

UNITED STATES COAST GUARD

ADDRESS REPLY TO:
COMMANDANT
U. S. COAST GUARD
HEADQUARTERS
WASHINGTON 25, D. C.



MVI
(LOIS ANN a-13 Bd)
9 SEP 1959

Commandant's Action

on

Marine Board of Investigation; flooding of the motorboat
LOIS ANN, Puget Sound, 26 April 1959, with loss of life

1. The record of the Marine Board of Investigation convened to investigate subject casualty, together with its Findings of Fact, Opinions and Recommendations has been reviewed.
2. At 1205 on 26 April 1959 the pleasure motorboat LOIS ANN, O. N. 277775, departed Tacoma, Washington, en route Seattle, Washington, with the owner and a party of 11 made up of members of his family and guests including two infants. About two hours later when approximately 1-1/2 miles south of Alki Point in Puget Sound the boat suddenly flooded, rolled over on her starboard beam ends still afloat but with her stern submerged. Six persons lost their lives and one is missing and presumed dead.
3. The boat, a 43 foot diesel propelled cabin cruiser, had been redesigned and rebuilt by her owner who intended to use her to carry parties commercially in the sport fishing trade. At the time of the casualty she had not yet been certificated by the Coast Guard for the carriage of passengers for hire.
4. Prior to departure the owner obtained weather information which included small craft warnings for the area. A routine check of the boat disclosed that the bilges were dry. Shortly after departing the bilges were again checked and found to be dry.
5. As the vessel proceeded toward Seattle squalls were encountered with southerly winds 25 to 30 MPH and sea conditions varying with the boat's location. The trip proceeded uneventfully until the boat was approximately 1-1/2 miles south of Alki Point in Puget Sound when some difficulty was experienced in maintaining the vessel's heading due to following seas. In this area a 30 MPH southerly wind was blowing, the tide was flooding toward the south and an estimated 5 to 6 foot chop was encountered. The owner's son, who was on deck near the bow at the time, noticed water collecting in the after end of the cockpit and called his father's attention to it. Immediately the vessel's head was turned toward the wind but the after freeing ports were already below water and when approximately 1/4 of the turn had been completed the engine stopped. All hands were ordered to don life jackets which were located in the cabin. While so engaged the vessel continued to sink rapidly by the stern, then rolled over to starboard on

her beam ends and came to rest still floating with approximately 5 feet of the bow and top of the port forward corner of the cabin remaining above water. Five of the guests, among them one of the infants, were drowned in the cabin. The other infant was wrapped in a life jacket and was later saved. One of the male guests was observed hanging onto a fender after the accident but he later disappeared from sight and drowned. The seventh victim was not seen after the casualty, nor was his body recovered.

6. The casualty was observed from the shore by a resident of the area who first alerted the Coast Guard and then, with a neighbor, proceeded to the scene in an outboard motorboat to assist. An outboard cruiser was in the vicinity at the time and also went to the assistance of the LOIS ANN and together the two boats recovered four survivors. The fifth survivor was recovered by Marine helicopter. A Coast Guard 40 foot patrol boat and a Seattle harbor patrol boat arrived shortly thereafter and together they towed the LOIS ANN ashore to calm waters.

7. Examination of the boat after the casualty disclosed that a union in the salt water line to the heat exchanger had become uncoupled.

REMARKS

1. Concurring with the Board, it is considered that the cause of this casualty was the union in the salt water line to the heat exchanger becoming uncoupled. Apparently the union had not been securely tightened and had backed off as the result of the normal vibration encountered.

2. The Board's Conclusion that the operator's lack of experience in the operation of vessels of the type and size of the LOIS ANN was a contributing factor insofar as he failed to realize the after compartment of his vessel had flooded until it was too late to take effective corrective measures does not appear to be supported in the record. In view of the speed with which the flooding progressed when the union became uncoupled, it is considered doubtful that a more experienced man could have either detected the flooding sooner or have done anything to correct it in time to prevent the casualty.

3. The Officer in Charge, Marine Inspection, may in his discretion require a stability test of any vessel inspected under the provisions of the Rules and Regulations for Small Passenger Vessels prior to certification. In connection with the Board's Recommendation in this regard, however, there is no evidence in the record that the LOIS ANN's stability was other than satisfactory.

4. Recognition of the commendable action by [REDACTED] and [REDACTED] who assisted in the outboard motorboat and [REDACTED] operator of the outboard cruiser, will be given.

5. Subject to the foregoing remarks, the record of the Marine Board of Investigation is approved.

[REDACTED]
A. C. RICHMOND
Vice Admiral, U. S. Coast Guard
Commandant

After full and mature deliberation, the Board finds as follows:

Findings of Fact:

1. At or about 1410 hours on 26 April, 1959, approximately 1½ miles south (M) of Alki Point, Seattle, Washington, the motor boat LOIS ANN capsized in Puget Sound with the subsequent loss of seven lives.
2. The only vessel involved is the uninspected American motor boat LOIS ANN, O. N. 277775, of 15 gross and 11 net tons, registered length 42.5' and beam 10.4', draft 3'0" forward, 3'1" aft, built of wood in 1958 at Tacoma, Washington, and owned and operated by [REDACTED], Tacoma, Washington. The vessel's document licensed her for commercial fishing.
3. The LOIS ANN was built by Mr. [REDACTED] at his home in Tacoma, Washington, for the purpose of engaging in the charter boat business at Westport, Washington. Mr. [REDACTED] purchased the hull of a former Navy LCVF, dismantled it and used the frames and planking as templates for building his vessel of new materials. With the aid of a friend, a former Navy hull inspector, he designed and built a new bow section.
4. The vessel was divided into three main compartments. Aft of the collision bulkhead was the berthing space containing six bunks, three on each side, and a 20-3/8" by 18½" escape hatch in the overhead. A small compartment containing a head on the port side and a storage space to starboard was located aft of the berthing space. The cabin space was located aft of this area, the cabin deck being raised 19" above the deck of the berthing space and approximately 41" above the bilge. An open passage led forward from the cabin to the berthing space. The cabin was of the enclosed type and was equipped with three kick-out type windows on the port side, the after two measuring 32" by 25", the forward window 45" by 22". The after two kick-out windows on the starboard side measured 40" by 23½" and the forward window along side the operating platform measured 45" by 22". This window was divided into half vertically and could be opened by sliding the panes fore or aft. The forward end of the cabin was equipped with two windows measuring 30" by 21" each, the bottom of which were approximately 6" above the decked over bow of the LOIS ANN. A dinette was installed on the port side of the cabin and an oil-fired stove and sink on the starboard side. A clear passage of 24" was provided between this equipment. Two 21" by 69" doors led from the after end of the cabin. The door on the starboard opened in; the door on the port side out. The cabin enclosed an area approximately 13' long by 30" wide by 82" high.

5. Aft of the cabin area was a 14' long by 8' wide cockpit. The deck of the cockpit was approximately 7" lower than the cabin deck. 21" bulwarks extended around the after end of this area with the height increased to approximately 36" in the forward half. The bulwarks were of watertight construction to within 2" of the top at which point bilge ventilation openings were provided. Six 1 1/2" by 3/4" freeing ports were installed, three on each side. A minimum distance of 10" existed between the cockpit deck and the waterline. The engine was located at the forward end of the cockpit and was covered by an engine box that fitted over a 3" coaming. This box was equipped with no fastening devices. The cockpit deck consisted of fitted sections of 1/2" marine plywood fastened to deck beams by screws on 15" centers.

6. In addition to the collision bulkhead located at frame No. 3, watertight bulkheads were installed separating the cabin bilges from the cockpit and berthing space bilges. The after bulkhead was 36" in height at the centerline, the forward bulkhead approximately 41". Means were provided to pump out each compartment independently with a pump, belt-driven from the main engine. A 1 1/2" bilge suction was located in the cockpit bilge at the centerline adjacent to the forward watertight bulkhead. All bilge suctions were provided with strainers.

7. The LOIS ANN was powered with a 165 h.p. General Motors Diesel, Model 671. The engine exhaust led aft through the cockpit bilge and transom terminating approximately 5" above the waterline. The engine was equipped with an indirect type cooling system. Raw water was supplied from a sea chest located approximately 10" to starboard of the after end of the engine clutch. A sea cock was installed at the chest with piping leading vertically to a T and thence forward through a union and upward to the raw water pump. The 1 1/2" cupro-nickel tubing to the pump had been cut midway between the union and the pump and a 6" section of rubber hose installed with hose clamps. The union was located 11 1/2" above the bilge between two 2" by 7" stringers. A space of 7" existed between the stringers and 2" by 4" underdeck longitudinals. The stringers and underdeck longitudinals were installed on 16" centers. A section of screwed cockpit decking covered this union.

8. Mr. [REDACTED] made application for the inspection of his vessel to carry twelve passengers for hire in the sport fishing trade on 17 March, 1958. A Coast Guard marine inspector visited the vessel on 25 March, 1958, and found it to be partially completed. A hose test of the bulkheads separating the fuel tank space from the berthing space and cockpit was conducted satisfactorily and the hull fittings, engine installation, bilge pump and associated piping were examined and found to comply with the applicable regulations. As nothing further

was heard from Mr. [REDACTED] regarding the continuance of inspection, a letter was addressed to him on 12 March, 1959, by the OCMI Seattle inquiring as to his intentions concerning the continued inspection of the boat. Mr. [REDACTED] replied on 19 March, 1959, that his vessel was put in the water on 16 March, and would be ready for inspection within a few weeks. It was Mr. [REDACTED] intention to install a radio and outfit the boat as required by existing regulations prior to asking for final inspection and certification.

9. Beneath the cabin deck and just forward of the after bulkhead were located two 230 gallon diesel fuel tanks, side by side. Forward of the fuel tanks was a 180 gallon potable water tank.

10. The weather at the time of the casualty was overcast, visibility good, a southerly wind of 30 mph, a 5 to 6 foot chop, tide was flooding in a southerly direction.

11. At or about 1205 hours, 26 April, 1959, the M/B LOIS ANN departed Tacoma, Washington, en route to Seattle, Washington, on a combined business and pleasure cruise. It was the intention of the boat's owner/operator, Mr. [REDACTED], to visit the ABC Charter Agency to discuss the future employment of the LOIS ANN as a charter boat. Prior to departure, Mr. [REDACTED] received weather information that contained small craft warnings for that area. He checked his bilges and found them to be dry. Shortly after departing, the bilges were again checked and found to be dry.

12. On board the vessel as guests of the owner were his wife, Mrs. Solveig Johnson, his son Rolf, his niece Lois Ann Johnson, Mr. and Mrs. Frithjof Tayet, their infant daughter Janna Lyn, and infant son, [REDACTED], [REDACTED], Mr. and Mrs. Reuben Torgerson, and Janet Wick.

13. As the vessel continued on its journey to Seattle, squalls were encountered and the southerly wind varied in velocity between 25 and 30 mph. Sea conditions varied depending on the vessel's location. As the vessel neared Alki Point, Mr. [REDACTED] experienced some difficulty in maintaining the vessel's heading due to the following sea. At this time approximately at 1405 a 5 to 6 foot chop was being encountered, the tide was flooding in a southerly direction and a southerly wind of 30 mph blowing.

14. [REDACTED], who with Janet Wick, was on the weather deck near the bow of the LOIS ANN, noticed water collecting in the after end of the cockpit and called his father's attention to this. Mr. [REDACTED] then attempted to turn the boat into the wind. At this time the vessel's stern was down approximately 12" as water was entering the after freeing ports. The boat's heading was changed approximately 45° to starboard when the engine slowed and stopped. After turning the vessel, Mr. [REDACTED] ordered all hands to don life jackets, the location of which had been pointed out prior to the vessel's departure. All

life jackets were located in the cabin under the after seat of the dinette. Mr. [REDACTED] then went aft to the cockpit to investigate and to see if there was anything to be done to remedy the situation.

15. Mrs. [REDACTED] then appeared from the starboard door of the cabin, the port door was closed, wearing a life jacket. In her attempts to get to the bow of the vessel, she slipped and fell and by the time Mr. [REDACTED] had assisted her in regaining her feet, the water level in the cockpit was over his knees and the LOIS ANN had assumed a fore and aft trim of about 30° and had listed to starboard approximately 15°. The vessel continued to sink by the stern and rolled over to starboard with but approximately 5' of the bow and the top of the port forward corner of the cabin remaining above the water.

16. Prior to the vessel capsizing, [REDACTED], age [REDACTED], was handed out through the open starboard window to [REDACTED]. A life jacket had been wrapped about [REDACTED]. [REDACTED] jumped into the water and managed to keep the baby's head above water until he was able to hand him up to his father who had managed to climb onto that part of the bow which had not submerged. At this time Mrs. [REDACTED] and Janet Wick were in the water supporting each other with the help of the life jacket worn by Mrs. [REDACTED]. [REDACTED] was swimming about looking for survivors and Mr. Frithjof Tayet was observed hanging onto a tire that had been carried on board for a fender. Frithjof Tayet soon disappeared from sight and drowned. His body was recovered.

17. Mr. [REDACTED] residing at [REDACTED] Seattle, Washington, whose home overlooks an area of Puget Sound off Alki Point, noticed the stern of the LOIS ANN go down and the bow come up at approximately 1415 hours. He immediately ran to the home of a neighbor, Mr. [REDACTED] of [REDACTED] and these two men commandeered a 12-foot aluminum boat and a 7½ h.p. outboard motor from another neighbor and headed for the LOIS ANN. Prior to departing, Mr. [REDACTED] notified the Coast Guard. It was estimated that five minutes elapsed from the time the boat departed until it arrived at the scene of the casualty. At this time the only part of the LOIS ANN visible was a section of the bow. The boat operated by Mr. [REDACTED] picked up [REDACTED] threw a life jacket to [REDACTED], and held Mrs. [REDACTED] along side fearful that an attempt to get her into the boat might capsize it in the five foot seas.

18. In the meantime, a 19-foot outboard cruiser en route from Tacoma to Seattle and owned and operated by [REDACTED] of [REDACTED], Seattle, Washington, had noticed the capsized LOIS ANN and sped to her assistance. The [REDACTED] boat arrived shortly after the 12-foot boat and picked up [REDACTED], [REDACTED] who had been thrown out toward the boat by Mr. [REDACTED] and with the aid of Mr. [REDACTED] and Mr. [REDACTED] managed to get Mrs. [REDACTED] on board. At this time it was

noticed that a Marine helicopter, T-302, piloted by Lieutenant Colonel [REDACTED], had lowered a sling to Mr. [REDACTED] and retrieved him.

19. After remaining at the scene of the casualty approximately 20 minutes, the 12-foot boat departed to obtain medical assistance for its passenger, Miss [REDACTED], who was suffering from exposure and shock. After discussing the feasibility of making an attempt to board the LOIS ANN and searching for other survivors, it was decided by the [REDACTED] boat which now had eight persons on board, three survivors and an original party of five, to depart for shore, discharge the survivors and extra passengers and return to the scene rather than risk losing what they already had. On their way in, they passed the CG-40422 and notified the cox'n, [REDACTED] DCI, USCG, of the survivors they had on board.

20. The Rescue Coordination Section of the 13th Coast Guard District was notified by telephone of the casualty at 1415 hours. The CG-40422 which had just completed an assistance case in the vicinity of the Government Locks was notified of the casualty and proceeded at full speed, arriving at the scene at 1455 hours. At this time the LOIS ANN had assumed an angle of trim of approximately 90°, the only visible portion being a six foot section of the bow. Shortly thereafter, Seattle Harbor Patrol Boat No. 7 which had been patrolling in the Duwamish River area, arrived.

21. As a result of the efforts of these two boats, the LOIS ANN was towed to a point approximately 150 feet off the beach. Inasmuch as there was not enough line to send ashore to secure the LOIS ANN, the CG-40422 then towed it around to calm waters south of Point Williams and the boat was secured by passing a line to shore at approximately 1530 hours.

22. The bodies of Mrs. Frithjof Tayet, Janna Lyn Tayet, Lois Ann Johnson, and Mr. and Mrs. Reuben Torgerson were found in the cabin of the LOIS ANN. With the exception of the infant Janna Lyn Tayet, all persons found in the cabin of the LOIS ANN either had life jackets on or partially on.

23. The night of 26-27 April, 1959, when preparations were being made by the Seattle Fire Department to pump out the LOIS ANN to refloat her, fireman [REDACTED] discovered the union just forward of the T in the supply line to the raw water cooling pump to be uncoupled with the union nut lying back on the T and an approximate one quarter inch opening existing in the uncoupled 1½" line.

24. Lifesaving equipment on board the LOIS ANN consisted of eleven adult, five Kapok and six cork life jackets, and two Kapok children's life jackets. All were U. S. Coast Guard approved jackets and had recently been purchased new.

25. At the time of the casualty, the vessel's bilge pump was in operation and the valve in the suction line to the cockpit bilge was open.

26. A search for [REDACTED] was conducted by two Marine helicopters, various floating units assigned to the COTP Seattle and a helicopter and plane attached to the Coast Guard Air Station, Port Angeles, Washington, with negative results. To date his body has not been recovered.

27. The ages of the persons found in the cabin of the LOIS ANN were Mr. and Mrs. Torgerson, ages [REDACTED] and [REDACTED] respectively; Mrs. Tayet, age [REDACTED]; Lois Ann Johnson, age [REDACTED]; Janna Lyn Tayet, age [REDACTED]. [REDACTED], whose body has not been recovered, was [REDACTED] years of age, and Frithjof Tayet, age [REDACTED].

28. Prior to the LOIS ANN's departure from Tacoma, the port fuel tank contained 230 gallons of diesel oil, the starboard tank approximately 215 gallons. The water tank was full. During the cruise from Tacoma, fuel was supplied from and returned to the port tank.

Opinions:

29. The proximate cause of this casualty was the flooding of the area beneath the cockpit deck due to the ingress of water through an uncoupled union in the raw water supply line to the heat exchanger. When the operator made an attempt to head the boat into the wind, the vessel capsized due to the effect of the sea on the vessel in its condition of reduced stability.

30. When the LOIS ANN capsized water rushed through the open starboard door quickly filling the cabin and berthing spaces and submerging the passageway to the forward escape hatch.

31. The free surface effect existing in the fuel and water tanks was negligible.

32. The engine failed as a result of the back pressure built up when the exhaust outlet became submerged.

33. The lack of experience of the operator in the operation of vessels of the type and size of the LOIS ANN contributed to the casualty insofar as his failure to realize the after compartment of his vessel had flooded until it was too late to take effective corrective measures.

34. The owner of the LOIS ANN endeavored to comply with all existing regulations during the construction of his vessel and had intended to complete certification of the vessel.

35. The cause of the union's becoming uncoupled was due to the union nut not being tightened sufficiently to prevent its backing off due to the normal vibration encountered of an installation of this type. The location of the union was such that it would be extremely difficult to tighten without removing a section of the cockpit decking. The sea water suction piping to the raw water pump was not a rigid installation but was provided with a section of rubber hose which would absorb vibrations and prevent the union from becoming uncoupled had the nut been tight.

36. Ample life jackets were on board; however, the fact that all were stowed beneath the after seat of the dinette in the cabin contributed to the number of lives that were lost.

37. The assistance rendered by the Coast Guard and Harbor Patrol was adequate under the circumstances.

38. The assistance rendered by Mr. [REDACTED] and [REDACTED] was directly responsible for the saving of the lives of [REDACTED] and Mrs. [REDACTED].

39. The assistance rendered by [REDACTED] was responsible for the saving of two lives, [REDACTED]. The assistance rendered by Lieutenant Colonel [REDACTED], U. S. Marine Corps Reserve, as pilot of the helicopter T-302, was responsible for saving the life of [REDACTED].

Recommendations:

40. It is therefore recommended that:

a. Recognition be given to the commendable actions of [REDACTED], [REDACTED], and [REDACTED] by means of a letter or other appropriate sign.

b. Prior to certification of the LOIS ANN, the Officer in Charge Marine Inspection, Seattle, conduct a stability test of the vessel.


c. This case be closed and no further action be taken.

[REDACTED]
Captain, U. S. Coast Guard
Chairman

[REDACTED]
Captain, U. S. Coast Guard
Member

[REDACTED]
Lieutenant Commander, U. S. Coast Guard
Member

The Board then adjourned to await the action of the convening authority.


Lieutenant Commander, U. S. Coast Guard.
Recorder