

DEPARTMENT OF TRANSPORTATION

**MARINE BOARD
of
INVESTIGATION**

LAKE MICHIGAN SQUALLS

**Loss of and damage to numerous vessels
and loss of life**

East Coast of Lake Michigan, 23 Sept. 1967

**U.S. COAST GUARD MARINE BOARD of
INVESTIGATION REPORT and
COMMANDANT'S ACTION**

**ACTION BY
NATIONAL TRANSPORTATION SAFETY BOARD**

Released: 26 NOV. 1968

LOSS OF AND DAMAGE TO MOTORBOATS WITH LOSS OF LIFE
ON EASTERN COAST OF LAKE MICHIGAN
September 23, 1967

ACTION BY NATIONAL TRANSPORTATION SAFETY BOARD

On September 23, 1967, approximately 500 motorboats operated by avid sport fishermen on the eastern coast of Lake Michigan were in a position of peril due to high winds and heavy seas. The extensive loss of and damage to boats involving loss of life was investigated by a United States Coast Guard Marine Board of Investigation.

The Marine Board proceedings commenced on October 5, 1967, at Manistee, Michigan. A representative of the National Transportation Safety Board attended the proceedings as observer. The Marine Board's report and the Commandant's action thereon are included in and made a part of this report. The National Transportation Safety Board has considered only those facts in the Coast Guard report which are pertinent to the Board's statutory responsibility to make a determination of cause. In making its general recommendations, the Board also considered other Coast Guard fatal accident reports and the annual report, Boating Statistics 1967 (CG-357).

ANALYSIS AND CONCLUSIONS

In analyzing the facts and causal factors of this case, the Safety Board noted some safety problems which are common to the whole field of recreational boating. A study of the Coast Guard investigative reports of fatal boating accidents, and the Boating Statistics, for calendar year 1967, show that capsizing is the predominant cause of fatal boating accidents. The following Coast Guard statistics for 1967 substantiate this fact:

TYPES OF CASUALTY	1963		1964		1965		1966		1967	
		Percent								
Grounding.....	12	1.1	15	1.3	12	.9	19	1.4	7	.5
Capsizing.....	463	41.9	517	43.4	549	40.4	621	47.1	621	47.3
Flooding.....	36	3.3	54	4.5	41	3.0	41	3.1	35	2.7
Sinking.....	100	9.1	89	7.5	152	11.2	101	7.7	91	6.9
Fire or Explosion of Fuel.....	15	1.4	13	1.1	18	1.3	23	1.7	14	1.1
Other Fire or Explosion.....	2	.2			2	.1	2	.2	5	.4
Collision with Another Vessel.	32	2.9	29	2.4	38	2.8	65	4.9	24	1.8
Collision with Fixed Object...	35	3.2	31	2.6	29	2.1	32	2.4	38	2.9
Striking Floating Object.....	29	2.6	20	1.7	24	1.8	10	.8	13	1.0
Other Casualty to Vessel.....	43	3.9	26	2.2	58	4.3	37	2.8	43	3.3
Falls Overboard.....	251	22.7	289	24.2	340	25.0	315	23.9	338	25.8
Falls Within Boat.....							2	.2	2	.1
Struck by Boat or Propeller...	17	1.5	19	1.6	8	.6	21	1.6	16	1.2
Other Personnel Casualty.....	69	6.2	90	7.5	89	6.5	29	2.2	65	5.0
TOTAL	1104		1192		1360		1318		1312	

We have considered the boating accidents in this case along with the whole problem, and our recommendations include those which apply to the entire recreational boating field as well as those specifically to prevent a recurrence of this type of disaster in the same area.

On the date of the occurrence, more lives would have been lost except for the valiant efforts of the Coast Guard, Michigan State officials, various sheriff groups, local boatmen, and operators of larger vessels. However, the Safety Board considers the communication facilities then existing to be inadequate for optimum coordinated efforts and is of the opinion that corrective action is indicated. We also feel that the Group Commander at Ludington should have had the authority to exercise on-scene rescue control of the facilities under him, with mobile communications facilities either on shore or afloat.

The weather forecast for the day of this case was accurate, but apparently not known by most of the fishermen. Small craft warnings were posted at 8 a.m. on September 23, 1967, but many of the boats left prior to that time. Testimony of some of the boaters shows that they attempted to ascertain the weather forecast, but were unable to get it on their car or portable radios. The small craft warning flags displayed at the Coast Guard Stations at Frankfort and Manistee were either not seen, or not heeded, by boats which left after 8 a.m. Some boaters are not familiar with the meaning of this red pennant. Later in the day, boaters were warned by the Coast Guard and sheriffs' personnel of the weather conditions. Some boaters heeded the warnings and returned, others disregarded them. The Safety Board concurs in the recommendations of the Coast Guard to forecast storm warnings as far in advance as practicable, and broadcast the warning in a more meaningful manner relative to sea conditions in the particular area; and to consider the expansion of the number of warning display sites and to supplement the signals by plainly worded signs. In addition, the Board believes that radio broadcast schedules should be publicized, and made available to boaters who are not familiar with the local radio stations, as part of a complete coordinated advisory system.

Storm warnings issued by the U.S. Weather Bureau for the Point Betsie area of Lake Michigan were in effect for 38 percent of the time during the three month period of June through August 1967. In late August 1967, the State of Michigan Department of Conservation warned

boaters by press and radio media of the dangers of fishing in boats less than 16 or 18 feet in length on the exposed waters of Lakes Michigan and Superior. Experienced boatmen would routinely learn the weather forecast before proceeding to the fishing area and would have anticipated the sea conditions encountered in this case. Boaters from this lake area who testified indicated that they heeded the small craft warnings or actual weather conditions and did not expose themselves to the dangers to small craft.

The lack of experience on the Great Lakes and lack of knowledge of local conditions on the part of the boaters constituted a basic cause of these accidents. The testimony indicates that most of the fishermen were accustomed to operating on relatively protected inland lakes and streams and had little or no experience on the large lakes. When the weather became adverse, the visible signs of deterioration would have been obvious to the seasoned local boaters, but many of the operators demonstrated a lack of knowledge of local waters and practical seamanship. Some boaters remained too long in the relatively sheltered fishing ground of Platte Bay before heading back to their launching sites. Others tried to return to their launching sites and trailers in Frankfort and Manistee and encountered heavy seas in rounding Point Betsie. Many headed for the nearest beach, and attempted to land in surf estimated at 8 to 10 feet, and some capsized. If these boats had been beached in the relatively protected waters of Platte Bay, or had been kept outside the line of breakers until sea conditions moderated, fewer boats and lives would have been lost. The handling of the boats in the heavy surf demonstrated

lack of experience on the part of the operators. Many cut off the power or raised their motors as they entered the breakers on the beach, and broached. While it is recognized that landing open outboards (most of which were less than 16 feet long) in heavy surf is difficult, most of these boats could have weathered the seas offshore. The sheriffs' marine patrol boats operated in the rough seas, and only one partially swamped. These boats ranged in size from 15 to 17 feet in length, but were operated by experienced boatmen.

The Coast Guard, the Michigan Conservation Department, and the several county sheriffs recognized that the salmon season would create a recreational boating safety problem. Meetings were held prior to the start of the season but did not resolve the problems encountered. Apparently the meetings did not succeed in producing an emergency plan which could cope with a situation of this size and character. The advent of coho salmon for the first time in this region had stimulated tremendous interest and enthusiasm in fishing. This interest was demonstrated on the weekends prior to the fatal one. More than 2,000 boats were estimated to be fishing on the weekend of 9-10 September, whereas in prior years, only a few boats operated in this area after Labor Day. On previous occasions in 1967, various types of unsuitable craft were observed 6 to 8 miles offshore on Lake Michigan, and were obviously unseaworthy for these exposed waters. Examples are: inflatable rafts, canoes, kayaks, prams, 10- to 12-foot outboards powered with 100 horsepower engines, and ampicars (amphibious motor vehicles of low freeboard and stability). Fortunately no drownings occurred on these previous

occasions, although capsizings did take place. It is probable that this good fortune influenced the actions of some of the fishermen on September 23, 1967. The fervor of the fishermen is reflected in the fact that many of the boaters, although warned of the weather and admonished to return to shore, refused to heed the advice.

The Safety Board notes the lack of legal authority of the Coast Guard to prohibit boat operators from proceeding into unsafe waters. Several of the witnesses stated that the Coast Guard should have this authority. The Safety Board feels that since the Coast Guard is not enabled by existing legal authority to stop boaters from proceeding into hazardous waters, specific legal authority should be obtained which would make it unlawful to do so. Also, it is the Board's opinion that the operation of boats of inadequate size and capability under sea conditions considered hazardous by knowledgeable enforcement officials, constitutes negligent operation. Therefore more aggressive enforcement of 46 USC 526 1 (a) - (Reckless or negligent operation of vessels) could have a deterrent effect. The Board recognizes the right of the individual to fish; however, when his actions result in endangering the lives of passengers and rescue personnel, preventive actions are necessary.

The Safety Board considers that one of the principal causes of loss of life was the failure of the victims to wear available life-saving devices. It is noted that, in the face of breaking seas and heavy surfs, none of the boaters who got in difficulty near the beach was observed to use lifesaving devices. In some instances lifesaving

devices were stored in an out-of-the-way part of the boat rather than immediately at hand as might be expected in the circumstances.

Buoyant vests and life preservers are bulky and uncomfortable to wear over heavy clothing, but it is illogical to conclude that boaters would not use them if the danger of capsizing was recognized. Also, while buoyant cushions are not as effective as buoyant vests or life preservers, particularly in heavy surf, their use might have saved a few lives. The Safety Board recognizes the ease of stowage, compactness, economy, and popular acceptance of buoyant cushions in comparison with life preservers and vests. However, these features still did not result in their use by those who drowned.

Another factor in the loss of life was the water temperature of about 49°F. Several of the fishermen who drowned might have survived had the water temperature been higher.

The extent of loss of life and property in this case was difficult to assess. No practical means of determining the number of boats or fishermen operating in this area was available. Many boats were launched from access roads, and returned when the weather worsened. It was several days after the capsizings before Coast Guard and Michigan officials completed searching for possible missing persons, and concluded that seven persons drowned. The number of boats damaged in beaching and then removed by the operators could not be determined. Efforts on the part of the Federal and State officials to trace people and boats by the registration numbers of their cars and trailers were extensive. These search efforts burdened the already overloaded communications facilities

available. Several Michigan officials suggested a system of registration cards which would check boats and their occupants out and in, at public launching sites. This would not provide coverage for the boats launched at unattended stretches of the beach, but would facilitate search and rescue efforts in similar circumstances. The Safety Board supports the efforts of State and municipal authorities in a voluntary system of registration at public and private boat launching sites and marinas, as well as at main access roads to the beaches.

Another factor which contributed to this series of capsizings was the unsuitability of the small outboard boats for operation in the breakers and surf on the shores of Lake Michigan in the existing sea conditions. Most of the boats were 16 feet in length or less, and of open construction. The freeboard of these boats, especially at the transom where cut down to house the outboard engines, was inadequate for seas that can normally be expected on the Great Lakes.

PROBABLE CAUSE

The Safety Board concludes that the probable cause of this series of capsizings was the combination of inexperienced boat operators not familiar with the area; sea and weather conditions beyond the capabilities of many of the boats and or operators; and a form of safety administration divided among several agencies lacking positive enforcement authority to prevent unsafe operation, and incapable of adequately handling the problem which arose. Contributing causes were the absence of a weather warning system capable of reliably reaching those who were unaware of the need to seek weather warnings, the disregard of weather

warnings by some boaters who knew their significance, and the failure of boaters to use available lifesaving devices.

RECOMMENDATIONS

The Safety Board concurs with the Commandant relative to the recommendations of the Marine Board with the exception of recommendation 5 concerning deferral of legislative proposals which would authorize law enforcement personnel to "deter" small boat operators from operating when hazardous sea conditions exist, until all other means to effect voluntary compliance have been considered. As pointed out, the Safety Board considers that preventive action is necessary in this matter. Accordingly, the Safety Board recommends, in addition to the recommendations of the Coast Guard, that:

1. The Coast Guard seek legislation which would provide legal authority to stop operators from proceeding into adverse weather and sea conditions.
2. The Congress give favorable consideration to the proposed Recreational Boat Safety Act of 1968 (H.R. 15223) or a bill which would encompass similar provisions.
3. The Coast Guard, through its State boating liaison, encourage the use of a voluntary registration card system at public and private boat launching sites and marinas.
4. The Coast Guard consider approval of life preservers which are designed to fold in shapes suitable for use as cushions, and readily stowable on or under the seats.

The Safety Board also makes the following recommendations which generally expand the application of the Coast Guard's recommendations.

5. The Coast Guard and the States emphasize enforcement procedures against reckless operation of motorboats and cite the operators of unsuitable boats who proceed into adverse weather and sea conditions after being duly warned. The Coast Guard utilize 46 USC 526 1 (a) in appropriate boating areas; the States use comparable provisions of State law.
6. The Coast Guard Auxiliary, the Power Squadrons, and other boating organizations expand boating education programs, and States give consideration to the use of the State school systems. These programs should stress the importance of obtaining and heeding current local weather information on portable radios.
7. Based on the apparent success of the plans for preventing recurrence of such accidents in this area since the September 1967 incidents, the Coast Guard should use the experience and the information developed as a result of the meetings between Federal, State, and local officials in the State of Michigan to establish a coordinated emergency communication system and emergency operation plan in all appropriate recreational boating areas throughout the United States.

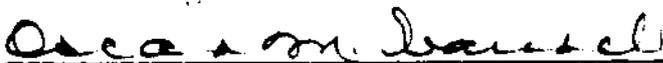
8. The Environmental Science Services Administration, in cooperation with the Coast Guard, the Coast Guard Auxiliary, State Boating Administration, U.S. Power Squadrons, and other boating safety groups use the information developed, as a result of the meetings in Michigan, for implementing a weather and sea advisory system in other appropriate recreational boating areas throughout the United States.

BY THE NATIONAL TRANSPORTATION SAFETY BOARD:

Adopted this 24th day of October, 1968:



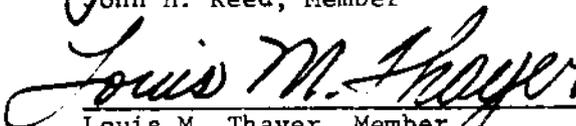
Joseph J. O'Connell, Jr., Chairman



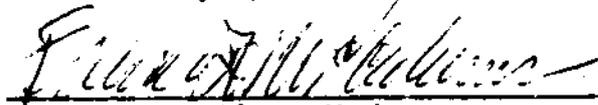
Oscar M. Laurel, Member



John H. Reed, Member



Louis M. Thayer, Member



Francis H. McAdams, Member





DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD

Address reply to
COMMANDANT (MVI-3)
U.S. COAST GUARD
WASHINGTON, D.C.
20591

S943/PLEASURE BOATS
EASTERN LAKE MICHIGAN
A-9 Bd
11 JUN 1968

Commandant's Action

on

The Marine Board of Investigation convened to investigate the loss of and damage to numerous vessels on the Eastern Coast of Lake Michigan during high winds and heavy seas on 23 September 1967 with loss of life

1. The record of the Marine Board of Investigation convened to investigate subject casualty has been reviewed and the record, including the Findings of Fact, Conclusions and Recommendations is approved subject to the final determination of the cause of the casualties by the National Transportation Safety Board.
2. In spring, 1966, the Department of Conservation, State of Michigan, initiated a program, which is to be continued and expanded in future years, of stocking selected rivers and streams within the state with *oncorhynchus kisutch*, commonly referred to as "coho salmon." The principal rivers stocked in 1966 were the Manistee and Platte and their tributary waters. By August 1967, coho salmon had begun to appear in great abundance in the waters of Lake Michigan between Manistee and Empire. This attracted an increasing number of boatmen. During the last few weekends in August, with particularly favorable weather prevailing, several hundred boats fished in Lake Michigan daily. On Labor Day weekend 2-4 September 1967, over 1500 boats engaged in salmon fishing. On the weekend of 9-10 September an estimated 2000 boats were on Lake Michigan between Manistee and the Platte River, most engaged in coho fishing, and a sizable number of these operating several miles offshore. The number of boats decreased somewhat after that weekend, but during the remainder of September over 200 boats were on the lake daily with a substantially larger number on weekends. In marked contrast to this, the boating season during previous years in the areas of Frankfort and Manistee ended with the Labor Day weekend, and normally not more than a dozen boats ventured out into Lake Michigan from those ports on any given day after that.
3. On 23 September 1967, approximately five hundred motorboats, mainly outboards of 16 feet or less, were underway in eastern Lake Michigan

between Empire and Manistee, Michigan, engaged in salmon fishing. A large number of these craft had been launched from ramps at these and intermediate communities. A number of boats also launched directly into Lake Michigan from the nearby beaches. Many of the boats proceeded to Platte Bay, the area of reportedly good fishing. The weather began to deteriorate at about 8:00 A. M. Progressively from late morning through the afternoon, boatmen in the Platte Bay area discontinued fishing and beached their craft in the immediate vicinity or attempted to return to their launch sites. Boatmen choosing the latter course of action, in departing sheltered Platte Bay, exposed themselves to the more severe sea conditions along the coastline. About 200 boats attempting this open lake passage found it difficult and headed for the nearest beach area, and attempted to land through a heavy surf. Seven persons lost their lives, and all were occupants of boats which had capsized in or near the surf. At least 16 boats were damaged in making beach landings and a number of other boats swamped and/or capsized and were damaged but removed from the beaches before count could be made. Most occupants of the boats involved did not wear lifesaving devices although they were available to them. Fifteen persons were taken to hospitals suffering from exposure and water inhalation. None of those hospitalized were incapacitated for more than 72 hours. At least 150 persons and 75 boats were assisted from conditions of peril or distress by rescue forces.

ACTION CONCERNING THE RECOMMENDATIONS

Recommendation 1 concerning further meetings between the U. S. Coast Guard, U. S. Weather Bureau, the Michigan Department of Conservation and other State, County and Municipal agencies for consideration and action in education, in boating safety, expanded communications, extended weather reporting and forecasting, is being accomplished.

Commander, Ninth Coast Guard District has reported that a meeting was held on 21 November 1967, in Lansing, Michigan, to discuss protection of outdoorsmen from hazardous weather. The Michigan State Police, Michigan Department of Conservation, U. S. Weather Bureau, U. S. Power Squadron, Michigan Conservation Clubs, American Red Cross, and U. S. Coast Guard were represented. An appraisal was made of existing means of disseminating weather information and how this might be improved through the efforts of interested groups. A further meeting was held 17 January 1968 in Lansing, Michigan. The Michigan State Police, County Sheriff's Office, Michigan Department of Conservation, U. S. Weather Bureau and U. S. Coast Guard were represented. As a result of the meeting, it was agreed that:

(a) The Michigan Department of Conservation would assume the responsibility for establishing a pre-warning system wherein all agencies involved would be kept continually informed on the status of the salmon migration.

(b) The U. S. Weather Bureau would initiate action to increase weather advisories to and for the areas of concentrated fishing activity.

(c) Federal, state, county and city officials in each of the four operational areas within the State of Michigan (corresponding to state police districts) are holding meetings to establish a coordinated emergency communication system and an emergency operational plan.

(d) The Commander, Ninth Coast Guard District will provide guidelines for uniform handling of emergency communications, listings of resources (manpower and equipment) in the respective operating areas, and of service weather disseminating facilities.

Recommendation 2 concerning the feasibility of modifying the storm warning display, will be forwarded to the Weather Bureau of the Environmental Science Service Administration for consideration by that agency. This action will also implement Recommendation 7.

Recommendation 3 concerning the State of Michigan considering means of discouraging boat operators from launching and operating when sea conditions may be or are expected to be hazardous, will be forwarded to the Michigan Department of Conservation.

Recommendation 4 concerning the establishment of U. S. Coast Guard/State of Michigan uniform policy for safety patrols and law enforcement, has been accomplished. On 26 January 1968 a Federal/State boating agreement was consummated with the State of Michigan.

Recommendation 5 concerning deferral of any legislative proposals which would authorize law enforcement personnel to deter small boat operators from operating when hazardous sea conditions exist, until all other means to effect voluntary compliance have been considered, is concurred in.

Recommendation 6 concerning forwarding a copy of this report and a record of the proceedings to the Director, Michigan Department of Conservation, will be accomplished.

Recommendation 8 concerning awarding letters of commendation by the Coast Guard to the respective Masters of the INLAND SEAS, JENNIE LEE and the ISLAND CLIPPER for their assistance in search and rescue operations and to the Sheriff, Grand Traverse County, for the rescue services rendered by his forces, is concurred in and will be forwarded to Commander, Ninth Coast Guard District for his appropriate action.

A handwritten signature in black ink, appearing to read "W. J. Smith". The signature is written in a cursive style with a large, sweeping "S" at the end.

W. J. SMITH
Admiral, U. S. Coast Guard
Commandant

5943/PLEASURE BOATS
EASTERN LAKE MICHIGAN
Bd ? December 1967

From: Marine Board of Investigation
To: Commandant (MVI)

Subj: Loss of and damage to numerous vessels on the Eastern Coast of
Lake Michigan during high winds and heavy seas on 23 September 1967,
with loss of life

FINDINGS OF FACTS

1. On 23 September 1967 approximately five hundred motorboats, mainly outboards of 16 feet or less, were underway in eastern Lake Michigan between Empire and Manistee, Michigan engaged in salmon fishing. A large number of these craft had been launched from ramps at these and intermediate communities. A number of boats also launched directly into Lake Michigan from the nearby beaches. Many of the boats proceeded to Platte Bay, the area of reportedly good fishing. The weather began to deteriorate at about 8:00 AM. Progressively from late morning through the afternoon boatmen in the Platte Bay area discontinued fishing and beached their craft in the immediate vicinity or attempted to return to their launch sites. Boatmen choosing the latter course of action, in departing sheltered Platte Bay, exposed themselves to the more severe sea conditions along the coast-line. About 200 boats attempting this open lake passage found it difficult and headed for the nearest beach area, and attempted to land through a heavy surf. Seven persons lost their lives, and all were occupants of boats which had capsized in or near the surf. At least 16 boats were damaged in making beach landings and a number of other boats swamped and/or capsized and were damaged but removed from the beaches before count could be made. Most occupants of the boats involved did not wear lifesaving devices although they were available to them. Fifteen persons were taken to hospitals suffering from exposure and water inhalation. None of those hospitalized were incapacitated for more than 72 hours. At least 150 persons and 75 boats were assisted from conditions of peril or distress by rescue forces.
2. A description of the boats in which loss of life was involved is contained in Appendix "A" hereto.
3. A list of the boats which are known to have been damaged as a result of the casualty is contained in Appendix "B" hereto.
4. The following is a list of the persons who lost their lives as a result of the casualty:

Bernard J. VanKoevering, 4041 Kalamazoo Ave., SE, Grand Rapids, Michigan - operator of MC 2153 FD.

William Robert Meekhof, 3305 Wilcox SW, Wyoming, Michigan - passenger in MC 2153 FD.

Donald Henry Farr, 2071 Tulip Lane SW, Jenison, Michigan - operator of MC 4605 AD.

Melbourne Lige Welch, 4109 Woodstock Ave., SE, Wyoming, Michigan - passenger in MC 4605 AD.

Earl Henry John Smith, 11790 Aloix, Livonia, Michigan - operator of MC 7722 GH.

Arthur DeHate, Route 1, Alger, Michigan - passenger in MC 7722 GH.

Sherman Stanley Molle, 21185 Concord Street, Southfield, Michigan - passenger in MC 2433 BT.

5. A description of the circumstances surrounding the individual casualties which resulted in loss of life is contained in Appendix "C" hereto.

6. In Spring, 1966, the Department of Conservation, State of Michigan, initiated a program, which is to be continued and expanded in future years, of stocking selected rivers and streams within the State with oncorhynchus kisutch, commonly referred to as "coho salmon." The principal rivers stocked in 1966 were the Manistee and Platte and their tributary waters. By August 1967, coho salmon had begun to appear in great abundance in the waters of Lake Michigan between Manistee and Empire. This attracted an increasing number of boatmen. During the last few weekends in August, with particularly favorable weather prevailing, several hundred boats fished in Lake Michigan daily. On Labor Day weekend 2-4 September 1967, over 1500 boats engaged in salmon fishing. On the weekend of 9-10 September an estimated 2000 boats were on Lake Michigan between Manistee and the Platte River; most engaged in coho fishing, and a sizable number of these operating several miles offshore. The number of boats decreased somewhat after that weekend; but during the remainder of September over 200 boats were on the Lake daily with a substantially larger number on weekends. In marked contrast to this, the boating season during previous years in the areas of Frankfort and Manistee ended with the Labor Day weekend, and normally not more than a dozen boats ventured out into Lake Michigan from those ports on any given day after that.

7. The numbers of Coast Guard safety patrols and assistance cases during the months of July, August, and September 1967 were about five times greater than in previous years in the Manistee area, and about three times greater than in previous years in the Frankfort area. Boardings of small boats by the Coast Guard during that three month period resulted in issuance of reports of violation in about 90% of the cases. However, most of the violations noted were not of the type that involved safety of life and property; but rather involved improper or inadequate markings (numbers) on the boats and failure to have required papers on board. Most boats wherein deficiencies in lifesaving equipment were noted returned to shore immediately, and obtained the required items. The Commander, Coast Guard Group Ludington, stated that the boardings of boats in the Frankfort-Manistee area during the 1967 season indicated that almost all of the boats boarded did have Coast Guard approved lifesaving devices aboard, although about 10% did not have the required amount.

8. By mid-August 1967 the various interested agencies on the Federal, State and lesser levels had become increasingly concerned over the extent of boating activity. Representatives of the Coast Guard discussed the matter with those of the Michigan Department of Conservation, Michigan State Police, and Benzie County Sheriff's Department. At Manistee and Frankfort, where a large percentage of the boats were taking departure, the Coast Guard stations conducted patrols and boarded boats, as practicable, to insure compliance with applicable laws and regulations. These patrols were intensified on weekends when the number of boats increased considerably. In addition to the safety patrols, the U. S. Coast Guard Air Station at Traverse City, Michigan on 9 September 1967 commenced almost daily air patrols of the area. The Michigan State Police also conducted patrols in their 16 foot outboard motorboat at Manistee Harbor entrance commencing 26 August. The Michigan Department of Conservation issued press and radio releases on 21 and 23 August recommending against the coho fishermen using craft less than 16 or 18 feet in length and without adequate freeboard on either Lake Michigan or Lake Superior. They also cautioned the boatmen to be certain that their boats were well equipped with lifesaving devices for each person aboard.

9. On 27 June 1967 the Commander, Ninth Coast Guard District and staff had met with representatives from the Washington and Eastern Region offices, Environmental Science Services Administration, and Cleveland Weather Bureau to discuss marine weather informational services and the means by which the data collecting/reporting and advisory disseminating facilities of both agencies might be further integrated and/or modified for possible further utilization and benefit. On the basis of these discussions, arrangements were made for connections of the Weather Bureau at Cleveland and Chicago with the Coast Guard teletype circuit. A further meeting was scheduled for, and held on, 28 September 1967.

10. Coast Guard forces available for search and rescue work in the areas involved included the Air Station at Traverse City, Michigan with two fixed wing aircraft and three helicopters all of which were operational on 23 September. The Coast Guard Station at Manistee had an allowance of a 30 foot utility boat and a 14 foot skiff. The Coast Guard Station at Frankfort had an allowance of a 40 foot utility boat, a 36 foot motor lifeboat, and a 14 foot skiff. The Coast Guard stations at Manistee and Frankfort are under the operational and administrative control of the Coast Guard Group Commander at Ludington, Michigan. The Group Commander, in August, 1967, had redeployed personnel and equipment within the Group, and had requested that the Commander, Ninth Coast Guard District furnish additional equipment to these two stations. This was done so that on 23 September, and prior to that date, Frankfort Station had an additional 17 foot inboard-outboard motorboat and personnel, and Manistee Station had an additional 40 foot utility boat and a 16 foot outboard motorboat and personnel. All small craft assigned to these units were operational on 23 September. In addition, a Coast Guard Auxiliary facility was under operational orders at Manistee that date. Point Betsie Light Station was not a search and rescue facility and was not equipped to render any assistance to small craft.

11. The Michigan State Safe Boating Program is administered by the Department of Conservation. The marine law enforcement and marine safety program operations are principally conducted by the various county sheriffs' departments. Manistee County had a 19 foot inboard-outboard motorboat and a 15 foot outboard motorboat. On 23 September 1967 the 15 foot boat had been utilized in patrolling the Manistee Harbor entrance but the 19 foot boat had not yet been placed into service. Benzie County had no boat, their previous boat having been lost in a rescue attempt during July, 1967. Leelanau County had two boats. Grand Traverse County had two 16 foot 7 inch "Boston Whaler" type boats and a 15 foot outboard motorboat. These boats were utilized during the rescue efforts on 23 September 1967. The Michigan State Police at Manistee had a 16 foot outboard motorboat. The Frankfort Police Department and the Manistee Police Department had no boats.

12. Most of the boats engaged in fishing on 23 September 1967 and on previous days were of the small outboard motorboat type, 16 feet or less in length. Most of the operators and occupants of the boats were from interior sections of Michigan and neighboring states, and had little or no experience in the operation of boats on large bodies of water such as Lake Michigan. Very small boats, including amphycars, rowboats and canoes had been observed several miles offshore on previous days. During that period several capsizings, even under relatively favorable sea conditions, occurred and were attributed to the low freeboard of the boats involved.

13. Sandy beaches generally extend along the east coast of Lake Michigan between Manistee and Empire. Harbors of safe refuge in the area are Manistee Lake, Portage Lake (about 8 miles north of Manistee Lake), Arcadia Lake (about 9 miles north of Portage Lake), Frankfort Harbor (about 10 miles north of Arcadia Lake) and the Platte River Mouth (about 10 miles north and east of Frankfort). Point Betsie is located about 4-1/2 miles north of Frankfort and about 3-3/4 miles southwest of the Platte River mouth. It is a rounding sandy point which provides a lee for boats in Platte Bay when winds and seas are from a south or southwest direction. There are no harbors of safe refuge between Frankfort and the mouth of the Platte River. Frankfort, Michigan has four launching sites for small boats, all of which are municipally owned. Manistee, Michigan has two municipally owned and at least four privately owned launching sites. Empire, Michigan has a launching site. The generally flat sandy beaches between Manistee and Empire, with several good access roads, also provide many places where vehicles and trailers can park and small boats can launch directly into Lake Michigan.

14. During the night of 22-23 September 1967 a high pressure area passed over Lake Michigan accompanied by little or no wind over most of the Lake. A trough and occluded front extended south south-westward from a Low over western Hudson Bay into northern Minnesota and the northeastern corner of South Dakota. The southern end was moving 20 to 25 knots eastward and was expected to reach northwestern lower Michigan by late afternoon. At 2:00 PM, 23 September 1967, the front (then designated as a cold front) was past Marquette, Michigan and was closely approaching Escanaba, Michigan and Green Bay, Wisconsin. Winds, generally southwest had increased over Lake Michigan to an estimated 20 to 30 knots, greatest in the extreme north and lightest in the extreme south. Scattered showers had developed from northeastern Illinois northeastward and northward over Lake Michigan. At 8:00 PM the front extended from extreme northern Lake Huron to Chicago and had passed over all of Lake Michigan except the southeast corner. Showers ended with the passage of the front.

15. The following weather forecasts were issued by the U. S. Weather Bureau for Lake Michigan at the times and dates indicated (all times are Eastern Standard Time).

- a. 5:10 AM, Friday, 22 September 1967
Small Craft Warnings in effect. Northeasterly winds 20 to 30 knots diminishing slowly today and becoming southeast to south 10 to 15 knots tonight. Partly cloudy.

- b. 11:10 AM, Friday, 22 September 1967
Small Craft Warnings in effect. North to northeast winds 20 to 25 knots this afternoon diminishing rapidly tonight becoming southerly 10 to 15 knots Saturday morning and 15 to 25 knots by afternoon. Fair.
- c. 5:10 PM, Friday, 22 September 1967
Small Craft Warnings down 7 PM EST Friday. Light and variable winds tonight becoming southerly early Saturday and increasing to 15 to 25 knots during Saturday. Fair.
- d. 11:10 PM, Friday, 22 September 1967
Variable winds 6 to 12 knots tonight becoming south to southwest and increasing to 18 to 26 knots Saturday shifting to west to northwest 20 to 30 knots over north and central sections Saturday evening. Fair tonight and partly cloudy Saturday.
- e. 5:10 AM, Saturday, 23 September 1967
Small Craft Warnings up 7 AM EST Saturday. Southwest to south winds 10 to 17 knots increasing to 20 to 30 knots this afternoon shifting to northwesterly 20 to 30 knots during tonight. Increasing cloudiness. Chance of showers tonight.
- f. 11:10 AM, Saturday, 23 September 1967
Small Craft Warnings in effect. Southwesterly winds 20 to 30 knots becoming northwesterly 20 to 30 knots late this afternoon or evening continuing northwesterly 20 to 30 knots tonight and Sunday. Chance of showers or thundershowers this afternoon and evening especially north half.
- g. 5:10 PM, Saturday, 23 September 1967
Small Craft Warnings in effect. Northwesterly winds 24 to 34 knots tonight and early Sunday. Diminishing to 20 to 25 knots late Sunday. Partly cloudy tonight and fair Sunday.

16. The U. S. Weather Bureau Small Craft Warning display is one red pennant displayed by day and a red light over a white light at night, and, when displayed, indicates winds and seas, or sea conditions alone, considered hazardous to small craft operations. Winds may range as high as 33 knots. The term "Small Craft", as defined on the Weather Bureau Warning Facilities Chart, means small boats, yachts, tugs and barges with little freeboard and any other low-powered craft. The records of the U. S. Weather Bureau show that warnings were issued by that office for the Point Betsie area of Lake Michigan for 38% of the time in July, August and September, 1967.

17. The following sources of weather information were available to operators of small boats in the area between Manistee and Empire, Michigan on 22 and 23 September 1967:

a. By observation of small craft warning display towers at the Coast Guard stations at Manistee and Frankfort.

b. By telephone call to a Coast Guard station or the U. S. Weather Bureau. The nearest U. S. Weather Bureau office in Michigan is at Muskegon about 100 miles south of Frankfort.

c. Telephone recordings available 24 hours a day at the following locations:

- (1) Traverse City, Michigan
- (2) Manistee, Michigan

d. Radio broadcasts which were made by the following commercial stations at the times indicated:

(1) WCCW (AM) - Traverse City, Michigan - 1310 kcs - 3 times per hour between 6 AM and 7 PM.

(2) WMTE (AM) - Manistee, Michigan - 1340 kcs - 4 times per hour between 6:30 AM and 10:30 PM.

(3) WTQM (AM) - Traverse City, Michigan - 1400 kcs - about once per hour from 6 AM to 6 PM and at 11 PM.

(4) WCCW (FM) - Traverse City, Michigan - 92.1 mcs - every half hour between 6 AM and Midnight.

(5) WTQM (FM) - Traverse City, Michigan - 103.5 mcs - about once per hour from 6 AM to 11 PM.

The official small craft warning signal was displayed at the Coast Guard stations at Manistee and Frankfort, Michigan from 8:00 AM EDT (7:00 AM EST), 23 September through 2:00 PM, 24 September 1967. The U. S. Coast Guard Light Station at Point Betsie was not a Weather Bureau storm warning display site. However, the Officer-in-Charge of that unit observed that a number of boats were being launched from the beach near the station. He posted a sign at about 7:30 AM, 23 September at the approach to the launch site. The sign set forth the details of the Small Craft Warnings which he had learned were to be in effect commencing at 8:00 AM.

18. Testimony of witnesses indicated that few boat operators attempted to obtain a weather forecast from commercial radio stations prior to departure on 23 September. Where such information was not obtained, there was no evidence that any other means of gaining weather information was attempted.

19. During the early morning hours of 23 September 1967 small outboard motorboats were being launched between Manistee and Empire from the launching ramps and from the beach areas beginning well before daylight. Wind and seas were light and there was no evidence of a deterioration in weather. However, by 8:00 AM wind and seas had commenced building from a southerly direction, cumulus clouds extended as far north as Frankfort and the barometer was falling. At Frankfort, a number of local experienced boatmen aborted leaving the harbor after 8:00 AM because of the observed sea conditions at the entrance, or because they had noted the small craft warning signal displayed at the Coast Guard station. Other boats, however, continued to launch throughout the morning. Almost all the boats that had launched from the Frankfort area headed for the Platte River mouth and Platte Bay, proceeding with a following wind and sea in a northerly direction. Most of the boats that had launched at Manistee remained in that area.

20. It has been the practice for the Coast Guard stations at Manistee and Frankfort, when boats were proceeding out of the respective harbors and when sea conditions were considered unfavorable, to station a patrol boat and/or a man ashore inside the harbor entrances to recommend to boatmen that they not proceed into the open lake. The testimony of Coast Guard and other law enforcement personnel indicated that there is no federal or state law which would permit them to lawfully deter boatmen from departing shore under hazardous or potentially hazardous conditions, or to otherwise direct boats from their intended passage or to return to shore. On the morning of 23 September 1967 Manistee Station had three 16 foot boats (including one Coast Guard, one Coast Guard Auxiliary and one State Police boat) patrolling Manistee Lake and River, and one Coast Guardsman was stationed at the Coast Guard dock with a loud hailer, all advising boatmen that small craft warnings were in effect and that weather was unfavorable. At Frankfort Station the Officer-in-Charge stationed himself at his dock at about 10:30 AM and advised boatmen that small craft warnings were in effect and that weather was unfavorable for small boats on Lake Michigan. A Coast Guardsman from the Frankfort Station had also been sent to the Platte River area on 23 September to advise pleasure boatmen that small craft warnings were in effect. He remained at the Platte River area from about 10:30 AM to 4:30 PM. In each of these instances, a number of boatmen disregarded the warning. The Officer-in-Charge, Frankfort Coast Guard Station indicated that most boatmen did not comply, whereas the Officer-in-Charge, Manistee Coast Guard Station stated that most boatmen complied with the warnings.

21. By noon winds were generally from the south-southwest and had increased to about 25 to 30 knots, seas were also from the south-southwest and were generally about four to eight feet in height (except in the Platte Bay area where they were smaller). Stratus and nimbo-stratus clouds had developed over the area and the barometer continued to fall. The sea water temperature was about 50 degrees. At noon there were several hundred boats

on Lake Michigan with a heavy concentration at Platte Bay. Some were continuing to fish, but because of the deteriorating weather conditions many boatmen beached their boats in Platte Bay while others attempted to return to their original launching site. In the latter case it meant a trip along the exposed coast. As they encountered larger seas many attempted to beach their craft. A number of outboard motorboats were observed to be riding the surf in a proper manner while approaching the shore for beaching; but, when close in, some operators stopped and raised their motors in an attempt to protect the propeller. In so doing they lost steering control, resulting in the boats beaching in an uncontrolled state. Others appeared uncertain as to how to proceed through the surf, many appeared to approach at improper speed and/or direction with respect to the waves. For these several reasons many boats swamped, capsized and/or were damaged.

22. Shortly after 11:30 AM the MC 2153 FD, a 15 foot outboard motorboat with four persons aboard, was returning to Frankfort from Platte Bay and proceeding in a southerly direction. When the boat was about two miles south of Point Betsie, it failed to negotiate two large waves and capsized. Two of the four occupants were lost. About the same time other boats attempting to beach through the surf capsized and/or swamped at various locations between Frankfort and Platte Bay.

23. At about noon the Benzie County Sheriff was advised of a boat capsizing south of Point Betsie and that weather conditions were hazardous and endangering other small boats in the area. The Benzie County Sheriff's Department had no boat available and assistance was requested from neighboring Grand Traverse County Sheriff's Department. The Coast Guard Air Station at Traverse City was notified of the situation at 12:40 PM. Frankfort Coast Guard Station and the Michigan State Police at Traverse City were notified at about 12:50 PM. The Benzie County Sheriff dispatched personnel to assist boatmen from shore locations. The Grand Traverse County Sheriff dispatched three boats to Frankfort and the Coast Guard Air Station, Traverse City, diverted a fixed wing aircraft, which was already airborne on a search mission, to the scene and then launched a helicopter after receiving another telephone call from the Benzie County Sheriff reporting that several other boats had capsized in the same general area. Frankfort Coast Guard station diverted a 36 foot motor lifeboat to the scene. The Michigan State Police dispatched several officers from various posts to the Frankfort area to assist along the shoreline.

24. At about 12:30 PM the MC 4605 AD, a 14 foot outboard motorboat with two persons aboard, capsized in or near the surf off Point Betsie after losing a towline from another small boat which did not stop to assist. Both occupants were lost. By 1:00 PM approximately 200 boats were beached between Frankfort and Point Betsie while another 100 boats were beached in the Platte Bay area. Others were still underway, some of which were attempting to reach harbor. At about 3:30 PM the MC 7722 GH, a 15 foot outboard motorboat with three persons aboard, attempting to land through the surf at Empire, Michigan, capsized. Two of the three occupants were lost.

25. The weather reached its most severe state about 3:00 PM, accompanied by heavy rain. By then most boats had reached shore and only a few boats, including the large cabin cruiser type, were still on the open lake. By 4:30 PM the sky had cleared somewhat and the wind had begun to shift toward the northwest. Seas and winds had decreased slightly. Some of the boats which had been beached at Platte Bay began to relaunch to resume fishing. A number of boatmen remained fishing in Platte Bay during the late afternoon and evening despite being advised by law enforcement officers to return to shore. At about 8:00 PM, the remaining boats, having been directed to return to shore, did so. At 7:00 PM there had been about 50 boats so engaged.

26. At about 4:00 PM the MC 2433 BT, which had beached at the Platte Bay area, relaunched. The two occupants fished for about two hours in Platte Bay and then headed back to Point Betsie. At about 8:00 PM, while that boat was attempting to land through the surf at Point Betsie, it capsized and one of its occupants was lost.

27. The initial search and rescue efforts were coordinated through the Benzie County Sheriff's Department. However, as the number of casualties increased throughout the day, the various law enforcement agencies operated generally independent of each other. During the afternoon the Grand Traverse County Sheriff's Department had two 16 foot 7 inch boats operating in the area between Frankfort and Platte Bay and one 15 foot 3 inch boat operating in Frankfort Harbor and the entrance thereto. The two larger boats directed many boats proceeding toward Frankfort Harbor, which were in or near the surf line, to move to deeper water; escorted a group of about 20 boats to the harbor entrance; advised boats in the vicinity of Point Betsie and Platte Bay not to attempt to return to Frankfort or Empire; rescued three occupants in the water from an overturned boat and transferred them to a Coast Guard helicopter; directed about 20 boats in Platte Bay to shore; entered the surf off Point Betsie in attempt to rescue a man clinging to an overturned boat; and advised many boatmen to put on life preservers. The smaller boat re-

mained at the Frankfort Harbor entrance and directed boats toward a safe approach course to the harbor. The Coast Guard Air Station had one fixed wing aircraft and up to three helicopters airborne. The fixed wing aircraft, in addition to searching for vessels in distress, vectored several rescue craft to boats in distress. The helicopters, in addition to searching for boats in distress, delivered a battery to a disabled cabin cruiser; stood by a disabled small boat off Arcadia pending arrival of a Coast Guard patrol boat; removed three persons from a disabled boat off Empire; hovered over boats attempting to beach through the surf; removed three persons from a Grand Traverse County Sheriff's boat; and lowered a blackboard to at least 20 boats in the vicinity of Point Betsie advising them not to attempt to round the Point because of sea conditions, and all but two complied. Frankfort Coast Guard Station had a 40 foot utility boat and a 36 foot motor lifeboat engaged in safety patrols and search and rescue duties throughout the day. A 17 foot inboard-outboard motorboat from that station was utilized inside Frankfort Harbor to assist in docking boats towed in by the larger Coast Guard boats. The 40 foot utility boat had been dispatched on a rescue mission at 6:43 AM which involved towing a disabled cabin cruiser from the vicinity of the Manitou Islands to Frankfort and which was not concluded until 5:30 PM. The 40 foot boat, upon refueling, departed Frankfort at 7:00 PM and proceeded to the Point Betsie area to patrol and assist as required. The 36 foot motor lifeboat, in addition to searching for boats in distress, rescued three occupants in the water from an overturned boat and towed three boats with occupants aboard to safe harbors. Manistee Coast Guard Station boats were engaged in safety patrols in that station's area of responsibility. The Coast Guard Cutter SUNDEW, dispatched from Charlevoix, Michigan, arrived off Point Betsie in the early evening. The Cutter TUPELO enroute from Sturgeon Bay, Wisconsin to Grand Haven, Michigan was diverted to the scene and arrived late that evening. Both vessels conducted offshore searches, during the night, in coordination with aircraft from Traverse City Air Station.

28. A commercial fishing vessel, the JENNIE LEE, at the request of the Officer-in-Charge, Frankfort Coast Guard Station, embarked one Coast Guardsman and departed Frankfort at about noon. She proceeded north to Point Betsie and, finding no boats requiring assistance, returned to Frankfort at about 2:00 PM. A small passenger vessel, THE ISLAND CLIPPER, also departed Frankfort at about 1:00 PM at the request of the Officer-in-Charge, Frankfort Coast Guard Station. She proceeded north of Point Betsie and provided a lee and escorted a group of five boats from Point Betsie to Frankfort. At about 3:00 PM, while proceeding south toward Frankfort, the operator observed occasional seas off Point Betsie which he estimated to be 18 to 20 feet in height.

29. At about 12:50 PM on 23 September 1967, the University of Michigan research vessel INLAND SEAS, a 114 foot, 270 gross tons, motor vessel, was off the entrance to Frankfort Harbor, when she reduced speed and made a lee for six small boats attempting to enter the harbor. Seas were generally about eight feet in height. After the six small craft entered the harbor safely, the INLAND SEAS proceeded in and moored. The Officer-in-Charge, Frankfort Coast Guard Station requested the Master of the INLAND SEAS to proceed with his vessel to the vicinity of Point Betsie to render assistance to any small vessels that might be in distress in that area. The Master complied, and with a Coast Guardman aboard, departed Frankfort at 3:15 PM. He then proceeded to Point Betsie and, finding no small boats requiring assistance in the area, contacted a Coast Guard aircraft for further instructions. He was advised to proceed north of Platte Bay and to escort the Frankfort Coast Guard Station's 36 foot motor lifeboat which was towing a disabled cabin cruiser into Frankfort. This was accomplished and the INLAND SEAS returned to Frankfort at 5:31 PM.

30. Commencing the afternoon of 23 September 1967 the Coast Guard, Michigan State Police and the Benzie County Sheriff attempted to determine the identities of persons who had been on the Lake in boats and which of them had reached shore safely. This was particularly difficult because many of the beached boats had been removed before an official count could be made, and because there had been no accounting of persons and boats upon departure. On 23 September 1967, and continuing for several days thereafter, search operations were conducted of the water and beach areas. Concurrently, the hull numbers on the boats that remained on the beaches were checked through the Motorboat Registration directories. License plates of automobiles and boat trailers parked ashore were checked through the the Department of Motor Vehicles. Numerous telephone calls were made concerning persons unaccounted for. Lists of tentative missing persons were compiled by the several agencies based on boat and vehicle numbers, and many telephone inquiries from worried relatives and other persons. On Tuesday, 26 September, the lists were combined and turned over to the Coast Guard Air Station, Traverse City for coordination and further follow-up. At that time 21 persons remained unaccounted for. By that evening ten names had been eliminated and the remaining eleven names were released to the news services. By Wednesday evening, 27 September, all but one person had been positively accounted for. The one remaining name was a Mary Richfield with a reported address of 320 South Hollingswood, Mt. Clemens, Michigan. There was extensive research in that case, including an investigation by the Mt. Clemens, Michigan Police Department. The result was that no such person could be identified. The means by which the name had been originally reported has not been determined and, to date, no known further inquiry regarding such a person has been received.

31. For at least two weeks following the 23rd of September several hundred boats operated daily in the same area including periods when small craft warnings were in effect. The heaviest concentration of those boats, however, operated in the Platte Bay and Platte River mouth areas close to shore and in the lee of Point Betsie inasmuch as the best fishing was being found in those locations. Subsequent to 23 September, and when storm warnings were in effect, Coast Guardsmen at the launch site Platte River mouth, and Coast Guard helicopters, by means of signs and loud hailers, advised boatmen of the unfavorable weather conditions. This was a continuing practice during the remainder of the fishing activity in that area. There were no further reports of damage to boats, injuries to personnel, or loss of life.

CONCLUSIONS

1. That the evidence indicates the damage to boats, swampings and/or capsizings, and endangering of or loss of life, which occurred in the Frankfort to Empire, Michigan area on the eastern shore of Lake Michigan on 23 September 1967, were primarily caused by the operation of boats of limited capability for the existing weather conditions by persons not experienced in open lake operations while:
 - a. attempting hazardous open water passages in trying to return to their launch sites,
 - b. proceeding within, or too close to, heavy surf,
 - c. attempting beach landings through heavy surf.

2. That recognizing the limited experience and boating knowledge of many boat operators, and the sea conditions prevailing during most of 23 September 1967, the general type of boat in use - less than 16 feet in length and of open construction - did not afford the desired level of safety. It is emphasized that this assessment does not reflect on the adequacy and safety of any particular size or design boat per se, but rather is made in relation to the general operator capability and operating conditions existent.

3. That the evidence indicates that a contributing cause to the casualties and endangerment to life and property which occurred on 23 September 1967 was a general lack of knowledge of boating safety by an appreciable number of boatmen in one or more of the following respects:
 - a. failure to obtain weather forecasts,
 - b. failure to recognize or heed the small craft warning signal displayed at the Frankfort Coast Guard Station,
 - c. disregard of the recommendations of Coast Guard and other law enforcement personnel to not proceed into Lake Michigan because of unfavorable weather conditions,
 - d. proceeding into the open lake at the same time other boatmen, experienced in open lake operation, aborted their cruises because of observed sea conditions,
 - e. failure to recognize or heed indications of deteriorating weather,

f. failure to attempt to land at the nearest available shore upon first observing the increasing winds and seas,

g. failure to wear available life saving devices while operating in heavy sea or surf.

4. That the evidence indicates the cause of the MC 2153 FD capsizing was the result of large seas broaching the small boat. That the cause of deaths of Bernard VanKoervering and William Robert Meekhof was drowning following the capsizing of the MC 2153 FD and that their chances of survival would have been increased if they had been wearing lifesaving devices which were available to them.

5. That the evidence indicates that Donald Henry Farr and Melbourne Lige Welch were occupants of the MC 4605 AD which was disabled and under tow by an unidentified small boat off Point Betsie. That the tow line either parted or otherwise came unattached from the MC 4605 AD leaving that boat adrift and without means of propulsion or steering control thereby allowing it to get broadside, in or near the surf, to the large waves which caused the small boat to capsize. That the cause of deaths of Donald Henry Farr and Melbourne Lige Welch was drowning following the capsizing of the MC 4605 AD, and that their chances of survival would have been increased if they had been wearing lifesaving devices.

6. That the evidence indicates the cause of the MC 7722 GH capsizing was the boat coming broadside to the large waves, when its heading was changed, and while making an approach to the beach through the surf. That had the boat continued straight in to the beach it probably would have landed safely as a number of boats had done immediately prior to this incident. That the cause of deaths of Earl Henry John Smith and Arthur DeHate was drowning following the capsizing of the MC 7722 GH, and that their chances of survival would have increased if they had been wearing lifesaving devices which were available to them.

7. That the evidence indicates the cause of the MC 2433 BT capsizing was its inability to withstand the heavy surf which prevailed during the operator's attempt to beach the boat. This was probably due to the boat's inadequate size combined with its inability to maintain sufficient forward speed because of relatively low horsepower. That the cause of death of Sherman Stanley Mollé was drowning following the capsizing of the MC 2433 BT, and that his chances of survival would have been increased if he had been wearing a lifesaving device which was available to him.

8. That the evidence indicates further loss of, and danger to, life and property were probably averted by Coast Guard and County Sheriff's forces diverting boatmen from attempting the hazardous open water passage from Platte Bay to Frankfort.

9. That the evidence indicates that the weather conditions predicted by the U. S. Weather Bureau for 23 September 1967, materialized as forecast: The wind and seas conditions progressively increased from about 8:00 AM to 3:00 PM; and it was not a sudden storm which endangered the boats and their occupants.

10. That the evidence indicates that although Small Craft Warnings were not predicted for 23 September in the forecasts issued at 5:10 PM and 11:10 PM (EST) on 22 September 1967; a knowledgeable boatman would have recognized from the predicted wind velocities that such warnings would probably be placed into effect on 23 September 1967. However, this would not have been apparent to many inexperienced boatmen.

11. That because of the apparent general lack of knowledge of weather on the part of many operators of small boats it is probable that many boatmen do not realize that:

- a. the weather forecast can change within a few hours,
- b. the absence of any language in a forecast expressly stating a small craft warning does not remove that possibility for succeeding periods,
- c. the wind force and direction as forecast must be evaluated in relation to the particular shore,
- d. that small craft warning displays are simply precautionary and indicate that further information is available and should be obtained.

12. That there were too few storm warning display sites along the extended coastline. Further, that very few local commercial radio broadcast stations provided weather information late at night, and apparently none during the early morning hours before 6 AM: the period when many boatmen embarked for the fishing grounds.

13. That there does not appear to be any law or regulation of the United States, the State of Michigan, or ordinance of the local municipalities which would authorize law enforcement personnel to lawfully deter boatmen from embarking or from operating during weather conditions that may be hazardous to small craft.

14. That while, with the exception of overloaded boats, which could be a violation of 46 USC 526 1, there is no authority for Coast Guard and County Sheriff's forces to direct the movement of boats underway during adverse weather from their intended passages, or that they discontinue fishing and return to the beach most small boatmen would comply with these instructions.

15. That the reported variance in the percentage of boats that complied with warnings not to depart the harbor at both Manistee and Frankfort may be, in part, attributed to the variance in the manner and means by which these warnings are issued by law enforcement officers at each of these places.

16. That there is evidence of a need to deter those boat operators who may embark or continue to operate during weather conditions which may be hazardous to small craft.

17. That even under relatively favorable sea conditions the operation of smallboats and other watercraft of marginal freeboard and stability, particularly in the open lake, constitute a danger to life and property, and there is a need to deter such operations.

18. That there is evidence the magnitude of a similar type disaster would have been far greater during the first two weekends of September when the number of small boats engaged in fishing on Lake Michigan reached a peak of between 1500 and 2000 with a sizeable number of these operating several miles offshore.

19. That the evidence indicates Great Lakes salmon fishing in the future will be equal to, if not greater than, that of 1967 and in several additional areas in Lakes Michigan, Huron and Superior. Under these circumstances, there will be a need to coordinate the marine safety resources of the federal, county and municipal agencies to assure general boating safety and assistance, as may be required.

20. That there is insufficient evidence to support a conclusion that a person by the name of Mary Richfield, or any other person, is missing as a result of a boating casualty on 23 September 1967.

21. That there is no evidence that any law or regulation relating to motorboats was violated.

22. That there is no evidence that any personnel of the Coast Guard or any other government agency caused or contributed to the cause of the casualty.

RECOMMENDATIONS

1. Early action is indicated to prevent a similar type occurrence during the next boating season, or at the least to minimize the possibility, recognizing the potentially increased fishing activity that might be simultaneously expected in additional areas of the Great Lakes. To these ends, further meetings are recommended between the U. S. Coast Guard, U. S. Weather Bureau and the Department of Conservation, State of Michigan. Other state, county and municipal agencies, and public service or related groups as the U. S. Power Squadron, Coast Guard Auxiliary, local chambers of commerce, etc., could be invited to participate in discussions on subjects in which they have responsibility or interest. In particular, the following matters warrant consideration and action.

a. Education in Boating Safety. Intensify public instruction on open lake operation, weather and basic seamanship for small boats through:

(1) The assistance that the U. S. Power Squadron, Coast Guard Auxiliary, boating clubs, etc., may offer in their public instruction programs, or additional programs designed for these specific purposes

(2) The expanded use of the communications media in offering boating safety articles (through newspapers), forums, presentations, safety tips, etc., (through radio and television) immediately prior and during the fishing season

(3) The development of literature specifically designed for these purposes, i. e., pamphlets, leaflets, decals, etc.

b. The feasibility of extending weather advisory broadcasts in areas of large scale boating activity by commercial AM and FM radio stations to cover late night and early morning periods on frequent regular schedules

c. The feasibility of alerting boatman, who are underway, of impending adverse weather by audio (including radio) and/or visual devices

d. The supplementing of existing visual storm warning signals by plainly worded signs at launching sites

e. The expansion in the number of visual storm warning display sites

f. The means by which agencies, and public service groups might assist in the dissemination to boatmen of forecasts and warnings through their respective facilities

g. The means by which agencies, public service groups and the industry might assist in the distribution of informational materials, i.e., pamphlets on area weather broadcast facilities, meaning of storm warning displays; and decals on these matters that might be permanently affixed in boats.

2. For the same reasons as contained in Recommendation (1), it is recommended that:

a. The U. S. Weather Bureau determine: (1) the feasibility of including in its weather forecasts a statement, in advance as practicable and when conditions so indicate, that small craft or other storm warnings may be expected (2) the feasibility of modifying the storm warning display to make it more meaningful to boats of 26 feet or less in terms of expected wind velocities and their relation to the particular shore; that is, on shore or off shore.

b. Responsible agencies at each governmental level to jointly consider: (1) coordination including the necessary redeployment of their respective marine safety resources to provide maximum coverage by safety patrols of the areas of heaviest boating activity (2) detailed plan(s) to alert, deploy and integrate available forces in the event of a boating incident as occurred on 23 September 1967.

3. That the State of Michigan consider the means of discouraging boat operators from launching and from operating when sea conditions may be, or are expected to be hazardous for small craft; such as:

a. Soliciting cooperation of operators of public and private launch sites in controlling the use of these facilities during such periods

b. Soliciting cooperation of owners of public and private beach properties in restricting their use for launching during such periods.

4. That the U. S. Coast Guard and the State of Michigan consider the establishment of uniform policy and aggressive procedures for safety patrols, both marine and ashore, in advising and discouraging:

a. Boat operators from operating in the open lake when sea conditions may be, or are expected to be hazardous for small craft

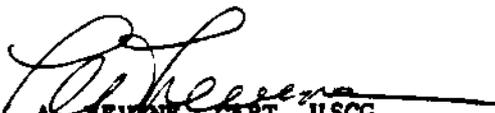
b. Small boats and other types of water craft of insufficient freeboard or stability from open lake operations even under normal weather conditions. And, as possible, citing such craft under the negligent operation provisions of 46 USC 526 1(a) and comparable provisions of state law.

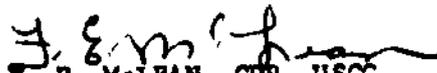
5. That any consideration toward solicitation of legislation which would authorize law enforcement personnel to lawfully deter operators of small boats of limited capability from operating when hazardous sea conditions exist should be deferred until such time as all other means including those set forth in the recommendations above, have been considered and attempts made to effect the voluntary compliance on the part of the individual boatman to restrict his operations during such periods.

6. That a copy of this report and the record of proceedings be forwarded to the Director, Michigan Department of Conservation, Mason Building, Lansing, Michigan 48926, for any action as considered appropriate at the State and lesser governmental levels.

7. That a copy of this report and the record of proceedings be forwarded to the U. S. Department of Commerce, Environmental Science Services Administration, Weather Bureau, for any action that agency may consider appropriate.

8. That letters of commendation be awarded by the Coast Guard to the Masters of the INLAND SEAS, JENNIE LEE and the ISLAND GLIPPER for their prompt response to the request to assist in the search and rescue operations on 23 September 1967. Further, that similar commendation be made to the Sheriff, Grand Traverse County for the rescue services rendered by his forces.

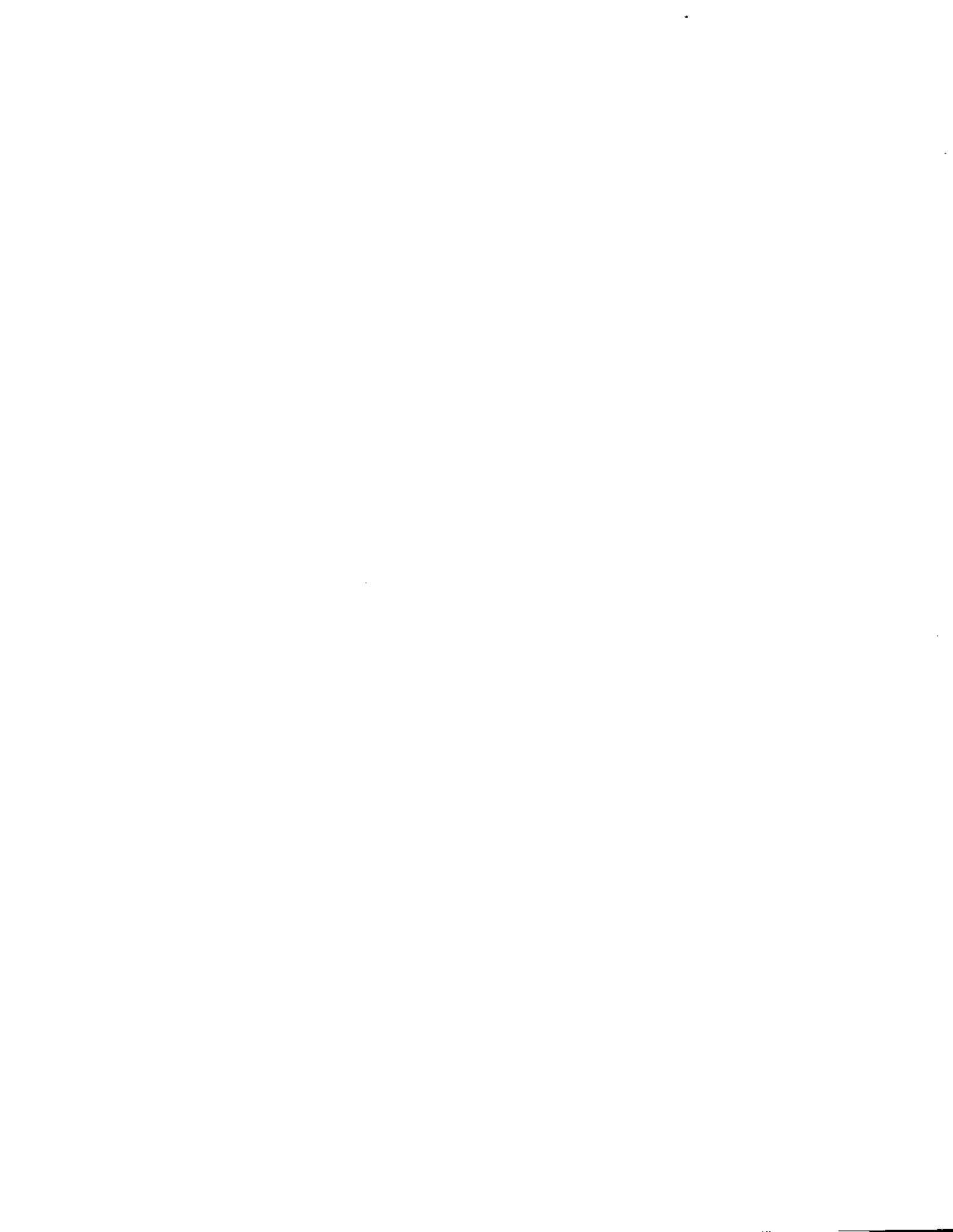

L. A. LEVENE, CAPT, USCG
Chairman


F. E. McLEAN, CDR, USCG
Member


D. L. MUIR, CDR, USCG
Member


D. E. BAUMBAUGH, LCDR, USCG
Member and Recorder

STATE NUMBER	MC 2153 FD	MC 4605 AD	MC 7722 GH	MC 2433 BT
TYPE	Decked over forward	Open	Decked over forward	Open
HULL MATERIAL	Aluminum	Aluminum	Plastic	Plastic
MAKE	Starcraft	Arkansas Traveler	Glassmaster	Sea King
LENGTH	15 foot	14 foot	16 foot	14 foot
BEAM	Unknown	Unknown	Unknown	54 inches
PROPULSION	35 H.P. Evinrude outboard motor	9 H.P. outboard motor	65 H.P. Mercury outboard motor	7-1/2 H.P. Scott Atwater outboard motor
OWNER	Bernard J. VanKoevering 4041 Kalamazoo Ave. SE Grand Rapids, Mich.	Donald H. Farr 2071 Tulip Lane SW Jenison, Mich	Harly Eskew 4314 18th St. Wyandotte, Mich.	Elmer F. Filipiak 1816 Larchwood Troy, Mich.
OPERATOR	same as owner	same as owner	Earl H. Smith 11790 Alois Livonia, Mich.	same as owner
OTHER OCCUPANTS	James A. VanKoevering 1900 Richard Ave. Jenison, Mich.	Melbourne L. Welch 4109 Woodstock Ave. SE Wyoming, Mich.	Arthur DeHate Route 1 Alger, Mich.	Sherman S. Molle 21185 Concord St. Southfield, Mich.
	Mark A. Van Koevering 5469 32nd Ave. Hudsonville, Mich.		Frank T. Stoner Black River Road Rt. 1, Onaway, Michigan	
	William R. Meekhof 3305 Wilcox SW Wyoming, Michigan			



The following is a list of boats which are known to have been damaged as a result of the casualty:

<u>STATE NUMBER</u>	<u>OWNER</u>	<u>DESCRIPTION</u>	<u>DAMAGE</u>
MC 4920 AU	David L. Cole 320 Charlotte Alpena, Mich.	1963 OMC 18' Plastic Inboard	Hole in bottom Extensive interior damage.
MC 3510 AS	Gordon V. Fish 127 N. Deerfield Lansing, Mich.	Wolverine 14' Wood Outboard	Extensive hull damage.
MC 7197 AJ	W. Jesse Snyder 8685 Je-Ne-Be Dr. Rockford, Mich.	Aerocraft 14'4" Plastic Outboard	Extensive hull damage at stern and damaged interior. Motor lost.
MC 7197 BR	Henry A. Cook Rt. 3, Box 162 Benton Harbor, Michigan	Aerocraft 15' Aluminum Outboard	Total loss.
MC 3138 BD	Orville H. Davis 1334 Randolph Ave. Muskegon, Mich.	Chetek 17' Wood Outboard	Extensive hull damage at stern and damaged interior.
MC 6206 BB	Edward Buskirk Maple Lake Paw Paw, Mich.	Century 16' Inboard	Hull damage.
MC 1140 BP	Fred T. Maas 23160 Beechwood E. Detroit, Mich.	Wolverine 15' Wood Outboard	Extensive interior damage.
MC 2153 FD	B. VanKoevering 4041 Kalamazoo Ave. Grand Rapids, Mich.	Starcraft 15' Aluminum Outboard	Extensive hull damage and interior damage.
MC 3554 FR	Carlton E. Galer Rt. 1 Hudsonville, Mich.	Starcraft 14' Plastic Outboard	Extensive hull damage and interior damage.

<u>STATE NUMBER</u>	<u>OWNER</u>	<u>DESCRIPTION</u>	<u>DAMAGE</u>
MC 7473 FC	Adelbert Skinner 3107 Rickman NE Grand Rapids, Mich.	Larson 17' 8" Plastic Outboard	Minor hull damage.
MC 1272 GA	Valerian Nowak 3246 Winter Saginaw, Mich.	Steury 14' 5" Plastic Outboard	Minor interior damage.
MC 1682 GF	David LaDuke 207 W. Buchanan St. Johns, Mich.	Starcraft 14' Aluminum Outboard	Hull damage, interior damage, motor lost.
IN 257 BA	James Peck 209 Lincoln Way W. Ligonier, Ind.	Glaspar 14' Plastic Outboard	Total loss of boat, contents and motor.
MC 4605 AD	Donald H. Farr 2071 Tulip Lane SW Jenison, Mich.	Glassmaster 16' Plastic Outboard	Hull and interior damage.
MC 7722 GH	Harly Eskew 4314 18th St. Wyandotte, Mich.	Arkansas Traveler 14' Aluminum Outboard	Hull and interior damage.
MC 2433 BT	Elmer F. Filipiak 1816 Larchwood Troy, Mich.	SeaKing 14' Plastic Outboard	Hull damage.

1a. The MC 2153 FD departed Frankfort Harbor, Michigan, at about 6:50 a.m., 23 September 1967 with four persons aboard. Bernard VanKoevering, age 23, was seated in the forward starboard seat at the steering and throttle controls operating the boat. James VanKoevering, age 31, was seated in the forward port seat. Mark VanKoevering, age 15, was seated in the after port seat, and William Meekhof, age 38, was seated in the after starboard seat. Bernard's previous experience as an operator of small boats had consisted of at least three or four years including several trips on Lake Michigan. It was their intention to proceed north along the coast to the mouth of the Platte River (a distance of about ten miles) to fish for coho salmon. The boat was equipped with four or more buoyant cushions, all U. S. Coast Guard approved and in good condition. However, none of the occupants wore a buoyant cushion from the time of their departure from Frankfort until the boat capsized later that morning. Bernard and Mark VanKoevering were good swimmers, James VanKoevering was a fair swimmer, and William Meekhof could not swim. This 15-foot, aluminum hull boat was decked over forward of the windshield (or about one-fifth of the length of the boat) and was open aft of the windshield and was powered by a 35-horsepower outboard motor. The weather at the time of their departure was partly cloudy sky, winds south at about 15 knots and seas from the south at about three feet. The barometer was about 29.85 inches and falling, and the air temperature was about 52 degrees. Prior to their departure none of the occupants are known to have made any efforts toward obtaining a weather forecast. The small craft warning signal had not yet been hoisted at the Frankfort Coast Guard Station when this boat departed the harbor at about 6:50 a.m.

b. The boat departed Frankfort and proceeded north along the coast, rounded Point Betsie and arrived at the Platte River mouth where they fished until about 10:30 a.m. Having had no luck in catching fish in that area, they decided to return to Frankfort and to drive to Manistee to fish in that area. For about an hour they proceeded southwest keeping about 100 yards off the beach in or near the surf. The sky became overcast and the wind and seas had become south-southwest. The wind had increased in velocity to about 30 knots and the seas had increased in height to about four feet. This intensification of the weather had not been readily apparent to the men since they had been fishing in the relatively protected (from southerly winds and seas) area to the north and east of Point Betsie. However, once the boat rounded Point Betsie the full effects of the wind and seas were felt. They managed to proceed around the Point and south for a distance of about two miles. Occasional waves larger than four feet were encountered, and shortly after 11:30 a.m. a wave about twelve feet high was seen approaching on the boat's starboard bow. The boat rode to the top of the crest and a following wave of about equal height was observed. As the first wave passed beneath

the boat, the bow swung to the left and the second wave capsized it, throwing all four men into the water. At the time the boat capsized all occupants were seated in the same positions they had been since departure from Frankfort earlier in the morning. None of the men were wearing a lifesaving device. There were buoyant cushions aboard which were trapped beneath the boat when it was capsized. Mark and James swam toward the boat which was upside down in the water. Mark reached the boat first followed by James. Bernard observed William Meekhof in difficulty and swam toward him in an apparent rescue attempt. Just as Bernard reached William, Bernard appeared to lose all his strength and remained motionless in the water. William continued his struggle to keep afloat. Mark observed the two men, left the boat, and swam toward them to assist. As Mark swam toward them William also appeared to lose all his strength and remained motionless in the water. Mark reached Bernard and held his head above water twice, but Bernard was not breathing. Mark then returned to the boat but was unable to hang on to it. He then swam and drifted in to the beach. James, likewise, left the boat and managed to get to the beach. William's body washed ashore about thirty minutes later. Bernard was observed to be drifting to the north.

c. Benzie County Deputy Sheriff George L. Finch arrived at the scene at about 11:54 a.m. and observed Mr. Meekhof, who was blue in color, on the beach. He examined Mr. Meekhof, found no breathing or pulse, and, in Deputy Finch's opinion, the man was dead. The Benzie County Coroner, Robert G. Bennett, was summoned, and after his examination the body was removed and subsequently sent to the Posthumus Funeral Home, Grandville, Michigan. Burial was in the Floral View Memorial Gardens Cemetery, Ottawa County, Michigan, on 26 September 1967. The State of Michigan Certificate of Death states that the cause of Mr. Meekhof's death was "Accidental Drowning."

d. On the following day at about 10:15 a.m., Deputy Finch was advised of a body washing ashore about two miles south of Point Betsie in the same general area where Mr. Meekhof's body had been found on 23 September. Mr. Finch proceeded to the scene and observed that a body, later identified as that of Bernard VanKoevering, had been pulled out of the water about 100 yards north of the spot where Mr. Meekhof's body had washed ashore. Mr. Finch examined the body and it was apparent that Mr. Van Koevering was dead. The body was taken by a Coast Guard helicopter to the Frankfort Coast Guard Station and subsequently transferred to the Zaagman Memorial Chapel Funeral Home, Grand Rapids, Michigan. Burial was in the Woodlawn Cemetery, Grand Rapids, Michigan, on 27 September 1967. The State of Michigan Certificate of Death states that the cause of Mr. VanKoevering's death was "Accidental Drowning."

2.a. At about 12:45 p.m., 23 September 1967, Wilbur G. McVay, Boatswains Mate First Class, U. S. Coast Guard, Officer in Charge of the U. S. Coast Guard Light Station, Point Betsie, Michigan, observed a small black motorboat towing a green outboard motorboat in a southerly direction about 100 yards offshore from the Light Station. He noticed that there were two people in the green boat, one seated forward and one seated aft. He did not recall having observed the number of persons in the black boat. The tow line between the two boats covered a distance of about 15 to 20 feet. The wind was south-southwest at about 30 knots and the seas were from the same direction at about 5 feet. The surf extended out for about 50 yards from the beach. As McVay watched the boats passing the station he observed the tow line to slack suddenly. The black boat continued on course and the green boat lost headway. Within a minute or two McVay saw the green boat capsize. He immediately went into his quarters at the station and called the Coast Guard station at Frankfort to report the incident. The Officer in Charge, Frankfort Coast Guard Station radioed the CG-36419 to proceed to the scene. McVay then proceeded back outside and observed two persons in the water. About five minutes after the capsizing, one of the two persons disappeared from sight. The other seemed to be floating and drifting north past the station and was maintaining the same distance off the beach. He appeared to be holding onto some buoyant object but it did not appear to be a lifesaving device. McVay then observed a small red motorboat approaching the man in the water. As the boat got alongside, one man in the red boat leaned out and seemed to get a hold of the person in the water. At that time a large sea broke under the red boat and propelled the boat ahead rapidly. The man in the boat seemed to hold the man in the water for an instant. He then lost his grip, apparently due to the momentum of the boat moving ahead. McVay then ran down onto the beach and, having no boat of his own, asked several persons if their beached boats were operable but received negative replies. He then put on a life preserver and attempted to swim out to assist the man in the water. However, he could get only chest deep in the surf before he was knocked off his feet. He attempted to get out into the water three times only to be bowled over each time by the breaking surf. Exhausted, McVay went up on the beach and met another man who took McVay's life preserver, put it on and made two attempts to get through the surf himself only to be knocked over as McVay had been. Someone had built a fire on the beach and, as McVay was standing by the fire trying to get warm, another man approached him and said he had observed the man in the water letting go of or slipping from the buoyant object that he had been holding on to and disappear from sight. The man in the water reportedly went under about one quarter mile north of the Point Betsie Light Station and about 75 yards offshore. The CG-36419 had not arrived on scene.

b. About one hour after capsizing the green boat washed ashore and was examined by McVay and others. It was an open type boat 14 feet in length, 50 inches in breadth and 14 inches in depth, of aluminum construction and bore the numbers MC 4605 AD. It had a small outboard motor attached, estimated to be about 9 horsepower. There was a section of line about 5 feet in length attached to the forward part of the boat but it did not appear to McVay that this was the tow line or a part of it. The boat was later identified as being owned by Mr. Donald H. Farr of 2071 Tulip Lane SW, Jenison, Michigan, who, along with Mr. Melbourne L. Welch of 4109 Woodstock Ave. SE, Wyoming, Michigan, had planned to fish on 23 September 1967 in the Point Betsie area. The identities of the black and red boats, their occupants, the man who made efforts to get through the surf using McVay's life preserver, and the man who told McVay that he had witnessed the person in the water going under have not been ascertained.

c. At about 6:00 p.m., Mr. Farr's body washed ashore midway between Point Betsie and the Platte River mouth. He was not wearing a lifesaving device. The Coroner was summoned. The body was subsequently transported to the Posthumus Funeral Home, Grandville, Michigan. Burial was in the Rosedale Memorial Park Cemetery on 26 September 1967. The State of Michigan Certificate of Death states that the cause of Mr. Farr's death was "Accidental Drowning."

d. At about 11:00 a.m., 24 September 1967 Mr. Welch's body was found on the beach about one mile south of Pt. Betsie. He was dressed in work pants and shirt, a jacket and heavy underclothing and was not wearing a lifesaving device. The body was taken to the Frankfort Coast Guard Station and the Coroner was summoned. The body was subsequently transported to the Vanderpool Funeral Home, Wyoming, Michigan. Burial was in the Floral View Memorial Cemetery on 27 September 1967. The State of Michigan Certificate of Death states that the cause of Mr. Welch's death was "Accidental Drowning."

3.a. The MC 7722 GH, owned by Mr. Harly Eskew, 4314 18th St., Wyandotte, Michigan, had been loaned to Mr. Earl Smith on 23 September 1967. The boat was launched into Lake Michigan from the launching ramp at Empire, Michigan by Mr. Smith, Age 54, Mr. Arthur DeHate, Age 72, and Mr. Frank Stoner, Age 43 (a nephew of Mr. DeHate's). It was their intention to proceed south along the coast to the mouth of the Platte River (a distance of about 7 miles) to fish for coho salmon. The boat was equipped with six adult buoyant vests but none of the men wore one from the time of their departure until the boat capsized later that afternoon. Mr. Smith and Mr. DeHate were good swimmers and Mr. Stoner was a fair swimmer. This 16-foot, plastic tri-hull, boat was decked over forward of the windshield and was open aft of the windshield and was powered by a 65-horsepower outboard motor. The weather at the time of their departure was partly cloudy sky, wind south at about 10 knots,

and seas from the south at about one foot. The barometer and air temperature at Point Betsie Light Station (about 12 miles southwest of Empire) was 29.92 inches and falling and 66 degrees respectively. Prior to their departure, the men had listened to radio broadcasts on a portable transistor radio in an effort to obtain weather forecasts. They had heard some forecasts on the evening of 22 September from an unidentified station but none mentioned small craft warnings and the men heard nothing that indicated to them that adverse weather would be encountered on the following day in the area in which they intended to fish. They tried listening again on the morning of 23 September but heard no weather forecasts. They also tried listening to the portable radio after they departed in the boat but did not receive any stations.

b. The boat, operated by Mr. Smith, departed Empire at about 7:45 a.m., and proceeded to the Platte River Mouth. The extent of Mr. Smith's previous experience in the operation of small boats is not known but has been estimated at between 20 and 100 hours. The trip to the Platte River mouth was uneventful and they fished in that area until about 2:00 p.m. At that time, the men noticed dark clouds approaching from the southwest and decided to return to Empire. After they had travelled about one-half mile on their return trip, they encountered heavy rain, lightning and thunder and an increase in wind velocity. At about 3:30 p.m., the boat proceeded to a point about 500 yards offshore from Empire. Rain was falling, wind was west-southwest at about 25 knots and seas were from the southwest at 6 to 10 feet. The surf line extended out for about 100 yards from shore. Mr. Smith was seated in the forward starboard seat operating the boat, Mr. Stoner was standing near the forward port seat and Mr. DeHate was seated in the after port seat.

c. Mr. Smith commenced his approach to the shore attempting to keep the speed of the boat the same as one wave which they were trying to "ride in." When the boat was about 100 feet from the shore two men were seen on the beach motioning with their arms. These motions may have been interpreted by Mr. Smith as instructions for the boat to land slightly further to the north closer to the launching site. Mr. Smith turned the boat slightly to the left. At that time, a following wave overtook the boat and swung the boat to the left until it was broadside to the waves. The boat then capsized throwing all three men into the water. None were wearing lifesaving devices.

d. Leelanau County Undersheriff Fredrick A. Buehrer, Deputy Sheriff George D. Bumgardner and numerous other people had been on the beach at Empire during the afternoon of 23 September assisting boats in landing through the surf. A tractor had been placed on the beach with a length of chain to assist in pulling the boats up onto the beach. Mr. Buehrer and Mr. Bumgardner had directed the boats (by use of hand signals and orange colored life saving devices) to proceed straight into the beach with the waves. As a boat approached the beach ten or twelve people would grasp the boat, quickly hook on the chain and the tractor would pull the boat rapidly out of the breakers. Prior to the capsizing of the Smith boat 25 or 30 other small boats had successfully beached by the aforesaid method.

e. Mr. Buehrer and Mr. Bumgardner, standing on the beach somewhat south of the tractor, observed the Smith boat making what appeared to be a good approach to the beach although the boat was somewhat south of the position of the two deputies. Mr. Buehrer motioned with his arms. The intention of his motions was for the boat to come straight into the beach. However, when the boat was about 100 feet from shore, they saw it turn suddenly and sharply to the left and capsize. Following the capsizing, Smith and DeHate surfaced on the offshore side of the overturned boat and Stoner surfaced on the inshore side of the boat. Of the three, only Stoner appeared to be making any effort to swim. He swam toward shore and several people went into the water and assisted him to the beach.

f. Upon seeing Smith and DeHate in apparent trouble in the water, two young men, David Corwin of 932 Halsted St., Jackson, Michigan and Harry Striker of 1705 Cadillac Drive, Kokomo, Indiana entered the water immediately. Corwin swam to Smith and Striker swam toward DeHate. Undersheriff Buehrer followed Corwin out to assist Smith and Deputy Sheriff Bumgardner followed Striker out to assist DeHate. When Corwin and Buehrer reached Smith, it appeared that Smith was alive. He was moving his arms and was gasping for breath. The men swam to shore pulling Smith with them and attempted to keep his head above water but the large waves continued to break over their heads and they experienced difficulty also because of the heavy hunting clothing that Mr. Smith was wearing. Within about 10 minutes of the capsizing Smith had been pulled onto the beach. However, he then showed no signs of life and had turned blue in color. Artificial mouth to mouth resuscitation was begun immediately and continued for at least one half hour and Mr. Smith was then placed in an ambulance and transported to Munson Hospital, Traverse City, Michigan. He was pronounced dead on arrival. When Bumgardner reached DeHate, his face was beneath the surface and he showed no signs of life. The men swam to shore pulling DeHate with them and attempted to keep his head

above water but the large waves continued to break over their heads. Within about 10 minutes of the capsizing, DeHate had been pulled onto the beach. He showed no signs of life and had turned blue in color. Artificial mouth to mouth resuscitation was begun immediately, as well as external cardiac massage, and continued for at least one half hour. Mr. DeHate was then placed in an ambulance and transported to Munson Hospital, Traverse City, Michigan. He was pronounced dead on arrival.

g. Mr. Smith's body was removed to the Schrader Funeral Home, Plymouth, Michigan and burial was in Livonia Cemetery, Livonia, Michigan on 27 September 1967. The State of Michigan Certificate of Death states that the cause of Mr. Smith's death was "Drowning."

h. Mr. DeHate's body was removed to the Martinson Funeral Home, Traverse City, Michigan and burial was in Edwards Cemetery, Ogemaw County, Michigan on 26 September 1967. The State of Michigan Certificate of Death states that the cause of Mr. DeHate's death was "Drowning."

4.a. The MC 2433 BT was launched into Lake Michigan from the beach about 50 yards north of Point Betsie Light Station at about 8:00 a.m., 23 September 1967 by Mr. Elmer F. Filipiak, age 46, and Mr. Sherman S. Molle, age 55. It was their intention to proceed northeast along the coast to the mouth of the Platte River (a distance of about six miles) to fish for coho salmon. The boat was equipped with two adult buoyant vests and two buoyant cushions, all U. S. Coast Guard approved and in good condition. However, neither man wore a lifesaving device from the time of their departure from Point Betsie until their boat capsized later that evening. Mr. Filipiak was a poor to fair swimmer and Mr. Molle was reported to be a fairly good swimmer. This 14-foot, open type, plastic hull boat was powered by a 7-1/2 horsepower outboard motor. The weather at the time of their departure was clear sky, wind south at 10 knots and seas from the south at one foot. The barometer was 29.92 inches and falling and the air temperature was 66 degrees. Prior to their departure, Mr. Filipiak had attempted to listen for a weather forecast on a radio in his truck, but was unable to receive any radio station. He did not observe the sign setting forth the details of the small craft warnings which had been posted by the Officer in Charge, Point Betsie Light Station, nor did he inquire at the station about weather forecasts. The boat departed Point Betsie at about 8:00 a.m., and proceeded northeast along the coast toward the Platte River mouth. Mr. Filipiak had operated small outboard motorboats for about 12 years including several outings on Lake St. Clair, Lake Huron, and Lake Michigan.

b. The trip to the Platte River mouth was uneventful and they fished in that location until shortly after noon. By then the wind was from the south-southwest at about 20 miles per hour, seas were from the same direction at about four feet in height and rain started to fall. The men beached the boat and built a fire to keep warm and to dry out their clothing. At about 4:00 p.m., the rain had ended, the sky had cleared and the wind and seas had diminished considerably. They launched the boat and resumed fishing until about 6:00 p.m., at which time they decided to return to Point Betsie. While enroute, particularly during the last one-half mile, the wind and sea increased.

c. At about 8:30 p.m. the men had reached the vicinity of Point Betsie and prepared to beach the boat at the same location where they had launched it early that morning. Mr. Filipiak was seated on the after thwart operating the boat and Mr. Molle was seated on the center thwart. The wind was north-west at about 20 miles per hour and the seas were about five feet from the west with breakers eight to ten feet in height inshore of the surf line which extended out about 75 yards from the beach. Darkness had fallen. When Mr. Filipiak had the boat lined up for his approach through the surf, he waited for a wave to pass beneath the boat and then opened the throttle full speed, hoping to ride the next wave into the beach, bow first. The boat failed to gain sufficient speed to accomplish the intended maneuver and, when the boat was about 75 feet offshore, a following wave overtook the boat and capsized it. Both occupants were thrown into the water; neither was wearing a lifesaving device. Mr. Filipiak went down three or four times and at one point touched bottom and was able to shove himself back to the surface for air. He then managed to grab hold of a piling and get himself ashore with the assistance of Coast Guard and other personnel. He was taken to the Point Betsie Light Station and then to the Frankfort Hospital where he was treated for exposure and released. Mr. Molle remained with the overturned boat which was about 70 feet offshore. Several people ashore observed Mr. Molle clinging to the boat in the surf and shone automobile headlights and flashlights on him. However, due to the height of the surf and the distance Mr. Molle and the boat were offshore, no one made an attempt to swim out to him.

d. The Coast Guard Light Station at Point Betsie is not a life saving station; it is not equipped with rescue equipment. The Officer in Charge of the Light Station telephoned the Frankfort Coast Guard Station and reported the incident. He was advised a few minutes later that the Coast Guard Air Station at Traverse City was dispatching a helicopter. Shortly after the boat had capsized, Benzie County Deputy Sheriff George L. Finch arrived at the scene, observed Mr. Molle and the boat in the water, and, by means of his car radio, requested his Headquarters to send a marine patrol boat to the area. The radio message between Deputy Finch and the Benzie County Sheriff's Department was overheard by Grand Traverse County Sheriff Richard P. Weiler who was aboard a Grand Traverse County 16-foot 7-inch patrol boat

located between one-quarter and one-half mile from the scene engaged in patrol and search and rescue activities. Sheriff Weiler radioed the Benzie County Sheriff's Department that his boat was in the vicinity and would proceed to assist. Within about ten minutes Sheriff Weiler arrived on the scene and located Mr. Molle clinging to the overturned boat which was still about 70 feet offshore. Because they were blinding him, Sheriff Weiler asked that all lights except one good spot light be secured. This was done. The boat then commenced an approach to Mr. Molle through the surf and had advanced to within about 20 feet from him when Mr. Molle disappeared from sight. When last seen, Mr. Molle was alive and had one hand up in the air and yelled to the patrol boat "Help me." The boat circled the area several times searching for Mr. Molle. Results were negative and the boat finally had to abort the search after striking the nearby breakwall and incurring damage. A Coast Guard helicopter then arrived on the scene and commenced searching.

e. About 30 minutes after Mr. Molle disappeared Michigan State Police Sergeant William H. Carter and Trooper Paulson arrived at Point Betsie and, after being apprised of the situation, attempted to locate the boat and/or Mr. Molle. They spotted the boat with their light and a few minutes later saw Mr. Molle floating face down about 20 or 30 feet offshore among some pilings. Sergeant Carter went into the water and pulled Mr. Molle ashore. Mr. Molle was examined by Sergeant Carter, Sheriff Weiler, and Deputy Sheriff Finch and it was obvious to them that Mr. Molle was deceased. The Benzie County Coroner, Robert G. Bennett, was summoned, and after his examination the body was removed to Bennett's Funeral Home, Benzonia, Michigan. Burial was in the White Chapel Cemetery, Troy, Michigan on 26 September 1967. The State of Michigan Certificate of Death states that the cause of Mr. Molle's death was "Accidental Drowning."