIES TO THE CONVENTION,

NOTING the great importance attached in several conventions to the rendering of assistance to persons in distress at sea and to the establishment by every coastal State of adequate and effective arrangements for coast watching and for search and rescue services,

HAVING CONSIDERED Recommendation 40 adopted by the International Conference on Safety of Life at Sea, 1960, which recognizes the desirability of co-ordinating activities regarding safety on and over the sea among a number of inter-governmental organizations,

DESIRING to develop and promote these activities by establishing an international maritime search and rescue plan responsible to the needs of maritime traffic for the rescue of persons in distress at sea,

WISHING to promote co-operation among search and rescue organizations around the world and among those participating in search and rescue operations at sea,

HAVE AGREED as follows:

Article I

General obligations under the Convention

The Parties undertake to adopt all legislative or other appropriate measures necessary to give full effect to the Convention and its Annex, which is an integral part of the Convention. Unless expressly provided otherwise, a reference to the Convention constitutes at the same time a reference to its Annex.

Article II

Other treaties and interpretation

(1) Nothing in the Convention shall prejudice the codification and development of the law of the sea by the United Nations Conference on the Law of the Sea convened pursuant to resolution 2750 (XXV) of the General Assembly of the United Nations nor the present or future claims and legal views of any State concerning the law of the sea and the nature and extent of coastal and flag State jurisdiction.

(2) No provision of the Convention shall be construed as prejudicing obligations or rights of vessels provided for in other international instruments.

Article III

Amendments

(1) The Convention may be amended by either of the procedures specified in paragraphs (2) and (3) hereinafter.

(2) Amendment after consideration within the Inter-Governmental Maritime Consultative Organization (hereinafter referred to as the Organization):

(a) Any amendment proposed by a Party and transmitted to the Secretary-General of the Organization (hereinafter referred to as the Secretary-General), or any amendment deemed necessary by the Secretary-General as a result of an amendment to a corresponding provision of Annex 12 to the Convention on International Civil Aviation, shall be circulated to all Members of the Organization and all Parties at least six months prior to its consideration by the Maritime Safety Committee of the Organization.

(b) Parties, whether or not Members of the Organization, shall be entitled to participate in the proceedings of the Maritime Safety Committee for the consideration and adoption of amendments.

(c) Amendments shall be adopted by a two-thirds majority of the Parties present and voting in the Maritime Safety Committee on condition that at least one third of the Parties shall be present at the time of adoption of the amendment.

(d) Amendments adopted in accordance with sub-paragraph (c) shall be communicated by the Secretary-General to all Parties for acceptance.

(e) An amendment to an Article or to paragraphs 2.1.4, 2.1.5, 2.1.7, 2.1.10, 3.1.2 or 3.1.3 of the Annex shall be deemed to have been accepted on the date on which the Secretary-General has received an instrument of acceptance from two thirds of the Parties.

(f) An amendment to the Annex other than to paragraphs 2.1.4, 2.1.5, 2.1.7, 2.1.10, 3.1.2 or 3.1.3 shall be deemed to have been accepted at the end of one year from the date on which it is communicated to the Parties for acceptance. However, if within such period of one year more than one third of the Parties notify the Secretary-General that they object to the amendment, it shall be deemed not to have been accepted.

(g) An amendment to an Article or to paragraphs 2.1.4, 2.1.5, 2.1.7, 2.1.10, 3.1.2 or 3.1.3 of the Annex shall enter into force:

(i) with respect to those Parties which have accepted it, six months after the date on which it is deemed to have been accepted;

(ii) with respect to those Parties which accept it after the condition mentioned in sub-paragraph (e) has been met and before the amendment enters into force, on the date of entry into force of the amendment;

(iii) with respect to those Parties which accept it after the date on which the amendment enters into force, 30 days after the deposit of an instrument of acceptance.

(h) An amendment to the Annex other than to paragraphs 2.1.4, 2.1.5, 2.1.7, 2.1.10, 3.1.2 or 3.1.3 shall enter into force with respect to all Parties, except those which have objected to the amendment under sub-paragraph (f) and which have not withdrawn such objections, six months after the date on which it is deemed to have been accepted. However, before the date set for entry into force, any Party may give notice to the Secretary-General that it exempts itself from giving effect to that amendment for a period not longer than one year from the date of its entry into force, or for such longer period as may be determined by a two-thirds majority of the Parties present and voting in the Maritime Safety Committee at the time of the adoption of the amendment.

(3) Amendment by a conference:

(a) Upon the request of a Party concurred in by at least one third of the Parties, the Organization shall convene a conference of Parties to consider amendments to the Convention. Proposed amendments shall be circulated by the Secretary-General to all Parties at least six months prior to their consideration by the conference.

(b) Amendments shall be adopted by such a conference by a two-thirds majority of the Parties present and voting, on condition that at least one third of the Parties shall be present at the time of adoption of the amendment. Amendments so adopted shall be communicated by the Secretary-General to all Parties for acceptance.

(c) Unless the conference decides otherwise, the amendment shall be deemed to have been accepted and shall enter into force in accordance with the procedures specified in sub-paragraphs (2)(e), (2)(f), (2)(g), and (2)(h) respectively, provided that reference in sub-paragraph (2)(h) to the Maritime Safety Committee expanded in accordance with sub-paragraph (2)(b) shall be taken to mean reference to the conference.

(4) Any declaration of acceptance of, or objection to, an amendment or any notice given under sub-paragraph (2)(h) shall be submitted in writing to the Secretary-General who shall inform all Parties of any such submission and the date of its receipt.

(5) The Secretary-General shall inform States of any amendments which enter into force, together with the date on which each such amendment enters into force.

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Article IV

Signature, ratification, acceptance, approval and accession

(1) The Convention shall remain open for signature at the Headquarters of the Organization from 1 November 1979 until 31 October 1980 and shall thereafter remain open for accession. States may become Parties to the Convention by:

(a) signature without reservation as to ratification, acceptance or approval; or

(b) signature subject to ratification, acceptance or approval, followed by ratification, acceptance or approval; or

(c) accession.

(2) Ratification, acceptance, approval or accession shall be effected by the deposit of an instrument to that effect with the Secretary-General.

(3) The Secretary-General shall inform States of any signature or of the deposit of any instrument of ratification, acceptance, approval or accession and the date of its deposit.

Article V

Entry into force

(1) The Convention shall enter into force 12 months after the date on which 15 States have become Parties to it in accordance with Article IV.

(2) Entry into force for States which ratify, accept, approve or accede to the Convention in accordance with Article IV after the condition prescribed in paragraph (1) has been met and before the Convention enters into force, shall be on the date of entry into force of the Convention.

(3) Entry into force for States which ratify, accept, approve or accede to the Convention after the date on which the Convention enters into force shall be 30 days after the date of deposit of an instrument in accordance with Article IV.

(4) Any instrument of ratification, acceptance, approval or accession deposited after the date of entry into force of an amendment to the Convention in accordance with Article III shall apply to the Convention, as amended, and the Convention, as amended, shall enter into force for a State depositing such an instrument 30 days after the date of its déposit.

(5) The Secretary-General shall inform States of the date of entry into force of the Convention.

Article VI

Denunciation

(1) The Convention may be denounced by any Party at any time after the expiry of five years from the date on which the Convention enters into force for that Party.

(2) Denunciation shall be effected by the deposit of an instrument of denunciation with the Secretary-General who shall notify States of any instrument of denunciation received and of the date of its receipt as well as the date on which such denunciation takes effect.

(3) A denunciation shall take effect one year, or such longer period as may be specified in the instrument of denunciation, after its receipt by the Secretary-General.

Article VII

Deposit and registration

(1) The Convention shall be deposited with the Secretary-General who shall transmit certified true copies thereof to States.

(2) As soon as the Convention enters into force, the Secretary-General shall transmit the text thereof to the Secretary-General of the United Nations for registration and publication, in accordance with Article 102 of the Charter of the United Nations.

Article VIII

Languages

The Convention is established in a single copy in the Chinese, English, French, Russian and Spanish languages, each text being equally authentic. Official translations in the Arabic, German and Italian languages shall be prepared and deposited with the signed original.

DONE AT HAMBURG this twenty-seventh day of April one thousand nine hundred and seventy-nine.

IN WITNESS WHEREOF the undersigned*, being duly authorized by their respective Governments for that purpose, have signed the Convention.

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* *Signatures omitted*

ANNEX

CHAPTER 1

TERMS AND DEFINITIONS

1.1 "Shall" is used in the Annex to indicate a provision, the uniform application of which by all Parties is required in the interest of safety of life at sea.

1.2 "Should" is used in the Annex to indicate a provision, the uniform application of which by all Parties is recommended in the interest of safety of life at sea.

1.3 The terms listed below are used in the Annex with the following meanings:

.1 "Search and rescue region". An area of defined dimensions within which search and rescue services are provided.

.2 "Rescue co-ordination centre". A unit responsible for promoting efficient organization of search and rescue services and for co-ordinating the conduct of search and rescue operations within a search and rescue region.

.3 "Rescue sub-centre". A unit subordinate to a rescue co-ordination centre established to complement the latter within a specified area within a search and rescue region.

.4 "Coast watching unit". A land unit, stationary or mobile, designated to maintain a watch on the safety of vessels in coastal areas.

.5 "Rescue unit". A unit composed of trained personnel and provided with equipment suitable for the expeditious conduct of search and rescue operations.

.6 "On-scene commander". The commander of a rescue unit designated to co-ordinate search and rescue operations within a specified search area.

.7 "Co-ordinator surface search". A vessel, other than a rescue unit, designated to co-ordinate surface search and rescue operations within a specified search area.

.8 "Emergency phase". A generic term meaning, as the case may be, uncertainty phase, alert phase or distress phase.

.9 "Uncertainty phase". A situation wherein uncertainty exists as to the safety of a vessel and the persons on board.

.10 "Alert phase". A situation wherein apprehension exists as to the safety of a vessel and of the persons on board.

.11 "Distress phase". A situation wherein there is a reasonable certainty that a vessel or a person is threatened by grave and imminent danger and requires immediate assistance.

.12 "To ditch". In the case of an aircraft, to make a forced landing on water.

CHAPTER 2

ORGANIZATION

2.1 Arrangements for provision and co-ordination of search and rescue services

2.1.1 Parties shall ensure that necessary arrangements are made for the provision of adequate search and rescue services for persons in distress at sea round their coasts

2.1.2 Parties shall forward to the Secretary-General information on their search and rescue organization and later alterations of importance, including:

.1 national maritime search and rescue services;

.2 location of established rescue co-ordination centres, their telephone and telex numbers and areas of responsibility; and

.3 principal available rescue units at their disposal.

2.1.3 The Secretary-General shall in a suitable way transmit to all Parties the information referred to in paragraph 2.1.2.

2.1.4 Each search and rescue region shall be established by agreement among Parties concerned. The Secretary-General shall be notified of such agreement.

2.1.5 In case agreement on the exact dimensions of a search and rescue region is not reached by the Parties concerned, those Parties shall use their best endeavours to reach agreement upon appropriate arrangements under which the equivalent overall co-ordination of search and rescue services is provided in the area. The Secretary-General shall be notified of such arrangements.

2.1.6 The Secretary-General shall notify all Parties of the agreements or arrangements referred to in paragraphs 2.1.4 and 2.1.5.

2.1.7 The delimitation of search and rescue regions is not related to and shall not prejudice the delimitation of any boundary between States.

2.1.8 Parties should arrange that their search and rescue services are able to give prompt response to distress calls.

2.1.9 On receiving information that a person is in distress at sea in an area within which a Party provides for the overall co-ordination of search and rescue operations, the responsible authorities of that Party shall take urgent steps to provide the most appropriate assistance available.

2.1.10 Parties shall ensure that assistance be provided to any person in distress at sea. They shall do so regardless of the nationality or status of such a person or the circumstances in which that person is found.

2.2 **Co-ordination of search and rescue facilities**

2.2.1 Parties shall make provision for the co-ordination of the facilities required to provide search and rescue services round their coasts.

2.2.2 Parties shall establish a national machinery for the overall co-ordination of search and rescue services.

2.3 **Establishment of rescue co-ordination centres and rescue sub-centres**

2.3.1 To meet the requirements of paragaphs 2.2.1 and 2.2.2 Parties shall establish rescue co-ordination centres for their search and rescue services and such rescue sub-centres as they consider appropriate.

2.3.2 The competent authorities of each Party shall determine the area for which a rescue sub-centre is responsible.

2.3.3 Each rescue co-ordination centre and rescue sub-centre established in accordance with paragraph 2.3.1 shall have adequate means for the receipt of distress communications via a coast radio station or otherwise. Every such centre and sub-centre shall also have adequate means for communication with its rescue units and with rescue co-ordination centres or rescue sub-centres, as appropriate, in adjacent areas

2.4 **Designation of rescue units**

2.4.1 Parties shall designate either:

.1 as rescue units, State or other appropriate public or private services suitably located and equipped, or parts thereof; or

.2 as elements of the search and rescue organization, State or other appropriate public or private services or parts thereof, not suitable for designation as rescue units, but which are able to participate in search and rescue operations. and shall define the functions of those elements.

2.5 **Facilities and equipment of rescue units**

2.5.1 Each rescue unit shall be provided with facilities and equipment appropriate to its task.

2.5.2 Each rescue unit should have rapid and reliable means of communication with other units or elements engaged in the same operation.

2.5.3 Containers or packages containing survival equipment for dropping to survivors should have the general nature of their contents indicated by a colour code in accordance with paragraph 2.5.4 and by printed indication and self-explanatory symbols, to the extent that such symbols exist.

2.5.4 The colour identification of the contents of droppable containers and packages containing survival equipment should take the form of streamers coloured according to the following code:

.1 Red – medical supplies and first aid equipment;

.2 Blue – food and water;

.3 Yellow – blankets and protective clothing, and

.4 Black – miscellaneous equipment such as stoves, axes, compasses and cooking utensils.

2.5.5 Where supplies of a mixed nature are dropped in one container or package, the colour code should be used in combination.

2.5.6 Instructions on the use of the survival equipment should be enclosed in each of the droppable containers or packages. They should be printed in English and in at least two other languages.

CHAPTER 3

CO-OPERATION

3.1 Co-operation between States

3.1.1 Parties shall co-ordinate their search and rescue organizations and should, whenever necessary, co-ordinate search and rescue operations with those of neighbouring States.

3.1.2 Unless otherwise agreed between the States concerned, a Party should authorize, subject to applicable national laws, rules and regulations, immediate entry into or over its territorial sea or territory of rescue units of other Parties solely for the purpose of searching for the position of maritime casualties and rescuing the survivors of such casualties. In such cases, search and rescue operations shall, as far as practicable, be co-ordinated by the appropriate rescue co-ordination centre of the Party which has authorized entry, or such other authority as has been designated by that Party.

3.1.3 Unless otherwise agreed between the States concerned, the authorities of a Party which wishes its rescue units to enter into or over the territorial sea or territory of another Party solely for the purpose of searching for the position of maritime casualties and rescuing the survivors of such casualties, shall transmit a request, giving full details of the projected mission and the need for it, to the rescue co-ordination centre of that other Party, or to such other authority as has been designated by that Party.

3.1.4 The competent authorities of Parties shall:

.1 immediately acknowledge the receipt of such a request; and

.2 as soon as possible indicate the conditions, if any, under which the projected mission may be undertaken.

3.1.5 Parties should enter into agreements with neighbouring States setting forth the conditions for entry of each other's rescue units into or over their respective territorial sea or territory. These agreements should also provide for expediting entry of such units with the least possible formalities.

3.1.6 Each Party should authorize its rescue co-ordination centres.

.1 to request from other rescue co-ordination centres such assistance, including vessels, aircraft, personnel or equipment, as may be needed;

.2 to grant any necessary permission for the entry of such vessels, aircraft, personnel or equipment into or over its territorial sea or territory; and

.3 to make the necessary arrangements with the appropriate customs, immigration or other authorities with a view to expediting such entry.

3.1.7 Each Party should authorize its rescue co-ordination centres to provide, when requested, assistance to other rescue co-ordination centres, including assistance in the form of vessels, aircraft, personnel or equipment.

3.1.8 Parties should enter into search and rescue agreements with neighbouring States regarding the pooling of facilities, establishment of common procedures, conduct of joint training and exercises, regular checks of inter-State communication channels, liaison visits by rescue co-ordination centre personnel and the exchange of search and rescue information.

3.2 Co-ordination with aeronautical services

3.2.1 Parties shall ensure the closest practicable co-ordination between maritime and aeronautical services so as to provide for the most effective and efficient search and rescue services in and over their search and rescue regions.

3.2.2 Whenever practicable, each Party should establish joint rescue co-ordination centres and rescue sub-centres to serve both maritime and aeronautical purposes.

3.2.3 Whenever separate maritime and aeronautical rescue co-ordination centres or rescue sub-centres are established to serve the same area, the Party concerned shall ensure the closest practicable co-ordination between the centres or sub-centres

3.2.4 Parties shall ensure as far as is possible the use of common procedures by rescue units established for maritime purposes and those established for aeronautical purposes.

CHAPTER 4

PREPARATORY MEASURES

4.1 Requirements for information

4.1.1 Each rescue co-ordination centre and rescue sub-centre shall have available up-to-date information relevant to search and rescue operations in its area including information regarding:

.1 rescue units and coast watching units;

.2 any other public and private resources, including transportation facilities and fuel supplies, that are likely to be useful in search and rescue operations;

.3 means of communication that may be used in search and rescue operations;

.4 names, cable and telex addresses, telephone and telex numbers of shipping agents, consular authorities, international organizations and other agencies who may be able to assist in obtaining vital information on vessels;

.5 the locations, call signs or maritime mobile service identities, hours of watch and frequencies of all radio stations likely to be employed in search and rescue operations;

.6 the locations, call signs or maritime mobile service identities, hours of watch and frequencies of all coast radio stations disseminating meteorological forecasts and warnings for the search and rescue region;

.7 the locations and hours of watch of services keeping radio watch and the frequencies guarded;

.8 objects likely to be mistaken for unlocated or unreported wreckage; and

.9 locations where supplies of droppable emergency survival equipment are stored.

4.1.2 Each rescue co-ordination centre and rescue sub-centre should have ready access to information regarding the position, course, speed and call sign or ship station identity of vessels within its area which may be able to provide assistance to vessels or persons in distress at sea. This information shall either be kept in the rescue co-ordination centre or be readily obtainable when necessary.

4.1.3 A large-scale map shall be provided at each rescue co-ordination centre and rescue sub-centre for the purpose of displaying and plotting information relevant to search and rescue operations in its area.

4.2 Operating plans or instructions

4.2.1 Each rescue co-ordination centre and rescue sub-centre shall prepare or have available detailed plans or instructions for the conduct of search and rescue operations in its area.

4.2.2 The plans or instructions shall specify arrangements for the servicing and refuelling, to the extent possible, of vessels, aircraft and vehicles employed in search and rescue operations, including those made available by other States.

4.2.3 The plans or instructions should contain details regarding action to be taken by those engaged in search and rescue operations in the area, including:

.1 the manner in which search and rescue operations are to be conducted;

.2 the use of available communications systems and facilities;

.3 the action to be taken jointly with other rescue co-ordination centres or rescue sub-centres, as appropriate;

.4 the methods of alerting vessels at sea and en route aircraft;

.5 the duties and authority of personnel assigned to search and rescue operations;

.6 possible redeployment of equipment that may be necessitated by meteorological or other conditions;

.7 the methods of obtaining essential information relevant to search and rescue operations, such as appropriate notices to mariners and reports and forecasts of weather and sea surface conditions;

.8 the methods of obtaining from other rescue co-ordination centres or rescue sub-centres, as appropriate, such assistance as may be needed, including vessels, aircraft, personnel and equipment;

.9 the methods of assisting rescue vessels or other vessels to rendezvous with vessels in distress; and

.10 the methods of assisting distressed aircraft compelled to ditch to rendezvous with surface craft.

4.3 Preparedness of rescue units

4.3.1 Each designated rescue unit shall maintain a state of preparedness commensurate with its task and should keep the appropriate rescue co-ordination centre or rescue sub-centre informed of its state of preparedness.

CHAPTER 5

OPERATING PROCEDURES

5.1 Information concerning emergencies

5.1.1 Parties shall ensure that such continuous radio watches as are deemed practicable and necessary, are maintained on international distress frequencies. A coast radio station receiving any distress call or message shall:

.1 immediately inform the appropriate rescue co-ordination centre or rescue sub-centre;

.2 rebroadcast to the extent necessary to inform ships on one or more of the international distress frequencies or on any other appropriate frequency;

.3 precede such rebroadcasts with the appropriate automatic alarm signals unless this has already been done; and

.4 take such subsequent action as decided by the competent authority.

5.1.2 Any authority or element of the search and rescue organization having reason to believe that a vessel is in a state of emergency should give as soon as possible all available information to the rescue co-ordination centre or rescue sub-centre concerned.

5.1.3 Rescue co-ordination centres and rescue sub-centres shall, immediately upon receipt of information concerning a vessel in a state of emergency, evaluate such information and determine the phase of emergency in accordance with paragraph 5.2 and the extent of operation required.

5.2 Emergency phases

5.2.1 For operational purposes, the following emergency phases shall be distinguished:

.1 *Uncertainty phase:*

.1.1 when a vessel has been reported overdue at its destination; or

.1.2 when a vessel has failed to make an expected position or safety report.

.2 *Alert phase:*

.2.1 when, following the uncertainty phase, attempts to establish contact with the vessel have failed and inquiries addressed to other appropriate sources have been unsuccessful; or

.2.2 when information has been received indicating that the operating efficiency of a vessel is impaired but not to the extent that a distress situation is likely.

.3 *Distress phase.*

.3.1 when positive information is received that a vessel or a person is in grave and imminent danger and in need of immediate assistance; or

.3.2 when, following the alert phase, further unsuccessful attempts to establish contact with the vessel and more widespread unsuccessful inquiries point to the probability that the vessel is in distress; or

.3.3 when information is received which indicates that the operating efficiency of a vessel has been impaired to the extent that a distress situation is likely.

5.3 Procedures for rescue co-ordination centres and rescue sub-centres during emergency phases

5.3.1 Upon the declaration of the *uncertainty phase*, the rescue co-ordination centre or rescue sub-centre, as appropriate, shall initiate inquiries in order to determine the safety of the vessel or shall declare the alert phase.

5.3.2 Upon the declaration of the *alert phase*, the rescue co-ordination centre or rescue sub-centre, as appropriate, shall extend the inquiries for the missing vessel, alert appropriate search and rescue services and initiate such action, as described in paragraph 5.3.3, as is necessary in the light of the circumstances of the particular case.

5.3.3 Upon the declaration of the *distress phase*, the rescue co-ordination centre or rescue sub-centre, as appropriate, shall:

.1 initiate action in accordance with the arrangements set out in paragraph 4.2;

.2 where appropriate, estimate the degree of uncertainty of the vessel's position and determine the extent of any area to be searched;

.3 notify the owner of the vessel or his agent if possible and keep him informed of developments;

.4 notify other rescue co-ordination centres or rescue sub-centres, the help of which seems likely to be required or which may be concerned in the operation;

.5 request at an early stage any help which might be available from aircraft, vessels or services not specifically included in the search and rescue organization, considering that, in the majority of distress situations in ocean areas, other vessels in the vicinity are important elements for search and rescue operations;

.6 draw up a broad plan for the conduct of the operations from the information available and communicate such plan to the authorities designated in accordance with paragraphs 5.7 and 5.8 for their guidance;

.7 amend as necessary in the light of circumstances the guidance already given in paragraph 5.3.3.6;

.8 notify the consular or diplomatic authorities concerned or, if the incident involves a refugee or displaced person, the office of the competent international organization;

.9 notify accident investigation authorities as appropriate; and

.10 notify any aircraft, vessel or other services mentioned in paragraph 5.3.3.5 in consultation with the authorities designated in accordance with paragraph 5.7 or 5.8, as appropriate, when their assistance is no longer required.

5.3.4 *Initiation of search and rescue operations in respect of a vessel whose position is unknown*

5.3.4.1 In the event of an emergency phase being declared in respect of a vessel whose position is unknown, the following shall apply:

.1 when a rescue co-ordination centre or rescue sub-centre is notified of the existence of an emergency phase and is unaware of other centres taking appropriate action, it shall assume responsibility for initiating suitable action and confer with neighbouring centres with the objective of designating one centre to assume responsibility forthwith;

.2 unless otherwise decided by agreement between the centres concerned, the centre to be designated shall be the centre responsible for the area in which the vessel was according to its last reported position; and

.3 after the declaration of the distress phase, the centre co-ordinating the search and rescue operations shall, if necessary, inform other appropriate centres of all the circumstances of the state of emergency and of all subsequent developments.

5.3.5 *Passing information to vessels in respect of which an emergency phase has been declared*

5.3.5.1 Whenever applicable, the rescue co-ordination centre or rescue sub-centre responsible for search and rescue operations shall be responsible for passing to the vessel for which an emergency phase has been declared, information on the search and rescue operation it has initiated.

5.4 Co-ordination when two or more parties are involved

5.4.1 Where the conduct of operations over the entire search and rescue region is the responsibility of more than one Party, each Party shall take appropriate action in accordance with the operating plans or instructions referred to in paragraph 4.2 when so requested by the rescue co-ordination centre of the region.

5.5 *Termination and suspension of search and rescue operations*

5.5.1 *Uncertainty phase and alert phase*

5.5.1.1 When during an uncertainty phase or an alert phase a rescue co-ordination centre or rescue sub-centre, as appropriate, is informed that the emergency no longer exists, it shall so inform any authority, unit or service which has been activated or notified.

5.5.2 *Distress phase*

5.5.2.1 When during a distress phase a rescue co-ordination centre or rescue sub-centre, as appropriate, is informed by the vessel in distress or other appropriate sources that the emergency no longer exists, it shall take the necessary action to terminate the search and rescue operations and to inform any authority, unit or service which has been activated or notified.

5.5.2.2 If during a distress phase it has been determined that the search should be discontinued the rescue co-ordination centre or rescue sub-centre, as appropriate, shall suspend the search and rescue operations and so inform any authority, unit or service which has been activated or notified. Information subsequently received shall be evaluated and search and rescue operations resumed when justified on the basis of such information.

5.5.2.3 If during a distress phase it has been determined that further search would be of no avail, the rescue co-ordination centre or rescue sub-centre, as appropriate, shall terminate the search and rescue operations and so inform any authority, unit or service which has been activated or notified.

5.6 On-scene co-ordination of search and rescue activities

5.6.1 The activities of units engaged in search and rescue operations, whether they be rescue units or other assisting units, shall be co-ordinated to ensure the most effective results.

5.7 Designation of on-scene commander and his responsibilities

5.7.1 When rescue units are about to engage in search and rescue operations, one of them should be designated on-scene commander as early as practicable and preferably before arrival within the specified search area.

5.7.2 The appropriate rescue co-ordination centre or rescue sub-centre should designate an on-scene commander. If this is not practicable, the units involved should designate by mutual agreement an on-scene commander.

5.7.3 Until such time as an on-scene commander has been designated, the first rescue unit arriving at the scene of action should automatically assume the duties and responsibilities of an on-scene commander.

5.7.4 An on-scene commander shall be responsible for the following tasks when these have not been performed by the responsible rescue co-ordination centre or rescue sub-centre, as appropriate:

.1 determining the probable position of the object of the search, the probable margin of error in this position, and the search area;

.2 making arrangements for the separation for safety purposes of units engaged in the search;

.3 designating appropriate search patterns for the units participating in the search and assigning search areas to units or groups of units;

.4 designating appropriate units to effect rescue when the object of the search is located, and

.5 co-ordinating on-scene search and rescue communications.

5.7.5 An on-scene commander shall also be responsible for the following

.1 making periodic reports to the rescue co-ordination centre or rescue sub-centre which is co-ordinating the search and rescue operations, and

.2 reporting the number and the names of survivors to the rescue co-ordination centre or rescue sub-centre which is co-ordinating the search and rescue operations, providing the centre with the names and destinations of units with survivors aboard, reporting which survivors are in each unit and requesting additional assistance from the centre when necessary, for example, medical evacuation of seriously injured survivors.

5.8 Designation of co-ordinator surface search and his responsibilities

5.8.1 If rescue units (including warships) are not available to assume the duties of an on-scene commander but a number of merchant vessels or other vessels are participating in the search and rescue operations, one of them should be designated by mutual agreement as co-ordinator surface search.

5.8.2 The co-ordinator surface search should be designated as early as practicable and preferably before arrival within the specified search area.

5.8.3 The co-ordinator surface search should be responsible for as many of the tasks listed in paragraphs 5.7.4 and 5.7.5 as the vessel is capable of performing.

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5.9 Initial action

5.9.1 Any unit receiving information of a distress incident shall take whatever immediate action to assist as is within its capability or shall alert other units which might be able to assist and shall notify the rescue co-ordination centre or rescue sub-centre in whose area the incident has occurred.

5.10 Search areas

5.10.1 Search areas determined in accordance with paragraph 5.3.3.2, 5.7.4.1 or 5.8.3 may be altered as appropriate by the on-scene commander or the co-ordinator surface search, who should notify the rescue co-ordination centre or rescue sub-centre of his action and his reasons for doing so.

5.11 Search patterns

5.11.1 Search patterns designated in accordance with paragraph 5.3.3.6, 5.7.4.3 or 5.8.3 may be changed to other patterns if considered necessary by the on-scene commander or the co-ordinator surface search, who should notify the rescue co-ordination centre or rescue sub-centre of his action and his reasons for doing so.

5.12 Search successful

5.12.1 When the search has been successful the on-scene commander or the co-ordinator surface search should direct the most suitably equipped units to conduct the rescue or to provide other necessary assistance.

5.12.2 Where appropriate the units conducting the rescue should notify the on-scene commander or the co-ordinator surface search of the number and names of survivors aboard, whether all personnel have been accounted for and whether additional assistance is required, for example, medical evacuations, and the destination of the units.

5.12.3 The on-scene commander or the co-ordinator surface search should immediately notify the rescue co-ordination centre or rescue sub-centre when the search has been successful.

5.13 Search unsuccessful

5.13.1 The search should only be terminated when there is no longer any reasonable hope of rescuing survivors.

5.13.2 The rescue co-ordination centre or rescue sub-centre co-ordinating the search and rescue operations should normally be responsible for terminating the search.

5.13.3 In remote ocean areas not under the responsibility of a rescue co-ordination centre or where the responsible centre is not in a position to co-ordinate the search and rescue operations, the on-scene commander or the co-ordinator surface search may take responsibility for terminating the search.

CHAPTER 6

SHIP REPORTING SYSTEMS

6.1 General

6.1.1 Parties should establish a ship reporting system for application within any search and rescue region for which they are responsible, where this is considered necessary to facilitate search and rescue operations and is deemed practicable.

6.1.2 Parties contemplating the institution of a ship reporting system should take account of the relevant recommendations of the Organization.

6.1.3 The ship reporting system should provide up-to-date information on the movements of vessels in order, in the event of a distress incident.

.1 to reduce the interval between the loss of contact with a vessel and the initiation of search and rescue operations in cases where no distress signal has been received;

.2 to permit rapid determination of vessels which may be called upon to provide assistance;

.3 to permit delineation of a search area of limited size in case the position of a vessel in distress is unknown or uncertain; and

.4 to facilitate the provision of urgent medical assistance or advice to vessels not carrying a doctor.

6.2 Operational requirements

6.2.1 To achieve the objectives set out in paragraph 6.1.3, the ship reporting system should satisfy the following operational requirements:

.1 provision of information, including sailing plans and position reports, which would make it possible to predict the future positions of participating vessels;

.2 maintenance of a shipping plot;

.3 receipt of reports at appropriate intervals from participating vessels;

.4 simplicity in system design and operation; and

.5 use of an internationally agreed standard ship reporting format and internationally agreed standard procedures.

6.3 Types of reports

6.3.1 A ship reporting system should incorporate the following reports:

.1 *Sailing plan* – giving name, call sign or ship station identity, date and time (in GMT) of departure, details of the vessel's point of departure, next port of call, intended route, speed and expected date and time (in GMT) of arrival. Significant changes should be reported as soon as possible.

.2 *Position report* – giving name, call sign or ship station identity, date and time (in GMT), position, course and speed.

.3 *Final report* – giving name, call sign or ship station identity, date and time (in GMT) of arrival at destination or of leaving the area covered by the system.

6.4 Use of systems

6.4.1 Parties should encourage all vessels to report their positions when travelling in areas where arrangements have been made to collect information on positions for search and rescue purposes.

6.4.2 Parties recording information on the position of vessels should disseminate, so far as practicable, such information to other States when so requested for search and rescue purposes.

ATTACHMENT 2

RESOLUTIONS ADOPTED BY THE CONFERENCE

RESOLUTION 1

ARRANGEMENTS FOR PROVISION AND CO-ORDINATION OF SEARCH AND RESCUE SERVICES

THE CONFERENCE,

NOTING the provisions of the Annex to the International Convention on Maritime Search and Rescue, 1979, concerning arrangements for the provision and co-ordination of search and rescue services,

NOTING FURTHER that the Annex provides that maritime search and rescue regions shall be established by agreement among the Parties,

RECOGNIZING that aeronautical search and rescue services have been established by Contracting States to the Convention on International Civil Aviation,

BEARING IN MIND that close co-operation between maritime and aeronautical search and rescue services is essential,

RECOGNIZING FURTHER the need to provide and co-ordinate maritime search and rescue services on a world-wide basis,

NOTING ALSO the need for further action,

RESOLVES:

(a) to urge States to provide, to the extent that it may be necessary and feasible, co-ordination of search and rescue services in all sea areas regardless of whether or not they provide those services for aeronautical purposes;

(b) to urge States to forward to the Inter-Governmental Maritime Consultative Organization information on their national search and rescue services and to invite the Secretary-General of that Organization to circulate the information received to all its Member Governments;

(c) to invite the Inter-Governmental Maritime Consultative Organization:

(1) to continue to work closely with the International Civil Aviation Organization in order to harmonize aeronautical and maritime search and rescue plans and procedures;

(2) to publish all available information concerning agreements on maritime search and rescue regions or arrangements for equivalent overall co-ordination of maritime search and rescue services, and

(3) to advise and assist States in the establishment of their search and rescue services

RESOLUTION 2

COST TO SHIPS OF PARTICIPATION IN SHIP REPORTING SYSTEMS

THE CONFERENCE,

NOTING Recommendation 47 of the International Conference on Safety of Life at Sea, 1960,

RECOGNIZING that, with the growing importance of national, and possibly in the future, of international ship reporting systems, Recommendation 47 has probably more significance today than when it was originally adopted,

RECOGNIZING FURTHER that the absence of any charge for participation could provide, as has already been demonstrated, a powerful incentive for ships to co-operate in voluntary ship reporting systems,

RECOGNIZING IN ADDITION that ships' participation in voluntary ship reporting systems has demonstrated that it has safety advantages,

RECOMMENDS that States should arrange that participation in such systems shall be free of message cost to the ships concerned.

RESOLUTION 3

NEED FOR AN INTERNATIONALLY AGREED FORMAT AND PROCEDURE FOR SHIP REPORTING SYSTEMS

THE CONFERENCE,

CONSIDERING the provisions of Chapter 6 of the Annex to the International Convention on Maritime Search and Rescue, 1979, relating to ship reporting systems,

CONSIDERING FURTHER that several national ship reporting systems are in force at present using differing procedures and reporting formats,

RECOGNIZING that masters of international trading vessels moving from an area covered by one ship reporting system to another could become confused by these differing procedures and reporting formats,

RECOGNIZING FURTHER that the possibility of such confusion could be much reduced by the adoption of an internationally agreed standard ship reporting format and internationally agreed standard procedures,

INVITES the Inter-Governmental Maritime Consultative Organization to develop, using the annexed format as a basis, an internationally agreed format for ship reporting systems established for the purpose of search and rescue in accordance with the provisions of Chapter 6 of the Annex to the Convention,

REQUESTS that Organization to ensure that all reporting systems, established for purposes other than search and rescue, are as far as possible compatible in reporting format and procedures with those to be developed for the purpose of search and rescue.

ANNEX

SHIP REPORTING FORMAT AND PROCEDURES

FORMAT (see note 1)

Message identifier:	– SHIPREP (area or system designator)
Type of report:	A – A 2-letter group: "SP" (sailing plan) "PR" (position report) "FR" (final report)

Ship:	B – Name and call sign or ship station identity
Date/time (G.M.T.):	C – A 6-digit group giving date of month (first 2 digits), hours and minutes (last 4 digits)
Position:	D – Departure port (SP) or arrival port (FR)
	E – A 4-digit group giving latitude in degrees and minutes suffixed with "N" or "S" and a 5-digit group giving longitude in degrees and minutes suffixed with "E" or "W"
True course:	F – A 3-digit group
Speed in knots:	G – A 2-digit group
Route information:	H – Intended track (see note 2)
E.T.A.:	I – Date/time group expressed by a 6-digit group, as in C above, followed by destination
Coast radio station guarded:	J – Name of station
Time of next report:	K – Date/time group expressed by a 6-digit group, as in C above
Miscellaneous:	L – Any other information

PROCEDURES

The report should be sent as follows:

Sailing plan	– At, or immediately after, departure from a port or when entering into the area covered by a system (see note 3).
Position report	– When the ship's position varies more than 25 miles from the position that would have been predicted from previous reports, after a course alteration, when required by the system or as decided by the master.
Final report	– Shortly before or on arrival at destination or when leaving the area covered by a system (see note 3).

NOTE 1: Sections of the ship reporting format which are inappropriate should be omitted from the report See the following examples:

Examples of messages produced by using this format:

Sailing plan	Position report	Final report
SHIPREP	SHIPREP	SHIPREP
A SP	A PR	A FR
B NONSUCH/MBCH	B NONSUCH/MBCH	B NONSUCH/MBCH
C 021030	C 041200	C 110500
D NEW YORK	E 4604N 05123W	D LONDON
F 060	F 089	
G 16	G 15	
H GC	J PORTISHEAD	
I 102145 LONDON	K 061200	
J PORTISHEAD		
K 041200		

NOTE 2: In a reporting system intended track may be reported by:

(a) latitude and longitude for each turn point, expressed as in E above, together with type of intended track between these points, for example "RL" (rhumb line) "GC" (great circle) or "coastal", or

(b) in the case of coastal sailing the forecast date and time expressed by a 6-digit group as in C above, of passing significant off-shore points.

NOTE 3: Sailing plan and final report should be transmitted rapidly using a system other than radiocommunications where practicable.

RESOLUTION 4

SEARCH AND RESCUE MANUALS

THE CONFERENCE,

NOTING that the Inter-Governmental Maritime Consultative Organization has prepared a Merchant Ship Search and Rescue Manual (MERSAR) and an IMCO Search and Rescue Manual (IMCOSAR),

RECOGNIZING that the Merchant Ship Search and Rescue Manual provides valuable guidance for seafarers during emergencies at sea,

RECOGNIZING FURTHER that the IMCO Search and Rescue Manual contains guidelines for Governments wishing to establish or develop their search and rescue organizations and for personnel who may be involved in the provision of search and rescue services,

BEING OF THE OPINION that the manuals consitute a valuable supplement to the International Convention on Maritime Search and Rescue, 1979, and its Annex and will greatly contribute towards the objectives of the Convention,

RESOLVES.

(a) to urge States to use the guidelines provided in the manuals and to bring them to the attention of all concerned; and

(b) to endorse the action already taken by the Inter-Governmental Maritime Consultative Organization for amending and keeping the manuals up to date.

RESOLUTION 5

FREQUENCIES FOR MARITIME SEARCH AND RESCUE

THE CONFERENCE,

NOTING that the World Administrative Radio Conference, 1979, will decide on measures which could have a far-reaching effect on the frequency spectrum,

BEARING IN MIND that the frequencies used in the present maritime distress system do not make adequate provision for ships in distress at a distance of more than approximately 150 miles from the coast,

RECOGNIZING that all maritime radiocommunications, whether making use of distress or public correspondence frequencies, can have distress and safety implications,

URGES the World Administrative Radio Conference, 1979:

(a) to allocate one frequency, to be reserved exclusively for distress and safety purposes, in each of the 4, 6, 8, 12 and 16 MHz maritime mobile bands using A3J class of emission for use in all ITU Regions and to include guard bands on each side of these frequencies; the use of digital selective calling should be permitted on these frequencies; and

(b) to recognize that all telecommunications to and from ships at sea may comprise elements of importance to search and rescue, and to support proposals for adequate frequency allocations to the maritime mobile service.

RESOLUTION 6

DEVELOPMENT OF A GLOBAL MARITIME DISTRESS AND SAFETY SYSTEM

THE CONFERENCE,

HAVING concluded the International Convention on Maritime Search and Rescue, 1979, which establishes an international plan for the co-ordination of search and rescue operations,

RECOGNIZING that the existence of an effective distress and safety communications network is important for the efficient operation of the search and rescue plan,

BEING AWARE that the Inter-Governmental Maritime Consultative Organization has under continuous review the maritime distress and safety system and has adopted Resolutions dealing with the communications aspects of the system,

CONSIDERING that a global maritime distress and safety system should provide, among other things, the essential radio elements of the international search and rescue plan,

INVITES the Inter-Governmental Maritime Consultative Organization to develop a global maritime distress and safety system that includes telecommunications provisions for the effective operation of the search and rescue plan prescribed by the Annex to the International Convention on Maritime Search and Rescue, 1979.

RESOLUTION 7

HARMONIZATION OF SEARCH AND RESCUE SERVICES WITH MARITIME METEOROLOGICAL SERVICES

THE CONFERENCE,

BEARING IN MIND the importance of meteorological and oceanographical information in search and rescue operations,

CONSIDERING the desirability of meteorological information covering the same areas as search and rescue regions,

CONSIDERING FURTHER that routine weather reports from ships normally include the ship's position,

BEING OF THE OPINION that the practice of ships transmitting weather reports and position reports through the same coast radio station would facilitate the transmission of such reports and encourage ship participation in both systems,

INVITES the Inter-Governmental Maritime Consultative Organization:

(a) to work closely with the World Meteorological Organization to explore the practicability of harmonizing the areas of maritime meteorological forecasts and warnings with maritime search and rescue regions;

(b) to request the World Meteorological Organization to take steps to ensure that up-to-date meteorological and oceanographical information is immediately available to the search and rescue services for the whole of the regions they serve; and

(c) to investigate the feasibility of ships making weather and position reports to the same coast radio station.

RESOLUTION 8

PROMOTION OF TECHNICAL CO-OPERATION

THE CONFERENCE,

RECOGNIZING that prompt and effective maritime search and rescue requires broad international co-operation and substantial technical and scientific resources,

RECOGNIZING FURTHER that Parties to the International Convention on Maritime Search and Rescue, 1979, will be called upon to make arrangements to achieve the objectives of that Convention and to assume full responsibility for such arrangements,

BEING CONVINCED that the promotion of technical co-operation at inter-governmental level will expedite the implementation of the Convention by States that do not as yet possess the necessary technical and scientific resources,

URGES States to promote, in consultation with, and with the assistance of, the Inter-Governmental Maritime Consultative Organization, support for States requesting technical assistance for:

(a) the training of personnel necessary for search and rescue; and

(b) the provision of the equipment and facilities necessary for search and rescue,

FURTHER URGES States to implement the above-mentioned measures without awaiting the entry into force of the Convention.

[Whereupon, at 5:05 p.m., the committee recessed, to reconvene subject to the call of the Chair.]

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