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## NATIONAL TRANSPORTATION SAFETY BOARD WASHINGTON, D.C.

ISSUED: May 24, 1985

Forwarded to: Mr. Niels-Erik Lund President Scandinavian World Cruises, (Bahamas) Ltd. 1080 Port Blvd. Port of Miami Miami, FL 33132

SAFETY RECOMMENDATION(S)

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A few minutes before 1920, on March 9, 1984, a fire was discovered in a room occupied by two crewmen aboard the Bahamian registered cruise ship SCANDINAVIAN SEA. The vessel, which was on a daily 11-hour cruise out of Port Canaveral, Florida, with 744 passengers and 202 crewmembers aboard, had been anchored about 7 miles off the coast of Florida, near Cape Canaveral and had just gotten underway. It proceeded to its berth at the Port Canaveral Cruise Terminal while the vessel's firefighting team proceeded to fight the fire. After the vessel berthed at 2057, the passengers were disembarked, and Coast Guard and local firefighters boarded the vessel to fight the fire. Meanwhile the fire, although it was contained within the forward vertical fire zone, spread through the upper decks. The fire was extinguished on March 11, 1984. There were no injuries or loss of life. The vessel was declared a constructive total loss. It was valued at \$16 milliion. 1/

When the fire first was reported to the master and the chief officer, who were on the bridge of the SCANDINAVIAN SEA, their immediate response was executed in accordance with the vessel's emergency plan. The master first looked (and properly so) to the passenger's safety. The vessel's proximity to the terminal at Port Canaveral facilitated the successful evacuation of the passengers. The absence of any personal injuries or fatalities among the passengers and crew was largely due to the master's decision to proceed to port immediately.

After the SCANDINAVIAN SEA was berthed safely at the pier and the shoreside firefighters and the first U.S. Coast Guard (USCG) emergency response team had boarded, the firefighting efforts of the ship's crew were reduced to an advisory role. The ship's officers provided information as to the location of the fire and the routes to follow to gain access, including furnishing drawings showing the arrangement of the various decks; however, the various shoreside fire companies proceeded to act independently without any coordination. The master relinquished control of the firefighting efforts, believing the USCG was in charge of the shoreside firefighters. He stated "[sic] if the Coast Guard is coming on board like they did this evening, I will not go against the Coast Guard officer if he is going to take charge of leading these different fire fighters, civilian and their own

 $<sup>\</sup>overline{1/}$  For more detailed information, read Marine Accident Report--"Fire Aboard the Bahamian Passenger Ship M/V SCANDINAVIAN SEA, Atlantic Ocean, Off the Florida Coast, March 9, 1984" (NTSB/MAR-85/03).

firefighters." While the officers of the SCANDINAVIAN SEA were trained in shipboard firefighting, they found it difficult to put this knowledge to use in conjunction with the activity of the local firefighters. The master, who had remained on the bridge, should have recognized through reports from his officers that the shoreside firemen were not familiar with the techniques of shipboard firefighting and, at that time, should have reasserted control of the firefighting activities utilizing his officers to direct the operation. While the Cape Canaveral fire chief was charged with the responsibility of providing fire protection in the port, the master nevertheless continued to be responsible for the safety of his vessel and could not abdicate this role in the face of activity by shoreside firefighters that clearly was increasing the hazard to his vessel. The Safety Board believes that the master of the SCANDINAVIAN SEA should have exercised more authority over the actions of the local volunteer firemen when it was evident they were not trained in shipboard firefighting techniques and, in fact, were hazarding the vessel. When the commanding officer and the engineering officer of the DILIGENCE boarded the vessel, the lack of coordination became apparent to them. After their brief tour of the vessel and after they conferred with the master about the progress of the firefighting efforts, it became apparent to the engineering officer of the DILIGENCE that the method of firefighting employed by the shoreside firefighters was not correct. Although the USCG attempted to adhere to its policy of only providing assistance and technical expertise to the local fire departments, the lack of coordination by the local fire departments during the initial phase of their firefighting efforts and the inaction of the master justified the action of the USCG in assuming control.

There is evidence that when the fire reflashed about 2300, there was little if any firefighting activity, either by the ship's crew or shoreside personnel. Testimony from the vessel's crew and the shoreside firemen indicated that prior to the reflash, it was possible to walk through the "A" deck area without the aid of breathing apparatus. If the firefighting teams, either ship's crew or shoreside, had taken advantage of the situation at that particular time and thoroughly drenched the area with water, the reflash of the fire may have been prevented. The Safety Board believes that a properly trained and supervised ship's crew should have been able to quickly extinguish the original fire and prevented widespread damage to the vessel. The Safety Board also believes that the combined efforts of the ship and shoreside firefighters should have extinguished any reflash of the fire rapidly or, for that matter, should have prevented a reflash. It is entirely possible that if a professional firefighting company had been engaged as soon as there was any doubt as to the sufficiency of the firefighting efforts by either the crew or the local firemen, the damage could have been limited to one or possibly two decks in the forward zone.

When the overhauling efforts by local firemen extended beyond the area affected by the fire and smoke, the vessel was damaged considerably. The repair estimate so exceeded the insured value, the underwriters declared the vessel a constructive total loss. A fire that originally was confined to a small area eventually damaged virtually the entire vessel. This leaves serious doubt as to the effectiveness of the firefighting efforts. The method of overhauling by shoreside firemen reflected their lack of knowledge of the vessel's designed fire protection barriers. Apparently, there was no consideration given to protecting the the vessel beyond the forward main vertical zone by either the crew, the owners, or the local firemen. Although the principal objective of shipboard firefighting is to extinguish the fire without injury to personnel, it also should be accomplished with the least possible amount of damage to the vessel.

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an eine ferstellen eftente blande bereiten ihrer einen erstellten Beaufenen einen andere einen eine einen eine Andere bestellte eine Bereiten ihrer eine Bereiten eine Bereiten eine Bereiten eine Bereiten einen Bereiten som No direction was given to local firemen by the ship's officers as to the amount of water that safely could be introduced into the vessel before a critical list developed. The decision of the Captain of the Port (COTP) to suspend the firefighting efforts on March 10 until the list was under control was a necessary action under the circumstances. Although the stability study indicated that the vessel could safely have taken a greater list without capsizing, the projected amount of water, at the rate it was being applied, would have reduced the safety margin unacceptably.

The evacuation of the passengers from the SCANDINAVIAN SEA was performed without difficulty. The decision by the master to turn the vessel around and berth starboard side to the pier to place the sideports on the pierside in order to emplace a gangway facilitated the evacuation. The entire operation involving the passenger's safety was effective despite scattered complaints by some passengers who believed that some of the crewmembers, who were responsible for passenger comfort and well being, were not performing properly. Terminal personnel representing both Scandinavian World Cruises and the Canaveral Port Authority responded well to the emergency considering the large numbers of people moving through the area, including passengers and emergency personnel responding to the fire.

It was fortunate that the SCANDINAVIAN SEA was close to Port Canaveral and was able to return to port quickly and disembark the passengers and crew safely. If the vessel had been further offshore, or if the vessel had been unable to return to port, almost 1,000 passengers and crew may have had to abandon the vessel at sea using lifeboats and rafts, and the reduced manning scale permitted for deck officers probably would have severely limited the supervision of the launching of the boats, particularly if the deck officers had been involved with firefighting. Even though the manning scale conformed to the Bahamian Merchant Shipping Act, the three deck officers who would have been looked to for guidance in any emergency, would have found it difficult to properly supervise the operation. Moreover, because the passengers are given only written and verbal instructions on abandon ship procedures and do not participate in an actual lifeboat drill during the abbreviated cruise, they would have encountered difficulty moving about an unfamiliar vessel to find their boat stations which would have led to delays in abandoning the vessel.

Crewmembers not directly involved with fighting the fire, and who unnecessarily remained aboard, created some confusion when the firefighters were attempting to approach the fire area. The master, through his subordinates aboard the vessel, should have anticipated the problem and ordered ashore those crewmembers who were not engaged in fighting the fire and operating the vessel as soon as the terminal personnel indicated that they could accommodate them. The Brevard County Medical Service supervisor, who boarded the SCANDINAVIAN SEA immediately after the passengers disembarked, acted judiciously when he recognized a possible threat to their safety and expressed concern to the master about the welfare of the persons remaining aboard.

Therefore, as a result of its investigation, the National Transportation Safety Board recommends that Scandinavian World Cruises (Bahamas), Ltd.:

Furnish the local authorities in the various United States ports where your vessels regularly call, copies of ship's plans showing interior arrangements, the location of emergency equipment and emergency procedures, fuel oil tanks, and a list of emergency service requirements in the event of an emergency affecting the vessels. (Class II, Priority Action) (M-85-39)

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Cooperate in the development of port contingency plans by local authorities at United States ports where company vessels call regularly. (Class II, Priority Action) (M-85-40)

Provide the vessels in your fleet with extra air-pacs utilizing bottles for use during drills and demonstrations in addition to those carried as spares. (Class II, Priority Action) (M-85-41)

BURNETT, Chairman, GOLDMAN, Vice Chairman, and BURSLEY, Member, concurred in these recommendations.

Bv? im Burneti Chairman