

Alaska Small Passenger Vessel Task Force
Interim Report
August 24, 1999

EXECUTIVE SUMMARY

After a series of small passenger vessel groundings in Southeast Alaska this summer, Admiral Thomas J. Barrett, Commander of the 17th Coast Guard District, concerned with the potential for the loss of lives and environmental damage presented by expanding passenger vessel operations, chartered a Alaska Small Passenger Vessel Task Force. This group was tasked with examining the incidents and identifying measures that should be taken to minimize the potential for future accidents as well as improve the response to accidents that do occur.

The Task Force is comprised of representatives from state and federal agencies including the Coast Guard, Alaska Department of Environmental Conservation, Alaska Department of Community and Economic Development, U.S. Park Service and the National Oceanic and Atmospheric Administration (NOAA). The task force met and consulted with representatives of the commercial small passenger vessels operating in Alaska and the Passenger Vessel Association (PVA) to explore actions that could be taken to improve the safety of small passenger vessel operations in Alaska. For the purposes of this Task Force, "Alaska small passenger vessels" are defined as vessels in the 50 to 200-foot range carrying approximately 50-100 passengers through remote areas of Alaska.

The Chairman of the Task Force, Captain Edward E Page, Chief of Marine Safety for the 17th Coast Guard District, was directed to focus on the prevention of marine casualties and to identify ways to ensure proper response mechanisms are in place to minimize the consequences of future maritime accidents. The Task Force was directed to present preliminary findings and recommendations for implementation during the 1999 operating season by 24 August 1999. A final and more comprehensive report will be issued in winter 1999 that will outline recommendations that can be implemented in the year 2000 passenger vessel season or later. As the findings and results of this Task Force may impact other segments of the passenger vessel industry, these findings will, at a minimum, be documented as recommendations for further action in the final report.

This preliminary "Quick Look" report identifies improvements in the following areas that should be implemented or initiated this tour season to reduce the potential for maritime accidents and improve the response to incidents when they occur.

1. Waterway Surveys: More accurate surveys of remote waterways are needed as well as an immediate survey of Tracy Arm in the vicinity of the most recent grounding to determine if there are any uncharted hazards.
2. Lessons Learned: Immediate sharing of “Lessons Learned” from these recent maritime accidents to other Alaska small passenger vessel operators with the objective of preventing similar incidents.
3. Standards of Care: Development and communication of “Standards of Care” and “Good Marine Practice” to be employed by mariners operating in the remote waterways of Alaska.
4. Situational Awareness: Need to improve mariners’ knowledge and attentiveness in operating their vessels in confined, unmarked and hazardous waters subject to severe weather changes.
5. Charts: Initiate measures to provide larger scale charts for the restricted and remote waterways where smaller passenger vessels often operate.
6. Communications: Provide improved communications capability for alerting others of distress and obtaining the Coast Guard and other vessels’ assistance.

These action items are addressed in greater detail later in this report.

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Preliminary Report
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BACKGROUND

Over the last several years there has been considerable growth in the small passenger vessel trade in Alaska. During the summer tourist season there are over 200,000 passengers carried on these vessels in Alaskan waters and over 2,000 vessel voyages. Considering the amount of small passenger vessel activity, the “track record” for these operations is very good, however, the recent series of groundings this summer indicates there’s room for improvement. While history tells us that the likelihood of a serious accident on these vessels may be low, the consequences of multiple loss of life and or damage to environmentally fragile areas are not tolerable by the American public.

After a series of three small passenger vessel groundings in Southeast Alaska this summer, Admiral Thomas J. Barrett, Commander of the 17th Coast Guard District, chartered an Alaska Small Passenger Vessel Task Force to identify measures that should be taken to minimize the potential for future accidents and to improve the response to accidents that do occur. For the purposes of this Task Force, “Alaska small passenger vessels” are defined as vessels in the 50 to 200-foot range carrying approximately 50 -100 passengers through remote areas of Alaska. The targeted small passenger vessels typically sail in Alaska’s more confined, unmarked and hazardous waters than the larger cruise ships and at times are in areas where communications with the Coast Guard and other vessels are very limited or nonexistent. To compound these problems, the potential for rapid and severe weather changes in Alaska increases the risk of accidents leading to loss of life and, or environmental impact.

The Alaska Small Passenger Vessel Task Force is comprised of representatives from state and federal agencies including the Coast Guard, Alaska Department of Environmental Conservation, Alaska Department of Community and Economic Development, U.S. Park Service and the National Oceanic and Atmospheric Administration (NOAA). The task force also met and consulted with a team of representatives from commercial small passenger vessels operating in Alaska and the national Passenger Vessel Association (PVA) in identifying measures that could be taken to improve the safety of passenger vessel operations in Alaska. In addressing the safety issues, the Task Force applied risk management tools and the Coast Guard’s “Prevention Through People (PTP)” principles of "Shared Commitment", "Risk Management", "Honor the Mariner", “Engage all Elements of the Maritime Operations to Drive Continuous Improvement”, and seek "Non Regulatory Solutions".

With respect to the incidents that lead to the formation of the Task Force, there were three small passenger vessels operating in remote areas of Alaska that grounded. Two of the incidents caused substantial damage to the vessels and required the evacuation of all passengers onto vessels that came to their aid. Fortunately, the weather was favorable in all cases and did not compound the problems. Also, the required safety equipment, drills, and emergency procedures worked very well leading to no injuries or loss of life. The crews of these vessels did an excellent job of responding to the emergencies. While one incident led to the release of oil into the water, spill recovery efforts were successful in preventing any serious environmental impact. Amplifying facts surrounding these accidents is provided below.

Alaska Small Passenger Vessel Marine Casualties.

- 12 June: P/V WILDERNESS ADVENTURER in Dundas Bay, Southeast Alaska. The vessel, after traveling into Dundas Bay, turned to depart the area and grounded on a charted rock. 100 passengers were evacuated from the vessel. Approximately 80 gallons of lube oil entered the water from a crack in the hull by way of the vessel's bow thruster. The majority of oil was contained by boom. The vessel grounded at high tide in an area where the tide range is approximately twenty feet. At low tide the vessel rested precariously bow high with it's stern in the water, at a forty-degree list. The response included Coast Guard representatives from MSO Juneau and the Pacific Strike Team, National Park Service, State of Alaska Department of Environmental Conservation, and South East Alaska Pollution Response Organization's (SEAPRO) personnel and seven of their vessels. The vessel was safely re-floated a few days later on a favorable high tide and towed to a repair facility.
- 19 July: P/V WILDERNESS EXPLORER in Idaho Inlet, Southeast Alaska. The vessel made a routine entry into the inlet to anchor for the evening. Once in the inlet, WILDERNESS EXPLORER observed another vessel in its normal anchorage area. While the WILDERNESS EXPLORER was trying to locate a new anchorage within Idaho Inlet, it grounded in soft mud on a charted shoal area with 58 passengers on board. The vessel floated on the next high tide without incident.
- 27 July: P/V SPIRIT OF 98 in Tracy Arm, Southeast Alaska. The vessel was transiting in the wake of another small passenger vessel inbound the North Sawyer Glacier inlet. While transiting by a charted shoal area, the vessel's hull scraped along the bottom. Damage to the keel cooler was sustained, which was undetectable from inside the vessel, resulting in uncontrollable flooding. 126 passengers were evacuated onto an assisting vessel. SPIRIT OF 98 then proceeded four miles down the fjord to intentionally ground on the nearest safe shoal area. During the transit, both engines failed, one just prior

to the vessel reaching the grounding site, due to the thirteen feet of water in the engine room. There was no damage to the environment caused by this accident. The Coast Guard air lifted de-watering pumps and dispatched three vessels to assist SPIRIT OF 98. Divers identified the damaged keel coolers and made temporary repairs. The vessel was towed to a repair facility.

Task Force Meetings:

The Task Force members held their first meeting on 5 August 1999. On 6 August 1999, the Task Force invited representatives from various Alaska operators and the Passenger Vessel Association (PVA) to solicit the industry's input on safety issues being addressed and to discuss the issues explored by the Task Force the previous day. On both days the Task Force was assisted by a risk specialist from Coast Guard Headquarters who applied the risk assessment identification process outlined in the Coast Guard/Passenger Vessel Association Risk Assessment Guide.

Prior to the first Task Force meeting the Coast Guard members of the Task Force, representatives from Marine Safety Office Anchorage, Valdez and Juneau and the 17th District office in Juneau, got underway on small passenger vessels around the State to assess current operating procedures. These rides also provided an opportunity to identify best practices and operating procedures.

A web site was established to post information on the Task Force findings, recommendations and minutes and to post other information relative to the Task Force. <http://www.akrrt.org/spvtaskforce>

Task Force Recommendations:

As a result of these meetings the following are the recommended actions to be initiated or implemented this operating season. The objective is to reduce the risk of small passenger vessel accidents and minimize personnel injury, loss of life, and environmental consequences developing from accidents that do occur.

1. **Waterway Surveys**: More accurate surveys of remote waterways upon which small passenger vessels operate are needed. Additionally, an immediate survey of Tracy Arm in the vicinity of the most recent grounding to determine if there are any uncharted hazards.

Discussion: A majority of Alaska's remote areas have not been surveyed for over 50 years despite the change in many waterways due to earthquakes, glacier migration, and other environmental factors. Mariners require more accurate navigational information to reduce the risk of running a vessel aground or striking unmarked objects.

As it was unclear if the hull/keel cooler damage sustained by the P/V SPIRIT of 98 while operating in North Tracy Arm was from an unmarked hazard, an immediate underwater survey of the area where the accident occurred is needed to determine if uncharted hazards exist.

Action:

- a. A letter was sent on 16 August 99 from the Chief of Marine Safety, 17th Coast Guard District to NOAA Headquarters in Washington D.C. requesting an accurate survey of Tracy Arm be conducted in the fall of 1999 to provide information to mariners for the year 2000 tour vessel operating season.
 - b. A Coast Guard vessel with a NOAA representative on board conducted a limited survey of the entrance shoal area of North Tracy Arm to determine if there were any uncharted hazards. The shoaling in the area was consistent with that depicted on the NOAA charts and no uncharted hazards found.
 - c. A list of remote areas where small passenger vessels operate that require updated bottom surveys will be compiled over the winter of 1999 and presented to NOAA with the objective of scheduling new surveys.
2. **Lessons Learned:** Immediate sharing of “Lessons Learned” from these recent maritime accidents with other Alaska small passenger vessel operators is needed to help prevent similar occurrences.

Discussion: Valuable safety information can be learned from marine accidents as well as from the responses to these incidents. Through having a system where we can quickly identify the facts and circumstances as well as “Lessons Learned” and distribute this information to other mariners we (the marine industry, the Coast Guard and other agencies) can help prevent similar events from developing.

Action:

- a. Marine Safety Office Juneau has developed “Lessons Learned” information notices from the three vessel groundings and will immediately distribute them through a variety of media (faxes, mail, E-mail and posting on the internet) to the Alaska small passenger vessel operators’ community.

- b. The 17th Coast Guard District is institutionalizing this information system for all of Alaska with all three Marine Safety Offices contributing information. The marine industry and other agencies are invited to submit “Lessons Learned” reports meeting this objective.

- 3. **Standards of Care:** There is a need for the Coast Guard, other agencies and the marine industry to develop and communicate “Standards of Care” and “Good Marine Practice” to be employed by mariners operating in the remote waterways of Alaska.

Discussion: There are numerous experienced vessel operators in Alaska that have adopted “Standards of Care” or sound operating procedures which exceed regulatory standards, and have proven to be effective in minimizing the risk of accidents from developing. Pre-voyage planning, bridge team management, vessel specific radar training and other practices should be employed when operating in more confined waterways. In 1998, MSO Juneau published the Southeast Alaska Waterways User Guide, which incorporates Tracy Arm Operating Guidelines or “Standards of Care” that were developed jointly with industry in 1997. These publications need to be updated and redistributed and will be extended to cover all areas of Alaska where small passenger vessels operate.

Action:

- a. Time does not permit the development and distribution of these “Standards of Care” for this season, however, this project should be undertaken by a joint industry, agency group this fall so they are developed, distributed and implemented next season.

- 4. **Situational Awareness:** Mariners’ knowledge and attentiveness while operating their vessels in confined, unmarked, and hazardous waters subject to severe weather changes in some cases, needs to be increased so as to minimize accidents.

Discussion: “Situational Awareness” is the mariner’s complete awareness of all factors that should be considered in ensuring the safe navigation and operation of his or her vessel. This includes but is not limited to the mariner’s knowledge of the current and projected weather, water depth, tides and currents, communications ability, other vessel traffic, calving glaciers, presence of icebergs, the vessel’s position and the operating

restrictions and capabilities of the vessel. This awareness allows a mariner to make informed decisions that minimize the risk of accidents.

Action:

- a. There is a variety of data that is essential for improving a mariner's "Situational Awareness". These include the presence of aids to navigation that mark unsafe areas, communication of hazards via Coast Guard Notice to Mariners, accurate and large scale charts, and navigational information in the Coast Pilot and other publications. Additionally, mariners should have knowledge of, or familiarity with, the safety considerations for an area, i.e. safe distance from calving glaciers, the presence of ice, river shoaling, etc.. One small passenger vessel operator increases his Captains' situational awareness by providing them customized charts with tracklines, radar ranges and safety notations. This operator also takes all of his captains underway on the route the vessels operate before the season commences to discuss hazards and safety issues.
 - b. The Coast Guard is requesting information from the small passenger vessel maritime community with respect to the need for additional aids to navigation. Additionally, the Coast Guard will work with other agencies and the industry over the next several months in developing safety information that should be disseminated prior to next years' operating season.
 - c. "Kick Off" informational seminars will be conducted for operators of small passenger vessels in the spring of 2000 in advance of the season. The objective of these seminars held in Southeast and Southcentral Alaska will be to communicate safety and navigational information to mariners that should help increase their "situational awareness" and help prevent accidents and improve response. It is anticipated the marine industry and other agencies (ADEC, Park Service, and NOAA) will participate in the development and holding of these meetings.
5. **Charts:** There needs to be larger scale charts developed for the restricted and remote waterways where smaller passenger vessels often operate.

Discussion: As mentioned above, many waterway surveys are outdated as are the charts that have been developed from these surveys. The small scale of these charts were sufficient in the past for the limited vessel operations in remote areas, however, the scale of these charts are no longer adequate for the increasing traffic by small passenger vessels. Larger scale charts are required.

Action:

- a. NOAA is in the process of preparing larger scale charts for Tracy Arm. The Task Force will develop requests for other areas frequented by passenger vessels.
 - b. In the interim, NOAA has “smooth sheets” of some waterways upon which small passenger vessels operate. These smooth sheets are detailed, large-scale survey charts, prepared by their survey vessels, and can be made available to operators. Dissemination of these “smooth sheets” to operators will be pursued and information on procuring them will be posted on the “Small Passenger Vessel” web page.
 - c. As a practical matter, not all areas transited by small passenger vessels will have large-scale charts developed. Operators should develop their own chartlets and other navigation job aids, such as has been developed by pilots, to help their operators safely navigate these waters.
6. **Communications:** There needs to be reliable and effective communications capability for small passenger vessels to alert others of distress and obtaining the Coast Guard and other vessels’ assistance.

Discussion: The notification and response to two of the aforementioned marine casualties was delayed and complicated by the limited communications capability in remote areas. Coast Guard VHF coverage is not 100% in Alaska. Areas surrounded by fiords and high mountains prevent VHF and HF communications with the Coast Guard. Areas where there are presently no communications are referred to as “black holes”. In some areas, EPIRBS do not work properly as the distress signal reflects off mountain walls and leads to the receiving satellites developing inaccurate positions, sometimes as far off as 2,000 miles. Poor

communications creates a large gap in the maritime “safety net” for Alaska, preventing timely notification and efficient response to accidents.

Action:

- a. The Coast Guard has posted the VHF area coverage chartlets for Alaska on the Alaska Small Passenger Vessel web page to inform mariners where they can expect to have no communications with the Coast Guard.
- b. Vessel operators should be aware of “no comms” areas, and when operating in these areas, should ensure emergency communication capability is provided for. This may entail having a check-in and checkout communications plan and voyage plan with their home office, carrying GPIRBS that send the vessel’s GPS position with the distress alert, and or providing their vessels satellite communications equipment.
- c. The Coast Guard is exploring the viability of installing seasonal VHF relay stations in “black hole” areas where small passenger vessels often operate to provide better emergency communications coverage.

Some of the aforementioned action items can minimize the risk of accidents as well as minimize the consequences of accidents this operating season. Work should begin now on other action items to ensure measures are in place for the year 2000 operating season.

These and other small passenger vessel safety issues will be further explored during the fall of 1999 to develop implementation of the above measures. We will also explore other actions that may reduce accidents and minimize the consequences of maritime incidents that do occur.

These accidents all resulted in no personnel injuries and limited environmental damage due to competence of the crews, favorable weather conditions, the assistance of other vessels that happened to be nearby, as well as emergency assistance provided by the Coast Guard. They could easily have led to far more serious consequences.

The Coast Guard also intends to explore requiring the carriage of 100% inflatable buoyant apparatus in Alaska due to the cold water, harsh weather and remote operations. The next Task Force meeting will be held on 23 and 24 September in Juneau. We once again intend to meet with marine industry representatives during this meeting. Industry representatives interested in participating may contact Lieutenant Commander Spencer Wood at (907) 463-2285 or contact us through the Alaska Small Passenger Vessel web page at <http://www.akrrt.org/spvtaskforce>.

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