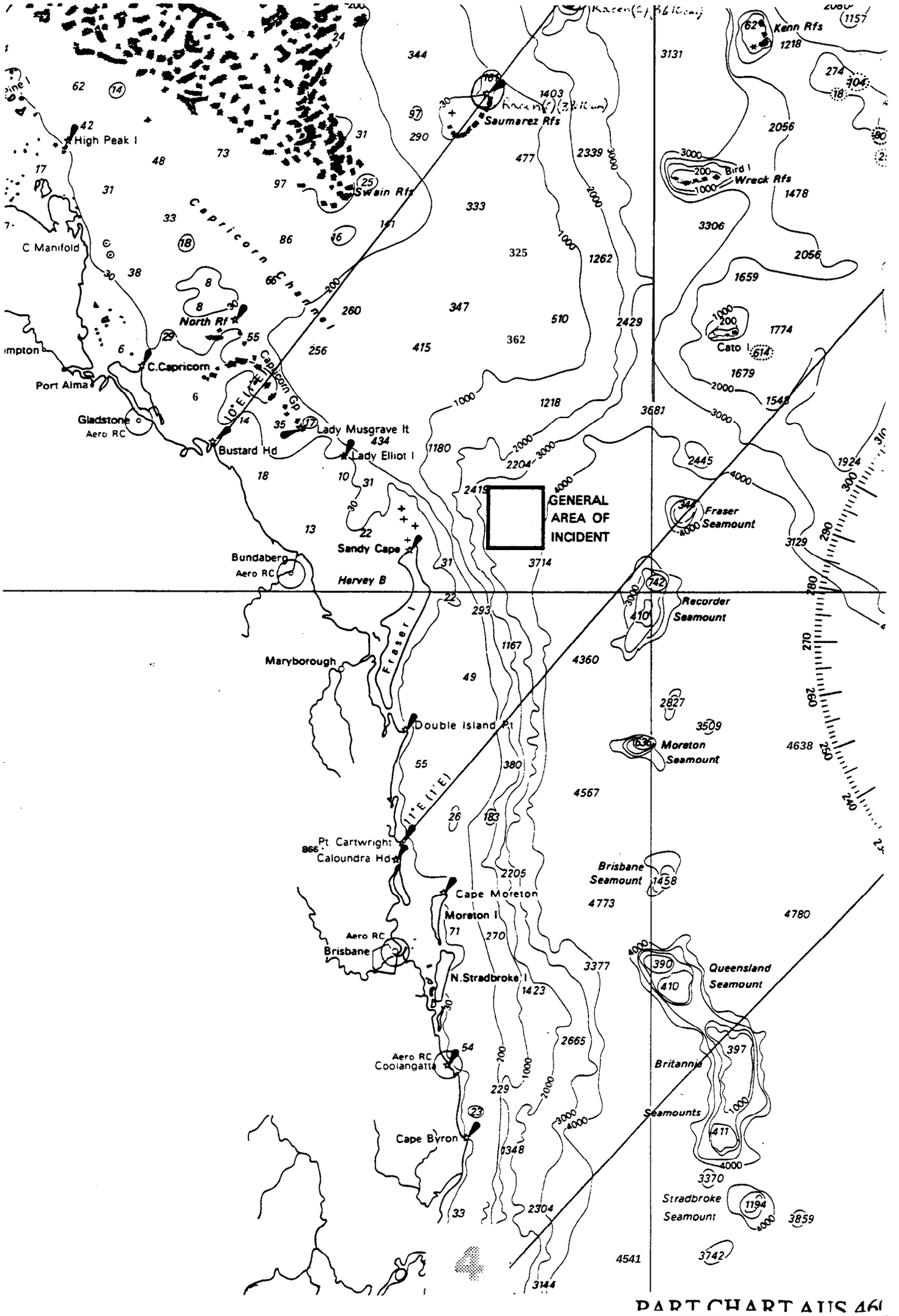
Contents

Summary

Shortly after 1700 hours on 2 March 1992 the Philippine registered bulk carrier Longevity, on passage from Kimitsu, Japan, to Newcastle, NSW, was in collision with the British yacht Blue Goose of Arne some 50 miles to the east of Sandy Cape. The Blue Goose of Arne was dismasted and also holed on the starboard hull.

The Longevity turned about and provided assistance to the lone yachtsman in effecting repairs to the yacht's hull, after which both vessels continued on their voyages.

Some time later the Blue Goose of Arne suffered further damage when it plunged off a wave crest, as a result of which it flooded and sank. The yachtsman, supported only by his lifejacket and clutching his emergency radio beacon, was eventually rescued by helicopter.



PART CHART AUS 461

Information Sources

Longevity

Master

Mate

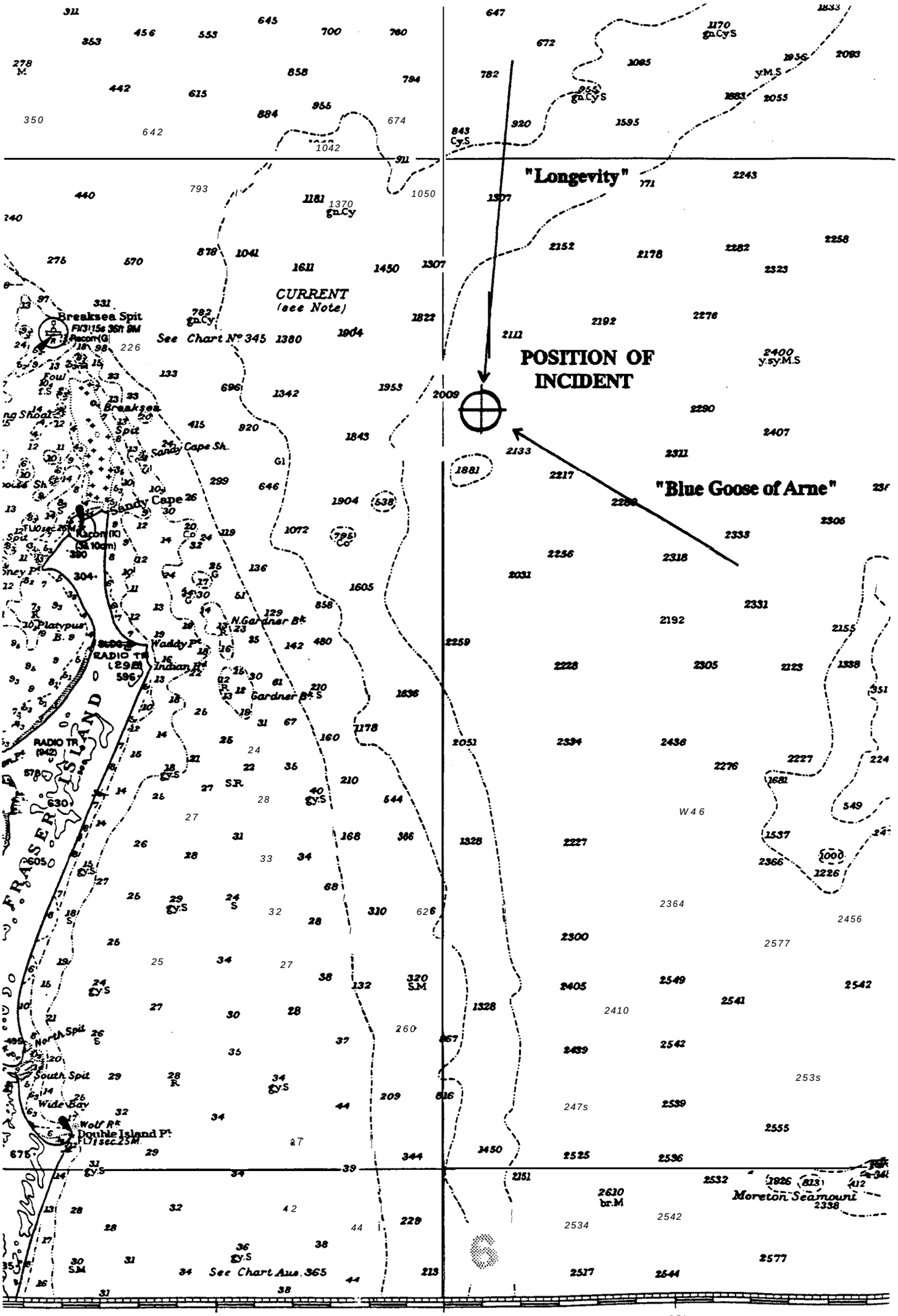
Second Mate

Seaman/Helmsman

Blue Goose of Arne

Owner/Skipper

Maritime Rescue Coordination Centre, Canberra


"Longevity"
POSITION OF INCIDENT
"Blue Goose of Arne"
CURRENT (see Note)
See Chart N° 345
See Chart Aus. 365
Breaksea Spit
Fl(3)15s 36ft 8M
Racon(G)
Sandy Cape
Fl(2)10sec 25M
Racon (K) (3t 10cm)
Waddy Pt
RADIO TR (298)
RADIO TR (942)
Indian Rk
N.Gardner Bk
Gardner Bk
FRASER ISLAND
North Spit
South Spit
Wide Bay
Wolf Rk
Double Island Pt
Fl.11sec.25M.
Moreton Seamount
W46
Adjoining Chart N? 1021
30'
Longitude 154° East from Greenwich
JO'

Sequence of Events - Longevity

The Longevity is a Philippines flag bulk carrier of 69,248 tonnes deadweight, having a length of 238.146m, a beam of 32.20m and a moulded depth of 18.20m. On 22 March 1992 the ship sailed from Kimitsu, Japan, bound for Newcastle, NSW, in ballast. It was manned by 31 persons, including the Master, all of whom were Philippine nationals.

The bridge watch was divided between three Deck Officers, the Mate keeping the 4-8 watch, the Second Mate the 8-12 watch and the Third Mate the 12-4 watch. One seaman was also allotted to each watch, to act as lookout and helmsman.

During the passage south the ship experienced mainly good weather and the Master and Officers were able to get their normal sleep and rest.

Alcohol consumption on board was seemingly light, the Master believing in leading by example.

At 0221 hours 2 April 1992 the Longevity had reached a position nine miles east of Frederick Reef light and course was altered to 185 degrees true, a course that would take the ship to a position eight miles east of Cape Byron.

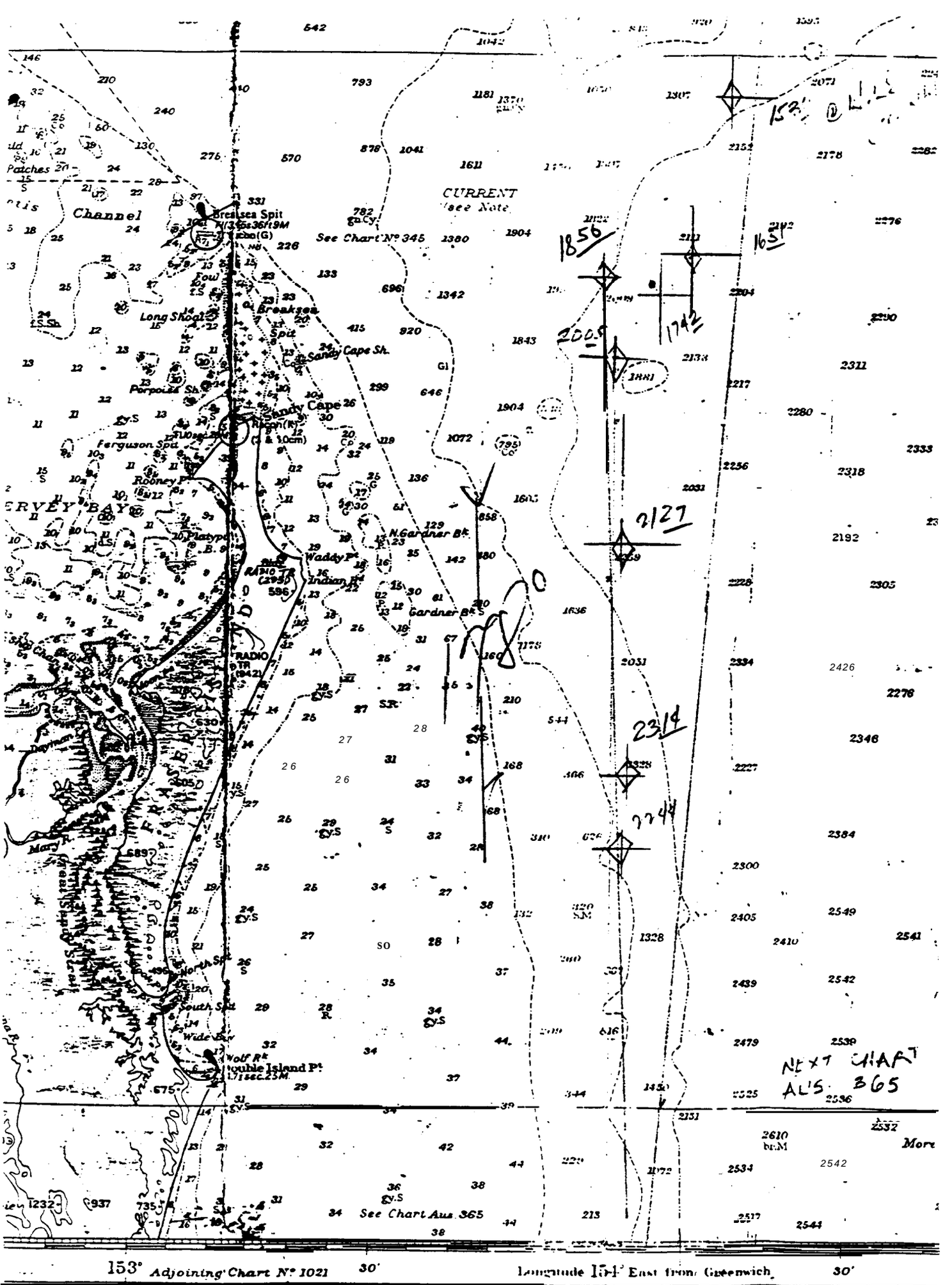
At noon on 2 April the position, obtained from the satellite navigator, was logged as 23° 15'S: 154° 19'E, giving a speed of 14.40 knots from Frederick reef. At this speed the ship would pass 50 miles to the east of Sandy Cape at 1800.

The ship's radar was operational and being used for ship detection purposes and the course recorder was running.

In preparation for the ship's arrival at Newcastle, the Master had instructed the Mate to supervise the crew working on deck. Therefore at 1600 the Master relieved the Third Mate on the bridge. At this time the wind was recorded as being east-southeast force 5, the sea rough: the visibility was said to be good, but moderate (four miles) in passing rain showers.

Shortly after 1630 the Master altered course to starboard, to 225 degrees, to put the wind and sea slightly abaft the port beam, in order to prevent spray from coming on to the main deck, while the crew carried out some painting.

Normal procedure on board was for the Second Mate to relieve the Mate for a meal relief and accordingly the Second Mate arrived on the bridge at approximately 1655 hours. At about the same time as the Second Mate arrived on the bridge, the Master observed a yacht, which he stated was about two points on the port bow at a distance he estimated as being four to five miles. The Master checked the compass bearing of the yacht, which he stated was initially 155 degrees and changed very



PORTION OF CHART IN USE BY LONGEVITY

slowly to 154 degrees, from which he drew the conclusion the yacht was almost stationary. The Master looked at the radar, but was unable to pick out any target echo of the yacht on the screen.

The Master altered back to the correct course at this time, but because the ship was now to the west of the course line, set the course at 180 degrees. According to the Second Mate, when he arrived on the bridge the Master was instructing the helmsman to steady the ship on the 180 degree course.

The Master advised the Second Mate of the course and speed, pointed out the yacht, which the Second Mate noted to be between 1.5 and 2 points on the port bow, and told him to keep clear of it, recommending that he alter course to starboard. In making this recommendation the Master took into consideration that the crew were still on deck and the hatch lids were open; an alteration of course to port would have resulted in salt water spray being blown on to the fresh paintwork on deck.

The Second Mate accepted the watch, understanding the Master to have said that the yacht was stationary, although not recalling being told the bearing. He too gained the impression that the yacht, although under sail and with the sails trimmed to port, was stationary.

The Master left the bridge at approximately 1702 and the Second Mate stationed himself at the bridge front windows, on the centre line. Watching the yacht he realised that it was coming closer. He took a bearing of the yacht at 1705 and found it be around 165-170 degrees. The yacht continued to close and at 1708 the Second Mate ordered the helmsman to put the wheel 20 degrees to starboard, then, as the yacht continued to close, hard to starboard. He tried calling the yacht on VHF Channel 16, but received no response. He then went to the port bridgewing from where he observed the yacht collide with the port side of the Longevity, between Nos 5 and 6 holds. He put the time of collision at about 1715. At no time did he see anyone on the deck, or in the cockpit, of the yacht

Immediately after the collision the Second Mate ordered the helmsman to bring the ship back to the 180 degrees course and called the Master, who returned immediately to the bridge, arriving there at **a** time he put at 1716.

The position of the collision was recorded in the Deck Log Book as being 24° 30'S 154° 05'E.

As soon as the Master arrived on the bridge and had been advised by the Second Mate that the Longevity had been in collision with the yacht, he ordered the crew and the engineers to stand by, posted lookouts and brought the Longevity round to head due north, back towards the yacht.

As the Longevity approached the yacht communications were established on the VHF, but those on the bridge had great difficulty understanding the English dialect spoken by the person on the yacht.

Arriving back at the yacht the Master

made a lee on the port side and a rope painter was passed down to the yacht, which was drifting astern. The Master then sent the Mate and the Bosun, and later two more seamen, down on to the yacht to assist the yachtsman to carry out repairs.

The Master offered to take the yachtsman aboard and even to lift the yacht aboard, but the yachtsman declined the offer, stating that he would be able to make Gladstone using the engine.

The Longevity crew members helped the yachtsman to effect repairs to the bow and to cut the mast and rigging free. While repairs were being effected, details of names, agents and destinations were exchanged.

While the crew members were assisting the yachtsman, the Master sent a message to the Maritime Rescue Coordination Centre (MRCC), Canberra, advising them of the collision and of the yachtsman's intention to continue to Gladstone. MRCC Canberra confirmed that it was in order for the Longevity to continue to Newcastle.

The Master again tried to persuade the yachtsman to board the Longevity, again without success, following which the yacht motored away from the ship. The Master then tried further contact with the yacht by VHF, but received no response. The Longevity got under way again at 1912 and passage was resumed at 1926.

At 0236 on 3 April the Master responded to a MAYDAY message broadcast by Brisbane Radio on VHF Channel 16, concerning an Emergency Position Indicating Radio Beacon (EPIRB) signal detected in position 24° 36'S : 153° 50'E. By this time the Longevity was some 6.5 hours steaming time from that location and was therefore released to continue on its voyage.

Sequence of events - Blue Goose of Arne

The Blue Goose of Arne, a blue hulled, fibreglass Prout Snow Goose 37 catamaran yacht, registered in Poole, England, sailed from Wellington, New Zealand, on 21 March 1992 bound for Gladstone, Queensland. The catamaran carried three sails, a white main sail, a yellow stay sail and a white jib. The only person on board was the English owner, a 59-year-old retired joiner. On clearing the western end of the Cook Strait the yachtsman set a course of 290 degrees magnetic, a course that would take him towards Sandy Point, at the northern end of Fraser Island.

The yachtsman was experienced in ocean sailing, having sailed in the English Channel and Bay of Biscay before sailing the Blue Goose of Arne to Australia in 1987. He had also sailed extensively around the Australian Coast, had made two voyages to New Zealand and one to the Fiji Islands.

The Blue Goose of Arne was well equipped, having a GPS navigational system, an Aries wind-vane steering system and an Autohelm 3000 automatic steering system, two 'Plastimo" magnetic steering compasses and two handheld bearing compasses, a multi-channel VHF radio and a multi-band radio receiver, a radar reflector, an inflatable zodiac dinghy, an inflatable life raft and an EPIRB. The Blue Goose of Arne was also the yachtsman's home and was fitted out accordingly, including a well equipped workshop, containing his tools of trade.

When well away from land the yachtsman used the Aries wind-vane steering system. However, when in coastal waters and near shipping lanes he used the Autohelm, which had an integral 'fluxgate" magnetic compass, steered a magnetic course and had an offcourse alarm. The yachtsman had checked his magnetic compasses in Brisbane in 1991 arid again in Auckland and had found the deviations to be no more than two degrees.

For most of the daylight hours the owner would sit in the cockpit, usually reading. So as not to become too engrossed, he kept the oven timer alongside him, set for 15 minutes, to prompt him to look around for shipping. At night he set his alarm to sound every hour, on the hour, to wake him up, so that he could get up and have a look for other vessels. He was concerned that he was unable to keep a lookout all the time, but considered he was achieving the best that he could as a singlehanded yachtsman. If he

encountered shipping and found that a close-quarters situation was developing, his normal procedure was to keep out of the way of the other vessel.

The yachtsman had no tight schedule to keep, neither was he interested in highspeed sailing. His normal sailing speed was around 6.5 knots, a speed he found to be both comfortable and manageable. Sinrs leaving Wellington his best day's run had been 170 miles (7.08 knots), whereas on two days he had sailed only 60 miles (2.50 knots).

The yachtsman was in the habit of maintaining a detailed log, recording the catamaran's position by GPS every six hours and the results of his morning and noon sights. He also maintained a plotting sheet, which he updated every two hours.

On the morning of 2 April 1992 Blue Goose of Arne was in a position to the northeast of the Recorder Seamount on a course of 290-300 degrees Magnetic and making a speed of 6.5 knots. The wind was from almost right astern at 10 to 15 knots and all three sails were set and trimmed out to port, over the port hull. In order to keep the jib properly filled, the yachtsman had been running with that sail poled out. In order to ensure an accurate course, so as to keep north of the Recorder Seamount, he had changed over to the Autohelm steering system four days earlier.

The yachtsman realised that he would not make Gladstone during daylight on the Friday (3 April) and so, in order to ensure that he arrived during daylight hours on the Saturday (4 April), he reduced his jib sail on the roller reefing, cutting the speed to an estimated five knots.

Late in the afternoon, at a time he thought to be just before five o'clock (1700), he sighted a ship out on his starboard side, at a distance of five or six miles. The ship presented a broad aspect, as if it, too, was bound for Gladstone. A little later, as he wanted to have his evening meal before dark, the yachtsman checked the bearing of the ship, then went about clearing the cockpit for the night. He then checked the bearing of the ship again and found that, although the ship was closer, but not close enough to distinguish the funnel markings, it had drawn ahead. Although he could not remember what the bearings were, he did remember that the bearing had gone near the zero degree mark of the hand-held compass. Satisfied that the ship would pass clear ahead of him and posed no threat, the yachtsman went below to the galley, to prepare his meal.

At this time the yachtsman considered the wind speed to be not greater than 20 knots, as he had not had to 'reef in" the main sail, the sea to be around 3m, with low swells from three directions.

While preparing his meal the

yachtsman occasionally took a look through the windows, having a good field of vision from the high windows of the catamaran. On two occasions, when on top of a wave, he was able to see the ship and all appeared to be going well, so he busied himself with the meal preparation.

Having prepared the meal he took it into the saloon, but before sitting down he went into the cockpit to have a look around. As he entered the cockpit he was confronted by a 'large red wall" and he found that he was looking up under the flare of the bow of a ship and thought that the angle of the ship was such that the ship appeared to have been overtaking the Blue Goose of Arne. The Blue Goose of Arne then collided with the port bow of the ship. The starboard shrouds parted and the mast toppled, the yachtsman managing to dive into the cabin to. avoid being hit. As the catamaran passed down the ship's side the yachtsman had to fend off with his hands, particularly under the ships quarter, where the Blue Goose of Arne was almost struck by the propeller.

Once clear of the stern of the ship the yachtsman checked for other damage and found that a large hole had been knocked in the starboard bow of the starboard hull.

The ship with which he had been in collision turned about and returned to offer assistance. He was informed that the ship was the Philippines flag Longevity, bound for Newcastle, NSW. The Master of the ship suggested that he abandon the Blue Goose of Arne and invited him aboard the Longevity. However, the yachtsman was not prepared to abandon all that he owned and suggested that the yacht might be lifted on board the Longevity, but after discussion it was determined that it was too heavy for the ship's 2-tonnes crane. After appraising the damage he considered he could still make Gladstone, using the engine, so he requested assistance from the Master, to help him effect temporary repairs.

A rope painter was passed down from the deck of the Longevity, which the yachtsman made fast to the Blue Goose of Ame, holding the catamaran alongside and preventing it from drifting astern. Initially two crew members, and later two others, climbed down to help the yachtsman. The yachtsman inflated the seat from the zodiac in the starboard bow space, after which the storm jib sail was lashed over the damaged bow, effectively plugging the hole. Those sails that could be saved from the downed mast were recovered and then the mast and rigging cut free. All this took some considerable time and it was dark by the time that the repairs were completed. The temporary repair reduced the water ingress to about one gallon (3.8 litres) every 10 minutes, which the yachtsman was confident he' could cope with. However, he requested

that one of the ship's crew accompany him to Gladstone, to help with the bilge pumping, but this request was refused.

Satisfied with the repairs and confident in his ability to make it to Gladstone, the yachtsman thanked the Master and crew of the Longevity, exchanged names and other details, then prepared to resume his passage. He started the engine, set course on 295 degrees magnetic and pressed the button to engage the Autohelm, then went below to pump the bilge; a task he expected to have to perform every 10 minutes.

He pumped the bilge and then cleared various items away from the access hatch, to avoid the bilge suction becoming clogged. On returning to the cockpit he found that he was again headed for the side of the Longevity. He disengaged the Autohelm, put the wheel hard to port and at the same time kicked the lever which changed the direction of the propeller thrust, which assisted the turn, and managed to avoid too heavy a contact. The Master and crew of the Longevity called yet again for the yachtsman to abandon the Blue Goose of Arne and to go aboard the Longevity, yet again he declined.

Some time after clearing from the Longevity, at a time the yachtsman placed at about 7 o'clock (1900), the Blue Goose of Arne 'fell" off a wave crest and there was a loud cracking sound. On checking around the yachtsman found water flooding into the starboard hull at a rate well beyond the capacity of the hand-operated bilge pump. The workshop space, located in the forward area of the starboard hull, had originally been closed off by a heavy, marine plywood door. However, due to the weight of all of his tools, the yachtsman had discarded the door before leaving England, so the water entering through the damaged bow was able to flood most of the starboard hull.

A catamaran has a good chance of survival even when the buoyancy of one hull is lost, and the yachtsman was not too concerned. However, as the catamaran rolled, water slopped first into the centre cabin and then into the navigation area in the port hull.

The yachtsman tried to pump out the port hull, but couldn't keep up with the water ingress and realised that there was nothing he could do.

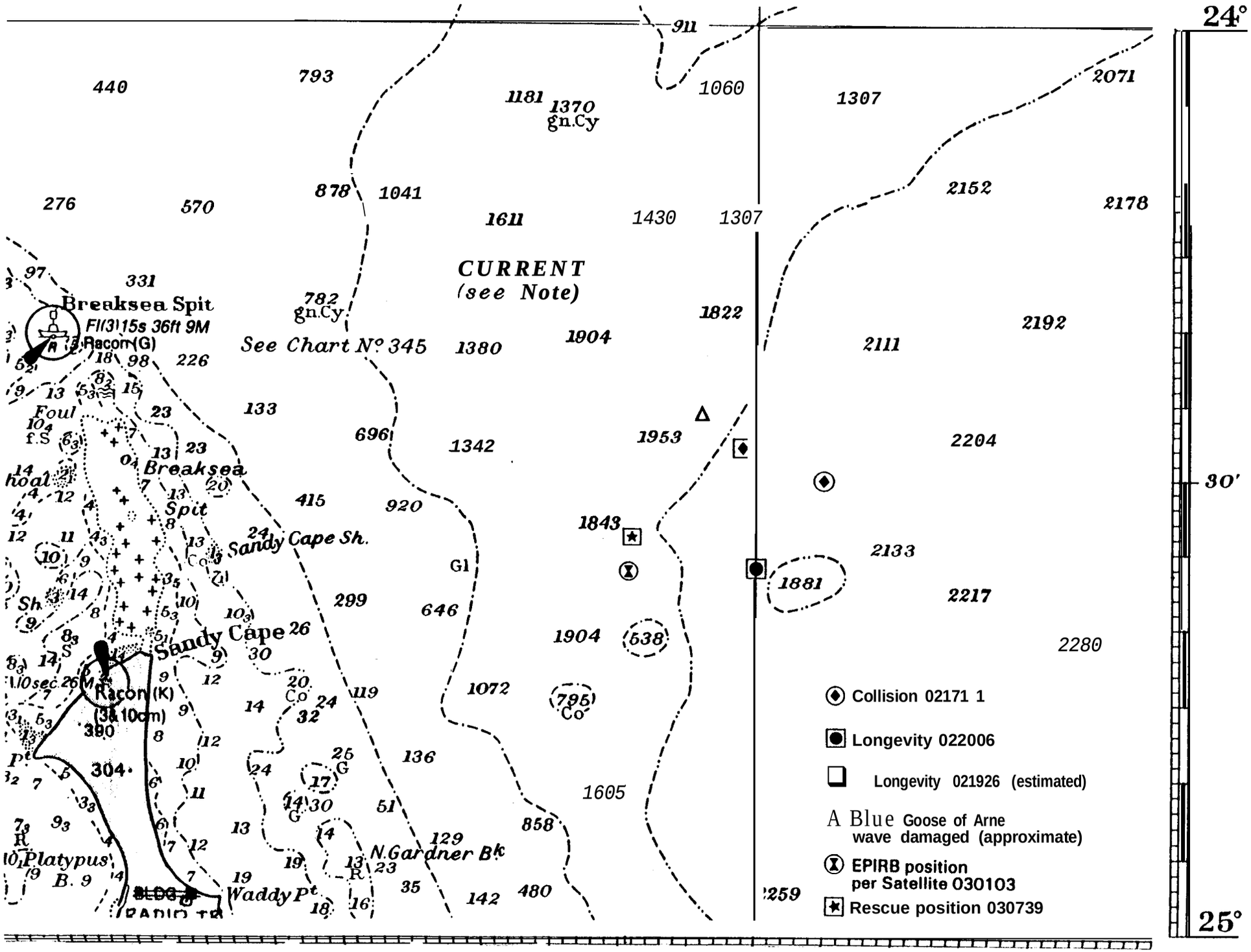
He therefore set about making preparations to abandon.

He inflated the life raft on the lee side and attached the EPIRB to the raft, then set about collecting items to put into the raft. He collected his passport, log book, a few personal items and his 'emergency food pack', and then began collecting clothing, placing everything in waterproof bags for stowing in the raft. On one of his excursions to collect gear from below, the wind and sea lifted the raft on to the foredeck,

where the sea anchor line and other lines became itangled. Taking his knife, he started cutting the raft free, but then he lost his knife. He had another knife in the cabin, but that was now under water.

Realising that his life depended on the EPIRB, the yachtsman managed to break the fine polypropylene securing line and tied the EPIRB to his life jacket, at the same time activating the beacon. Still snagged on the foredeck, the bottom of the liferaft eventually tore and the bags containing his effects disappeared one after the other.

The yachtsman clung to the top of the slowly sinking catamaran until, eventually, it sank from under him, leaving him supported only by his inflatable life jacket and clutching his EPIRB.


24°
30'
25°
911
440
793
1181
1370
gn.Cy
1060
1307
2071
276
570
878
1041
1611
1430
1307
2152
2178
CURRENT
(see Note)
331
782
gn.Cy
See Chart No. 345
1380
1904
1822
2192
2111
Breaksea Spit
Fl(3)15s 36ft 9M
Racon(G)
226
133
Foul
f.S
696
1342
1953
2204
Breaksea
Spit
415
920
1843
Sandy Cape Sh.
2133
299
646
1881
2217
Sandy Cape
1904
638
2280
Racon (K)
(3s 10cm)
390
304
119
1072
795
Co
Collision 02171 1
Longevity 022006
Longevity 021926 (estimated)
136
1605
A Blue Goose of Arne
wave damaged (approximate)
EPIRB position
per Satellite 030103
Rescue position 030739
Platypus
B. 9
N.Gardner Bk
Waddy Pt
858
129
480
142
35
259

The Rescue

In October 1989 the Australian Local User Terminal (LUT) was commisioned at Alice Springs, enabling Australia to participate fully in the International COSPAS/SARSAT system of satellite-assisted search and-rescue procedures.

Six orbiting satellites are used to pick up signals transmitted by EPIRBS. A satellite picking up such signals retransmits them to LUTs, where they are processed by computer to obtain the position of the beacon. The processed information is then passed to a Maritime Rescue Coordination Centre, which in Australia is in Canberra, where search-and-rescue operations are initiated.

The distress signal transmitted by the yachtsman's EPIRB was picked up by satellite and relayed to the LUT at Alice Springs, where the position of the distress was determined as being 24° 36.4'S 153° 50.5'E. This information was passed to the Maritime Rescue Coordination Centre in Canberra, where search-and-rescue operations were set in motion. Ships in the area of the distress were alerted and an air search was initiated. A helicopter, initially delayed by poor weather and a mechanical problem, departed for the distress area at 0500 on 3 April and "homed in" on the signal transmitted by the EPIRB.

The helicopter crew was expecting to find a liferaft or small boat and passed over the EPIRB position twice without sighting anything. On a third run over the position one of the crew members hung out from the side of the helicopter and this time the yachtsman was sighted. One of the helicopter crew entered the water to assist the yachtsman who was winched to safety at 0739. The position of the rescue, as recorded by the helicopter crew, was 24° 34.2'S 153° 51'E.

The yachtsman was flown directly to Maryborough hospital, where he was treated for exposure.

PORTION OF LONGEVITY COURSE RECORDER CHART

Analysis

Comment

To reconstruct the events of the collision it is necessary to establish the courses and speeds of the two vessels.

The courses and speed of the Longevity are known with reasonable accuracy. The courses and times of alteration of course are recorded on the chart of the ship's course recorder and the ship's speed can be ascertained from the charted positions of satellite fixes.

All records from the Blue Goose of Arne were lost when the yacht sank and there are no independent sources of information. However, the skipper stated he was steering a course of 295 degrees magnetic and he estimated his speed to be about five knots.

The Longevity did not detect the yacht on its radar because of the sea clutter on the radar screen. Therefore the distance of the yacht from the Longevity was not established at any time.

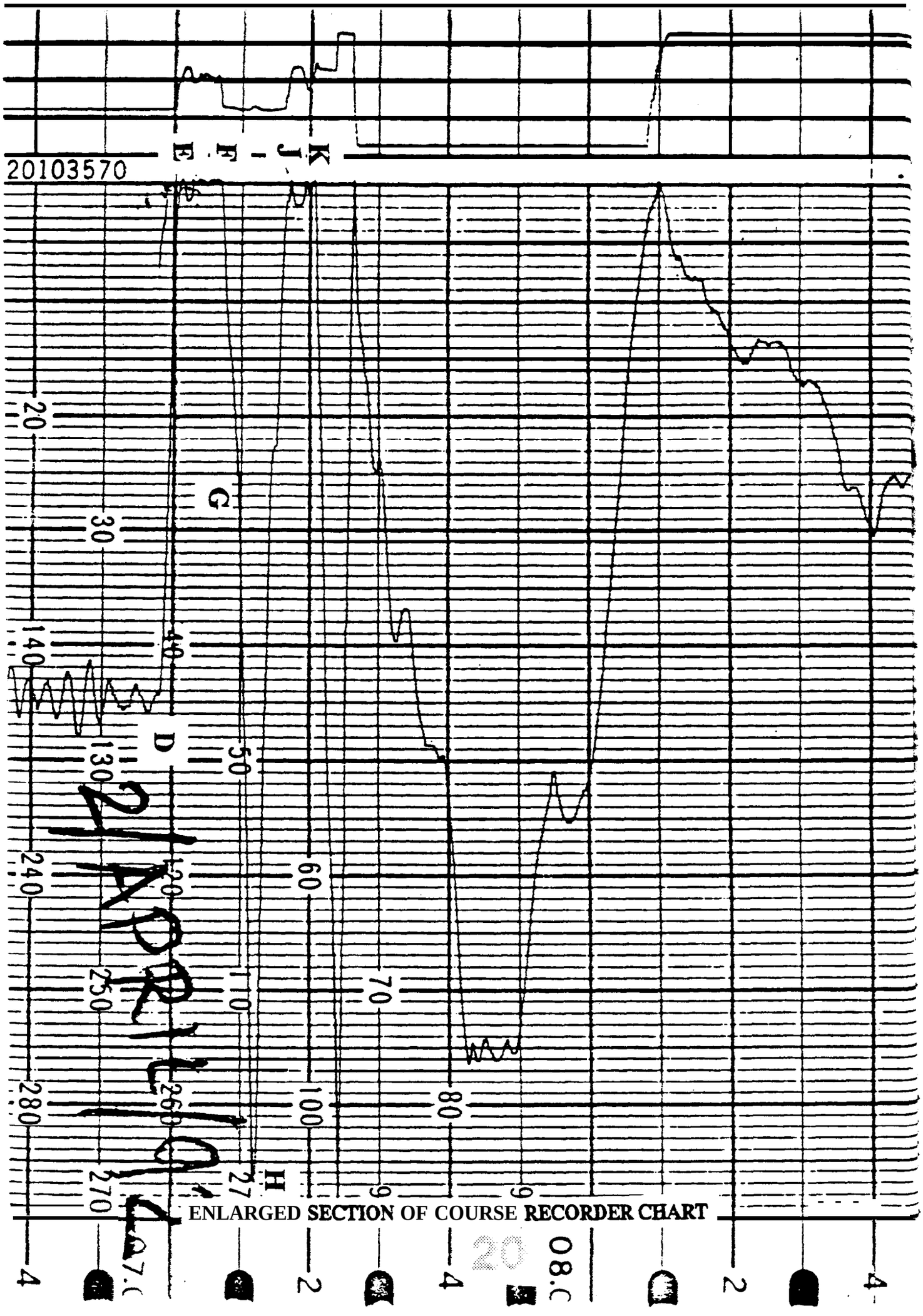
Consideration of evidence

The Longevity's deck log book for 2 April 1992 does not contain any entries regarding the course alterations carried out between 1630 and 1700. However, the observations column does contain the entry '1655 Sighted visually a sailboat about 1.5 points on port bow at approximate distance 4-5 miles". Although this entry is in accordance with the Master's initial statement, it must have been made after the incident and is not accurate. At 1655 the Longevity was on a heading of 225 degrees and relative bearing of 1.5 points on the port bow provides a true bearing of about 208 degrees. Had this been the case, when the ship resumed its course at 1701 the Blue Goose of Arne would have been on a diverging course two points (22.5 degrees) on the starboard bow.

The Second Mate stated that the Blue Goose of Arne was 1.5-2 points on the port bow wheh he took over from the Master, when the ship was heading 180 degrees. It is therefore considered that the time for the log book entry should have been noted as 1701, not 1655.

The Master stated that when he first sighted the yacht at 1655 he took a bearing and that this bearing was 155 degrees. If this was indeed the case, the yacht was 70 degrees on the port bow, 20 degrees forward of the port beam, at that time. For the Blue Goose of Arne to have reached the collision point from that line of bearing would have required a speed in excess of 13 knots. The Master's recollection of the bearing he said he obtained at 1655 is therefore considered to be unreliable.

The Blue Goose of Arne was steering a magnetic compass course of 295 degrees. Given the local magnetic variation (11 degrees east) and a claimed minimal compass deviation, the yacht's heading would have been around 305 degrees true. This is generally consistent with a course from Cook Strait to Gladstone.



ENLARGED SECTION OF COURSE RECORDER CHART

However, with the sails trimmed out to port in the 20 knots east-south-east wind, not only would the course made good have been marginally more southerly, but the speed would most probably have been greater than the estimated five knots.

Reconstruction of the collision

The Longevity's course recorder was set on Universal Coordinated Time. To obtain local time, Eastern Standard Time, it is necessary to add 10 hours to the times on the course recorder chart.

From the course recorder chart, at 1630 (A) the Longevity was on a course of 178 degrees. At 1632 (B) course was altered to starboard, steadying on 225 degrees at 1635 (C). At 1658 (D) course was altered to port and at 1701 (E) the ship was steady on 180 degrees. At 1707 (F) course was altered to starboard. At 1710 (G) the trace shows an increase in rate of turn, indicating that maximum rudder was applied at that time. At 1712 (H) the ship reached a maximum alteration of course to starboard and commenced swinging back to port and was steadied on a course of 180 degrees at 1717 (J). At 1721 (K) the ship started to turn to port, around on to a reciprocal heading.

Based on the time of the increase in rate of turn at 1710 and the time of the maximum alteration to starboard at 1712, it is considered that the collision occurred between 1711 and 1711.5.

Based on the charted positions of satellite fixes, the speed of the Longevity was 14.4 knots, or 444.75m/min. Between 1707 and 1711.5 the ship would have travelled 2001m, with an advance of 1668m and a lateral movement of about 720m from the 180 degree track.

At five knots, the Blue Goose of Arne would have travelled 695m in the same period, in which case, to reach the collision point, it would had to have been on the Longevity's starboard bow when the Second Mate altered course at 1707.

The Inspector accepts that the Blue Goose of Arne was still on the Longevity's port bow when the Second Mate altered course and, therefore, that the Blue Goose of Arne was travelling at a speed greater than five knots.

Based on the bearing of 170 degrees, observed by the Second Mate at 1705, the course being made good by the Blue Goose of Arne is indicated as being about 300 degrees and the speed as about eight knots. The inspector considers these to have been reasonably constant throughout the encounter period.

Based on this assessment, had the Longevity maintained the course of 225 degrees it would have crossed ahead of the Blue Goose of Arne at a distance of about 1.8 miles. By altering course to 180 degrees, the Master created the development of a close-quarters situation, in which, had the 180 degree course been maintained, the Blue Goose of Arne would have crossed ahead of the Longevity at about 1708 at a distance of about 8.5 cables (1575m).

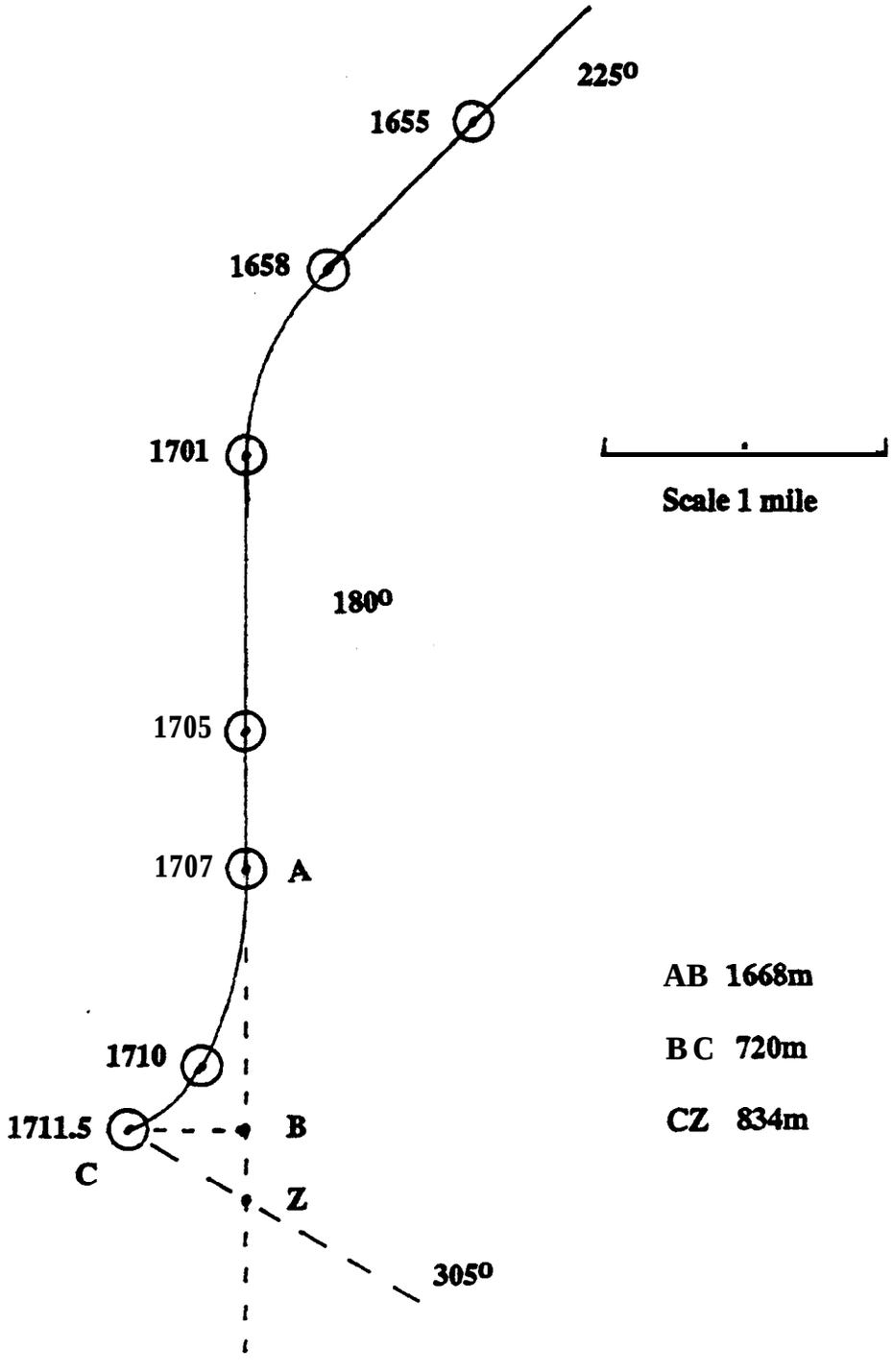


Diagram 1

Reconstruction of Longevity's track from course recorder record

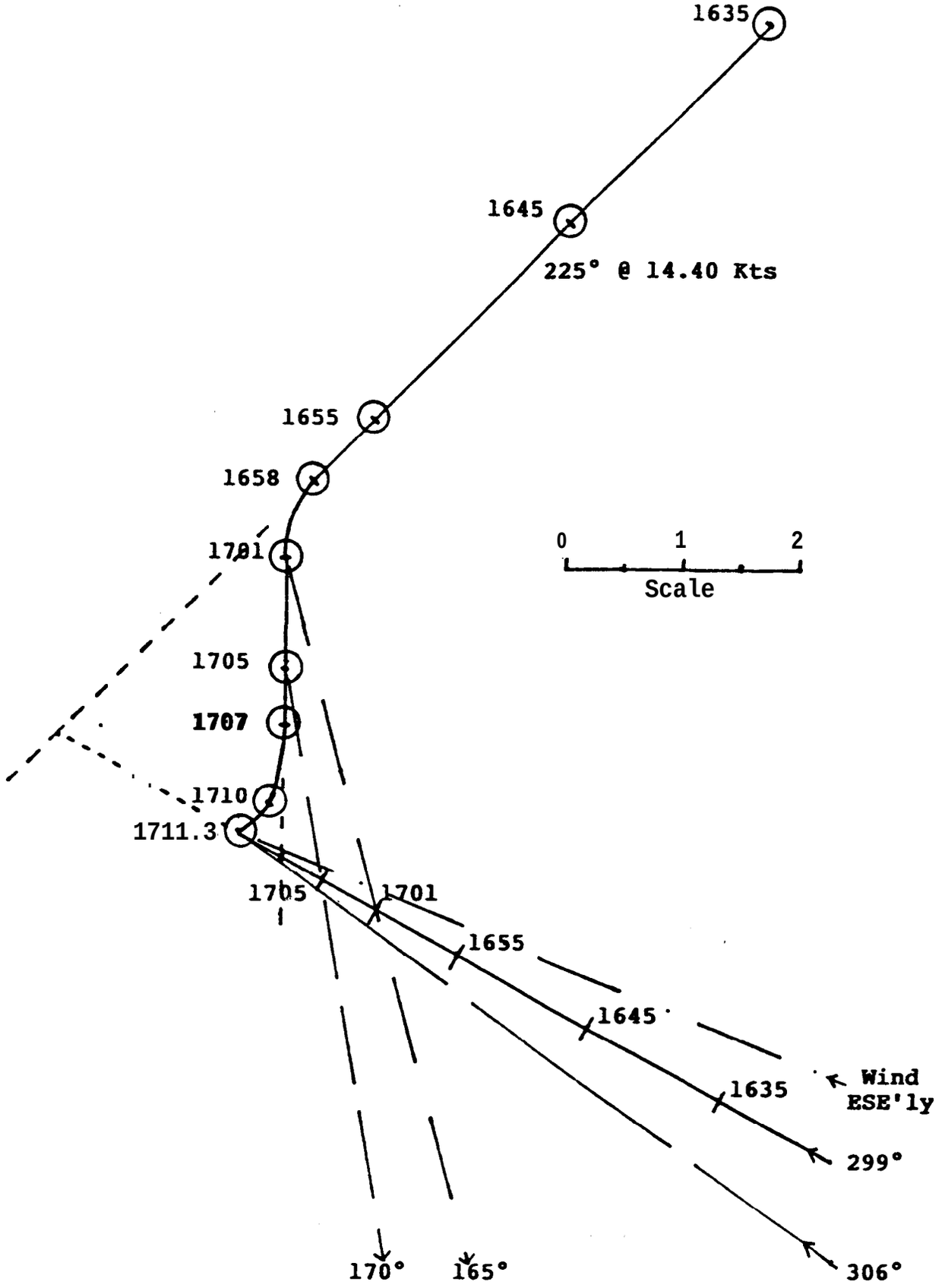


Diagram 2

Reconstruction:
Blue Goose of Arne bearing 170° at 1705

The cause of the Blue Goose of Arne coming into contact with the side of the Longevity after having set off under engine power is uncertain. However, it is possible the autohelm did not engage and the Blue Goose of Arne proceeded in a circle, instead of remaining on the 295 degrees course. At that time the Longevity was lying stopped in the water, headed in the general direction of 020 degrees.

Consideration of Actions

Blue Goose of Arne

When the yachtsman took hearings of the Longevity, although he could not remember what they were exactly, he did recall that the bearing was approaching the zero line on his hand held compass. This means that, as his course was 295 degrees (magnetic), the Longevity was at least 65 degrees on his starboard bow.

The Longevity was said by the yachtsman to be presenting a fairly broad aspect to the Blue Goose of Arne, which did not change so as to cause him concern. Therefore it is considered that while the Longevity was observed by the yachtsman it was proceeding on the 225 degree course and that the time was not so far advanced as the yachtsman thought it to be.

In going below into the galley to prepare his evening meal, the yachtsman failed to maintain a lookout and, in particular, a watch on the Longevity. As a result, he failed to see that the Longevity made a broad alteration of course to the south, towards him, creating a close quarters situation.

Longevity

The ship's radar was said to have been switched on, but did not pick up the Blue Goose of Arne, even on the six-mile range. A moderate sea was running, caused by the force 5 wind, which reportedly caused considerable 'clutter" (radar echos of the waves) on the radar screen. The Blue Goose of Arne, although equipped with a radar reflector, would provide only a small target echo on the radar screen, which would be easily masked by the sea clutter.

The Master said that he first noted the Blue Goose of Arne at about 1655. He also stated that he took two bearings of the yacht, with an interval of about five minutes between them, in which time the bearing opened (decreased) one degree. From these observations, although the yacht was under sail and running before the east-south easterly wind, he drew the conclusion that the Blue Goose of Arne was stationary. Had the Blue Goose of Arne in fact been stationary, at a distance of five miles, after a five minute interval the bearing would have opened 14.5 degrees, after a three-minute interval seven degrees and the bearing would have opened the one degree, to 154 degrees in less than half a minute.

The Master's conclusion that the Blue Goose of Arne was stationary, based on the two bearings that he had taken, was erroneous.

During the time between bearings, or more probably, after he had taken the second bearing, the Master altered the course of the Longevity from 225 degrees to 180 degrees. From the evidence of the course recorder, the Longevity was brought on to the 180 degrees heading at 1701 and the Master was said to

have left the bridge at 1702. The Master, therefore, had no time in which to reevaluate the situation, brought about by the alteration of course, before he left the bridge.

The Master failed to properly ascertain the rate at which the Blue Goose of Arne was being passed and whether it was safe to alter course to 180 degrees. Then, having altered the course to 180 degrees, he failed to ascertain whether a safe situation existed, before handing the watch over to the Second Mate.

By altering course at 1658 the Master precipitated the collision.

Although the Second Mate did not immediately take a bearing of the Blue Goose of Arne, by placing himself on the centre line he was able to ascertain very quickly that the yacht was closing the ship's course line. In altering course to starboard he was following the Master's recommendation, which was made with the view to keeping salt spray off the deck, rather than from a safety consideration. In doing so, he was attempting to cross ahead and down wind of the Blue Goose of Arne.

In taking over the watch from the Master, the Second Mate accepted an unknown situation, which rapidly developed into the collision. His actions, in trying to keep clear of the Blue Goose of Arne, were directed by the Master's recommendation to go to starboard, rather than the result of a correct assessment of the situation. However, as the collision took place only about 10 minutes after he had taken over the watch, he had very little time in which to make that assessment.

As soon as the Master had been advised of the collision he altered course and returned to the yacht. He then rendered assistance to the yachtsman, exchanged names and other details and advised the Maritime Rescue Coordination Centre, Canberra of the incident. He also offered to take the yachtsman aboard, an offer which was declined, then remained on the scene until the yacht resumed its passage. It is considered, therefore, that the Master fully fulfilled his obligations following the collision

Foundering and rescue

Because the Blue Goose of Arne sank, it has not been possible to determine what further damage occurred to the yacht as a result of the seas. However, it is considered probable that more of the fibreglass was torn away from the area damaged by the collision, resulting in the rapid flooding of the starboard hull.

Once the Blue Goose of Arne began to sink the yachtsman appreciated that his life depended on his EPIRB. Scantily clad as he was, the time he spent clinging to the sinking yacht and in the water was a feat of physical endurance. However, his rescue was purely due to the fact that he had an EPIRB on the Blue Goose of Arne and that he had tied the EPIRB to his lifejacket as soon as he realised that he had lost the use of the liferaft.

Conclusions

It Is considered that:

1. While on the 225 degrees course the Longevity was proceeding in a safe crossing situation and would have crossed about two miles ahead of the Blue Goose of Arne.

2. By altering course to port at 1658 the Master precipitated the collision.

3. The Master failed to properly ascertain the situation with respect to the Blue Goose of Arne and whether it was safe to alter course to 180 degrees.

4. The Master also failed, having altered course to 180 degrees, to ascertain whether a safe situation existed, before handing over the watch to the Second Mate.

5. In taking over the watch from the Master, the Second Mate accepted an unknown situation, which rapidly developed into the collision.

6. The Second Mate's actions were directed by the recommendations of the Master, not as a result of a correct assessment of the situation.

7. After the collision, in turning and providing assistance to the yacht and in reporting the incident, the Master fully fulfilled his obligations.

8. The yachtsman failed to maintain a lookout and, in particular, a watch on the Longevity. As a result, he was unaware of the course alteration by the Longevity and the developing situation.

9. Although the time the yachtsman spent clinging to the raft and in the water was a feat of physical endurance, his rescue and ultimate survival were due to the fact that he had an EPIRB.

Details of Vessels

LONGEVITY

Port of Registry:	Manila
Type of ship:	Bulk carrier
Year built:	1981
Number of holds	Seven
Owner:	San lldefonso Shipping Corporation
Crew:	31, Filipinos
Classification Society:	Bureau Veritas
Length overall:	238.146m
Beam:	32.2m
Moulded depth:	18.2m
Tonnages: Gross:	37,939
Nett:	22,643
Deadweight:	82,171
Main engine:	B & W 5L80GFCA(D)
Service speed:	14.50 knots

BLUE GOOSE OF ARNE

Type:	Prout “Snow Goose 37” Yacht
Hulls:	Two, fibreglass
Masts:	One, 11.28m, steel.
Sails:	Three: main, stay and jib.

Submissions received under regulation 16(4) of the Navigation (Marine Casualty) Regulations.

In accordance with regulation 16(3) of the Navigation (Marine Casualty) Regulations copies of the report were provided to the Master and Second Mate of the Longevity and the Skipper of the Blue Goose of Arne.

Written submissions were received from the Master and the Skipper and the text has been amended where considered appropriate.

In his submission the Master of the Longevity raised the following points:-

Log Book entry for 1655 - this was written after the event and is erroneous.

The course recorder time was in error by 2-3 minutes.

This would not affect the actual sequence of events, the effect being that events occurred 2-3 minutes earlier than indicated in the report.

The yachtsman's requests were understood to be for assistance in clearing the mast and sails and *in making temporary repairs to the starboard hull. The yachtsman was not understood to request a seaman to proceed with him to Gladstone.*

Due to the language differences and dialect this is readily understood and accepted. However, it would have been extremely difficult for the Master to comply with such a request.

The *Master was adamant that the bearing he took of the yacht at 1655 was 155 degrees and that when he checked it again, at 1658, it was 154 degrees.*

The Inspector considers that this matter has been fully covered in the report.