Departmental investigation into the collision between the Turkish bulk carrier GUMBET and the fishing vessel MOONSHOT off Pakhoi Bank, Queensland on 13 December 1996

Report 106

COMMONWEALTH DEPARTMENT OF
TRANSPORT AND
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Contents

Navigation Act 1912
Navigation (Marine Casualty) Regulations
investigation into the
collision between
the Turkish bulk carrier
GUMBET
and the fishing vessel
MOONSHOT
off Pakhoi Bank, Queensland
on 13 December 1996

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Summary

On the morning of Friday 13 December 1996, the Australian fishing vessel Moonshot was trawling for prawns off Pakhoi Bank, north of Cape Upstart, Northern Queensland. At about 0330, with the vessel trawling in a north-north-westerly direction, the Skipper handed over to a deckhand and went below to get some sleep.

Shortly before 0400, the Skipper was aroused by a shout from the deckhand. Scrambling up into the wheelhouse, he saw the bow of a ship very close on the starboard bow and only had time to brace himself before the stem of Moonshot came in contact with the port bow of the ship. Moonshot was pushed around to port, heeling dangerously to port as the starboard fishing boom came in contact with the side of the ship. As the ship passed clear, the deckhand saw the word ISTANBUL on its stern.

The ship did not stop, or respond to the Skipper's calls on VHF 16.

Moonshot received damage to the stem and starboard bow, also to the starboard fishing boom. After ascertaining that the vessel was not taking water, the crew retrieved the fishing gear, then returned to Townsville for Moonshot to undergo repairs.

The Turkish bulk carrier Gumbet was on a ballast passage from Hong Kong to Geelong and had disembarked the Barrier Reef pilot off Cairns at 1230 on Thursday 12 December 1996.

When the Master went to the bridge at 0630 on 13 December, for his customary morning check, he was informed that the Second Mate had experienced a close quarters situation with a fishing vessel at 0340, off Tink Shoal. The Master telexed a brief account of the reported incident to the vessel's owner.

When Gumbet arrived at Geelong on 18 December, it bore signs of a recent contact between the light and load water lines on the port bow.

Sources of Information

Moonshot - Skipper and owner/deckhand

Gumbet - Master, Mate, Second Mate and duty seaman

Skippers of fishing vessels Miss Chief, Steven C, William Kelf

Master, Second Mate and Watch IR mv Conus

Geodetic Operations, Australian Surveying & Land Information Group (AUSLIG)

Taylor Marine, Fremantle

Acknowledgement

Portion of chart Aus 826 reproduced by permission of the Hydrographic Office, RAN.

Narrative

Moonshot

Moonshot is a fishing vessel of fibreglass construction, having a raked stem and a transom stern. Built in 1980, it has an overall length of 13.7 m, a beam of 4.57 m and a depth of 2.43 m. The single deckhouse is located in the fore part, and contains the wheelhouse and mess facilities. The crew sleeping accommodation is in the forecastle, accessed from the wheelhouse by way of a small companion way in the forward bulkhead.

The fishing gantry is located at mid length and has two outriggers, or booms, one each side, two nets being trawled from each outrigger. The fish sorting tray and fish hold are located in the aft part. The vessel is powered by a single 191kW Fiat diesel engine, which provides a cruising speed of about 8½ knots and a trawling speed of about 2¾ knots.

Navigational equipment includes a magnetic compass with autopilot, a JRC NNX101 radar, and a Furuno GD180 MkII plotter linked with a Furuno GP500 GPS. The vessel is registered with the Queensland Department of Transport and is manned by a skipper and two deckhands.

The vessel had only recently been purchased by the owner who, as he held no marine qualifications, employed a skipper while he himself sailed on board as a deckhand.

Moonshot sailed from Townsville at 1130 on Monday 9 December 1996 and proceeded directly to Pakhoi Bank, north of Cape Upstart,

the Skipper's preferred fishing ground. The usual practice was to start fishing about 15 minutes before sunset and to carry out four 2 to 2½ hour trawls, or shots, each night. After each trawl, the two deckhands would sort, clean and stow the fish, after which they would relax, or sleep until the next "winch-up". The owner was in the habit of relieving the Skipper in the wheelhouse during the third shot, after the second shot catch had been stowed, so that the Skipper could have a sleep. The vessel would be anchored during the day, so all the crew could sleep.

On Thursday 12 December 1996, the nets were shot away at 1845 and the vessel proceeded to trawl in generally north-westerly and south-easterly directions to the west, and north, of Pakhoi Bank. Moonshot was exhibiting the required sidelights, stern light and the all round white over green fishing lights, plus working lights consisiting of a 1500 watt quartz halogen lamp atop the gantry and two 500 watt lamps at mid gantry height, all directed downwards to the after deck and two 150 watt line lights directed at the trawl wires. The night progressed routinely, except the owner did not relieve the Skipper in the wheelhouse during the third shot.

The nets were shot away for the night's fourth trawl at 0245, Moonshot at that time trawling in a south-easterly direction. At about 0320 the Skipper started to bring the vessel around to starboard, taking about ten minutes to come to a heading of north-north-west magnetic. He had just settled Moonshot on the new course, in the automatic steering mode, when the owner entered the wheelhouse, at about 0330, to take over from him for a spell. At that time, Moonshot was about 1½ miles north-west of Pakhoi Bank, the weather was fine with good visibility. He indicated on the plotter where the owner should trawl, towards a previous, more northerly track line, instructed him to call him for winching up at the end of the shot, then stepped down into the forecastle sleeping space.

Damage to Moonshot's Bow

Damage to Moonshot's Starboard Outrigger

The second deckhand remained at the fish sorting tray, cleaning and slicing scallops that had been collected with the previous trawl.

About five minutes after taking over the watch, the owner sighted the lights of a ship, heading south-easterly and showing its red sidelight, about 20° on the port bow. The ship appeared to have bright floodlights switched on, one each side of the bridge. After a few minutes he noticed the ship had altered course to port and was now showing its green sidelight. The ship crossed ahead of Moonshot and appeared shaped to pass down the starboard side, so the owner altered a few degrees to port, to allow a greater passing distance, putting the vessel about 20° on the starboard bow.

The owner then became confused by the two bright lights, he could no longer see either of the sidelights and thought the ship was moving away to starboard, but did not use the radar to check what was happening. Suddenly, he realised that he could see the shape of the ship's bow very close to starboard and called out to the Skipper.

Roused by the owner's shout, the Skipper scrambled up into the wheelhouse and was informed by the owner they were about to be hit. He looked out of the starboard doorway and saw the shape of a ship's bow only a matter of 10 - 15 metres away, about 30° - 40° on the bow. All he had time for was to grab a hand hold before Moonshot was struck, Moonshot's bow coming into contact with the bow of the ship, about 10 to 20 feet (3 m to 6 m) from the stem. Moonshot was pushed around to port and rolled to the extent that water came over the port bulwark, into the wheelhouse.

Moonshot righted itself and the Skipper put the engine into reverse, and Moonshot moved clear of the ship's side. As the ship moved away the Skipper put the engine to idle in neutral, noting shortly

afterwards that the wheelhouse clock showed the time as 0400. The owner, standing by the port door, had been able to make out the word ISTANBUL across the ship's stern before it was lost in the darkness. The second deckhand, who had still been working at the sorting tray, was thrown against the tray by the force of the impact but had been able to hang on when Moonshot rolled to port.

The Skipper sent the owner to check the engineroom for water ingress, while he checked the forecastle sleeping space and out on deck. He then tried calling the ship three or four times on VHF 16, but got no response. He then put out a general call and was answered by the fishing vessel Lily M. He informed the Lily M what had happened and asked him to stand by while they assessed the situation. The wooden anchor post was found to have been sheered off, the starboard bulwark split and the starboard outrigger broken and bent forward 90°, but Moonshot was not taking in water. Lily M was advised that they were not taking in water, they had power and would be all right.

The Skipper then called Townsville Radio, using his mobile telephone, and was connected to an answering machine, so he tried telephoning Townsville Water Police, with the same result. He then dialled "000" and was connected to the Townsville Police. He informed the Police about the collision and requested them to ask Townsville Radio to try to identify the ship.

Shortly after this, the Skipper heard the skipper of another fishing vessel talking very heatedly over the VHF, saying that he had been forced to take drastic evasive action to avoid being run down by a ship, and had been missed by about 30 feet (9 m).

A few minutes later (at 0454), the Skipper received a telephone call from MRCC Canberra, seeking more details of the collision. He informed MRCC that the collision had occurred in position 19° 25.82´S 147° 51.192´E.

After the Skipper and two deckhands had settled down (they were all in a state of shock and feeling shaken) they reassessed the damage and set about retrieving the nets. As soon as this was accomplished they headed back to Townsville, where Moonshot arrived at 1530.

Gumbet

Gumbet is a 64,060 tonnes deadweight, seven hold bulk carrier owned by Dunya Denizcilik ve Ticaret A.S. and operated by Ganship International Ltd of Istanbul. Built as the Hamlet Beatrice in 1976, the vessel has an overall length of 224.37 m, a beam of 32.25 m and a depth of 18.01 m. It is powered by a single, seven cylinder 13,608kW B&W diesel engine driving a single, fixed propeller.

The vessel is manned by a crew of 33 Turkish nationals, the three deck officers standing the conventional four-hour bridge watches, each with one AB lookout.

Gumbet, on a ballast passage from Chiwan and Hong Kong to Geelong via the inner two-way route of the Great Barrier Reef, disembarked the Barrier Reef pilot off Cairns at 1230 on 12 December 1996. The passage through the two-way route had been uneventful and before the pilot had disembarked the Master had consulted him about the courses to be followed through the remainder of the inner route.

That evening, the Second Mate, a teetotaller, went to bed at 2000, his normal time, and was on the bridge, to take over the watch, at 2355. At that time Gumbet was to the north-east of Townsville steering a course of 128° in autopilot, following the recommended track depicted on chart Aus 371, and making good a speed of 12.5 knots. Gumbet was exhibiting the required masthead lights, sidelights and stern light. The weather was fine, with good visibility, the wind was from the south-east at force 2 and the sea was slight.

The Second Mate had joined Gumbet as Third Mate in Nantung, in the Peoples Republic of China, on
23 August 1996, having obtained his Class 1 Deck Officer Certificate, at the end of his cadetship, on 16 July 1996. He was promoted to Second Mate when the previous Second Mate left the vessel at Hong Kong on 1 December 1996.

The Watch progressed quietly, there being no other shipping around, and the 2nd Mate plotted the vessel's position on the chart, using GPS derived positions, at 0100 and 0210. At the latter time Gumbet was 10¾ miles north-east of Cape Bowling Green.

A few minutes before 0300, the Second Mate observed the glow of lights on the port bow and looking at the radar he saw a number of small echoes, the closest at 10 miles. As they came closer he realised they were fishing vessels and, by 0330, there were about 15 at various ranges.

As Gumbet closed the first two fishing vessels, both on the port bow, the second one appeared to alter course towards Gumbet and passed very close. According to the Second Mate, he had maintained course and the fishing vessel passed close to port. However, according to the seaman lookout, the Second Mate altered course to port and the fishing vessel passed close to starboard. After this close encounter, the Second Mate plotted the GPS derived position on the chart, which placed Gumbet 3.1 miles west-south-west of Tink Shoal. He recorded the time as 0342.

The Second Mate then observed the bright lights of two fishing vessels on the starboard bow. The closer one was about 2°-3° on the starboard bow and the bearing was closing. He plotted the fishing vessel using the ARPA, which indicated the fishing vessel was heading to the east. When the fishing vessel was 2.8 miles away and almost right ahead, he altered course 5° to starboard, to 133°. As the fishing

vessel came closer, so as to give the fishing vessel more room, he altered course another 2° to starboard, to 135°. Very soon after this, however, the fishing vessel appeared to alter course towards Gumbet and suddenly he realised that it was very close and he saw a green light. He put the wheel hard to starboard, but as he did so, he lost sight of the fishing vessel under the flare of the bow. As Gumbet swung to starboard, the fishing vessel came back into view, about 5 m off the port side, abreast of no.4 hold. He rushed to the port bridge wing and saw that although it was rocking, the fishing vessel was afloat and appeared safe. He returned to the wheelhouse and brought Gumbet back on to course, then went to the VHF and called "Boat are you OK?" on channel 16, but received no response.

The Mate arrived on the bridge at about 0400, by which time the Second Mate had steadied the vessel back on the correct course of 128°. After handing over the watch the Second Mate remained on the bridge talking to the Mate. When a fisherman was heard talking on the VHF about having nearly been run down, the Second Mate told the Mate that he had passed close to a fishing vessel at 0340. However, in telling the Mate what had happened, he described the later, second encounter, which occured just before 0400. An entry was made in the Deck Log Book, recording the 0340 close encounter and that the fishing vessel was observed to be in a safe and floating condition and that Gumbet continued on course.

Following his usual routine, the Master went to the bridge at 0630 and was informed of the close quarters incident with a fishing vessel at 0340. He asked the Second Mate what had happened and sent a telex message to the owner in Istanbul, advising them of the incident.

Gumbet anchored off the port of Geelong at 1600 on 18 December 1996. An inspection of the vessel revealed white contact marks on the port bow, beneath the hawse pipe and extending aft, between the light and load water lines.

fv William Kelf

At 0330 on 13 December, the fishing vessel William Kelf was trawling on a course of 320°, about four miles south-west of Tink Shoal. The vessel was showing one all-round white light, sidelights and stern light, plus three mercury vapour deck lights over the aft deck; the all-round green fishing light was broken, and there was no spare glass on board. The crew were sorting the catch from the previous shot and as a large bull-ray was amongst the catch, the Skipper went aft to help dispose of the bull-ray, which needed to be done carefully.

The fishing vessel Steven C was ahead, on the same trawl line, but heading towards William Kelf and a vessel had been sighted on the port bow, showing masthead lights and a red sidelight. The radar had indicated a distance of six miles and a passing distance of about ½ mile.

While trying to deal with the bull-ray, the Skipper kept an eye on the approaching vessel, standing on the bulwark from time to time in order to do so. On one of the occasions when looking forward, the Skipper saw that the vessel was now showing its green sidelight, that it had turned to port to cross his bow, and was very close. Initially, the Skipper altered course to starboard, but realised there was insufficient room. He instructed one of the deckhands to put the engine out of gear, then to keep him informed on the vessel's approach as he winched in the fishing gear, this being the quickest and most effective way of pulling William Kelf astern and clear.

The vessel passed between 30 and 50 feet (9 m - 15 m) ahead of William Kelf.

The trawl nets were then redeployed, the bull-ray disposed of and the catch sorted, after which the Skipper contacted Steven C to inform them of his narrow escape.

fv Miss Chief

The trawler Miss Chief was fishing off Pakhoi Bank, and was about three to four miles to the south-east of Moonshot on a course of 300°.

The Skipper had been helping the deckhands to sort the catch. When he returned to the wheelhouse he checked the radar and saw the echoes of Moonshot and a larger vessel very close together and moving apart. Looking out of the window he saw a vessel heading straight for him, but it then altered course to port, to show its green sidelight and eventually passed about 1½ miles to the east of Miss Chief.

The Skipper heard Moonshot calling on VHF 16, asking if anyone read him, and heard the fishing vessel Lily M answer. The Moonshot's skipper then said that they had been hit by a ship, but were not in danger.

Conus

On the morning of 13 December, the Australian tanker Conus was northbound for Townsville and at 0430 was off Holbourne Island. Sometime afterwards, and before 0500, the bridge watchkeepers heard

Contact marks on Gumbet's Port Bow, Geelong
18 December 1996

a fishing vessel talking on VHF 16, describing a close quarters situation. The watch officer cut in two or three times, to remind the fisherman about radio protocol and the use of profane language, and to request that he switch to another channel.

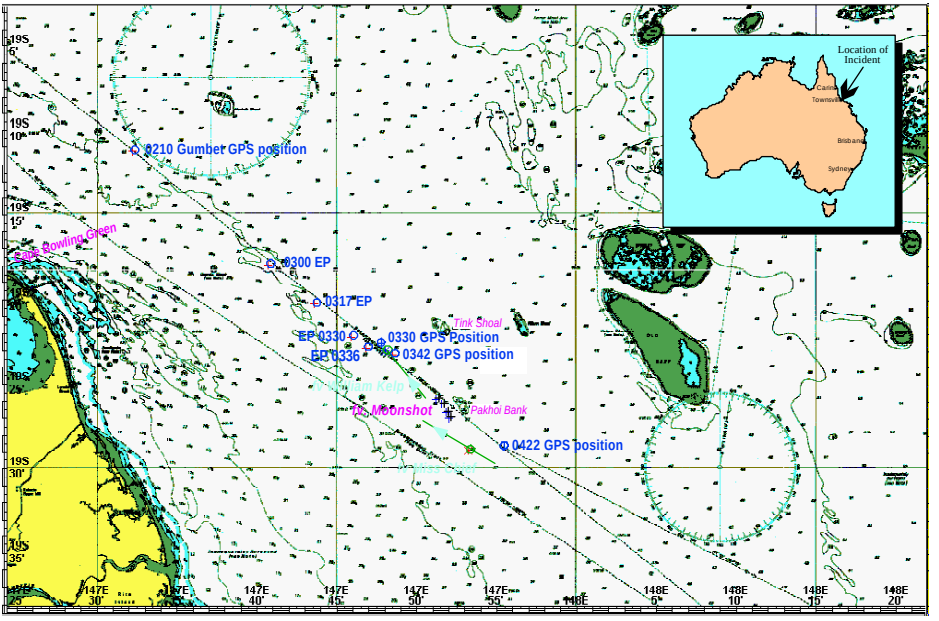
The southbound bulk carrier Gumbet was passed at around 0600.

Comment and Analysis

Analysis of movements

The skipper of the fishing vessel William Kelf did not record either the time or the position of his vessel's close encounter, although at a later date he stated that it would have been within half a mile of the position 19° 22.43´S 147° 47.53´E.

The track of the fishing vessel Moonshot, based on GPS positions recorded at 10 minute intervals, was retained for the investigation on the vessel's navigation plotter. However, no times were indicated.



Portion of chart Aus 826

The Second Mate aboard Gumbet plotted the vessel's position infrequently, using GPS derived latitude and longitude at 0100, 0210 and 0342; a GPS derived position was also recorded in the deck log book for 0330, but this had not been plotted on the chart. As the vessel is not equipped with a course recorder, it is not possible to reconstruct the track of the vessel with any degree of certainty. According to the entries in the deck log book, a gyro course of 128°, for 128° True, was maintained throughout the watch.

Gumbet

Between the position plotted on the chart by the Third Mate at midnight and the 0100 position, Gumbet made good a track of 127½° at an average speed of 13.4 knots. This is consistent with the tidal information contained on chart Aus 371. From this tidal information, on a maintained course of 128°, Gumbet could be expected to have made good a track of 127°, but with a drop in speed, to an average of 13.1 knots between 0100 and 0200, to an average of 12.7 knots between 0200 and 0300 and to an average of 12.5 knots between 0300 and 0400.

Between 0100 and 0210, Gumbet made good a track of 129¾° at an average speed of 13.07 knots, which would indicate Gumbet steered a course of 131° during that period. Such a course, to counteract set and drift and to bring the vessel back to the course line drawn on the chart, would be in accordance with normal practice and with the Master's "Standing Orders".

The course and average speed provided by the 0210 and 0342 positions are 127¾° and 12.72 knots; by the 0210 and 0330 positions 127¼° and 13.35 knots; and by the 0330 and 0342 positions 128½° and 8.5 knots. These figures place considerable doubt on the accuracy of the position recorded in the deck log book for 0330. They also indicate the course may have been adjusted to 129° from 0210.

Moonshot's Navigation Plotter

However, both the skipper of William Kelf and the owner of Moonshot stated that when first sighted Gumbet was showing a red sidelight. Had Gumbet been steering 129° from 0210, both fishing vessels would have been on Gumbet's starboard bow.

As the 0210 position was still north of the course line drawn on the chart, it is considered probable that the Second Mate maintained a course of 131° gyro. Such a heading would place both William Kelf and Moonshot on Gumbet's port bow, as claimed by both fishermen.

For Gumbet to cross ahead of William Kelf required Gumbet to alter course to port, as claimed by the fishermen and also the seaman lookout aboard Gumbet. An alteration commenced at 0336 would have required an alteration to about 100° and one commenced at 0337 an alteration to about 090°, an alteration of 30° to 40°.

Moonshot

Although Moonshot's real-time position from the GPS was constantly displayed on the navigational plotter, the position was only stored in the computer memory at 10-minute intervals. Thus, when recalling the information, Moonshot's track appears as a series of straight lines joining the recorded positions. As alterations of course can occur at any time during a 10-minute period, the actual track is virtually impossible to determine. As the plotting period is from the time the plotting is activated, the plotting times can be as much as five minutes out of phase with the clock.

From the plotter, after making the turn to starboard, and from position 19° 26.9´ S : 147° 52´ E, the vessel made good a track of 341° True for a distance of 0.474 miles, providing a speed of 2.84 knots. The plot then moves in a direction of 325° for a distance of 0.493 miles, providing a speed of 2.96 knots, then in a direction of 312° for a

distance of 0.371 miles, providing a speed of 2.23 knots, to position 19° 25.8´S : 147° 51.26´E. When interviewed, the Skipper stated that that was the position of the collision, although the position he provided to MRCC, from the GPS, was 0.07 miles (130 m) to the west of that position. The navigation plotter shows that during the next 10-minute interval Moonshot moved 0.046 miles (84.5 m) in the direction 242°. Then, after coming to a stop, Moonshot drifted for a considerable time, as indicated by a "knot" of position traces.

The reduced distance during the third 10-minute period would indicate the collision occurred towards the end of this period, which in turn indicates the plotting times were close to, if not in fact at, 0330, 0340, 0350 and 0400.

Moonshot was spun about to port by the force of the impact, so as to parallel Gumbet, therefore it would be expected that any movement of Moonshot, as a result of the collision, would be towards the south and east. The trawl nets, towed about 0.09 miles (160 m) astern of the fishing vessel, would come to rest on the sea bed at the time of, or very shortly after, the collision and eventually Moonshot would come to lie down wind and down tide of the nets, as if at anchor. The approximate position of the nets can be estimated from the position where Moonshot came to rest and from that, the approximate position of the collision. It is estimated that the nets were in a position 110 m at 187° from the "0400" plotter position.

The course, at the time the owner took over from the Skipper, was stated to be north-north-west magnetic, or about 345° True. The tide at that time was setting about 320°, which would account for a track made good of 341°.

The owner stated that he made just the one alteration of a few degrees to port, but could not recall how many degrees. Any assessment of what these "few" degrees were can only be subjective, but an

alteration of around 10° is considered reasonable in the case of a fishing vessel. The track made good from the "0350" position to the estimated net position is 303°, providing a substantial change in direction, in excess of 40°, from the north-north-westerly course.

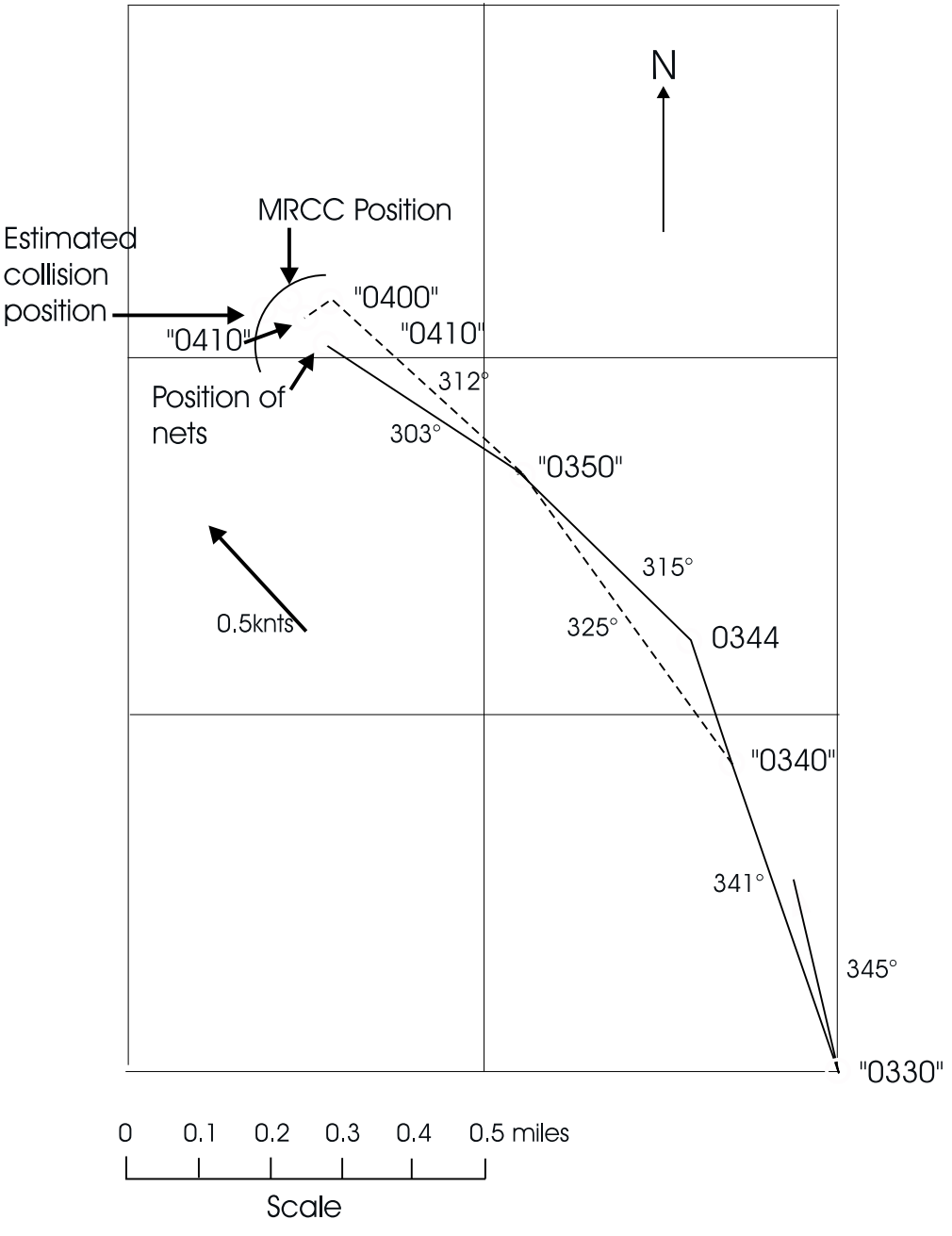
Gumbet reportedly crossed ahead of Moonshot before the owner altered the "few" degrees to port, therefore the indications are, he made an earlier alteration of course to port. As the previous, more northerly track line was 315°, it is possible the owner had brought Moonshot to a similar course, at about 0344.

Reconstruction

At 0342, Gumbet and Moonshot would have been about 4.1 miles apart, which indicates a discrepancy of about half a mile between the positions provided by the GPS instruments aboard the two vessels. From this point onwards, it is difficult to reconcile the accounts of the owner of Moonshot and the Second Mate of Gumbet, and the indications are that both the owner of Moonshot and the Gumbet's Second Mate wrongly recalled the angles on the bow of the other vessel.

The Second Mate's evidence was that at 0342, Gumbet was heading 128° and Moonshot was 3° on the starboard bow. However, if when the two vessels were 2.8 miles apart (at 0347) the Second Mate had altered 5° to starboard, given their courses and speeds, Gumbet would not have crossed ahead of Moonshot, but would have passed about a quater of a mile to the south of the fishing vessel.

As already stated, it is considered that Moonshot made two alterations of course to port. Had Moonshot remained on the north-north-westerly course until after Gumbet had crossed ahead, such a large change of heading by Moonshot (42°) would not have been necessary. Also, Gumbet would have had to have been over a mile further to the



Analysis of Moonshot's Movements

north-east and would have been required to initially alter course to at least 165°.

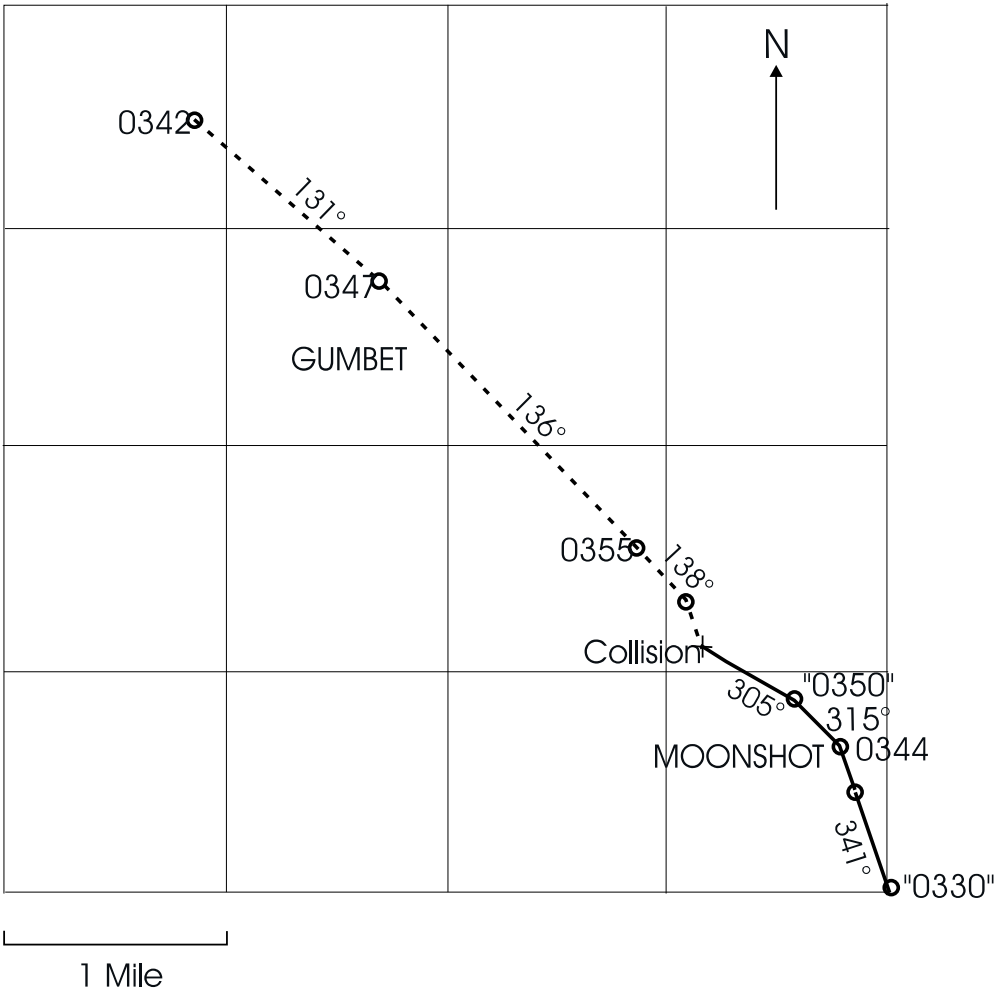
It is considered probable that at 0342, Gumbet was on a heading of 131°, making good a speed of 12.5 knots, with Moonshot bearing 135° at 4.15 miles. At that time, Moonshot was making good a track of 341° at a speed of 2.84 knots. Had both vessels maintained course and speed, Moonshot would have passed ahead of Gumbet at 0355, at a distance of nine cables (1668 m), the nearest approach occurring at around 0358½ at a distance of about 0.8 cables (148 m). The alteration of course by Moonshot to around 315° at about 0344 and the 5° alteration of course to starboard by Gumbet (to 136°) at 0347 created a converging situation, which was maintained by the subsequent course alterations by both vessels.

Human aspects

Gumbet Second Mate

At the time of the collision the Second Mate had served just 3½ months as a watchkeeping officer, 3 months and three days as Third Mate on the 8-12 watch and 12 days as Second Mate on the 12-4 watch. Although the Master had full confidence in him and had agreed to the promotion, this relatively short period of time would have provided him with little experience, particularly in judging distances at night, and may account for his getting into such close proximity to fishing vessels.

He stated that he had initially taken visual bearings and then plotted Moonshot on the ARPA radar when Moonshot was at three miles distance, the ARPA indicating Moonshot was heading east. However, Moonshot had not been on an easterly heading for some 30 minutes and at that time was probably on a course of around 315°.



Reconstruction

It is apparent the Second Mate was using neither visual bearings nor the radar either to full effect or correctly in order to ascertain the courses of the fishing vessels and whether risk of collision existed.

The Second Mate stated that after he had steadied Gumbet back on course he had called the fishing vessel on VHF channel 16, however, this call was not heard by Moonshot or any other vessel. Moonshot was lost to view from the bridge, under the bow, then reappeared very close on the port side, therefore chance of physical contact between the two vessels was very high. Under such circumstances it would have been appropriate to ensure radio contact was made, if necessary turning about and stopping, to ascertain if anyone had been injured and whether assistance was required.

When the Second Mate informed the Mate, and later the Master, about a close quarters incident, he told them about the one that had occurred at 0340, off Tink Shoal. He did not inform them there had been a second, more serous incident off Pakhoi Bank, just before 0400.

Moonshot, owner

Although the owner had about eighteen months experience on fishing vessels, and had previously spent six years sailing his yacht around the world, he held no marine qualifications and had received no formal marine training.

The radar was switched on and the owner had looked at the screen on one or two occasions as Gumbet approached on the port bow and crossed ahead of Moonshot. However, he did not use the radar to ascertain that Gumbet was in fact passing clear to starboard. His previous experience with radars had been with daytime Rasta Scan screens, he was not familiar with the conventional sweep screen and the side-lobing effect, which confused him. In relying purely on a visual watch on Gumbet, he did not realise the vessel was bearing

down on him and, although confused by the lights he could see, he did not call the Skipper in sufficient time for the Skipper to take action.

According to the owner, he could not recall seeing any masthead lights on Gumbet. He said that he could see two bright white lights, like floodlights, apparently one each side of the bridge, and initially a red sidelight and then a green sidelight as Gumbet crossed from the port bow to the starboard bow. In the minutes leading to the collision he was unable to see either sidelight. The lights seen by both William Kelf and Miss Chief, however, were normal navigation lights - masthead lights and sidelights.

Fishing vessel watchkeeping

Since its formation in 1991, the Unit has investigated six collisions in northern Queensland waters involving fishing vessels. In five of those incidents the skipper had handed over the watch to an unqualified crew member and gone to get some sleep.

All persons left in charge of the navigational watch of a vessel, including a fishing vessel, should have adequate knowledge for the safe operation of the vessel, bearing in mind the safety of all ships which may be operating in the same waters and the need for a safe navigational watch to be kept on the vessel concerned. Such knowledge should include the ability to operate safely all navigational aids and equipment normally fitted aboard the vessel.[1]

Prawn trawling is a night time operation, with the fishing vessels anchoring during daylight hours to enable all the crew to sleep. This is a regular routine to which the fishermen should be well adapted and, therefore, under normal circumstances, it should not be necessary for a skipper to sleep during the normal, night time working period.

In Australia, the manning requirements are such that only the skipper of a fishing vessel of less than 24 m in length operating within 100 miles

of the coast needs to be qualified. Thus, there is no one else on board qualified to take over the navigational watch from the skipper. This places the responsibility on the skipper of remaining on watch the whole time the vessel is underway. If, as part of his normal routine, a skipper hands over to a deckhand during the night, in order to get some additional sleep, it would be appropriate for one of the deckhands to have undertaken the necessary training to qualify him/her to take over the watch.

Conclusions

These conclusions identify the factors contributing to the incident and should not be taken as apportioning either blame or liability.

The main contributing factors are considered to be:

The inexperience of the Watch Officer aboard Gumbet, as a result of which:

- He did not allow a sufficiently wide berth when passing the fishing vessels;
- He did not use visual bearings or the radar to full effect to correctly ascertain the courses of the fishing vessels and to determine whether risk of collision existed;
- After the incident with Moonshot, he did not make contact with the fishing vessel to ascertain whether the crew were injured and whether they needed assistance.

The lack of formal marine training of the person left in charge of Moonshot, as a result of which:

- The progress of Gumbet was not properly monitored, the risk of collision was not assessed and the developing situation was not appreciated;
- An inappropriate course alteration was made, which nullified action taken by the other vessel.

It is considered that the Master of Gumbet was unaware of the incident and so was not aware that his vessel may have been involved in a collision.

.Submissions

Under sub-regulation 16(3) of the Navigation (Marine Casualty) Regulations, if a report, or part of a report, relates to a person's affairs to a material extent, the Inspector must, if it is reasonable to do so, give that person a copy of the report or the relevant part of the report. Sub-regulation 16(4) provides that such a person may provide written comments or information relating to the report.

The final draft of the report was sent to the following:

Master, Mate and Second Mate of Gumbet

Skipper and owner of Moonshot

However, no comment or further information was received.

Details of Gumbet

Previous Name	Navios Voyager (1990)
IMO No.	7430694
Flag	Turkish
Classification Society	Norske Veritas
Ship type	Bulk carrier
Owner	Dunya Denizcilik ve Ticaret A.S., Istanbul
Manager	Ganship International Ltd
Year of build	1976
Builder	A/B Burmeister & Wain's Skibsbyggeri, Kobenhavn
Gross tonnage	35,806
Net tonnage	22,407
Summer deadweight	64,060 tonnes
Length overall	224.37 m
Breadth extreme	32.25 m
Draught (summer)	12.501 m
Engine	B&W 7 cylinder diesel
Engine power	13,608kW
Crew	33 Turkish

Details of Moonshot

Identification No	FQGR
Flag	Australian
Type	Prawn trawler
Year of build	1980
Length	13.7 m
Breadth	4.57 m
Depth	2.43 m
Crew	3 Australian