

Investigation report

***Ady Gil and
Shonan Maru No.2***

Collision on 6 January 2010

Maritime New Zealand

Investigation report:

Ady Gil and ***Shonan Maru No. 2***

Collision on 6 January 2010

Published in November 2010
Maritime New Zealand, Level 10, Optimisation House
1 Grey Street, PO Box 27006, Wellington 6141

Contents

Glossary.....	vii
Executive summary	1
Maritime New Zealand	2
Statutory functions	2
Conduct of the investigation	3
Jurisdiction	3
Progress of the investigation.....	3
General remarks	5
Vessel particulars – <i>Ady Gil</i>	6
Vessel particulars – <i>Shonan Maru No. 2</i>	7
Vessel particulars – <i>Bob Barker</i>	8
Background information.....	9
Factual information – <i>Ady Gil</i>	11
Narrative	15
Relevant legal instruments and provisions.....	25
General	25
Collision prevention.....	26
Rule 1: Application	27
Rule 2: Responsibility.....	27
Rule 3: General definitions.....	27
Section I – Conduct of vessels in any condition of visibility	27
Rule 5: Lookout	27
Rule 6: Safe speed.....	27
Rule 7: Risk of collision	28
Rule 8: Action to avoid collision	28
Section II – Conduct of vessels in sight of one another.....	29
Rule 13: Overtaking.....	29
Rule 16: Action by give-way vessel.....	30
Rule 17: Action by stand-on vessel.....	30
Comments and analysis	31
Collision prevention.....	31
Vessel status – give way and stand on.....	32
Lookout.....	32
Safe speed	34
Risk of collision.....	35
Risk of collision – conclusion	36
Overtaking	37
Action by give-way vessel	37
Action by stand-on vessel	37

Conclusions	39
Recommendations.....	41
References	43
Acknowledgments.....	43

Appendices

Appendix 1: Video screenshots from forward deck of <i>Bob Barker</i>	45
Appendix 2: Video screenshots from <i>Ady Gil</i>	48
Appendix 3: Video screenshots from <i>Shonan Maru No. 2</i>	50
Appendix 4: Vessel tracks	53
Appendix 5: Vessel tracks showing speed over ground.....	55

Figures

Figure 1 <i>Ady Gil</i>	6
Figure 2 <i>Shonan Maru No. 2</i>	7
Figure 3 <i>Bob Barker</i>	8
Figure 4 Diagram showing <i>Ady Gil</i> 's rudder and propeller positions.....	11
Figure 5 <i>Ady Gil</i> 's approximate area of visibility	12
Figure 6 View forward and starboard from <i>Ady Gil</i> 's helm	13
Figure 7 View forward from port side of <i>Ady Gil</i>	13
Figure 8 Small window at rear of <i>Ady Gil</i> 's cockpit.....	14
Figure 9 <i>Yushin Maru No. 3</i> and <i>Ady Gil</i> , photographed from on board <i>Bob Barker</i>	16
Figure 10 <i>Shonan Maru No. 2</i>'s LRAD (the disc-shaped device at the centre of the photo)	17
Figure 11 <i>Shonan Maru No. 2</i> approaching <i>Ady Gil</i>	19
Figure 12 <i>Shonan Maru No. 2</i> initiating a turn towards <i>Ady Gil</i>	19
Figure 13 <i>Shonan Maru No. 2</i> and <i>Ady Gil</i>	19
Figure 14 <i>Shonan Maru No. 2</i> and <i>Ady Gil</i>	20
Figure 15 <i>Shonan Maru No. 2</i> and <i>Ady Gil</i>	20
Figure 16 Propeller wash indicating an increase of <i>Ady Gil</i> 's forward propulsion coinciding with the water monitors coming into range	21
Figure 17 Propeller wash showing a further increase in <i>Ady Gil</i> 's propulsion.....	21
Figure 18 Propeller wash showing <i>Ady Gil</i> 's astern propulsion	21
Figure 19 Collision	22
Figure 20 Damage to <i>Ady Gil</i>	23
Figure 21 <i>Ady Gil</i> under tow	24
Figure 22 Eight crew maintaining a lookout on <i>Shonan Maru No. 2</i>	33

Glossary

abaft	towards the stern of a ship, relative to another object
abeam	bearing or direction at right angles to a ship
AEDT	Australian Eastern Daylight Time
aft	at or towards the stern or after part of a ship
AIS	automatic identification system
astern	backwards or behind – can be used to describe either the movement of a ship going backwards or the direction behind a ship
bridge wing	an extension of a vessel's navigational bridge towards the sides of the vessel
conning	controlling or in control of the vessel
day tank	a small ship colloquial term for a daily service fuel oil tank
EPIRB	electronic position indicating radio beacon
give-way vessel	a vessel obliged to give way to a stand-on vessel
GPS	global positioning system
helm	the position from which a vessel is steered
helmsman	the person steering the vessel
hove-to	when a power-driven vessel is heading into the sea with just enough power to hold it in position
hrs	hours – used when referring to the 24-hour clock
ICPO	International Criminal Police Organisation
ICR	Institute of Cetacean Research
IMO	International Maritime Organization
IWC	International Whaling Commission
knot	a unit of speed equal to one nautical mile per hour, equivalent to 1.852 kilometres per hour or 1.151 miles per hour
kW	kilowatt
lookout	the act of watching for approaching vessels, navigational aids or hazards

LRAD	long-range acoustic device. LRADs are commonly used as a crowd-control or hailing device and emit a high-pitched tone of about 146 decibels at 1 metre
main tank	a tank used to hold all fuel oil
making way	a vessel making way through the water by her own means – either by sail or power
master	as defined by the Maritime Transport Act 1994, means <i>any person (except a pilot) having command or charge of any ship</i> . (The Act makes no distinction as to whether or not a master is certified or uncertified)
MNZ	Maritime New Zealand
MTA	Maritime Transport Act 1994
nautical mile	a measure of distance equivalent to 1852 metres
port	left-hand side of a vessel when viewed from the stern
RCCNZ	Rescue Coordination Centre New Zealand
SIMRAD	a brand of chart plotter and multifunction display unit
SOG	speed over ground
SSCS	Sea Shepherd Conservation Society
stand-on vessel	a vessel having the right of way when adhering to International Collision Regulations
starboard	right-hand side of a vessel when viewed from the stern
T	true direction
TAIC	Transport Accident Investigation Commission
underway	a vessel not at anchor or made fast to the shore or aground
VDR	voyage data recorder
VHF	very high frequency radio
water monitor	the correct nautical term for what is colloquially referred to as a water cannon. Water monitors are ordinarily used for fire fighting
yaw	the involuntary movement caused by the wind and sea by which a ship deviates from its chosen course (<i>Oxford Companion to Ships and the Sea</i> , I.C.B Dear & Peter Kemp, 1976)

Executive summary

1. At approximately 1436 hrs AEDT on 6 January 2010, the Japan-registered vessel ***Shonan Maru No. 2*** and the New Zealand-registered vessel ***Ady Gil*** were involved in a collision. The collision took place in the Southern Ocean approximately 165 nautical miles north of Antarctica at a position of 64° 03'S, 143° 10'E. The collision resulted in approximately 3.5 metres of ***Ady Gil***'s bow being sheared off.
2. ***Ady Gil*** was in the Southern Ocean as part of a Sea Shepherd Conservation Society (SSCS) fleet, which included two other vessels, ***Bob Barker*** and ***Steve Irwin***. The SSCS's purpose in the Southern Ocean was the disruption of whaling activities conducted by Kyodo Senpaku Kaisha Ltd¹ on behalf of the Institute of Cetacean Research (ICR). The ICR vessels relevant to this investigation were the Japan-registered vessels ***Nisshin Maru***, ***Shonan Maru No. 2*** and ***Yushin Maru No. 3***.
3. One person on board ***Ady Gil*** sustained a rib injury as a result of the collision. ***Ady Gil*** crew members sustained bruising and other minor injuries. No injuries were reported from the ***Shonan Maru No. 2***.
4. Crew from ***Bob Barker*** rescued the ***Ady Gil*** crew and attempted to tow ***Ady Gil*** to the French Antarctic Base at Dumont d'Urville. At around 0230–0300 hrs AEDT on 8 January 2010, ***Ady Gil*** was believed to be sinking and was cut free from her tow.
5. The investigation concluded that both ***Ady Gil*** and ***Shonan Maru No. 2*** departed from the International Regulations for the Prevention of Collisions at Sea 1972 (and amendments) (International Collision Regulations), and engaged in conduct that resulted in the collision.
6. As the overtaking vessel, ***Shonan Maru No. 2*** failed to take early and substantial action to keep well clear of ***Ady Gil***. This resulted in the development of a close quarters situation, during which ***Shonan Maru No. 2*** failed to take positive and ample action to avoid colliding with ***Ady Gil***.
7. The stand-on vessel, ***Ady Gil***, failed to maintain an effective lookout and to take early and substantial action when it became apparent that a close quarters situation had arisen and the risk of collision existed.
8. There is no evidence to suggest that the actions and omissions referred to above were the result of an intention on the part of the master of either vessel to collide with the other. Rather, the collision appears to have resulted from a failure by both masters and the crew of both vessels to appreciate, and react appropriately to, the potential for collision.
9. Other matters regarding the conduct and protest action of ***Ady Gil*** do not form part of this report. This investigation focused strictly on the collision from a maritime perspective and the ordinary practice of seamen. Issues as to whaling, protest action, and the wider intentions and strategies of the parties have not been explored in depth, although these are referred to where they were needed to provide some context.

1. Kyodo Senpaku Kaisha Ltd operates the vessels that conduct the collection and processing of whales.

Maritime New Zealand

10. Maritime New Zealand (MNZ) is a Crown entity under the Crown Entities Act 2004.
11. MNZ's primary functions and duties are laid out in the Maritime Transport Act 1994 (MTA), which sets out the objective of the Authority as follows:²

To undertake its safety, security, marine protection and other functions in a way that contributes to the aim of achieving an integrated, safe, responsive and sustainable transport system.
12. MNZ has additional obligations and functions under the following legislation:
 - Maritime Security Act 2004: MNZ has been designated as the agency responsible for administering this Act for the effective implementation of the International Code for the Security of Ships and of Port Facilities.
 - Section 14C of the Civil Aviation Act 1990: The Minister has directed that MNZ is responsible for coordinating Category II search and rescue operations, and for operating and maintaining the Rescue Coordination Centre New Zealand (RCCNZ).
 - Health and Safety in Employment Act 1992 (HSEA): MNZ has been designated as the responsible agency to administer this Act for work on board ships and for ships as places of work.
 - Ship Registration Act 1992: MNZ is required to maintain the New Zealand Register of Ships.

Statutory functions

13. Under section 431 of the MTA, MNZ has the following functions:³
 - To promote maritime safety and security, and protection of the marine environment in New Zealand and beyond New Zealand, in accordance with New Zealand's international obligations
 - To ensure the provision of appropriate distress and safety radio communication systems and navigational aids for shipping
 - To ensure New Zealand's preparedness for, and ability to respond to, marine oil pollution spills
 - To license ships, their operation and their crews
 - To cooperate with, or provide advice and assistance to, any government agency or local government agency when requested to do so by the Minister
 - To provide information and advice about maritime transport and marine protection, and to foster appropriate information and education programmes for maritime transport and marine protection
 - To investigate and review maritime transport accidents and incidents, and maritime security breaches and incidents
 - To maintain the New Zealand Register of Ships
 - To maintain and preserve records and documents relating to the Authority's functions
 - To advise the Minister on technical maritime safety policy.
14. The functions of the Director of Maritime New Zealand (the Director) are set out at section 439 of the MTA. Further to those functions, the Director has the power to investigate accidents, incidents and mishaps required to be notified to the Director. All accidents, incidents and mishaps involving New Zealand ships must be notified (s.57 MTA).

2. See Section 430 of the MTA.

3. This is not an exhaustive list.

Conduct of the investigation

Jurisdiction

15. The Southern Ocean is part of the 'High Seas' which are those waters that lie beyond the territorial sea or exclusive economic zone of any state.⁴ The state of nationality of a ship (the flag state) has exclusive jurisdiction over the ship when it is on the high seas (United Nations Convention on the Law of the Sea, Article 92).
16. In New Zealand, the Transport Accident Investigation Commission (TAIC) investigates the circumstances and causes of maritime accidents and incidents to avoid reoccurrences and not to ascribe blame to any person.
17. MNZ investigates and reviews maritime accidents and incidents to establish the cause and identify the appropriate safety regulatory response. The main purpose of MNZ's investigations is to apply corrective actions of various kinds to the New Zealand maritime sector in order to improve its overall safety performance.
18. TAIC does not investigate all maritime accidents and incidents. Where TAIC declines to investigate, MNZ may investigate of its own accord and for its own purposes.
19. TAIC reviewed the collision and declined to investigate on the basis that the collision did not meet the threshold of:

.... having or likely to have significant implications for transport safety or may allow the Commission to establish findings or make recommendations which may increase transport safety. (s.13(1) TAIC Act 1990)
20. Consequently, MNZ conducted an investigation to determine the causes and contributing factors of the collision and to identify the appropriate safety regulatory response.
21. As the collision involved a Japan-registered vessel on the high seas, Japan also had jurisdiction to investigate the collision. The Japan Transport Safety Board held a similar view to that of its New Zealand equivalent, TAIC. As a result, this matter, along with other matters arising from the protest actions of *Ady Gil*, was handed to the criminal division of Japan Coastguard.
22. MNZ sought cooperation with Japan Coastguard.

Progress of the investigation

23. In May 2010, Japan Coastguard advised that it had undertaken a preliminary investigation and identified no criminal action and therefore decided not to investigate further. In particular, Japan Coastguard indicated it had not taken statements from the crew and master.
24. On 28 January 2010, the SSCS vessel *Steve Irwin* berthed in Fremantle, Australia. *Ady Gil*'s crew and master were on board and met with MNZ investigators. Statements were subsequently taken from the master, four crew and a cameraman independent of SSCS who had been on board *Ady Gil*. These statements were digitally recorded and later transcribed.
25. With the exception of the cameraman on board *Ady Gil*, all those interviewed were cautioned that they had the right to refrain from making a statement and the right to legal counsel. All statements were taken in the presence of legal representation.
26. Video footage shot from *Ady Gil* and *Bob Barker*, photographs and other documentary evidence were also obtained at this time.

4. Article 86 UNCLOS.

27. On 7 March 2010, **Bob Barker** berthed in Hobart in Tasmania, Australia, where MNZ investigators interviewed the master, first officer, engineer and communications officer. Other documentary evidence, equipment and navigational data were obtained and reviewed at this time.
28. Navigation equipment recovered from **Ady Gil** was provided to investigators, although subsequent examination of the equipment did not yield any information of value. This equipment included:
 - Navico NAIS-300 class B AIS transponder
 - Navman G-pilot 600
 - Cummins Diesel View units x 2
 - Navman VHF 7200
 - Broadband sounder BSM-1
 - Navico expansion port-1
 - Navman Pilot 3380
 - Cummins In-line 5 data link adaptor
 - Navico interface box (x 2) RI-10 and RI-11.
29. **Ady Gil's** master had earlier confirmed that two chart plotters, referred to as 'Simrads', had been removed from **Ady Gil**. MNZ investigators had anticipated receiving the two Simrads from **Bob Barker** when she berthed in Hobart, but these could not be found and the crew were at a loss to explain their disappearance.
30. On 24 May 2010, MNZ investigators were advised that a member of the public had found a Simrad washed up on a beach in Tasmania. The Simrad was handed back to the manufacturing company which, using serial numbers, was able to identify the Simrad as being from **Ady Gil**.
31. It is not considered that the Simrad could have remained afloat long enough for it to drift from Antarctic waters to Tasmania. One explanation is that it was thrown overboard before **Bob Barker** reached port in Hobart. SSCS acknowledged that this was most likely the case, and through its own inquiries attempted unsuccessfully to identify the crewmember responsible.
32. The Simrad was tested for the purpose of obtaining a track record, positioning data, timings and/or other navigational data that may have assisted the inquiry. Some data was recovered, although the Simrad did not hold any track history. The examination was unable to determine whether the absence of track history was because the recording function was not switched on around the time of the collision, or whether the data had later been deleted.
33. **Ady Gil's** plans and specifications, along with other information, were also obtained from the manufacturer and designer.
34. On 8 June 2010, MNZ received photographs, video footage, radar screenshots and Voyage data recorder (VDR) information from Japan Coastguard, via International Criminal Police Organisation (ICPO) channels. The soundtracks to the video footage taken from **Shonan Maru No. 2** were transcribed and translated.
35. This report contains analysis and interpretation of the information supplied.
36. On 16 August 2010, SSCS forwarded to MNZ a second Simrad that had come from **Ady Gil** ("the second Simrad"). SSCS explained that this had only recently been discovered, having been inadvertently misplaced on **Bob Barker**. Data from the second Simrad was analysed, to determine events leading to the collision.

General remarks

37. Radar plots, video footage, still photographs taken from *Bob Barker* and *Shonan Maru No. 2* and commentary from the video taken aboard *Shonan Maru No. 2* was analysed to determine the events leading to the collision. (Refer to Appendices 1– 5)
38. The track of each vessel was plotted from *Shonan Maru No. 2*'s VDR and information obtained from *Ady Gil*. (Refer to Appendices 4– 5)
39. This report includes photographs and video screenshots taken at the time of the events described. Some context for their use is required.
40. Single photographs or short video clips can not be relied on to portray events completely or accurately. Viewing video footage or photographs in the absence of a fixed object on the horizon can result in angles, distance, vessel aspect and timing being difficult to perceive accurately. Different camera angles may portray an individual vessel's aspect differently. Although camera timings are referred to, the various cameras were not synchronised and timings do not align.
41. The findings in this report have been made only after investigators viewed and analysed hours of video footage obtained with cross reference to the navigational data.
42. The information contained within this report is based only on the data and evidence available to MNZ. This did not include any explanation or statement from the master or crew of *Shonan Maru No. 2* or any other ICR vessels.
43. The investigation followed the usual MNZ investigation process. This allowed interested parties to review and comment on the draft material before it is finalised and made available to the public. In this instance, the draft report was sent to interested parties on 30 September 2010, who were provided with an opportunity to review and comment. Consideration was then given to comments received and, where appropriate, they were incorporated into this report.

Vessel particulars – *Ady Gil*

Vessel Name:	<i>Ady Gil</i>
IMO Number:	Not applicable
Official Number:	NZ1271
Vessel Flag:	New Zealand
Port of Registry:	Wellington
Vessel Type:	Tri-Hull Wave-Piercing Trimaran
Vessel Owner:	Earthrace Limited
LOA:	23.4 metres
Draught:	1.4 metres
Trial Speed:	28 knots ⁵
Main Engine:	2 x Cummins Mercruiser QSC 540 engines 2 x ZF 305A gearboxes, 4 blade 32 inch propellers



Figure 1 *Ady Gil*

(Photograph courtesy of SSCS)

5. The *Ady Gil* master stated he had on occasion achieved a maximum speed of 41 knots.

Vessel particulars – *Shonan Maru No. 2*

Vessel Name:	<i>Shonan Maru No. 2</i>
IMO Number:	7225166
Official Number:	112872
Vessel Flag:	Japan
Port of Registry:	Tokyo
Vessel Type:	Whale-catcher
Vessel Owner:	Kyodo Senpaku Kaisha Ltd
LOA:	70.55 metres
Registered LxBxD:	64.800 metres x 10.200 metres x 5.190 metres
Draught	4.763 metres
Trial Speed:	18.8 knots
Main Engine:	1DL 2 SA 9 CY, 4045 kilowatts, manufactured by Hitachi Zosen Corporation Maizuru Works



Figure 2 *Shonan Maru No. 2*
(Photograph courtesy of SSCS)

Vessel particulars – *Bob Barker*

Vessel Name:	<i>Bob Barker</i>
IMO Number:	5280540
Official Number:	5 VBR5
Vessel Flag:	Not flagged ⁶
Port of Registry:	n/a
Vessel Type:	Unclassified
Vessel Owner:	Sea Shepherd Conservation Society
LOA:	52.24 metres
Draught:	5.95 metres
Trial Speed:	18 knots
Main Engine:	SBV12 M628 3000 horsepower



Figure 3 *Bob Barker*
(Photo courtesy of SSCS)

6. *Bob Barker* was registered in Lome and carried the Togo flag. However, Togo withdrew the flag while *Bob Barker* was in the South Pacific around the time of the collision.

Background information

44. The vessel **Earthrace** was constructed in 2007 and registered as a recreational vessel at the Port of Wellington, New Zealand. Registration is a requirement of the Ship Registration Act 1992 for all New Zealand-owned vessels proceeding on overseas voyages.
45. In mid-2009, the vessel **Earthrace** was renamed **Ady Gil**.
46. The master of **Ady Gil**, holding a New Zealand Coastguard Coastal-master Certificate, remained with **Ady Gil** as master in a voluntary capacity. The crew of **Ady Gil** were all volunteers and did not hold maritime documents or have significant seagoing experience.⁷ With the exception of one crewmember, who described himself as a seasoned SSCS campaigner, the crew were selected by **Ady Gil**'s master for their physical ability and character.
47. SSCS describes itself in the following way:
- Established in 1977, Sea Shepherd Conservation Society is an international non-profit, marine wildlife conservation organization. Our mission is to end the destruction of habitat and slaughter of wildlife in the world's oceans in order to conserve and protect ecosystems and species. Sea Shepherd uses innovative direct-action tactics to investigate, document, and take action when necessary to expose and confront illegal activities on the high seas. By safeguarding the biodiversity of our delicately-balanced ocean ecosystems, Sea Shepherd works to ensure their survival for future generations.*⁸
48. SSCS's response to the 2009–2010 whaling season was named 'Operation Waltzing Matilda'. SSCS's intended activities were described on the organisation's website in the following way:
- This year the Sea Shepherd crew intend to waltz on down to the Southern Ocean with a bedroll full of tactics and surprises, and we intend to do a dangerous but effective 'dance' with the Japanese whaling fleet to save the lives of as many whales as we possibly can. Our flagship **Steve Irwin** will be joined by a very fast interceptor vessel called **Earthrace**. This ship looks more like a spaceship than a boat. It has the speed and manoeuvrability to catch and block the fast Japanese harpoon ships.*
49. 'Operation Waltzing Matilda' involved **Ady Gil** and two other SSCS vessels, **Steve Irwin** and **Bob Barker**.
50. It was intended that **Ady Gil**, being capable of speeds up to 40 knots, would be able to intercept the Japanese whaling fleet and delay it long enough for the slower vessels, **Bob Barker** or **Steve Irwin**, travelling at 12–16 knots, to draw near.
51. Members of a Los Angeles-based production crew filming the latest series of the Discovery Channel documentary "Whale Wars" were on board **Bob Barker**, **Steve Irwin** and **Ady Gil** at the time of the collision.
52. On 23 November 2009, **Ady Gil** was inspected by an MNZ Safety Inspector for the purpose of establishing that the vessel and its safety equipment were adequate for the voyage to Perth. During the inspection, the MNZ inspector noted and informed the **Ady Gil**'s master that she was "not approved for voyage in ice".

7. A 'maritime document' is issued by the Director of Maritime New Zealand under the provisions of the MTA. The New Zealand Coastguard Coastal-master Certificate is not a maritime document.

8. <http://www.seashepherd.org/who-we-are/>.

53. **Shonan Maru No. 2** was operating as part of the ICR whaling fleet. ICR describes itself and its purpose in the following way:

A unique organization in Japan specializing in the biological and social sciences related to whales, came into being in October 1987. It is a non-profit research organization whose legal status is authorized by the Ministry of Agriculture, Forestry and Fisheries, Government of Japan, as a foundational judicial person.

The ICR is dedicated to a wide range of cetacean research and is expected to function as a centre of research efforts made by independent researchers such as those described above.⁹

54. The ICR fleet consisted of a factory vessel, **Nisshin Maru**, which processed whales on board, **Shonan Maru No. 2**, three harpoon vessels, spotter vessels and a refuelling tanker.
55. **Ady Gil** had encountered **Shonan Maru No. 2** six weeks prior to the collision and engaged in anti-whaling protest activities that involved attempting to foul **Shonan Maru No. 2**'s propeller with a mooring line and shining a laser onto the bridge.
56. On 24 December 2009, MNZ received a complaint regarding **Ady Gil**'s actions. Although the complaint has been dealt with separately, some of the circumstances are referred to in this report, to provide context for the situation in which the collision occurred.
57. All parties concerned had previously been cautioned by the New Zealand and Australian governments about the possible dangers of collision and the need for caution.

9. <http://www.icrwhale.org/abouticr.htm>.

Factual information – *Ady Gil*

58. *Ady Gil* was designed as a tri-hull wave-piercing trimaran. The hull construction was a sandwich composite carbon fibre, which included a single layer of kevlar on the outside. In 2009, another five layers of kevlar were added beneath the waterline, in an attempt to strengthen the hull and limit any damage if the vessel made contact with ice. The kevlar layer on the outside of the hull did not qualify the vessel as an ice-class or ice-strengthened vessel, but was intended to limit any potential damage.
59. *Ady Gil* was fitted with two 350kW (540 horsepower) Cummins engines, connected to twin four-bladed propellers beneath the main hull and two rudders beneath the winged sponsons. The design meant the propellers could be used to achieve fore and aft propulsion and speeds of about 28 knots. The propellers could also be used with one engine running ahead and the other astern, to provide maximum torque for turning the vessel around.
60. *Ady Gil*'s design enabled good manoeuvrability at high speeds but, due to the design of her propeller and the location of the rudders on the sponsons, the vessel was not very manoeuvrable at speeds under 12 knots. Water flowing past the rudder was not adequate to create a turning movement. At low speeds, using the engines to create an effective turning torque was more effectual.
61. When moving *Ady Gil*'s throttles from neutral to ahead or neutral to astern, the respective gears had to be engaged, which was reported by the *Ady Gil* master to take between two and four seconds. Moving the throttles directly from ahead to astern without waiting for the gears to disengage and re-engage could potentially stall the engines.
62. A few days prior to the collision, the manual steering helm was found to have minor problems and the vessel was reportedly being steered under auto helm, which involves controlling the rudder with a dial control or buttons. This is a longer process than simply turning a wheel. This manner of steering is not as effective at low speeds or in conditions of moderate sea or swell.

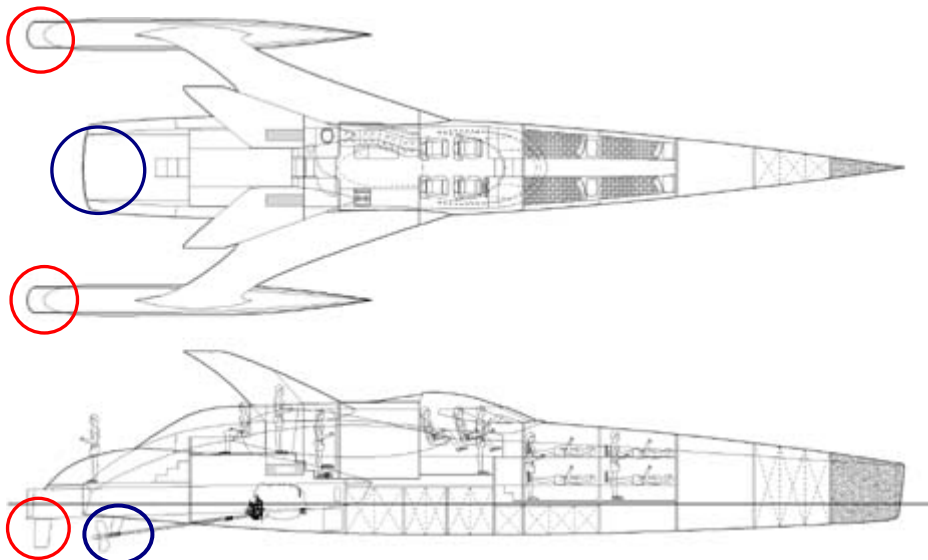


Figure 4 Diagram showing *Ady Gil*'s rudder and propeller positions
(Diagram courtesy of *Ady Gil*'s designer)

63. **Ady Gil**'s forward windscreen was relatively small and designed to withstand the impact of waves. General visibility astern from the conning position was very limited, with only a small window providing any visibility directly astern. The master explained visibility from the helm as follows:

Visibility astern on the starboard side is, is limited in that you've kind of got to put your head over and you can look back I would say at about 45, maybe 50 degrees, maybe a little bit more, maybe 60 degrees astern on the starboard side you can look back, but from the driver's seat looking on the port side I would say you could look only 10 degrees astern of directly to port, if that makes sense, from your driver's seat. If you jump out of your seat, and you go over and you look back there.

64. Accordingly, the helmsman¹⁰ relied on verbal commands from a crewman standing at the stern when reversing or for maintaining a general lookout. Verbal commands would usually be done using handheld VHF radios, although radios were not used when engaging with the whaling fleet because of concerns they would be overheard. Alternatively, voice commands were relied on.

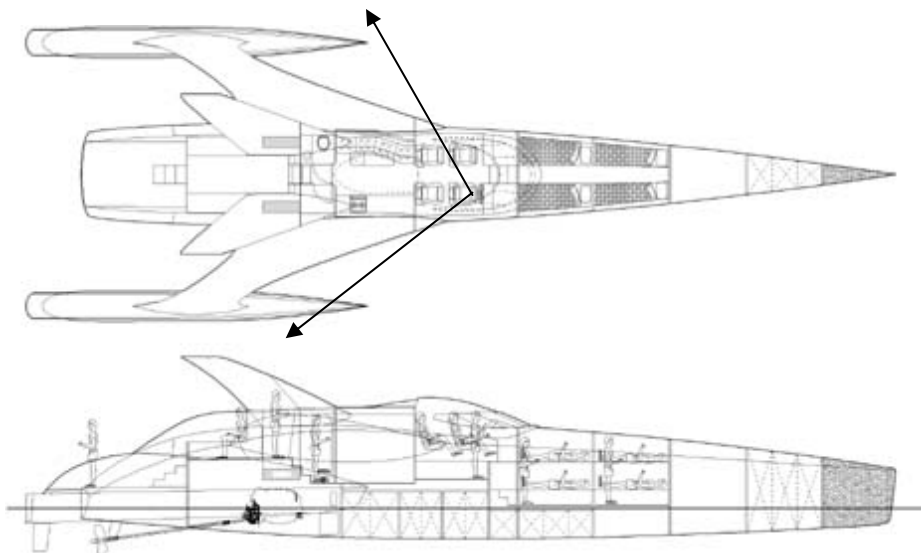


Figure 5 **Ady Gil**'s approximate area of visibility

(Diagram courtesy of **Ady Gil**'s designer)

10. The term 'helmsman' is generally used to describe the person at the helm steering the vessel and operating the engine controls. On **Ady Gil** this was either the master or one of the crew. Throughout this report, the crewman at the helm is referred to as 'the helmsman'.



Figure 6 View forward and starboard from *Ady Gil*'s helm
(Photograph courtesy of SSCS)



Figure 7 View forward from port side of *Ady Gil*
(Photograph courtesy of SSCS)



Figure 8 Small window at rear of **Ady Gil**'s cockpit
(Photograph courtesy of SSCS)

Narrative

65. *Ady Gil* was berthed in Perth in November 2009. Once fully crewed and supplied, she departed for the Southern Ocean with the intention of locating and disrupting the Japanese whaling fleet operating in that area.
66. The master of *Steve Irwin* (who describes himself as SSCS's "master and commander")¹¹ provided overall tactical control and general direction to the SSCS vessels undertaking protest action. *Ady Gil*'s master acknowledged that this did not diminish or supersede the responsibilities he held as master of *Ady Gil*.
67. At about 0300 hrs AEDT on 6 January 2010, information regarding the location of the Japanese whaling fleet was passed on to SSCS. *Ady Gil* was estimated by the master to be 31 nautical miles away.
68. The master of *Steve Irwin* directed *Ady Gil*'s master to engage with the whaling fleet's primary vessel, *Nisshin Maru*, and slow her down long enough for *Bob Barker* to draw near. It was intended that *Bob Barker* would then maintain a position astern of *Nisshin Maru* and block the loading ramp. This was expected to have an overall effect of disrupting whaling efforts.
69. *Ady Gil* was low on fuel and the master intended they would engage with the whaling fleet only long enough to achieve the objective. The vessels would then hove-to for the two or three days it was anticipated that *Steve Irwin* would take to arrive and refuel them.
70. Around 0600 hrs AEDT on 6 January 2010, *Ady Gil* located and engaged with *Nisshin Maru*. During this time, *Ady Gil* repeatedly cut across *Nisshin Maru*'s bow and on two occasions dropped lines in an attempt to foul her propeller. One of these occasions involved a length of mooring line 80 millimetres in diameter and approximately 30–40 metres long. The other involved a 30 millimetre diameter rope of a similar length. Neither of these two attempts was successful in fouling the propeller, although they did cause *Nisshin Maru* to slow her speed.
71. Using a purpose-built air gun, commonly known as a 'spud gun', crew on *Ady Gil* fired apples and raw kumara¹² at *Nisshin Maru*. These were aimed at the satellite communications antenna situated above the bridge, with the intention of damaging this equipment¹³.
72. Bottles of butyric acid were also fired from *Ady Gil* onto *Nisshin Maru*'s deck and superstructure. Butyric acid is particularly malodorous and it was intended that the smell would contaminate the decks, which would then need to be chemically cleaned before any whale processing could take place.
73. By about 1430 hrs AEDT, *Ady Gil* had slowed *Nisshin Maru* long enough for *Bob Barker* to catch up and arrive in their general vicinity. At this point, the Japanese vessels were heading as a fleet on a course of about 030(T).
74. When *Ady Gil* disengaged from *Nisshin Maru*, two of the Japanese harpoon vessels broke away from the fleet and took a circuitous route around *Ady Gil* before rejoining the fleet and continuing on their northbound course. One of these vessels was *Yushin Maru No. 3*.

11. <http://www.seashepherd.org/who-we-are/master-and-commander.html>.

12. A sweet potato commonly referred to in New Zealand by its Māori name, kumara.

13. A SSCS officer can be seen and heard on video footage instructing an *Ady Gil* crewman operating the spudgun to "hit anything that is communications, radio, whatever" and to "aim for the round thing on top" while appearing to refer to *Nisshin Maru*'s radar antennae.



Figure 9 *Yushin Maru No. 3* and *Ady Gil*, photographed from on board *Bob Barker*
(Photograph courtesy of SSCS)

75. Shortly after separating from *Yushin Maru No. 3*, the master of *Ady Gil* passed the helm over to one of the crew ('the helmsman'). *Ady Gil*'s master instructed the helmsman to make a course that would put it parallel with *Bob Barker*. The helmsman took this course, which crossed the bow of *Shonan Maru No. 2* from port to starboard at a safe distance.
76. The master then went aft to the stern, where he sat with the remainder of the crew and had a general discussion on their success in slowing *Nisshin Maru*.
77. In coordination, *Ady Gil* and *Bob Barker* came alongside each other at a speed of approximately 12–13 knots.¹⁴ (Refer to 'estimated route' shown in Appendix 4)
78. At this time, *Shonan Maru No. 2* was astern of *Bob Barker* and *Ady Gil*.
79. *Bob Barker* and *Ady Gil* were on a general heading of 350°T and the radar image from *Shonan Maru No. 2* suggests *Ady Gil* had a speed of 12.7 knots. *Shonan Maru No. 2* also appeared to have been on a general heading of 350°T, but travelling slightly faster at a speed of 15.3 knots. (Refer to Appendices 4 and 5)
80. *Shonan Maru No. 2*, *Bob Barker* and *Ady Gil* maintained this general heading for approximately three minutes. (Refer to Appendices 4 and 5)
81. The video footage taken from *Ady Gil* shows that approximately three minutes prior to the collision, *Ady Gil*'s master asked one of the crew to instruct the helmsman to stop *Ady Gil*, advising the crewman that they needed to save fuel. It was believed that prior to meeting with *Bob Barker*, the fuel had been measured at 400–450 litres. The *Ady Gil* master expected with a fuel consumption rate of one litre per hour at idle, this would be sufficient to hove-to until *Steve Irwin* arrived.
82. The helmsman believed at the time that the master's instruction had been to slow down. He reduced throttle to about 600rpm. With limited steering at this speed, *Ady Gil* was yawing subject to the effects of wind and sea swell, which caused the vessel's heading to change.

14. Refer to video footage taken from *Ady Gil* at 1432 hrs onwards. The crew of each vessel can be seen waving out and passing on their good wishes to each other.

83. Approximately two minutes prior to the collision, water monitors were deployed from the bow, midships and stern of **Shonan Maru No. 2**. These were all aimed to their starboard side in the general direction of **Ady Gil**. The water monitors were estimated by investigators to have a range of approximately 50–70 metres. (Refer to Appendix 4, Point A)
84. The intention behind using the water monitors has not been determined. However, given **Ady Gil**'s earlier engagement with the **Nisshin Maru**, that morning, the master may have anticipated aggressive protest action from **Ady Gil**. The water monitors may therefore have been intended to warn or to hinder further close approach or aggressive action.
85. One minute and 50 seconds prior to the collision, **Ady Gil** had reduced her speed to below five knots. (Refer to Appendix 4, Point B)
86. As **Shonan Maru No. 2** drew nearer to **Ady Gil** (refer to Appendix 4, Point C) a cautionary warning was hailed in English:
- Warning, warning. This is the master of the Shonan Maru No. 2. Stop your obstructive actions immediately. Keep away from our ship or we will have to call the [inaudible].*
87. The soundtrack to video footage from **Ady Gil** indicates that ICR vessels commonly sounded similar cautions when in the presence of SSCS vessels. The **Ady Gil** master had previously heard and ignored similar warnings.
88. This warning cannot be heard on the video footage taken from **Ady Gil** at that particular time. The warning was not mentioned by anyone interviewed. The inability to hear this warning is not considered to be a factor in the collision.
89. Following the warning, a long-range acoustic device (LRAD)¹⁵ sounded from **Shonan Maru No. 2** caught the attention of the master and crew at the stern of **Ady Gil**, but not the attention of the helmsman, who remained unaware of **Shonan Maru No. 2**'s approach.



Figure 10 **Shonan Maru No. 2**'s LRAD (the disc-shaped device at the centre of the photo)

(Photograph courtesy of SSCS)

15. LRADs are commonly used as a crowd-control or hailing device and emit a shrill, high-pitched tone of about 146 decibels at 1 metre. This is higher than the normal human pain threshold and capable of causing permanent hearing damage. At 300 metres they measure about 90 decibels, which is distracting and painful.

90. From then on, the attention of those **Ady Gil** crew members sitting at the stern was focused on **Shonan Maru No. 2**. The master described his thoughts at this point and his instructions to the crew in the following way:

I was like, "No mate we're just gonna sit here and take this" and I said, "They're gonna hose us, and they're gonna use the LRAD, we're just gonna sit here and take it," and so my intention was just glare at these guys as they went past and I remember this guy poking his nose out from the bridge and I just stood there and glared at him.

91. These comments were not audible on the soundtrack to reviewed video footage. It is possible that they were covered by the volume of the LRAD.
92. **Ady Gil's** master's intentions were to remain as they were. His instructions to that effect were not communicated to the helmsman, who at this stage was not aware of **Shonan Maru No. 2** approaching. Those intentions were not communicated in any way to **Shonan Maru No. 2**.
93. The information available suggests that, when **Shonan Maru No. 2** was approximately 130 metres away from **Ady Gil**, **Shonan Maru No. 2** steered so as to alter her track line some 13° degrees starboard (that is, from about 350°(T) to 014°(T). This alteration of course by **Shonan Maru No. 2** rendered a close quarters situation inevitable in the absence of either a further change of course by **Shonan Maru No. 2** or a change of course by **Ady Gil**. (Refer to Appendix 4 from Point D onwards, and to Appendix 5)

94. The following screenshots show the final seconds prior to the collision. Note that *Shonan Maru No. 2* appears to be yawing, which resulted in the vessel's heading continually changing.



Figure 11 *Shonan Maru No. 2* approaching *Ady Gil*
(Video courtesy of Lizard Productions)



Figure 12 *Shonan Maru No. 2* initiating a turn towards *Ady Gil*
(Video courtesy of Lizard Productions)



Figure 13 *Shonan Maru No. 2* and *Ady Gil*
(Video courtesy of Lizard Productions)



Figure 14 **Shonan Maru No. 2** and **Ady Gil**
(Video courtesy of Lizard Productions)



Figure 15 **Shonan Maru No. 2** and **Ady Gil**
(Video courtesy of Lizard Productions)

95. Shortly after the change of heading took effect, **Shonan Maru No. 2** came close enough for its water monitors to reach **Ady Gil**.
96. Although the exact timing cannot be determined, it was in the moments preceding the apparent alteration of course that the **Ady Gil** helmsman, alerted by the LRAD sounding, became fully aware of the situation developing. Prior to this his attention had been on other things and he had not been monitoring **Ady Gil**'s radar. He moved from his seat at the helm and looked astern out of the port cockpit window. He describes what he saw and did as follows:

*My concern got to such a level that I jumped out of the helm seat and went across to the port side and had a look outside the port side window, and at that stage I could see a Japanese whaling vessel ... just simply, you know, big bow with water cannons spraying out the front and I had a pretty strong reaction that he was going to hit us. I was very, very concerned for my own safety and for the safety of the rest of the crew when I could see this vessel, because I thought he was going to hit us, so I made a decision then to try and take evasive action. Given that I was already engaged in forward gears, albeit only in idle, I pushed both throttles to about 50 percent forward position ... we did start moving forward but it became clear to me that I was too late to fulfil the manoeuvre I wanted to do. I basically wanted to steer a port to starboard and accelerate away from the **Shonan Maru** to get ahead of them and to starboard of them.*

*... I then tried to reverse, to back out, from that position, being in front of the bearing or the course that the **Shonan Maru** had, which was to hit us. It was a collision course.... I reverse engaged and we started moving backwards but not enough. We were only, we really only just got moving backwards and the next thing I can recall is that I am seeing steel, steel hull of a, of the Japanese whaler, ... going through the hull...*

97. Crew from **Ady Gil** can be heard on the video soundtrack from their vessel, shouting “Whoa, whoa” just prior to the collision. When interviewed, the crew stated that this was not directed at anyone in particular and was a reaction to the imminent collision. It is apparent that around this time, **Ady Gil** had obtained some of the forward speed spoken of by the helmsman.
98. Screenshots from **Shonan Maru No. 2** video show the point at which the helmsman accelerated forward and then later reversed.¹⁶



Figure 16 Propeller wash indicating an increase of **Ady Gil**'s forward propulsion coinciding with the water monitors coming into range



Figure 17 Propeller wash showing a further increase in **Ady Gil**'s propulsion



Figure 18 Propeller wash showing **Ady Gil**'s astern propulsion

16. Stills taken from the Institute of Cetacean Research video footage taken from **Shonan Maru No. 2**. Sourced from <<http://www.youtube.com/watch?v=anXPPTk-jY8&feature=fvsr>>.

99. The *Ady Gil* helmsman estimated that he had 5–10 seconds to assess the situation and decide on a course of action. He described the situation as highly stressful. It was within this high-stress situation that the helmsman made his decisions, without instruction from the master of the vessel.
100. Data extracted from *Ady Gil*'s Simrad shows that when the two vessels were approximately 30–40 metres apart, *Ady Gil* increased speed from 3.83 knots to 6.74 knots. This increase in speed occurred over 12 seconds.¹⁷
101. *Ady Gil*'s master and crew were all firm in their belief that following *Shonan Maru No. 2*'s turn to starboard, *Shonan Maru No. 2* was on a collision course with *Ady Gil*, and the helmsman's forward and reverse actions did nothing more than shift the point of impact.
102. Video soundtrack from *Shonan Maru No. 2* suggests the *Shonan Maru No. 2* crewman held a contrary belief, and that it was the actions of *Ady Gil* moving forward that resulted in the collision.¹⁸
103. There was insufficient evidence from the video and VDR data to determine conclusively whether or not *Shonan Maru No. 2* would have collided with *Ady Gil* had the *Ady Gil* helmsman not accelerated forward.
104. *Shonan Maru No. 2* and *Ady Gil* subsequently collided, striking *Ady Gil*'s bow and port sponson, taking approximately 3.5 metres off her bow. The moment of collision is shown in the photograph below. From the information available, it was not possible to plot accurately the final metres of each vessels track in relation to the other.



Figure 19 Collision
(Photograph courtesy of SSCS)

105. On impact, the crew of *Ady Gil* were thrown onto the after-deck. An independent cameraman being carried on *Ady Gil* suffered a rib injury. The doctor onboard *Bob Barker* suspected that it was badly bruised, with the possibility of a fracture. The extent of the rib injury could not be determined without an X-ray, which was not available. No other serious injuries were sustained.

17. Positions recorded come from the position of each vessel's antennae and do not necessarily reflect the entire position of each vessel.

18. As translated by the Department of Internal Affairs' Translation Services (New Zealand).

106. In the moments following the collision, the *Ady Gil* master instructed the helmsman to put out a mayday call, which he did. The liferaft, EPIRB and flares were also retrieved and prepared for deployment. It soon became apparent that *Ady Gil* was not in immediate danger of sinking and these were not needed.
107. *Ady Gil*'s mayday call was heard and acknowledged by the officer of the watch on *Bob Barker*, which then steered towards *Ady Gil* for the purpose of facilitating a rescue.
108. The officer of the watch on *Bob Barker* radioed *Shonan Maru No. 2* and advised that any further approaches towards *Ady Gil* would be considered as acts of aggression. He cautioned that they stay clear, but requested they stand by to assist if necessary. In the stress of the moment, he inadvertently radioed *Yushin Maru No. 3*, but later corrected himself to make it clear that he was addressing *Shonan Maru No. 2*.
109. Following the collision, *Shonan Maru No. 2* stopped and remained nearby while preparing a vessel to assist with a rescue. Commentary from *Shonan Maru No. 2* shows the radio message from *Bob Barker* was received and understood and accordingly, *Shonan Maru No. 2* put their rescue vessel on standby.
110. Over the next hour and 40 minutes (approximately), *Ady Gil*'s crew were transported to *Bob Barker* without further incident.



Figure 20 Damage to *Ady Gil*

(Photograph courtesy of SSCS)

111. The decision was made to tow *Ady Gil* to the French Antarctic base, Dumont d'Urville. In preparation for this, the helmsman, an engineer from *Bob Barker* and other crew set about draining *Ady Gil*'s fuel tanks. It was then discovered that fuel lines from the main and day tanks had been severed during the collision and sea water had leaked into the tanks. Residual fuel is believed to have leaked from the tanks.
112. *Ady Gil*'s master reported the collision and the potential for residual fuel leaking to the Australian authorities, prior to attempts being made to remove the fuel from the tanks.
113. With *Ady Gil* readied for towing, *Bob Barker* made a course for Dumont d'Urville with a speed of only two to three knots.



Figure 21 **Ady Gil** under tow

(Photograph courtesy of SCS)

114. Around 0230–0300 hrs AEDT on 8 January 2010, **Ady Gil** was sitting low in the water and believed by crew on **Bob Barker** to be sinking. The master of **Ady Gil** was consulted and, with the view that the vessel was not likely to remain afloat, the decision was made to cut her free. **Ady Gil** was subsequently released from her tow and cast adrift to sink.
115. On 9 January 2010, the ICR faxed MNZ advising that it had located **Ady Gil** drifting at a position of 64° 27.7'S, 143° 03.4'E. The ICR also alleged that **Ady Gil** was leaking oil. This is believed to be residual oil leaking as a result of damage sustained in the collision.

Relevant legal instruments and provisions

General

116. Article 94 of UNCLOS imposes on states parties obligations to “take such measures for ships flying its flag as are necessary to ensure safety at sea with regard, inter alia, to ... the prevention of collisions”.
117. The Convention on the International Regulations for Preventing Collisions at Sea was adopted by the International Maritime Organization (IMO) in 1972 and entered into force in July 1977. It has now been ratified by 153 states.
118. The International Collision Regulations apply to all vessels navigating on the high seas. This includes *Ady Gil* and *Shonan Maru No. 2*.
119. On the high seas, *Ady Gil* and *Shonan Maru No. 2* were each subject to the jurisdiction and domestic laws of their respective flag states.
120. Under New Zealand domestic law, s.19 of the MTA imposes on masters of New Zealand ships responsibility for the safe operation of the ship on a voyage, and the safety and wellbeing of all crew and compliance with the requirements of the MTA and the New Zealand Maritime Rules.
121. New Zealand has incorporated the International Collision Regulations into its domestic law through Maritime Rule Part 22.
122. Given, however, that both Japan and New Zealand are signatories to the International Collision Regulations, the analysis that follows refers to the wording of the International Collision Regulations.

Collision prevention

123. The International Collision Regulations comprise 38 rules and four annexes, which detail safe navigational practices in international waters. These rules and annexes cover the following areas:
- Part A: General rules 1–3
 - Part B: Steering and sailing rules
 - Section I, Rules 4–10 – Conduct of vessels in any condition of visibility
 - Section II, Rules 11–18 – Conduct of vessels in sight of one another
 - Section III, Rule 19 – Conduct of vessels in restricted visibility
 - Part C: Lights and shapes, Rules 20–31
 - Part D: Sound and light signals, Rules 32–37
 - Part E: Exemptions, Rule 38
 - Annex I: Details of lights and shapes
 - Annex II: Additional signals for fishing vessels
 - Annex III: Details of sound signal appliances
 - Annex IV: Distress signals
124. Relevant excerpts from the International Collision Regulations follow.

Rule 1: Application

These rules shall apply to all vessels upon the high seas and in all waters connected therewith navigable by seagoing vessels.

Rule 2: Responsibility

Nothing in these rules shall exonerate any vessel, or the owner, master or crew thereof, from the consequences of any neglect of any precaution which may be required by the ordinary practice of seamen, or by the special circumstances of the case.

In construing and complying with these rules due regard shall be had to all dangers of navigation and collision and to any special circumstances, including the limitations of the vessels involved, which may make a departure from these rules necessary to avoid immediate danger.

Rule 3: General definitions

The word 'vessel' includes every description of water craft, including non-displacement craft, WIG (wing-in-ground) craft and seaplanes, used or capable of being used as a means of transportation on water.

The term 'power-driven vessel' means any vessel propelled by machinery.

The word 'underway' means that a vessel is not at anchor, or made fast to the shore, or aground.

Section I – Conduct of vessels in any condition of visibility

Rule 5: Lookout

Rule 5 details the rules for a lookout and safe navigation.

Every vessel shall at all times maintain a proper lookout by sight and hearing as well as by all available means appropriate in the prevailing circumstances and conditions so as to make a full appraisal of the situation and of the risk of collision.

Rule 6: Safe speed

Rule 6 outlines the requirements for a safe speed.

Every vessel shall at all times proceed at a safe speed so that she can take proper and effective action to avoid collision and be stopped within a distance appropriate to the prevailing circumstances and conditions.

In determining a safe speed the following factors shall be among those taken into account:

(a) (iii) *the manoeuvrability of the vessel with special reference to stopping distance and turning ability in the prevailing conditions;*

- (b) *Additionally, by vessels with operational radar:*
 - i) *The characteristics, efficiency and limitations of the radar equipment;*
 - ii) *Any constraints imposed by the radar range scale in use;*
 - iii) *The effect on radar detection of the sea state, weather and other sources of interference;*
 - iv) *The possibility that small vessels, ice and other floating objects may not be detected by radar at an adequate range;*
 - v) *The number, location and movement of vessels detected by radar;*
 - vi) *The more exact assessment of the visibility that may be possible when radar is used to determine the range of vessels or other objects in the vicinity.*

Rule 7: Risk of collision

Rule 7 details the action to be taken to avoid the risk of collision.

- (a) *Every vessel shall use all available means appropriate to the prevailing circumstances and conditions to determine if risk of collision exists. If there is any doubt, such risk shall be deemed to exist.*
- (b) *Proper use shall be made of radar equipment if fitted and operational, including long-range scanning to obtain early warning of risk of collision and radar plotting or equivalent systematic observation of detected objects.*
- (c) *Assumptions shall not be made on the basis of scanty information, especially scanty radar information.*
- (d) *In determining if risk of collision exists the following considerations shall be among those taken into account:*
 - (i) *Such risk shall be deemed to exist if the compass bearing of an approaching vessel does not appreciably change;*
 - (ii) *Such risk may sometimes exist even when an appreciable bearing change is evident, particularly when approaching a very large vessel or a tow or when approaching a vessel at close range.*

Rule 8: Action to avoid collision

Rule 8 details the action to take to avoid a collision.

- (a) *Any action to avoid collision shall be taken in accordance with the rules of this part and, if the circumstances of the case admit, be positive, made in ample time and with due regard to the observance of good seamanship.*

- (b) *Any alteration of course and/or speed to avoid collision shall, if the circumstances of the case admit, be large enough to be readily apparent to another vessel observing visually or by radar, a succession of small alterations of course and/or speed should be avoided.*
- (c) *If there is sufficient sea room, alteration of course alone may be the most effective action to avoid a close-quarters situation provided that it is made in good time, is substantial and does not result in another close-quarters situation.*
- (d) *Action taken to avoid collision with another vessel shall be such as to result in passing at a safe distance. The effectiveness of the action shall be carefully checked until the other vessel is finally past and clear.*
- (e) *If necessary to avoid collision or allow more time to assess the situation, a vessel shall slacken her speed or take all way off by stopping or reversing her means of propulsion.*
- (f)(i) *A vessel which, by any of the rules, is required not to impede the passage or safe passage of another vessel shall, when required by the circumstances of the case, take early action to allow sufficient sea room for the safe passage of the other vessel.*
- (f)(ii) *A vessel required not to impede the passage or safe passage of another vessel is not relieved of this obligation if approaching the other vessel so as to involve risk of collision and shall, when taking action, have full regard to the action which may be required by the rules of this part.*
- (f)(iii) *A vessel the passage of which is not to be impeded remains fully obliged to comply with the rules of this part when two vessels are approaching one another so as to involve risk of collision.*

Section II – Conduct of vessels in sight of one another

Rule 13: Overtaking

Rule 13 (b) provides a definition of when a vessel is overtaking.

A vessel shall be deemed to be overtaking when coming up with another vessel from a direction more than 22.5 degrees abaft her beam, that is, in such a position with reference to the vessel she is overtaking that at night she would be able to see only the stern light of that vessel but neither of her sidelights.

Rule 13 (a), (c) and (d) further detail the requirements of overtaking vessels.

- (a) *Notwithstanding anything contained in the rules of Part B, sections I & II, any vessel overtaking any other shall keep out of the way of the vessel being overtaken.*

- (c) *When a vessel is in doubt as to whether she is overtaking another, she shall assume that this is the case and act accordingly.*
- (d) *Any subsequent alteration of the bearing between the two vessels shall not make the overtaking vessel a crossing vessel within the meaning of these rules or relieve her of the duty of keeping clear of the overtaken vessel until she is finally past and clear.*

Rule 16: Action by give-way vessel

Rule 16 states:

Every vessel which is directed to keep out of the way of another vessel shall, so far as possible, take early and substantial action to keep well clear.

Rule 17: Action by stand-on vessel

Rule 17 lays down the provisions for the 'stand-on vessel'. This rule applies to vessels in sight of each other, and if a risk of collision exists.

- (a)(i) *Where one of two vessels is to keep out of the way the other shall keep her course and speed.*
- (a)(ii) *The latter vessel may however take action to avoid collision by her manoeuvre alone, as soon as it becomes apparent to her that the vessel required to keep out of the way is not taking appropriate action in compliance with these rules.*
- (b) *When, from any cause, the vessel required to keep her course and speed finds herself so close that collision cannot be avoided by the action of the give-way vessel alone, she shall take such action as will best aid to avoid collision.*
- (c) *A power-driven vessel which takes action in a crossing situation in accordance with sub-paragraph (a)(ii) of this rule to avoid collision with another power-driven vessel shall, if the circumstances of the case admit, not alter course to port for a vessel on her own port side.*
- (d) *This rule does not relieve the give-way vessel of her obligation to keep out of the way.*

Comments and analysis

125. There was insufficient evidence to determine conclusively whether or not *Shonan Maru No. 2* would have collided with *Ady Gil* had the *Ady Gil* helmsman not accelerated forward.
126. Similarly, there was insufficient evidence to determine whether it was *Ady Gil*'s bow or sponson that was struck first. This could not be accurately determined without recovery of the vessel for examination. Attempts were made to retrieve the bow on to *Bob Barker*. However, it was logged with water, the weight of which caused it to break apart when lifted.
127. Inquiries were subsequently made with the manufacturer of *Ady Gil*. On assessing images of the damage sustained, the manufacturer expressed the opinion that the remainder of the hull, undamaged sponson and other watertight areas would be sufficient to keep the vessel afloat.
128. Therefore, it cannot be concluded whether or not *Ady Gil* has sunk. No further sightings had been reported as at the date of this report's publication.

Collision prevention

129. The International Collision Regulations applied to both vessels. Each had a responsibility to comply with the International Collision Regulations and the principles of prudent seamanship for the avoidance of close quarters situations and collisions.
130. Part (B) of Rule 2 (Responsibility) allows for a departure from the rules, although such a departure is only permitted:
- ...when there are special circumstances and there is immediate danger. Both conditions must apply. The departure must be of such a nature as to avoid the danger which threatens.*¹⁹
131. A departure from the rules in order to avoid collision would be justified if compliance would put a vessel in a dangerous situation. For example, commentary on this rule indicates that:
- ...a power driven vessel meeting another power driven vessel end on may be unable to alter her course to starboard, as directed by rule 14, owing to the presence of shallow water close by to starboard or to the fact that a third vessel is overtaking her on her starboard side.*²⁰
132. The track of *Yushin Maru No. 3* was plotted to ascertain whether or not its presence prevented *Ady Gil* or *Shonan Maru No. 2* from complying with the international collision regulations. *Yushin Maru No. 3* was found to be well clear of *Shonan Maru No. 2*, *Ady Gil* and *Bob Barker*. The same process was applied for the *Bob Barker*. For this reason, investigators were able to rule out the possibility that *Yushin Maru No. 3* or *Bob Barker* limited the manoeuvrability of any other vessel or contributed to the collision. (Refer to Appendix 4)
133. *Ady Gil* was idling underway and making way just prior to the collision with *Shonan Maru No. 2*. Besides being low on fuel and steering through the auto helm, *Ady Gil* had full operational control and there were no special circumstances that prevented her from complying with the rules.
134. There was no evidence of special circumstances that warranted any departure by either vessel from the ordinary practice of seamen, or a failure to observe precautions required by good seamanship, or to comply with the International Collision Regulations.

19. Page 8, paragraph 1, *A Guide to the Collision Avoidance Rules*, A N Cockcroft and J N F Lameijer.

20. Page 7, *A Guide to the Collision Avoidance Rules*, A N Cockcroft and J N F Lameijer.

Vessel status – give way and stand on

135. Particular requirements in the International Collision Regulations apply to individual vessels, depending on their status.
136. Rule 13(b) provides:
- A vessel shall be deemed to be overtaking when coming up with another vessel from a direction more than 22.5 degrees abaft her beam, that is, in such a position with reference to the vessel she is overtaking that at night she would be able to see only the stern light of that vessel but neither of her sidelights.*
137. At the time **Bob Barker** and **Ady Gil** came alongside each other, they were on a general heading of 350°T. The radar image from **Shonan Maru No. 2** suggests **Bob Barker** and **Ady Gil** had a speed of 12.7 knots. **Shonan Maru No. 2** was also on a general heading of 350°T, but travelling slightly faster at a speed of 15.3 knots. (Refer Appendices 4 and 5)
138. **Shonan Maru No. 2**, **Bob Barker** and **Ady Gil** maintained this general heading for approximately three minutes.
139. From the speeds referred to above, it is clear that **Shonan Maru No. 2** was closing the distance it had between itself and **Ady Gil** and **Bob Barker**.
140. The respective headings of each vessel establish that **Shonan Maru No. 2** was coming up from more than 22.5° abaft abeam of **Ady Gil** and **Bob Barker**.
141. Investigators therefore determined that **Shonan Maru No. 2** was the overtaking vessel in accordance with Rule 13(b). (Refer Appendices 4 and 5)
142. The video footage and photographs suggested that at different stages the aspect of **Ady Gil** varied as a consequence of yawing. However, Rule 13(d) makes it clear that any alteration of bearing between the two vessels shall not make the overtaking vessel a crossing vessel or relieve the overtaking vessel of its obligation to keep clear.
143. In this instance, **Shonan Maru No. 2** remained the overtaking vessel irrespective of **Ady Gil**'s various alterations in heading.
144. The effect of **Ady Gil** yawing may have created doubt as to whether or not this was a crossing situation or overtaking situation. Rule 13(c) addresses this issue and makes it clear that where there is doubt, the overtaking vessel shall assume she is overtaking and keep out of the way.
145. As the overtaking vessel, the obligation at this stage lay with **Shonan Maru No. 2** to keep out of the way of **Ady Gil**.
146. The vessel that is required by any of the International Collision Regulations to take action or keep out of the way of another vessel is termed the 'give way' vessel (see Rule 16). The other vessel is termed the 'stand-on' vessel. The actions to be taken by the give-way and stand-on vessels are detailed in Rules 16 and 17 respectively.

Lookout

147. Rule 5 details the rules for lookout and safe navigation. The requirement to maintain a proper lookout is one of the fundamental principles of safe navigation. It requires that proper lookout should be maintained at all times, whether underway or at anchor.
148. The term 'proper lookout' requires maintaining a visual lookout as well as monitoring all other available electronic navigational equipment. This includes using radar in the early detection and systematic plotting of other vessels. A proper lookout is intended to prevent close quarters situations occurring. The use of radar does not dispense with the need for a good visual lookout at all times.

149. *Farwell's Rules of the Nautical Road*, 8th edition, at pages 173 and 174, summarises a lookout as follows:

The modern emphasis is on the lookout function, in a system designed to detect, assess, and manage risk. The lookout must be vigilant and effective in risk detection and communication.

Shonan Maru No. 2

150. In ordinary circumstances on a vessel such as **Shonan Maru No. 2**, a crewman would be expected to be in the conning position and, depending on the visual lookout capabilities, there might also be an additional lookout or lookouts posted.
151. Photographs and video footage show that spray from **Shonan Maru No. 2's** water monitors might have restricted the ability to maintain a proper lookout from **Shonan Maru No. 2's** bridge alone.
152. At the time of the collision, eight crew were positioned on the bridge wings and the masthead lookout. This may have been to negate the effects the water monitors had on maintaining a lookout. Video commentary from **Shonan Maru No. 2** suggests that **Ady Gil** was constantly visible from the lookouts posted on **Shonan Maru No. 2**.



Figure 22 Eight crew maintaining a lookout on **Shonan Maru No. 2**
(Photograph courtesy of SCS)

153. There is no evidence to suggest that the lookout from **Shonan Maru No. 2** was ineffective. Therefore, the lookout maintained by **Shonan Maru No. 2** is not considered to be a factor in the collision.

Ady Gil

154. By virtue of her design, the ability to maintain a proper visual lookout astern from **Ady Gil's** helm was severely restricted.
155. Any craft or vessel approaching from astern could not be readily sighted from the helm. Maintaining a proper lookout therefore required the use of radar for early warning and detection, in addition to crew in the cockpit moving to the rear window to look outside, and reliance on verbal commands from other crew.
156. Approximately three minutes prior to the collision, the helmsman was instructed to slow down. From that point on, he did not receive any further communications from the crew and master sitting aft at the stern.

157. As the **Shonan Maru No. 2** drew nearer, the **Ady Gil** master advised the crew that he intended they “sit there and take it”. This was not communicated to the helmsman.
158. Investigators considered that for a vessel’s lookout to be ‘proper’, it must be sufficient to “make a full appraisal of the situation and the risk of collision” as stated in Rule 5.
159. The **Ady Gil** crew and master sitting at the stern could see **Shonan Maru No. 2**, and as such, were able to make an appreciation of the situation. To that extent, a lookout was maintained astern. However, communication with the helmsman was required for an overall proper lookout to have been maintained from **Ady Gil**.
160. **Shonan Maru No. 2**’s approach was not communicated to the helmsman by either the **Ady Gil** crew or master as the approach of a vessel should ordinarily have been done.
161. As a result of this, and failing to monitor the radar, the helmsman did not learn of **Shonan Maru No. 2**’s approach until he discovered this himself approximately 5 to 10 seconds prior to the collision. The helmsman was not afforded enough time to “make a full appreciation of the situation and the risk of collision”, and take the action required by either Rule 8 (*Action to avoid collision*) or Rule 17 (*Action by give-way vessel*).
162. Without the circumstances of **Shonan Maru No. 2**’s approach being communicated to the helmsman, the effectiveness of **Ady Gil**’s overall lookout was insufficient.

Safe speed

163. Rule 6 outlines the requirements for a safe speed. *A Guide to the Collision Avoidance Rules* (A N Cockcroft and J N F Lameijer) makes the following comments regarding safe speed:
- The word ‘safe’ is intended to be used in a relative sense. Every vessel is required to proceed at a speed which could reasonably be considered safe in the particular circumstances. If a ship is involved in a collision it does not necessarily follow that she was initially proceeding at an unsafe speed. In clear visibility collision can generally be attributed to bad lookout, or to wrongful action subsequent to detection, rather than to a high initial speed.*
- A vessel may be unable to take proper and effective action due to the speed being too high or, in some circumstances too low.*
164. When determining a safe speed, the state of visibility, manoeuvrability of the vessel, ability to stop, traffic density and environmental conditions should be taken into account.
165. The video footage and photographs show that visibility was good at the time of the incident. Visibility is not believed to have been a factor contributing to the collision.
166. With reference to Rule 6 (*Safe speed*) and the use of radar, it is important that the operator is aware of the limitations of the radar equipment and the extent to which it can be relied upon.
167. Minor targets such as small coastal vessels and trawlers would normally be detectable at distances greater than six nautical miles, provided the radar-set was properly adjusted. However, small craft, and especially boats constructed from fibreglass or carbon fibre such as **Ady Gil**, usually give poor echoes and may not be detected.

Shonan Maru No. 2

168. Radar screenshots and VDR information suggest **Shonan Maru No. 2** had a speed over ground (SOG) averaging about 15 knots. To give this speed some perspective, at 15 knots **Shonan Maru No. 2** would have covered 7.71 metres per second. Fifteen knots is equivalent to 27.7 kilometres per hour.

169. Radar screenshots from **Shonan Maru No. 2** suggest that **Ady Gil** was intermittently detectable. Therefore, the possibility of an absence of radar detection is not considered to be a factor contributing to the actions and speed of **Shonan Maru No. 2**.
170. In terms of avoiding a collision, Rule 8(e) outlines the requirements relating to a vessel's speed:
- If necessary to avoid collision or allow more time to assess the situation, a vessel shall slacken her speed or take all way off by stopping or reversing her means of propulsion.*
171. While approaching **Ady Gil**, **Shonan Maru No. 2** maintained a relatively consistent speed over ground of around 15 knots.
172. VDR data from **Shonan Maru No. 2** suggests that 40 seconds prior to the collision, **Shonan Maru No. 2** slackened speed from 15.1 knots to 13.2 knots and then to around 5 knots following the collision.
173. Had **Shonan Maru No. 2** approached **Ady Gil** at a lower speed, or stopped prior to coming close, the master and crew of **Shonan Maru No. 2** would have had more time to assess the situation and take steps to avoid the collision.
174. Investigators concluded that when approaching close to **Ady Gil**, **Shonan Maru No. 2** was not operated at a speed that allowed for proper and effective action to avoid a collision or for **Shonan Maru No. 2** to stop within an appropriate distance of **Ady Gil**.

Ady Gil

175. **Ady Gil**'s manoeuvrability was limited at speeds under 12 knots. After breaking away from **Bob Barker**, **Ady Gil** slowed to speeds ranging from 3.8 to 5.7 knots. Data extracted from **Ady Gil**'s second Simrad shows that when **Shonan Maru No. 2** and **Ady Gil** were approximately 30–40 metres apart, the helmsman increased **Ady Gil**'s speed from 3.83 knots to 6.74 knots.
176. This increase in speed occurred over 12 seconds and was the result of the helmsman attempting to gain a speed that would provide him with the manoeuvrability to take proper and effective action to avoid the collision.
177. The close quarters situation began to develop around the time **Ady Gil**'s master realised **Shonan Maru No. 2** was going to come close. Had **Ady Gil** been operated at a speed that allowed her to manoeuvre effectively (anything over 12 knots), when that close quarters situation began to develop, it is likely the helmsman would have been able to take the action required to avoid the collision.

Risk of collision

178. Section II of the International Collision Regulations sets out the conduct of vessels within sight of one another. The rules within this section require one vessel to keep out of the way of another.
179. Manoeuvres taken to avoid a close quarters situation or collision between two power-driven vessels should be positive, made in ample time and readily apparent to the other vessel observing visually or by radar.

Shonan Maru No. 2

180. The investigation found no evidence of any circumstances that would have prevented **Shonan Maru No. 2** from taking a wide berth of **Ady Gil**. The earlier actions of **Ady Gil**, the threat the vessel posed and the fact that it could not be relied on to act predictably, as a 'normal' or 'conventional' non-protesting vessel, are all factors that may have influenced the **Shonan Maru No. 2** master's thinking.

181. The alteration of course by *Shonan Maru No. 2* rendered a close quarters situation inevitable in the absence of a further change of course by either vessel. Without a statement from *Shonan Maru No. 2*'s master, the investigation could not determine exactly why this course was taken. The activation of the water monitors, the posting of lookouts, the sounding of cautionary warning, the sounding of the LRAD and comments on the video commentary all suggest those on board *Shonan Maru No. 2* were well aware of *Ady Gil*'s presence. This suggests that the course adopted by *Shonan Maru No. 2* was not taken without consideration.

Ady Gil

182. Rule 17(a)(ii) permits a stand-on vessel to manoeuvre when it becomes apparent that the give-way vessel is not taking appropriate action. *Ady Gil*, being the stand-on vessel, should have given the whistle²¹ signal prescribed in Rule 34(d)²² prior to any such action.
183. Good practice would have been for *Ady Gil*'s master to advise the helmsman of *Shonan Maru No. 2*'s approach and, on realising that *Shonan Maru No. 2* was not going to keep clear, instruct the helmsman of the appropriate action to take. This action should have been taken early and around the time the master realised *Shonan Maru No. 2* was going to come close enough for them to be hosed by the water monitors.
184. The only apparent action taken to avoid the collision was by the helmsman of *Ady Gil* when he attempted to gain steering by accelerating ahead on the engines. By then, this was far too late. On realising that he did not have time to achieve this, he then attempted to reverse the engines, although this was around the moment of impact. With the benefit of hindsight, the helmsman acknowledged that the better course of action would have been to go straight into reverse. However, with the stress and immediacy of the situation, he did not consider this.
185. By deciding to "sit there and take it", the *Ady Gil* master intentionally chose not to take any action to avoid the close quarters situation.

Risk of collision – conclusion

186. There was sufficient sea room for *Shonan Maru No. 2* to keep clear of *Ady Gil* and avoid a close quarters situation.
187. Had *Ady Gil*'s master apprised the helmsman of the situation earlier and instructed appropriately, there would have been sufficient sea room at that time for *Ady Gil* to take action to avoid the risk of collision with *Shonan Maru No. 2*.
188. In commenting on the draft report, the *Ady Gil* master stated the LRAD made it impossible for effective communication and that the water monitors "made visibility difficult" for the helmsman. While this may have been so when both vessels were close, instructions should have been given to the helmsman before the LRAD came within a range that rendered communicating difficult.
189. In relation to the water monitors, the helmsman stated that any effect the water monitors had on his visibility was not "critical". Any action to avoid a collision should have been made before the water monitors came within reach of *Ady Gil*.
190. There is no evidence to suggest that the actions and omissions referred to above were the result of an intention on the part of the master of either vessel to collide with the other. It seems more likely that the intentions of each were unknown to the other. Decisions appear

21. The term 'whistle' is the correct nautical term used to describe what would be colloquially referred to as the sounding of a horn.

22. When vessels are in sight of one another, any vessel that fails to understand the intentions or actions of an approaching vessel, or is in doubt whether the other is taking sufficient action to avoid collision, is required by Rule 34(d) to immediately indicate such doubt by giving at least five short and rapid blasts on the whistle. The sound signal may be supplemented by a light signal of at least five short and rapid flashes.

to have been made and actions taken with the intention of creating, or not avoiding, a close quarters situation. Conduct of this sort is contrary to the International Collision Regulations and the principles of prudent seamanship.

Overtaking

191. In this instance, **Shonan Maru No. 2** was the overtaking vessel.
192. Every vessel overtaking another is obliged to keep clear of the overtaken vessel and should pass at a safe distance. A safe distance depends on the location, traffic density and the ability to pass clear of each other without incident. **Ady Gil** and **Shonan Maru No. 2** were in open seas with adequate sea room and there was nothing preventing **Shonan Maru No. 2** from maintaining a safe passing distance. *A Guide to the Collision Avoidance Rules* (A N Cockcroft and J N F Lameijer) describes a safe passing distance as follows:
- In the open sea distances in the order of 2 or 3 miles are usually considered as the outer limits in restricted visibility but smaller distances, probably of the order of 1 mile, would probably be accepted for vessels in sight of one another.*
193. The master of **Shonan Maru No. 2** was almost certainly aware of **Ady Gil**'s earlier protest action with **Nisshin Maru**, and had previously experienced an aggressive engagement himself. The video commentary indicates the crew of **Shonan Maru No. 2** were anticipating another propeller-fouling attempt and were keeping a lookout for a rope being towed behind **Ady Gil**. That is not to say that the master and crew were "absolutely clear" of **Ady Gil**'s manoeuvring intentions, but they were probably conscious that **Ady Gil**'s intentions might be aggressive. There is no apparent safety basis for **Shonan Maru No. 2** approaching **Ady Gil** in response to previous protest action.
194. The obligation for the overtaking vessel to take action at an early stage lay with **Shonan Maru No. 2**. The master of **Shonan Maru No. 2** did not take action in good time, creating the development of a close quarters situation. Good practice would have seen **Shonan Maru No. 2** stay well clear of **Ady Gil** while overtaking.
195. In the absence of an explanation from the **Shonan Maru No. 2** master, the evidence obtained suggests that the master intentionally chose to take a close approach to **Ady Gil** and not to take early and substantial action to avoid the close quarters situation.
196. There is no evidence to suggest that the master of **Shonan Maru No. 2** intended to collide with **Ady Gil**. Rather, it seems more likely that the master of **Shonan Maru No. 2** did not fully apprehend that his actions, combined with acts and omissions by the master and crew of **Ady Gil**, would result in a collision.

Action by give-way vessel

197. Rule 16 directs the give-way vessel, which in this instance was **Shonan Maru No. 2**, to take early and substantial action to keep well clear of **Ady Gil**.
198. The video footage and navigational data show that it was not until the moment of collision that **Shonan Maru No. 2** took substantial action by reducing her speed. Investigators were unable to find any evidence of circumstances that would have prevented **Shonan Maru No. 2** from reducing her speed or taking any other action, such as a substantial alteration of course, to pass **Ady Gil** at a safe distance.

Action by stand-on vessel

199. Rule 17 lays down the provisions for the 'stand-on vessel', which in this case was **Ady Gil**.
200. A stand-on vessel, such as **Ady Gil**, is required to maintain her course and speed as per Rule 17(a)(i). If, however, it becomes apparent that the give-way vessel is not complying with the rule, then 17(a)(ii) allows the stand-on vessel to take action by manoeuvring alone.

201. A stand-on vessel that takes permitted action to avoid collision by its manoeuvre alone must take full account of the possibility that the give-way vessel may also take simultaneous or subsequent action. The stand-on vessel should avoid taking action that is likely to conflict with the probable action of the give-way vessel. An alteration of course away from the direction of the other vessel will usually be the safest manoeuvre, but again, this must be in sufficient time.
202. If a stand-on vessel finds itself so close that collision cannot be avoided by the give-way vessel alone, Rule 17(b) requires she takes action. This action is required to be *such action as will best aid to avoid collision*.
203. Good practice would have seen the master of **Ady Gil** instruct the helmsman to take appropriate action once it became apparent that a close quarters situation was developing with **Shonan Maru No 2**. The failure to do so was intentional. It continued until the collision.
204. Had such an instruction been given, **Ady Gil's** helmsman would have then been in a position to make a substantial alteration of heading to starboard. This would have taken **Ady Gil** away from **Shonan Maru No. 2**. In addition, an increase in **Ady Gil's** speed would have further opened the distance between both vessels and avoided a close quarters situation. As discussed earlier, **Ady Gil's** helmsman was only afforded 5 to 10 seconds in which to take action once he believed that a collision could not be avoided. This was not enough time for him to take effective action.
205. Taking into consideration the manoeuvring capabilities of **Ady Gil** and the context of engagement between the two fleets, it would have been prudent for **Ady Gil** to have her engines revving at a speed that would allow for action to be taken in a short time, should the need arise.
206. If a stand-on vessel finds itself so close that collision cannot be avoided by the give-way vessel alone, Rule 17(b) requires that she takes action. This action is required to be *such action as will best aid to avoid collision*.
207. From previous engagements with **Shonan Maru No. 2**, **Ady Gil's** master understood **Shonan Maru No. 2** was a highly manoeuvrable vessel. This understanding may have been factored into his assessment of how close **Shonan Maru No. 2** could come before she was unable to avoid collision by her action alone. Nevertheless, this did not negate **Ady Gil's** master's obligation to take action to avoid the collision.
208. While the failure to take appropriate steps to avoid a close quarters situation was deliberate, there was no evidence that the master or crew of **Ady Gil** intended to collide with **Shonan Maru No. 2**. Rather, the collision appears to have been the result of a combination of factors, including a failure to anticipate that the vessels would come so close as to collide.

Conclusions

Conclusions made in this report are based solely on the evidence available to the MNZ investigation, which did not include any statement or explanation from the master or crew of **Shonan Maru No. 2**. These conclusions are not listed in any order of importance.

209. The environment in which all vessels were operating was tense. This can be traced back to the core activities of ICR and SSCS, being whaling and anti-whaling protesting respectively. Earlier events involving *Ady Gil* and ICR vessels contributed to the charged nature of the environment. This environment almost certainly contributed to the decisions of the masters of *Ady Gil* and *Shonan Maru No. 2*.
210. The master of *Shonan Maru No. 2* and the master of *Ady Gil* both departed from the prescribed International Collision Regulations and engaged in conduct that resulted in the collision.
211. *Shonan Maru No. 2* was an overtaking vessel within the meaning of the International Collision Regulations and, as such, the master of *Shonan Maru No. 2* had an obligation to keep clear of *Ady Gil*.
212. It was considered likely that *Shonan Maru No. 2* was aware of *Ady Gil* and its location.
213. *Shonan Maru No. 2* had ample opportunity to avoid creating the close quarters situation that developed and the subsequent collision.
214. *Shonan Maru No. 2* failed to keep well clear of *Ady Gil*.
215. The master of *Shonan Maru No. 2* was almost certainly aware of *Ady Gil*'s unpredictability, and that its master could not be relied on to act as a 'normal' seafarer might. Commentary from the *Shonan Maru No. 2* video suggests the *Shonan Maru No. 2* master was anticipating an attempt to foul *Shonan Maru No. 2*'s propeller. This added an element of uncertainty to the close quarters situation.
216. *Ady Gil*, in this instance, was the stand-on vessel. As such, *Ady Gil* also had a responsibility to take action that would avoid a collision.
217. The International Collision Regulations allowed for *Ady Gil* to take appropriate action when it became apparent that *Shonan Maru No. 2* was not complying and was not going to keep well clear. This course of action was not taken. Rather, the *Ady Gil* master chose to maintain his course and speed, which allowed for the close quarters situation to develop into a collision risk.
218. The failure of *Ady Gil*'s master to communicate the situation to the helmsman, and the failure of the helmsman to monitor the radar, resulted in an insufficient lookout being maintained. For this reason, and because he had not been monitoring the radar, the helmsman had insufficient time to avoid the close quarters situation altogether, or to take substantial action to avoid the collision once he became aware it was imminent.
219. There was insufficient evidence to determine the extent to which the action of accelerating forward by the *Ady Gil* helmsman contributed to the collision, or if this action merely changed the point of impact.
220. *Ady Gil* failed to take sufficient action to avoid the collision when it became apparent that the collision could not be avoided by the action of *Shonan Maru No. 2* alone.

221. Contributing factors in the collision included:
- a) the failure of *Shonan Maru No. 2* to:
 - i) take early and substantial action to keep well clear of *Ady Gil*
 - ii) take positive and ample action to avoid a collision once the risk of a collision existed
 - iii) maintain a safe speed once in a close quarters situation with *Ady Gil*
 - b) the failure of *Ady Gil* to:
 - i) maintain an effective lookout, including the use of radar
 - ii) maintain a speed that would allow her to take action to avoid the *Shonan Maru No. 2*, once the potential for a collision arose
 - iii) take appropriate action when it became apparent that *Shonan Maru No. 2* was not complying with the International Collision Regulations and was not going to keep clear.
222. While some of the contributing factors listed above were the result of intended acts and conscious omissions by the masters and crew of each vessel, there is no evidence to suggest that any party intended the collision to occur. Rather, the collision appears to have resulted from a failure on the part of both masters, and the crew of both vessels, to appreciate and react appropriately to the potential for collision.
223. Following the collision, *Shonan Maru No. 2* acted appropriately to assist the damaged *Ady Gil*, and stood by at the request of *Bob Barker*.
224. There was insufficient evidence to determine whether or not *Ady Gil* had sunk.

Recommendations

225. The Director of Maritime New Zealand (the Director) calls on both parties involved in the collision to note the comments and findings contained in this report.
226. The Director also:
- a) reminds all masters of the need to comply with the International Collision Regulations, the domestic laws and regulations of their flag state and the practices of good seamanship, irrespective of the activities they may be engaged in
 - b) calls for a higher standard of care to be taken by all parties who may be involved during demonstrations, protests or confrontations on the high seas
 - c) denounces actions or inactions that could potentially endanger human life, the marine environment or property during demonstrations, protests or confrontations on the high seas
 - d) draws the parties' attention to International Maritime Organization (IMO) resolution MSC.303(87)²³ assuring safety during demonstrations, protests or confrontations on the high seas.
227. It is recommended that MNZ:
- a) forwards this report to the maritime authorities of the flag states with responsibility for **Bob Barker** and **Shonan Maru No. 2**, calling upon them to note these recommendations
 - b) submits this report to the IMO for the benefit of the wider maritime community.

23. Resolution Msc.303(87) – Assuring safety during demonstrations, protests or confrontations on the high seas. Approved in May 2010.

References

- Craig H Allen, *Farwell's Rules of the Nautical Road*, 8th edition, Naval Institute Press, 2005
- A N Cockcroft and J N F Lameijer, *A Guide to the Collision Avoidance Rules*, 6th edition, Elsevier Butterworth-Heinemann, 2004
- Great Britain Hydrographic Office, *The Mariners Handbook*, United Kingdom Hydrographic Office, 2004.
- G A French, *The Antarctic Pilot*, Great Britain Hydrographic Department, 1974

Acknowledgments

Maritime New Zealand acknowledges the following parties for their assistance with this inquiry:

- New Zealand Department of Internal Affairs Translation Services
- Eagle Technologies
- Global Film Solutions
- Institute of Cetacean Research
- International Criminal Police Organisation
- Japan Coastguard
- Lizard Productions
- Navico Asia Pacific
- New Zealand Police
- Sea Shepherd Conservation Society

Appendix 1: Video screenshots from forward deck of *Bob Barker*



Ady Gil and Shonan Maru No. 2: Collision on 6 January 2010

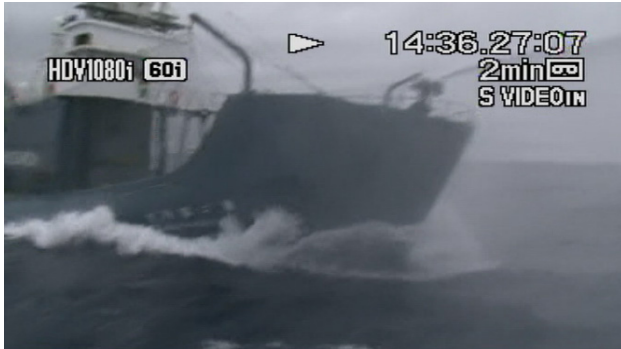


Ady Gil and **Shonan Maru No. 2**: Collision on 6 January 2010

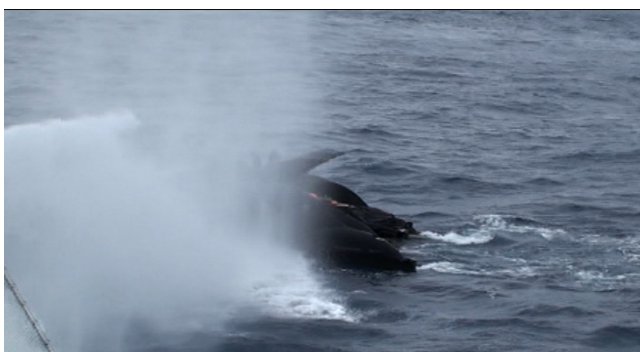


Appendix 2: Video screenshots from *Ady Gil*





Appendix 3: Video screenshots from *Shonan Maru No. 2*²⁴



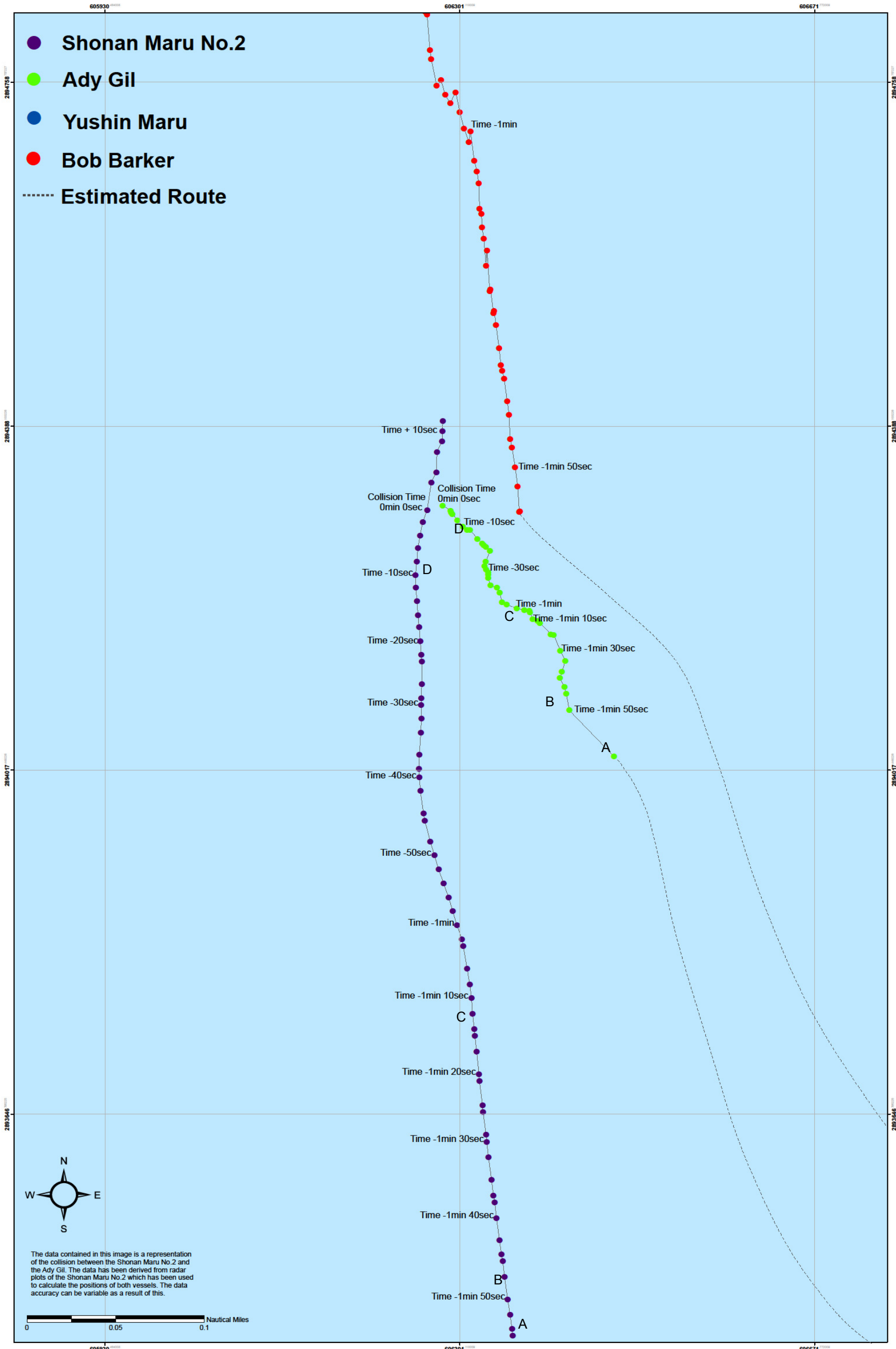
24. Stills taken from the Institute of Cetacean Research video footage taken from *Shonan Maru No. 2*. Sourced from <http://www.youtube.com/watch?v=anXPPTk-jY8&feature=fvsr>.

Ady Gil and Shonan Maru No. 2: Collision on 6 January 2010



Ady Gil and **Shonan Maru No. 2**: Collision on 6 January 2010

Appendix 4: Vessel tracks



SAFE, SECURE AND CLEAN SEAS

www.maritimenz.govt.nz

