Why did an Antarctic cruise ship sink?

Big ice chunks, misjudgment, and faulty doors doomed the MS Explorer. New limits are set on tourists and cruise ships to the region.

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The MS Explorer was purpose-built for the Antarctic, a nimble expedition cruise ship with an ice-reinforced hull that pioneered the polar tourism trade in the early 1970s.

But on Nov. 23, 2007, she sank in what appeared to be the most routine of Antarctic circumstances: cruising through young pack ice in mild weather.

The 154 passengers and crewmen aboard were plucked unharmed from open lifeboats by other cruise ships the following day, just two hours before gale-force winds struck the area.

Until now, the causes of the ship’s sinking have remained a mystery, with her owners, Toronto-based G.A.P Adventures, refusing to comment beyond initial reports that she struck submerged ice and succumbed to uncontrollable flooding.

But last week the results of an official investigation became public. It places blame on the captain having misjudged ice conditions and the failure of one of the ships' watertight doors.

The report by the Liberian Bureau of Maritime Affairs, through which the Explorer was flagged,
The report – which vividly illustrated how a single misjudgment can lead to disaster in the harsh, poorly charted waters of Antarctica – made a series of recommendations to improve safety on polar cruises. Among them: that these ships carry at least partially-enclosed lifeboats and enough immersion suits for everyone aboard, and that training requirements for ice navigation be better spelled out. Currently, the International Maritime Organization doesn't have formal competency training requirements for ice navigators.

MIND THE GLACIAL ICE CHUNKS

A Chilean naval icebreaker that reached the scene shortly after the Explorer's passengers were rescued, concluded that the ship had not been traveling through a thin ice field, as her captain had thought, but rather an older, thicker field containing a mix of dangerous glacial ice chunks, some reportedly as large as 15 feet high with underwater rams as long as 45 feet.

The Explorer "sustained puncture and slice wounds" that extended for more than eleven feet along her hull and sank because flooding could not be contained within the affected watertight compartment, the report said. Crew members told investigators that a hatch between engine rooms turned out to have faulty seals, allowing other parts of the ship to flood.

The report concluded that Bengt Wiman, on his first Antarctic cruise as captain, "transited the ice field with an overconfident attitude regarding the capabilities of the Explorer and, in all likelihood, struck the 'wall of ice' at a rate of speed that was excessive."

TIGHTER RULES FOR ANTARCTIC SHIPS

The report was released as representatives of the 45 signatory nations to the Antarctica Treaty were attending their annual meeting in Baltimore where they tightened some regulations on cruise ships. The Explorer report caused "a big shock" at the meeting, says James Barnes, executive director of the Washington-based Antarctic and Southern Ocean Coalition.

"There was great surprise at the realities revealed by the report compared to the information that had been available before from G.A.P., Chile, or Argentina," Mr. Barnes says. "Everybody is congratulating Liberia for what is a most thorough report, but if the ship's owners had released this information right away, we could have gotten to work on addressing this 18 months ago."

Steve Wellmeier, executive director of the International Association of Antarctic Tourism Operators describes the report as "very sobering reading" which "represents a wake-up call for all of our members."

SHIP OWNERS DISPUTE FINDINGS

But the founder and CEO of G.A.P. Adventures, Bruce Poon Tip, expresses dissatisfaction with the investigation. "We dispute pretty much everything in the report," he says, but declines to offer his own version of events or to respond point by point to the report's findings. "They are entitled to their opinions, but I am not interested in getting into an argument with a flag state."

Mr. Poon Tip says that Liberia's investigators had "come to these outrageous conclusions" without ever speaking with anyone in his company. On further questioning he concedes – and the report
Poon Tip does not directly answer questions about the causes of the Explorer's sinking, confining his answers to the quality of the company's rescue effort.

"We're very proud and happy about how it went," he says. "We got everyone out of there safely and everyone in the world has been nothing but complimentary about how the company handled the situation."

**PRAISE FOR THE CAPTAIN AND CREW**

The report also praised the captain for his decision to evacuate the passengers to lifeboats early in the incident, before the crippled ship drifted back into the ice field, where lifeboats would have been difficult or impossible to deploy. The chief engineer was commended for jury-rigging a fuel supply for an auxiliary generator, which allowed the captain to maneuver the ship into a position where the lifeboats could be deployed.

Crew members told investigators they called Argentine authorities three times for help, but were told each time "to call back." Fortunately, they were able to make contact with nearby cruise ships themselves.

There have been several serious incidents involving Antarctic cruise ships in recent years. In January 2007, all 371 people were evacuated from the MS Nordkapp after it ran aground. That December the MS Fram lost power and smashed into a glacier, forcing an abrupt return to South America. This past December, 122 passengers and crew were rescued from the MV Ushuaia after it struck a rock in Antarctica's Gerlache Strait. And on Feb 19, 105 people had to be rescued when the US-operated Ocean Nova ran aground in heavy winds.

Delegates to the Antarctica Treaty meeting approved a resolution that bans vessels carrying more than 500 passengers from conducting landings in Antarctica. In recent years, Princess Cruise Lines has sent its 109,000-ton megaships Golden Princess and Star Princess to the Antarctic, even though neither is ice-reinforced. Each carries more than 3,500 passengers and crew.

"If the Golden Princess struck ice and got in trouble, everyone knows that there isn't the capacity in Antarctica to deal with an emergency like that," says Barnes. "Those vessels should not come into ice infested waters at all."