

EGIL SPJELKAV HANSEN, First Officer-Navigation, Crew 006, Safety 012, Cabin Olympic 1006.

Duties include being a first officer, he is also in charge of charts, corrections, and plans for any deviation from routes, prepares new routes for Captain's approval.

Emergency duties, he relieves the mate on watch, under the Captain's direction, while the Captain has command. He pilots the ship-specific duties in an emergency.

He has to have the route planned immediately when he receives notification from the company of a new route.

On the day of the event, he relieved watchstander at 0400. He went to the bridge. He set everything for harbor conditions, switched the radars to standby. Just went down to normal operation, with one mate on duty. But he was still there; doing the voyage reports for the cruise that was ending, for the captain to sign.

He felt the shaking on the ship, was standing one door out checking the chlorine meter, on the bridge level deck, located just aft of the restroom located 5 meters from the bridge. He felt the ship vibrate and the fire alarms started going off.

The second officer was standing near the fire alarm panel and he must have heard something, perhaps because the door was open to the wheelhouse, but he said that something has exploded on the B-deck. While he was standing, the S Officer was by the alarms.

The Captain came in. On the alarm panel it will not read more than 20 alarms. He reset it. He went out to the bridge wing. At that point he heard fire sirens on the port, by a small fire station on the port. So they did not call the initial response in from the bridge. He got some calls on the bridge calling for a Code Alpha, and radio communications began. He made the Code Alpha announcement in response to a request from crewmembers. This is part of their duties to call out code Alphas under normal operations; they do not have to wait for approval. This is at their discretion as duty officer. Anyone on the ship can call the bridge to request it and it is at their discretion to report it.

The first code Alpha came from the main galley. The second was from West Indies mess, and the 3<sup>rd</sup> one was from C-deck starboard side, either 1057 or 1157, he cannot recall. Then he was asked to call for the stretcher team and, at the captain's command he sounded Code Bravo. The Captain took over the PA system, made an announcement to the passengers and the general emergency alarm sounded.

He contacted the USCG on VHF and the captain talked to them. This was the first communication with the CG, either just before or just after the emergency alarm. The CG was contacted before they contacted NCL shore side. NCL shore side was contacted immediately afterwards.

He could see fire trucks coming from the shore as well. Fire teams were mustered, and they got a report of shore side fire teams coming on board. The boat decks were prepared. Continuous announcements were given by the cruise director for the passengers. They accounted for all people in the boiler room, from 3, then 2 then 1, then 0 missing.

The 2<sup>nd</sup> Officer on duty is responsible for preparing the log. The one who is relieving the other one does the log. Their logbook is an official log for the Bahamas. They are not allowed to just put notes in there like a scrapbook. All the watches are assigned to sign off. During an emergency like that things change, and they cannot take notes in the log while it is happening. They can take notes on a separate sheet and then transfer the notes onto the official log later. This is what they did.

He is always in charge of the bridge and the log, the 2<sup>nd</sup> officer does it. He called the Code Bravo, but at the Master's order. He called Code Bravo and gave the location of it. They used checklists to act. They knew that it was not a Code Bravo, but they used it to muster the fire teams. When he called the Code Bravo they were already aware that it was not a fire. The staff chief engineer and the engineer told them that there was no fire, they asked them if there was a fire. If there was, it had to have been very small. It was confirmed within minutes that there was no fire.

The staff captain together with the technical secretary have certain duties. The bridge is clean, only the radio and PA are manned during emergencies but otherwise bridge is clean in order to safety pilot the ship in the event of an emergency so that in the event that the emergency was at sea, the ship would still be piloted. The mustering of the fire teams and the Captain commands are given from behind the emergency station.

They saw the crewmembers leaving the ship. He could see this from the bridge, does not know if the captain saw it. He only saw about three from the bridge.

His watch was the 0400 to the 0800 watch. He reported to the bridge at 0350. His last watch before that was 1600 to 2000 previously. He went to bed about 2115. He has been on the Norway on and off since 17 Feb. 2001. He began this contract on March 23. He came aboard as a FO junior and was promoted. Before that he was on the Norwegian Sky, his first ship with NCL. He has been since 1994. He was on fishing boats till 1996, then he went to mate school and captain school, then went again on fishing boats, then joined NCL on 13 April 2000.

His duties on FO Jr. were different. He can't remember what his duties were then. He has never been on a fire team.

The Norway is in port from about 0800 to 1800 in St. Maarten, from 0600 to 1630 in St. Thomas, then noon to 1800 on Great Steel Kay, in MIA varies between 0500 and 0530 to 1630 in MIA. In MIA they are at anchor.

SMS-safety management system. His emergency duties are the same whether in port or at sea. His duties are to be on the bridge, answer phone calls. He would guess that he left the mooring station at 0600. He went to the mooring station at 0350. He is the senior officer on his watch. He

goes to the stern, his job is to assist the pilot. He went over there personally to relieve the watchstander at that position. The time this occurs varies only minutes every Sunday. On the bridge are the pilot, the Captain, the staff captain, the helmsman. The Sr. watch officer has already been relieved. Normally the staff captain comes to the bridge about 0200 or 0230. This should be in the log or in the Captain's standing night orders. The captain comes in, the chief officer comes in. The helmsman has been there a while. The briefing is done. The FO and SO leave and are prepared to leave when the pilot comes onboard, about 0315. The SO goes to the bow and the FO goes to the stern.

This is the longest ship going in and out of MIA and they want to have secondary input from the stern. They give distances to the buoys from the aft, they tell when they passed buoys 2, 4, 6 Alpha, 8, and after 6A they give ranges. In the middle of the channel you have two lights, then the lights are located one above the other you are in the middle of the channel. They use laser measures, hand held, to give distances. About 0400, when he assumes the watch, they are at about the Coast Guard station.

On that Sunday, everything was normal, the crews has already prepared some lines and were preparing others. By the time they were in line with the NCL pier, they were all there. They turned around as normal, gave distances, he reported when inside the pier, passing distance to buoy 50, give line distance between 50 and E, turned around everything was normal. Started approaching the pier. ON the pier everything was normal, and they reported finished, about 0600. They he goes from the stern to the bridge.

The chief officer maintains the notes in the log. Normal operation he would complete the log and he would verify the accuracy of the information. At 0600 he would relieve the captain. That was not in the log. Clear day, no wind. The engine room did not request shutting down any of the boilers, this would have been unusual.

The SMS calls for the watertight doors to be closed. This is not logged as a specific item. They keep the doors closed on arrival, accomplished by sending security down on arrival and they close the doors in the crew and passage area. The engine watertight doors are normally open on arrival and on departure.

At one time they started keeping them all closed, then they got an exemption, stated on the watertight doors. The exemption is from the Bahamian authorities. He is aware that it had stated that all should be closed upon arrival.

He had felt a vibration once before when they had lost mooring lines and a ship passed by at high speed and the lines were lost and this shook the ship, in May 2001. This was reported. The other party had to pay for it, Royal Caribbean. Their departure was delayed and they used quite a bit of speed on one of the mega ships.

He did not hear or see anything in this event, he was just to the port side of the centerline 5 meters aft of the bridge. His first reaction was to run to the bridge. His SO was already there. The phone rang, the SO answered them and he silenced the alarms.

If more than 20 alarms are sounded, the system will not read more than that. When he silences the alarm the alarms would continue to print out. He stepped out onto the bridge wings and saw smoke coming out of the stack, white smoke.

He knows that no fire gives black smoke. He has been to both basic and advanced fire school. He knows that what he saw was not smoke, but steam. He knows he was steam because during a blackout he had seen steam released through the funnel. He did not see black smoke. He saw soot but not smoke. They have a soot blow every night from about 2400 to 0200 in the morning to prevent fires. If there is something going on the aft deck they will do it later when the deck is cleared.

They rotate their hours every few weeks. He was on a different schedule a few weeks before. You don't see the soot at night, you can just see that a small proportion of it has fallen to the deck. He saw this from the starboard bridge wing, after the shaking. He can't remember how many gangways were down, or whether they were in the process of lowering them, normally there would have been three.

The gangways are lowered and the pilot disembarks. The security guard over looks the gangway lowering. He does not recall if he was notified whether the gangway was lowered. It was in small particles. It was falling straight down.

They have incinerators onboard but they do not run them in port. He cannot say how many security guards at each station, but he knows that there are at least one per gangway.

In the morning they disembark via two gangways and in the afternoon they embark with using two. He saw one gangway from the bridge because he focused on it, because there was a fire truck coming to it. He knows that he was out there, he saw an ambulance out there, but he does not recall the time. Security officer was down there, but he knew that the staff captain talked to the security guard on the radio.

Within the first 10 minutes they asked for fire report and no one had seen a fire, but three of the loops in the crew areas had alarmed fire. In the engine room, aft boiler room, and C and B decks starboard side, cabins and passageways, and in the galley. When he silenced the alarm it was not at 20, but it started reported fault alarms because of the high power consumption. He is not a specialist in it, but he has been operating it and has been trained in it. The normal operation is if you get too many it won't read any more. The printer does not run as fast as the display.

Everyone so often they will get nuisance alarms if they change boilers, it is an extremely trustworthy system. Sometimes steam from a shower can set off the alarm. If it does off in the passenger cabin the passenger cannot silence it, it will go off for several minutes. If the alarm is going off on the bridge it is going off there as well.

If it is a passenger cabin they will call the cabin and they will speak to someone. If no one is there they call for the firefighter or security patrol to check it, or if they have any doubt they call the electricians. On the C and B cabins some of the cabins did not have phones in them so normally they would have sent crewmembers to check them up.

He spoke to the captain as soon as he finished closing the alarm. The captain is still in command and he is not entitled to make decisions. Had this occurred at sea, the captain, if scheduled would tell him that he is being relieved, and this would be logged.

Information was coming to bridge via radio, telephone and alarms, plus things that they can see themselves.

He now knows that about 100 crew got off the boat; he did not know that at the time. He knows that at some point 103 crew were on the pier. Later on the captain asked them to come on board but they were held by on shore by police of govt. agency. The fire teams were mustered, he knew that because it is an open information system, the information was given to the staff captain. He did not personally know if all teams were mustered.

The fire teams are reporting via radio, channel 6.

Normal drill the FO would go to the lifeboats to help prepare the boats. They would act according to the nature of the emergency. The station leaders and messengers would count the passengers. The officers would oversee this and bridge operations. Just two officers, first officers would help out, the second officers would help out waiting to drive the lifeboats, the first officers would over see this. He is on the bridge with the Captain and staff captain. The safety manager is on-scene. He does not remember seeing the safety manager on scene.

There were three code Alphas, he was the one making them. This was done over the radio and the PA system, and over pagers, as required. He was called via phone, paged code Alpha, he immediately called Code Alpha and then was asked for stretcher team, which he immediately called.

For a fire in the aft boiler room, there is a fire attack plan that tells them what to do. The plan is specific to the situation, location, etc. It tells them how to fight it, what kind of extinguishing agent to use. They have high fog in the boiler room they can use if needed. Also have Halon.

At his level he is at the bridge and not directly involved in the response. He would know only because it is an open communication system. The fire fighting plans are on the bridge and he knows that they were used that day and people wrote on them.

Explosion goes under code Bravo, so there are plans to respond to them as well. They are treated similarly to fires. Does not know of steam firefighting hoses used on the deck.

When he felt the vessel shake he first thought was that they lost the lines. He then opened the doors and went quickly to the bridge. He would assume that he used his right hand to open the door. When he went to the bridge the first thing that he focused on was the alarm panels. Then he went to the bridge wing on the starboard (pier) side. He did not see people running around and did not hear people screaming. He saw soot falling from the sky and they he went in again on the bridge. He would estimate that he was on the bridge from 0615 to 1400, he would estimate that he was on the bridge wing maybe 15 seconds. He spoke directly to Magnus, staff chief engineer, via the radio, spoke to galley after they called to the bridge. He talked to the hotel engineer, or he

heard they call Code Alpha, rather than talked to them. They were tense/excited. He was hard to read the communications, the pace was quick. He can't remember the words, he knows that there are secondary phone call on Code Alpha on the W. Indies mess, saying that somebody had been blown into the W. Indies mess.

He stood at the fire panel and the SO said that there had been an explosion on the B deck. He cannot dispatch anyone, that is done by the captain. He might have executed an order or two, or maybe 10 orders, there are none that he specifically remembers, except for calling the CG after they boarded at 0800-0820. He sent people with water, he got more keys to open windows to ventilate the Intl deck for passenger comfort. He dispatched people, small minor things. They asked about a fire, they did not have a positive report of fire, if there was one he knew that it had to be small. He called Code Bravo to get training crewmembers with O2 and protective clothing to search and rescue inside the engine room.

He knew that this is a steam ship and that nothing is more effective to extinguish a fire than steam. The captain has been sailing for 42 years or thereabouts, he knew that the captain, chief engineer and others could narrow it down very quickly.

He cannot point out anything that could be done better. They were calm. He had just come from training. He had in his mind when he gave the announcements he was calm and quite on the PA system. He did not want to upset anyone but he gave firm and clear answers. But he cannot see anything that he would have done differently. From what he saw of the team on the bridge, the orders given, the pace of things, everything was there that should have, all necessary things were done, passengers cared for. It was not a perfect emergency but it was good, and he was good.

He trains every week for fire drills. Safety manager plans the drills and the scenario. Fire drill changes always, to include the bridge where he has to set up a secondary station and drive from the port house and transmit messages. These have to be logged somewhere, the safety manager would have a record of that, and of course it would be in the official Bahamian logbook. The drills, SMS meetings, etc.

All parties have a briefing prior to the drill. He is not part of that. He heard the fire engines sound, but did not see them during the 15 seconds that he was not the bridge. He knows that a police on the pier made the call, via radio. The call was not made from the vessel.

He started out as a fisherman after going through basic safety training. He sailed only with this knowledge. When he had the time and was a qualified seaman. He went to mate and captain school in Norway. This included advanced firefighting, first aid, and Norwegian CG courses, and ice courses for N. Hemisphere sailing.

He then went back to fishing vessels, until he joined NCL. While at NCL he upgraded his certificates to STCW 95, has gone through crew and crisis management. He has been in Malaysia from 19 Feb to mid March for crew resource management training, that NCL gives them. All officers take it, NCL requirements.

Joining NCL was the perfect opportunity. He was leaving in Oslo, he wasn't able to spend enough time at home, it was a perfect opportunity sail the deep sea.

He asked about whether there was a fire. The initial call was from the main galley, someone shouted steam coming in, he asked the state of the injuries, the person said that he was burned. He was asked to call a code bravo, the Captain asked him. They knew that a boiler had blown up, they had missing crew members, they wanted fire teams to search the area, they had an ongoing Code Alpha, they had people underway to the medical center, they wanted to use the Bravo to search.

Sometime after that, at an early stage, it was confirmed that there was no fire, even as early as when they talked to the CG and the captain requested ambulances, they did not request fire fighting capabilities

In informal discussions among themselves the consensus is that things went well. He sees a technical investigation.

If they have any faults on the fire alarm panel they respond, if anything wrong electronics will repair it. He cannot fix it. They report faults to the electronic engineers, 24 hours a day.

The laser to measure distances is on the bridge. He does not know who maintains them. It may be cheaper to replace them then to fix them. He is the fourth in command.

Fire teams dress up, report in, then are told to proceed to specific place. The fire team leaders oversee this.

There was a blackout, but the emergency lighting was working, all the alarm panels were working, the emergency generator kicked in. They had power on the bridge. At 1400 he was relieved. Passengers went ashore, he believes between 0800 and 0900. Most were off by 0830. The captain made the announcement in the initial announcements, and gave updates. He told them to go back to their staterooms, proceed to their belongings, and to proceed ashore, giving instructions how to get ashore.

He believes 2135 passengers aboard. Everybody was accounted for and mustered. He personally logged it when 41 passengers were missing, and the captain told them to recheck the cabins, they were found but he doesn't know where they were.

The captain briefed the passengers, they had an explosion, everything was under control. There were passengers on B-deck port side. This area was unaffected by the event. Crewmembers were at their stations on B-deck so crew were all the way down.

Crew were asked to remain at their stations. As soon as they heard that crewmembers had left their stations, they made an announcement to remain at their stations. He did not see or hear of anyone else going ashore. As soon as they knew that all passengers had disembarked the reception made the last and final announcement. He could see the open gangways and could see pax crossing the gangway.

He does not know who left or who stayed at their stations. He knows that crewmembers were told, via PA, from the captain to remain at their stations. The captain saw himself that crew had left so there was no need for him to tell them.

Abandon ship signal is one long blast, this is drilled every week, and crew is told to go to their muster stations. The ship has a security plan.

He has not been on any steamship. On the fishing vessel the longest he was on was 55 meters, with 32 crew. He was not an officer, but after Captain school he became an officer, sailed as a first officer.

The funnel has an extinguishing system, engineers release steam to put out the fire. He knows this from his experience on the vessel. When he saw the soot he thought that steam had gone out and pushed out the soot.

Has experienced one other blackout on the vessel, in St. Thomas, within the last two years. Does not know of problems with the boilers or engineers discussing problems with the boilers. He has seen a boiler taken out underway but does not know what precipitated it. They may have to reduce the speed, but he is not sure that this has happened. They would log this, but not the reason, and would call the captain.

Any problems discussed they would discuss with the engineers informally, among the crew, as friends. Blow soot as a precaution to avoid a buildup of soot in the stack which could catch on fire, perhaps from a spark from the boiler.

He feels that he has a good knowledge of the Safety and Environmental system. He is required to read it. Part of the plan they review when they come onboard. When he comes aboard he is required to go over changes in the safety and environmental system, and signs that he has done it and acknowledges it. He reports to the staff captain.

They have a formal evacuation plan, but it was decided not to activate it. They had accounted for passengers on board, if they had done that would have had to do it again on shore. There was no need. Not aware of crew counting passengers as they came off. Otherwise would have had to use lifeboats to abandon ships.