

## **Annex 1**

*“Accidents are rare, but not unheard-of”<sup>1</sup>*

The following are incidents involving passenger vessels sailing in Antarctic waters, based on various sources, including the IAATO reports on the 1991 – 2000 season<sup>2</sup> and the 2011 – 2021 season. Accidents are referred to therein as “tourism incidents”

### **1989 - MV BAHÍA PARAISO.**

Date: 28 January 1989: the Argentine Polar Transporter and Tourism Vessel BAHÍA PARAISO ran aground two miles from Palmer Station due to human error. The vessel was used for tourism and research purposes.

Built: Argentina, July 1980; length 132.70 meters, breadth of 19.60 meters, draught 9.70 meters; 124 crew members, 82 berths.

The grounding resulted in the spill of 510 tons of diesel oil affecting the birds and marine ecosystem in the area, being one of the worst environmental disaster that occurred in Antarctica<sup>3</sup>

### **1991 - MV World Discoverer**

Built 1974, 138 berths.

Date: 21 January 1991, 18.30 hrs UTC.

Operators/Charterer: Society Expeditions

Location: At sea/Adjacent to Cape Evans/Ross Island, uncharted rock. The Distance to Cape Evans Hut was 064°, and 0.6.NM.Latitude/Longitude 77 ° 38.5’S, 166 ° 21.9’E. While approaching Cape Evans/Ross Island the vessel grounded on an uncharted rock.

No injuries or fatalities were reported.

### **1995 - M.V. Explorer**

Date: February 1995

Vessel: tourist Ship Explorer

Operators/Charterer: Abercrombie & Kent/Explorer Shipping

Location: At sea/near Rothera

Latitude/Longitude: N/A

Type of Incident: Medical Emergency- Female tourist/passenger fell and broke her hip.

Response action taken: personnel from British Antarctic Survey made the arrangements for the flight and brought an aircraft from Stanley. The passenger overnighted at Rothera Base for one

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<sup>1</sup> Paige McClanahan Published Feb. 26, 2020, Updated Feb. 27, 2020 Tourism in Antarctica: Edging Toward the (Risky) Mainstream, The New York Times <https://www.nytimes.com/2020/02/26/travel/antarctica-tourism-environment-safety.html> ,

<sup>2</sup> IAATO An Assessment of Environmental Emergencies Arising from Activities in Antarctica [https://iaato.org/wp-content/uploads/2020/03/xii\\_enviro\\_assessment.pdf](https://iaato.org/wp-content/uploads/2020/03/xii_enviro_assessment.pdf)

<sup>3</sup> Cavallo, Emiliano Miguel, "An assessment of the environmental regulatory framework regarding increasing tourism activity in Antarctica" (2019). World Maritime University Dissertations. 1235. [https://commons.wmu.se/all\\_dissertations/1235](https://commons.wmu.se/all_dissertations/1235); page 8

night while the vessel remained in the vicinity.

### **1996 - MV Professor Multanovskiy**

Date: 4 January 1996

Operators/Charterer: Marine Expeditions Inc

Location: at sea-6 cables WNW from Penguin Island

Latitude/Longitude: unknown

Type of Incident: Transport Incident/Vessel was grounded on rocks

Response Action Taken: adjusted Ballast to float vessel, holes repaired with concrete

Other Measures Taken Returned to Port of Ushuaia for a full inspection with divers.

The vessel has a double hull and only the outer layer was affected.

No injuries or fatalities

### **1997 - MV Professor Khromov**

Date: 4 January 1997

Vessel: tourist Ship Professor Khromov

Operators/Charterer: Quark Expedition/Supernova Expeditions

Location: Neumayer Channel

Latitude/Longitude 64° 47.5259' S, 63° 10.0438' W.

Type of Incident: Transport Incident/Vessel grounded on shoal, uncharted rock

Response action taken: Vessel was pulled off the shoal by Chilean tugboat

Passengers were transferred to another Quark Expeditions operated vessel the "Alla Tarasova" (now Clipper Adventurer). Vessel then returned to Ushuaia under her own steam and was inspected for extent of damage. No injuries or fatalities.

### **1998 - MV Kapitan Khlebnikov**

Date: 2 February 1998

Vessel: tourist Ship Kapitan Khlebnikov

Operators/Charterer: Supernova Expeditions/Quark Expeditions

Location: McMurdo Station/Ross Island-Outside Fire Station

Latitude/Longitude: at McMurdo Station

Type of Incident Medical Emergency: Passenger collapsed after a 10-15 minute walk up hill on the road from the ice pier. Outside temperature was -9°Celsius.

Upon returning home the family doctor believed the problem was heart arrhythmia that could have been exacerbated by physical stress. The passenger was not aware of this condition prior to departure. Passenger recovered from this incident but several months later he passed away.

### **1999 - MV Hanseatic**

Date: 3 February 1999

Vessel: tourist Ship Hanseatic

Operators/Charterer: Hapag Lloyd

Location- At sea/Paradise Bay

Latitude/Longitude N/A

Damage to vessel. Starboard propeller sustained damage

Vessel sailed to Ushuaia at a speed of 11 knots. The second propeller was fully functional.

### **1999 - MV Marco Polo**

Date: February 1999

Vessel: tourist Ship Marco Polo

Operators/Charterer: Orient Lines

Location: McMurdo station

Latitude/Longitude N/A

Type of incident: medical. The passenger was suffering from lung cancer and his condition had worsened to the extent that he needed to be permanently on oxygen. The supply of oxygen on board was deemed insufficient for him to remain on board all the way to New Zealand.

The passengers' insurance company paid for cost

### **1999 - MV Clipper Adventurer**

Date: 31 December 1999

Vessel: tourist ship Clipper Adventurer

Operators/Charterer: New World Ship Management Co LLC/Clipper

Cruise Line/Charterer: Zegrahm Expeditions

Location: at Anchor, approximately 2 nm NW of Cape Winman near Seymour Island.

Latitude/Longitude 64°11.3'S and 56°40.2'W

While at anchor, the vessel was contacted by ice damaging two of the five blades on the port propeller. The vessel continued her voyage on one propeller and safely returned to Ushuaia. After disembarking the passengers, the ship then proceeded under her own power to Bahia Blanca, Argentina for repairs.

### **2000 - MV Clipper Adventurer**

Date: 1 February 2000

Vessel: tourist ship Clipper Adventurer

Operators/Charterer: New World Ship Management Co LLC/Clipper Cruise Line

Location: Pack ice/Martha Strait

Latitude/Longitude: 66°43.1'S and 67°31.3'W

The vessel was beset in pack ice while navigating in Martha Strait.

The vessel was contacted by radio and assisted by the Argentinean icebreaker ALMIRANTE IRIZAR. The CLIPPER ADVENTURER was free and clear on the morning of 1 February 2000 and proceeded on her voyage.

### **2000 - MV Akademik Sergei Vavilov**

Date: 1 February 2000

Vessel: tourist Ship Akademik Sergei Vavilov

Operators/Charterer: Quark/Supernova Expeditions

Location: Approaching Dallmann Bay enroute to Melchoir Islands

Latitude/Longitude 64°10'S and 63°03'1"W

Type of Incident: Transport Incident/Collision with humpback whale. Ship's officers had spotted two whales in front of the ship approximately 2 miles at the 1200 position. The whales resurfaced at approximately the 1130 position, one mile ahead of the vessel and then again resurfaced 15 yards in front of the vessel to the port side. They altered course and one whale came up directly in front of the bow and collided with the vessel. Passengers on the stern deck then noted that two whales resurfaced about 200 yards off the stern. Both were still breathing on the surface but the whale, which had been hit, was seen to be bleeding. The incident was reported to Quark Expeditions, IAATO, the Marine Mammal Commission, NSF and EPA. A directive was subsequently sent to all expedition leaders and Captains to ensure when any vessel comes into proximity of whales, the vessel must reduce speed and all care taken to change course to avoid any disturbance or collision with whales or in fact any other wildlife present in the water.

#### **2006 - M/V LYUBOV ORLOVA,**

Date: 27 November 2006

Vessel: Russian Antarctic cruise vessel built in 1975, length of 90 meters, gross tons 4,251, beam 16 meters, draught of 4.6 meters; built to ice class 1A to resist impacts with ice.

Type of incident: the vessel ran aground on 27 November 2006 at Deception Island, South Shetlands Islands. The Master called for help and the Spanish R/V "LAS PALMAS" assisted. No hull damage was detected. The R/V "Las Palmas" towed the M/V "Lyubov Orlova" to deeper waters and the cruise vessel returned to navigate under its own propulsion to Argentina. No casualties or environmental damage was reported<sup>4</sup>.

#### **2007- M/V NORDKAPP**

Date: 29 January 2007

Vessel: Norwegian cruise ship built in 1997 and operated by the Hurtigruten Group. Gross tons 11,386 GT, length 123.30 meters, beam 19.50 meters, draught 4.90 meters; 460 berths. The vessel was classified for light ice conditions.

Type of incident: grounding on 29 January 2007 at Port Foster, Deception Island, South Shetland Islands in severe weather conditions. No casualties and minor hull damage were reported; however, scientists from the Spanish base Gabriel de Castilla in Deception Island reported traces of oil detected after the because the double hull was not broken<sup>5</sup>. 294 passengers from the cruise MV Nordkapp were transferred to another IAATO Member vessel as a precautionary measure after the grounding<sup>6</sup>

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<sup>4</sup>Cavallo, Emiliano Miguel, "An assessment of the environmental regulatory framework regarding increasing tourism activity in Antarctica" (2019). World Maritime University Dissertations. 1235. [https://commons.wmu.se/all\\_dissertations/1235](https://commons.wmu.se/all_dissertations/1235), page 27

<sup>5</sup> ibid

<sup>6</sup> Regulation of Antarctic Tourism-- A Marine Perspective ATCM 2008 [https://iaato.org/wp-content/uploads/2020/03/Atcm31\\_ip083\\_eIAATOMarineRegulatoryMechanisms1.pdf](https://iaato.org/wp-content/uploads/2020/03/Atcm31_ip083_eIAATOMarineRegulatoryMechanisms1.pdf)

### **2007 – MV EXPLORER**

Date: 23 November 2007

Vessel: cruise vessel operated by a Toronto company. Built in Finland in 1969, registered in Monrovia. Classed by DNV as 1A1 to operate in polar waters. Length 76.2 meters, beam 14 meters, draught 5.6 meters, 100 berths

Operator/Charterer: Great Adventure People (GAP), Toronto, Canada.

Type of incident: on 23 November 2007 the vessel's hull was damaged while sailing in an ice field. The Master decided to enter the ice field because he believed that the vessel would not suffer any damage; however, the ice pilot who made the assessment of the passenger video during the investigation stated that the ice was thicker and harder than the Master's evaluation. Human error generated that the Explorer sunk in a position 25 NM southeast of Penguin Island, Bransfield Strait near South Shetland Islands.<sup>7</sup> After the accident, 154 passengers and crew abandoned ship into open lifeboats and zodiacs in the middle of the night and waited more than three hours before they were rescued by another cruise ship, the NORDNORGE in an operation coordinated by the Chilean and Argentine MRCC's<sup>8</sup>

### **2007 - MV FRAM**

Date: 28 December 2007

Vessel: Norwegian flagged Hurtigruten vessel, built in 2007, gross tonnage 12.700, length 114 meters, beam 20 meters, 318 berths and capacity for 25 vehicles. According to its promoters she was specially designed for cruising arctic waters<sup>9</sup>

Type of incident: lost power for about 50 minutes and drifted into an iceberg near Browns Bluff, sustaining damage to a lifeboat.<sup>10</sup> After the incident she sailed to the Chilean airbase Frei for damage investigations and the reason for the engine problems.

### **2008 - MV USHUAIA**

Date: 4 December 2008

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sel: asteel hulled and ice-strengthened vessel built in 1970

Operator/Charterer: Antarpply Expeditions. Length of 85 meters, beam 15.5 meters, draught 5.5 meters, 84 berths, 38 crew.

Type of incident: on 4 December of 2008 the vessel ran aground at Wilhelmina Bay, Gerlache Strait due to severe weather conditions. The M/V "Ushuaia" reported serious hull damage and diesel oil leak from the breached tanks, and was assisted by a United Kingdom Coast Guard vessel, the Russian icebreaker Grigoriy Mikheev, and the Chilean Navy vessels "Achiles" and "Lautaro". On 8 December the vessel was refloated and continued sailing under its own propulsion. No casualties were reported.<sup>11</sup>

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<sup>7</sup> Supra Fn. 50

<sup>8</sup> <https://en.mercopress.com/2007/12/29/damaged-antarctic-cruise-takes-refuge-in-chilean-base>

<sup>9</sup> supra Fn.54

<sup>10</sup> <https://www.travelweekly.com/Cruise-Travel/Ship-accidents-in-Antarctica-raise-ecological-and-safety-concerns>

<sup>11</sup> supra Fn. 50

### **2009 - M/V OCEAN NOVA**

Date: 27 February 2009

Vessel: passenger vessel built 1992 with ice-strengthened hull. Length 72.8 meters, beam 10.99 meters, draft 3.40 meters, 98 berths and 34 crew.

Operator/Charterer: Quark Expeditions

Type of incident: the vessel ran aground on 17 February 2009 in Marguerite Bay research station San Martin, due to adverse weather conditions. The MV CLIPPER ADVENTURE assisted the OCEAN NOVA during passenger evacuation. No casualties or hull damage were registered. Several hours later the vessel started the return sailing escorted by the M/V CLIPPER ADVENTURE.

### **2010 - Clelia II<sup>12</sup>**

(Travel Dynamics International)

Date: 08 December 2010

Quoted from the hearing before the Committee on Commerce, Science and Transportation of the US Senate, 1 March 2012: "A large wave slammed into the ship with 88 passengers and 77 crew members aboard, but the ship's crew overcame minor damage and is heading safely back to its scheduled port (Ushuaia). The ship declared an emergency yesterday, reporting it had suffered engine damage amid heavy seas and 90 kph winds when it was northeast of the South Shetland Islands and about 845km from Ushuaia. The International Association of Antarctica Tour Operators issued statement saying the wave that hit the Clelia II caused a broken bridge window and some electrical malfunctions that temporarily knocked out some communications and affected engine performance".

### **2011 - MV POLAR STAR.**

Date: Monday, 31 January 2011

The POLAR STAR struck an uncharted rock while anchoring near Detaille Island at the Antarctic Peninsula. No one was hurt in the accident, which led to a "minor breach of the outer hull," according to IAATO. There were no reports of injury to any of the 80 passengers and 35 crew aboard the ship following the incident and no evidence of fuel oil leakage<sup>13</sup>. The vessel received permission from its flag state and classification society to depart its location near Detaille Island, and proceeded north along the Antarctic Peninsula, with the intention to return to Ushuaia, Argentina under its own power with all passengers and crew aboard.<sup>14</sup> But on Wednesday, it decided to drop the passengers off in the South Shetland Islands before crossing the Drake Passage as a precautionary measure. "The company is currently arranging alternative transportation for its passengers," IAATO said in a statement.<sup>15</sup> The vessel had been traveling to Antarctica since 2001 She was registered in Barbados, built 1969 and re-

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<sup>12</sup> OVERSIGHT OF THE CRUISE SHIP INDUSTRY: ARE CURRENT REGULATIONS SUFFICIENT TO PROTECT PASSENGERS AND THE ENVIRONMENT?

HEARING BEFORE THE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION

UNITED STATES SENATE ONE HUNDRED TWELFTH CONGRESS SECOND SESSION

MARCH 1, 2012 [https://www.govinfo.gov/content/pkg/CHRG-112shrg77338/pdf/CHRG\\_112shrg77338.pdf](https://www.govinfo.gov/content/pkg/CHRG-112shrg77338/pdf/CHRG_112shrg77338.pdf)

<sup>13</sup> <http://edition.cnn.com/2011/TRAVEL/02/03/antarctica.cruise/index.html>

<sup>14</sup> UPDATE IAATO on MV Polar Star - Cruise Passenger (2) <https://cruisepassenger.com.au/iaato-update-mv-polar-star/>

<sup>15</sup> <http://edition.cnn.com/2011/TRAVEL/02/03/antarctica.cruise/index.html>

build in 2000; 105 berths, 50 crew; length: 86.5 meters, breadth:21.2 meters, draft: 6.85 meters, gross tons: 4,998, Ice Class: DNV Ice 1A,<sup>16</sup> (equivalent of Polar Code ice class PC 7 Summer/autumn operation in thin first-year ice, which may include old ice inclusions )<sup>17</sup>

### **2011 - MV SEA SPIRIT**

Length 90.6 meters (297 ft.).Beam 15.3 meters (50 ft.).Speed 15 knots, berths 114, Crew 72<sup>18</sup>

Tourism Incidents 2011-12<sup>19</sup>

Incidents during the 2011-12 season included:

MV Sea Spirit temporarily grounded in Whalers Bay, Deception Island on 9 Dec. 2011, floating free at the next high water. Reports indicated no threat to human life and no damage to the environment. A subsequent diving inspection indicated no damage to the vessel. The incident was reported to the Deception Island Management Group (DIMG), and subsequently the IAATO Marine Committee issued an IAATO Safety Advisory on Whalers Bay (See ATCMXXXV/IP38).

### **IAATO report on Tourism Incidents 2014-15<sup>20</sup>**

During the 2014-2015 season, there were several incidents involving non-IAATO yachts. These included a grounding in the South Shetlands that resulted in an IAATO operator repatriating seven Polish nationals. Any such incidents are reported back to the associated Treaty Party or Competent Authority if there is one.

### **IAATO Report on Tourism Incidents 2015-16<sup>21</sup>**

IAATO Operators that were reported to date during the 2015-16 season include:

On 15 November 2015, **OCEAN ENDEAVOUR** struck ice causing some damage to the hull during the night near the South Shetland Islands.

The collision occurred near the South Shetland Islands. The ship was carrying a total of 167 passengers (24 different nationalities), all of which remained on board and safe. They were all disembarked in Ushuaia Argentina on Dec 16.<sup>22</sup>

The vessel did not require any assistance and with the agreement of the both Flag State and Classification Society proceeded back to the port of Ushuaia to undertake full repair.

On 14 December 2015, 10 Zodiacs were temporarily stranded at Port Lockroy during a zodiac cruise for 8 hours due to shifting pack ice. IAATO is grateful to the support afforded by the UK Antarctic Heritage Trust during this time, which in addition to the mandatory safety equipment carried ensured that passengers were safe and comfortable during the stranding.

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<sup>16</sup> UPDATE IAATO on MV Polar Star - Cruise Passenger (2)<https://cruisepassenger.com.au/iaato-update-mv-polar-star/>

<sup>17</sup> <https://balticsearouteing.dk/media/9984/56-equivalence-of-ice-classification-rules.pdf>

<sup>18</sup> <https://poseidonexpeditions.com/ships/sea-spirit/>

<sup>19</sup> Report of the International Association of Antarctica Tour Operators 2011-12

<sup>20</sup> Report of the International Association of Antarctica Tour Operators 2014-15  
<https://iaato.org> > 2020/03 > ATCM38\_ip084\_e

<sup>21</sup> Report of the International Association of Antarctica Tour Operators 2015-16  
[https://legacy.iho.int/mtg\\_docs/rhc/HCA/HCA14/ATCM39\\_ip103\\_e.pdf](https://legacy.iho.int/mtg_docs/rhc/HCA/HCA14/ATCM39_ip103_e.pdf)

<sup>22</sup> <https://www.cruisemapper.com/accidents/Ocean-Endeavour-1095>

During the 2015-2016 season, there were several incidents involving non-IAATO yachts where IAATO operators assisted with the response. These included two groundings: one off Cuverville Island from yacht Tarka and the second near Vernadsky Station of a yacht Angelique II.

#### **IAATO Report on Tourism Incidents 2017-18<sup>23</sup>**

The 2017-18 season saw no major incidents involving IAATO Operators. In all, a total of eight medical evacuations have been reported by IAATO Operators, all via Frei base, using flights from both DAP and ALE. In all instances both IAATO and the Operators involved are grateful for the assistance provided. Following a thorough investigation regarding allegations of a waste compliance issue from the previous season, IAATO members voted to place an Operator on probation with their membership status changed to “not in good standing” until certain criteria have been met. The Operator’s competent authority has been informed.

#### **IAATO Report on Tourism Incidents 2018-2019**

The 2018-19 season saw no major incidents involving IAATO Operators. In all, 14 medical evacuations have been reported by IAATO Operators. In all instances both IAATO and the Operators involved are grateful for the assistance provided

#### **IAATO Report on Tourism Incidents 2020-21<sup>24</sup>**

There were no major incidents involving IAATO Operators during the 2020-21 season.

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<sup>23</sup> Report of the International Association of Antarctica Tour Operators 2017-18 <https://iaato.org/wp-content/uploads/2020/03/Report-of-IAATO-IP070.pdf>

<sup>24</sup> Report of the International Association of Antarctica Tour Operators 2020-21 <https://iaato.org> › 2021/07 › ATCM43\_ip109\_e