Report on the investigation of

the collision between

Gudermes

and

Saint Jacques II

in the Dover Strait

on 23 April 2001

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The Merchant Shipping

(Accident Reporting and Investigation)

Regulations 1999

The fundamental purpose of investigating an accident under these Regulations is to determine its circumstances and the cause with the aim of improving the safety of life at sea and the avoidance of accidents in the future. It is not the purpose to apportion liability, nor, except so far as is necessary to achieve the fundamental purpose, to apportion blame.

CONTENTS

GLOSSARY OF ABBREVIATIONS AND ACRONYMS

ALRS	-	Admiralty List of Radio Signals
ARPA	-	Automatic Radar Plotting Aid
CALDOVREP	-	Calais/Dover Reporting
CD	-	Compact Disc
CNIS	-	Channel Navigation Information Service
CPA	-	Closest Point of Approach
CROSS	-	Centre Regionale Operationelle de Secours et Surveillance
DF	-	Direction Finding
EBL	-	Electronic Bearing Line
gt	-	gross tons
ITZ	-	Inshore Traffic Zone
MRCC	-	Maritime Rescue and Co-ordination Centre
Nm	-	Nautical Mile
OOW	-	Officer of the Watch
rpm	-	revolutions per minute
SAR	-	Search and Rescue
TSS	-	Traffic Separation Scheme
UTC	-	Universal Co-ordinated Time
VHF	-	Very High Frequency Radio
VRM	-	Variable Range Marker

SYNOPSIS

At 0429 UTC on 23 April 2001, the French-registered fishing vessel *Saint Jacques II* collided with the Maltese-registered product tanker *Gudermes* about 14 miles east-north-east of Dover harbour. The MAIB began an investigation into the accident that day.

Gudermes was following the south-west lane of the Dover Strait Traffic Separation Scheme in the vicinity of the South Falls Bank, while *Saint Jacques II* was crossing the south-west lane on passage to the Falls Bank fishing grounds. The collision occurred after the two vessels had been on a steady bearing relative to each other for about 16 minutes. CNIS had warned all ships in the area via VHF Channel 16 radio broadcasts that a vessel, later identified as *Saint Jacques II*, was contravening Rule 10c of the Collision Regulations.

The collision was directly caused by:

- *Saint Jacques II's* watchkeeper being either distracted or asleep, and thus failing to maintain a proper lookout or take avoiding action;
- *Gudermes'* action to avoid a collision being taken too late.

An indirect cause was *Saint Jacques II* crossing the south-west lane on a heading against the flow of traffic.

Recommendations addressed to the owner of *Saint Jacques II* are aimed at ensuring that all of its vessels keep an effective lookout and comply with Rule 10 of the Collision Regulations. Other recommendations to the MCA and the French administration are aimed at improving safety in the Dover Strait TSS.

The MAIB wishes to express its appreciation of the co-operation extended by the Bureau des enquêtes techniques et administratives après accidents et autres événements de mer (BEA mer) during the course of this investigation.

Gudermes

SECTION 1 - FACTUAL INFORMATION

1.1 PARTICULARS OF MT *GUDERMES* AND *ST JACQUES II* AND ACCIDENT

Vessel details		*Gudermes*
Registered owner	:	Delta Maritime
Manager	:	European Navigation
Port of registry	:	Valletta
Flag	:	Malta
Type	:	Tanker
Built	:	1977, Swan Hunter, Hebburn Shipyard, UK
Classification society	:	Lloyds Register
Construction	:	Steel
Length overall	:	170.85m
Gross tonnage	:	17,824
Engine type	:	Oil engines, direct drive
Service speed	:	15 knots
Accident details		
Time and date	:	0429 UTC on 23 April 2001
Location of incident	:	51°11.5N, 001°41.4E 3.5 miles ESE of East Goodwin Light
Persons on board	:	25
Injuries/fatalities	:	None
Damage	:	6m x 2m gash above the waterline in No 1 tank, port

Vessel details		*Saint Jacques II*
Registered owner	:	Margolle L & J
Port of registry	:	Boulogne
Flag	:	France
Type	:	Fishing vessel
Built	:	1998, Socarenam – Boulogne
Classification society	:	Bureau Veritas
Construction	:	Steel
Length overall	:	22.5m
Gross tonnage	:	153
Engine type	:	Oil engine, geared drive
Accident details		
Time and date	:	0429 UTC on 23 April 2001
Location of incident	:	51°11.5N, 001°41.4E - 3.5 miles ESE of East Goodwin Light
Persons on board	:	7
Injuries/fatalities	:	None
Damage	:	Buckled and ruptured plating on the port bow, a distorted anchor, and oil contamination of the upperdeck.

1.2 Background

Gudermes sailed from Tallin, Estonia on 18 April 2001 carrying 26,111 tonnes of fuel oil towards Conakry, West Africa. She entered the Dover Strait TSS early in the morning of 23 April. This was her third south-west bound passage through the Strait since starting the Tallin - Conakry service on 6 February 2001. *Gudermes* was owned by Delta Marine, managed by European Navigation, chartered by Falcon Navigation, and time chartered by Trafigura Ltd.

Saint Jacques II, a family-owned stern trawler, had returned to Boulogne-Sur-Mer on the evening of Friday 20 April. After a weekend break, she sailed early in the morning of 23 April for the fishing grounds in the vicinity of the South Falls Bank. The vessel fished routinely in this area.

1.3 NARRATIVE

All times are UTC and all courses are true.

1.3.1 Events leading up to the collision

Gudermes

At 0355 23 April 2001, the chief officer arrived on the bridge to relieve the second officer as OOW. The ship was in the south-west lane of the Dover Strait TSS, adjacent to the South Falls Bank. She was following a planned track of 220° in autopilot with the telegraph set to Full Ahead Sea Speed, giving a speed over the ground of between 10.5 and 11 knots. The vessel's details had been passed to Dover Coastguard by VHF radio about 30 minutes earlier. Also on the bridge were the master, and a lookout who had been instructed by the second officer to keep a good watch all round. During the handover, the chief officer was made aware of two vessels slowly overtaking, the closest of which was at a range of about 1 mile. The second officer left the bridge at about 0400.

At 0410 the master instructed the chief officer to keep a good lookout for vessels crossing the TSS and to call him if he was in doubt. He then left the bridge to go to his cabin, but did not go to bed. The master did not see any vessels ahead either visually or by radar before leaving the bridge.

At about 0411 the chief officer ordered the lookout to move to the helm and change to manual steering. Course was then altered to starboard to 230° to follow the axis of the traffic lane in accordance with the passage plan. On completion of the alteration at 0413, the chief officer plotted the ship's position on the chart and then annotated the ship's log, while the lookout initially remained at the helm until steering was switched to automatic several minutes later. The chief officer then checked the radar display and saw an echo at approximately 2 miles, 10°-15° on the port bow; he assessed its CPA to be 1 cable to port. The radar echo was identified visually as a fishing vessel, but only a single white light was seen. The lookout was instructed to return to the helm and change to manual steering.

The chief officer monitored the fishing vessel, later identified as *Saint Jacques II*, by radar for several minutes; her bearing was not checked visually using the gyro repeater on the port bridge wing. As the fishing vessel did not seem to be taking any action, and the risk of collision increased as the vessels closed, he ordered the helmsman to apply 10° of helm to starboard, and sounded the ship's whistle five times. On hearing the whistle, the master quickly returned to the bridge and saw *Saint Jacques II* about 1 cable on the port bow. He immediately ordered the helm to be put harder to starboard and repeated the five short blasts on the ship's whistle. At about the same time, the chief officer directed a flashlight at the bridge of the fishing vessel. *Saint Jacques II* did not appear to take any action and, within seconds, the vessels collided at 0429. *Gudermes*, which was swinging to starboard, was first struck on her port bow **(Figure 1)** followed by lesser impacts amidships and aft, in the vicinity of the accommodation. Neither the chief officer, nor the master, saw any of *Saint Jacques II*'s crew, either before or after the collision.

Saint Jacques II

At 0140, *Saint Jacques II* sailed from Boulogne-Sur-Mer with the skipper keeping the wheelhouse watch. As the vessel passed the breakwater, the deckhand, nominated to take the watch during the passage to the fishing grounds off the South Falls Bank, joined him. By now the remaining crew were resting in their quarters. The skipper stayed with the deckhand until handing over the watch on passing Gris Nez at about 0230. At this point there were about 20 miles to run to the fishing grounds, and the expected time of arrival was about 0430. When the skipper left the wheelhouse, the vessel was on a course of 010° in autopilot and engine speed was 750rpm (80% power). Speed made good over the ground was about 11 knots.

At about 0415, shortly after *Saint Jacques II* entered the south-west traffic lane, the deckhand saw a radar contact 3 miles on his starboard bow. Through binoculars he saw a vessel's port and starboard sidelights and assessed that she was passing astern. The vessel was checked again at 2 miles. On this occasion only her starboard sidelight was seen and the deckhand assessed that the vessel would continue to pass clear to starboard. He also estimated the vessel would not pass within the radar's VRM that was set to a range of 1 mile. No attempt was made to determine the approaching vessel's bearing movement or CPA accurately, visually or by radar. The deckhand heard some talk on the VHF radio but did not understand it. In addition, he did not hear any sound signals or see a flashlight. He paid no further attention to the situation until he saw a vessel, later identified as *Gudermes,* ahead at very close range.

The deckhand reacted by turning the helm to starboard but, as automatic steering was selected, there was no response. No further action was taken and *Saint Jacques II* continued on her course and struck *Gudermes* with her stem **(Figure 2)**.

Figure 1

Damage to *Gudermes*

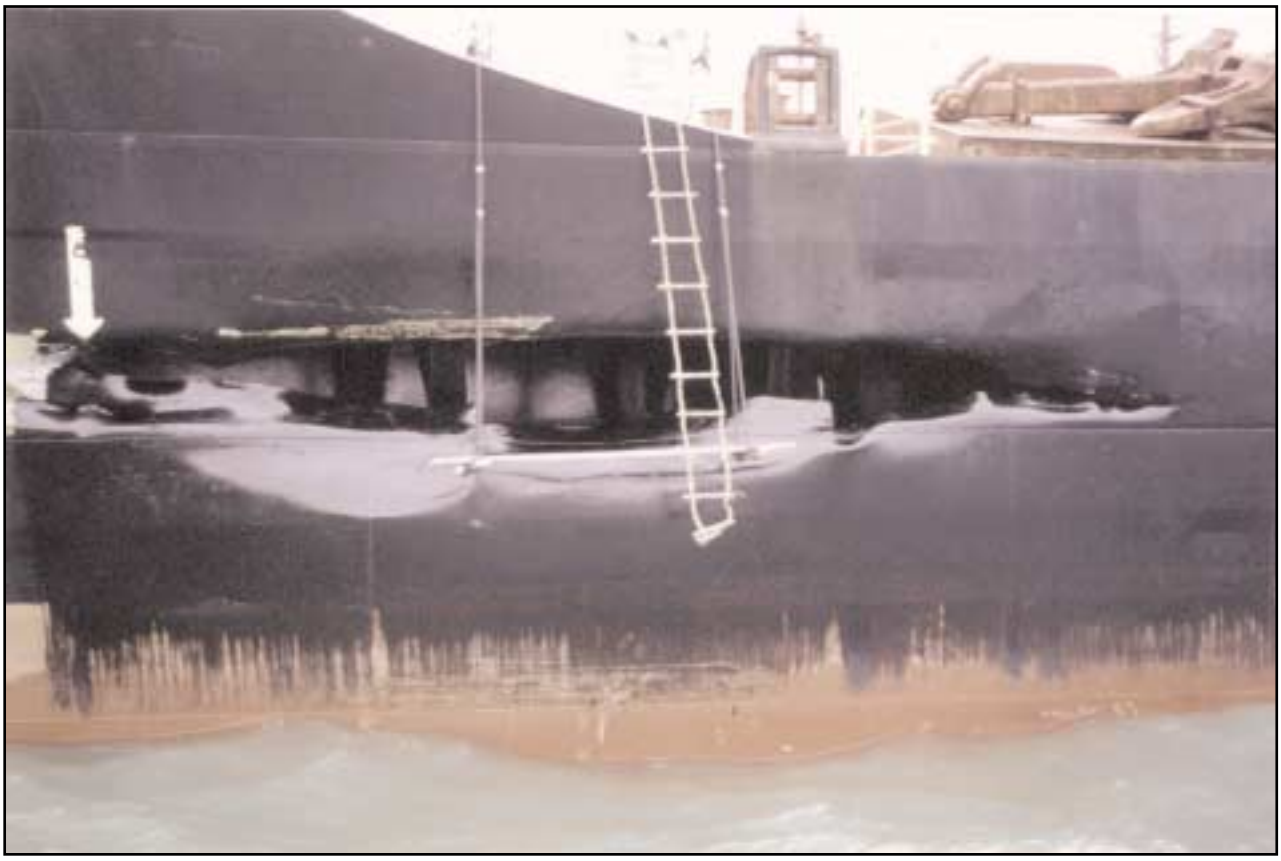


Figure 2

Damage to *Saint Jacques II*'s stem

Channel Navigation Information Service

At 0413, a CNIS operator in Dover noticed that an unknown vessel had entered the south-west bound lane from the south making good a course of 012° and a speed of 10.7 knots. Assessing that this placed her in contravention of Rule 10c of the *International Regulations for Preventing Collisions at Sea*, a preliminary broadcast was made via VHF channel 16 (the international distress, urgency, safety and calling frequency) requesting all ships to listen to VHF channel 11 for a supplementary broadcast warning all vessels of the position of the contravening vessel.

The supplementary broadcast was made at 0416 giving the position, course and speed of the 'rogue' vessel and warning that her track was in contravention of Rule 10c. This information was repeated.

At 0421, a fixed wing aircraft was activated to attempt to identify the 'rogue' vessel.

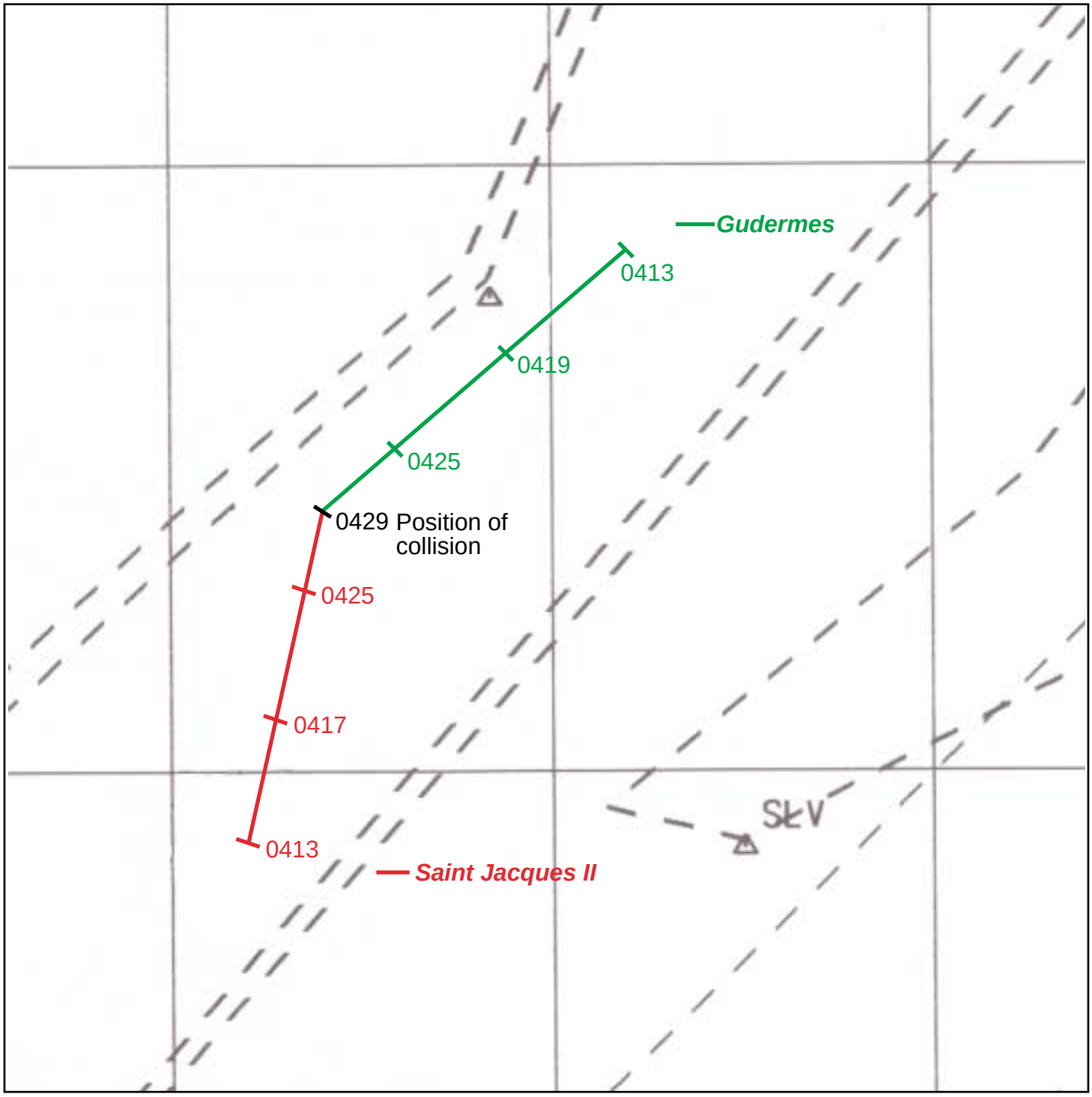
At 0427 it was noted that the radar echo of the contravening vessel was now very close to the radar echo known to be *Gudermes.* The two tracks appeared to merge into one radar echo in position 51°11.5N, 001°41.4E. However, after separating again soon after, *Gudermes* was observed to make a hard alteration to starboard before quickly resuming her base course.

Recorded Information

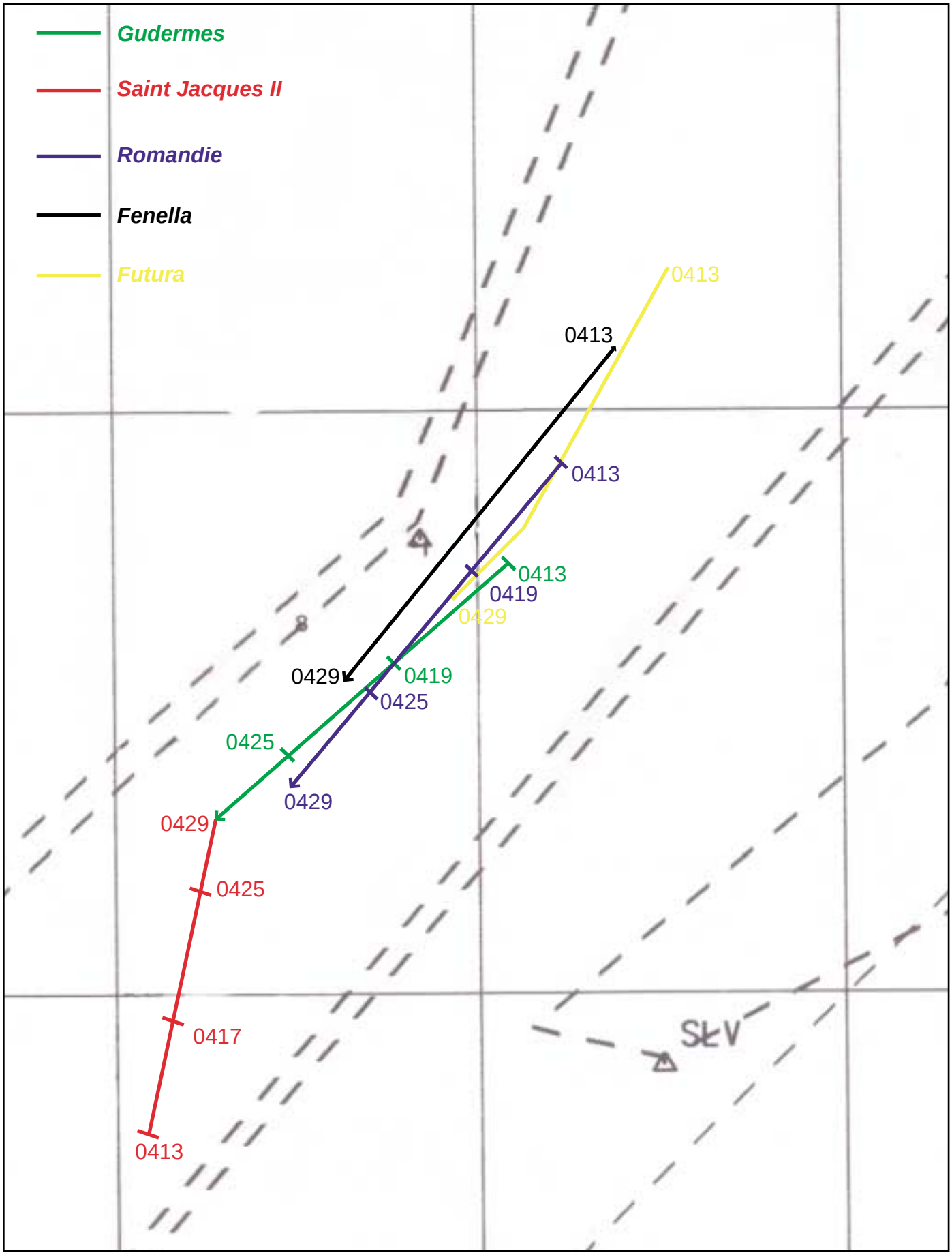
The radar plot showing the ground tracks of *Gudermes* and *Saint Jacques II* is at **Figure 3**.

Figure 4 shows the tracks of three additional vessels: *Romandie, Fenella* and *Futura*, which were following *Gudermes* in the south-west traffic lane*. Romandie*, a 39,422gt bulk carrier with an overall length of 225m, was the closest to *Gudermes*. An extract of *Gudermes*' course recorder is at **Figure 5**; it is estimated that times are accurate to within 2 minutes.

Figure 3

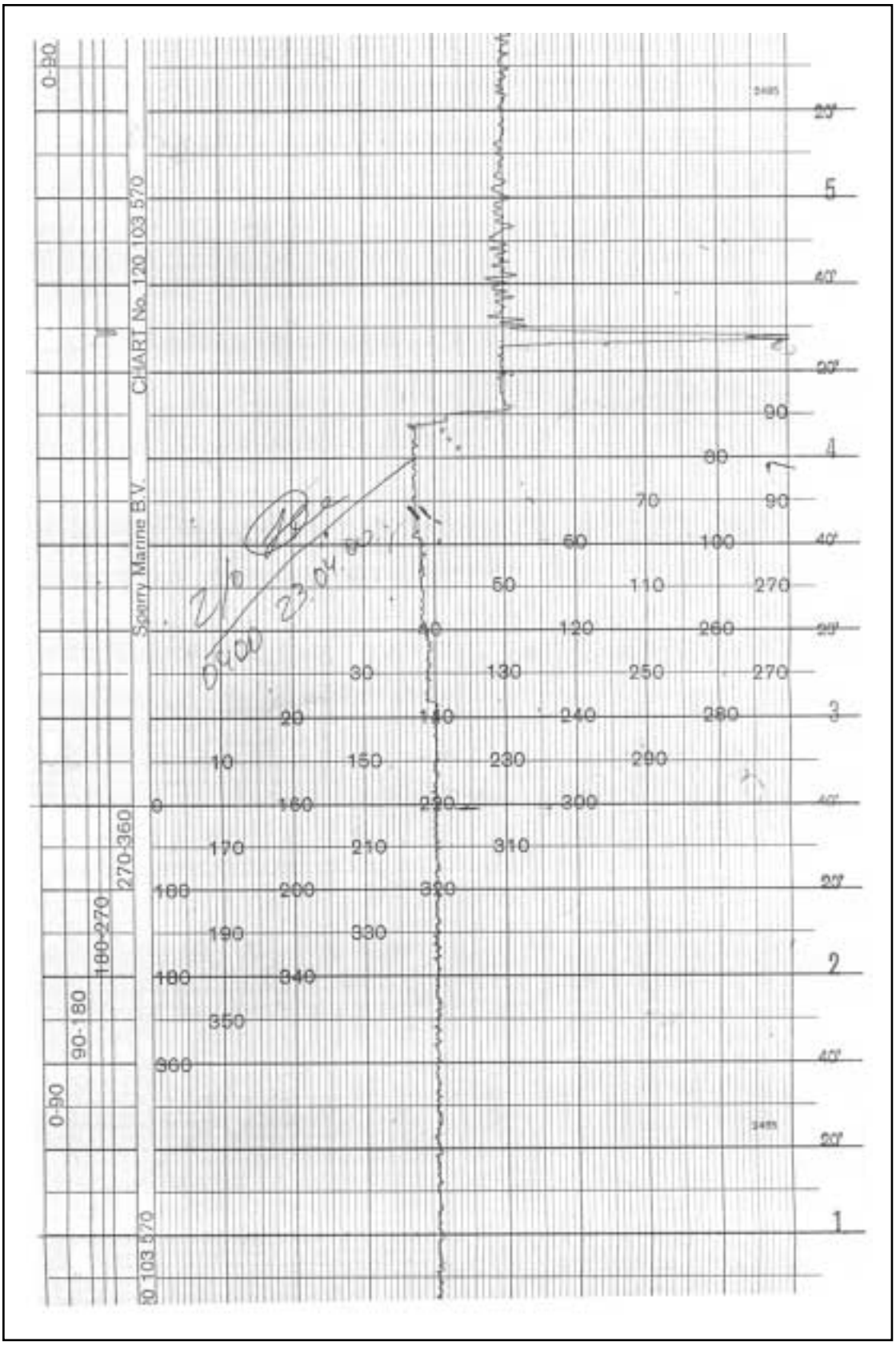


Radar plot showing the tracks of *Gudermes* and *Saint Jacques II*



Radar plot showing the tracks of other vessels in the vicinity

Figure 5



Extract of *Gudermes*' course recorder

1.3.2 Events following the collision

Gudermes

Immediately following the collision the general alarm was sounded and oil was seen leaking from No 1 tank (port) into the sea. Speed was gradually reduced to Dead Slow Ahead and the oil in No 1 tank (port) was transferred to other tanks. The cofferdam was also inspected for damage. Several attempts were made to contact *Saint Jacques II* via VHF channel 16, but without success. The fishing vessel was seen to have sustained damage to her bow and to maintain her course to the north-east. No attempt was made to inform Dover Coastguard of the collision or pollution. This information was only passed when Dover Coastguard called *Gudermes* at 0449. *Gudermes* anchored off Dover at 0810 for a damage survey, and then sailed to Southampton the following day to conduct a permanent repair.

Saint Jacques II

The skipper was woken by the impact of the collision and went straight to the wheelhouse. On arrival, he saw *Gudermes* was clear astern and noticed the deckhand returning to his feet after, apparently, being knocked to the deck by the impact. The skipper took the engine out of gear immediately. An assessment was made of the damage and, after contacting Gris-Nez CROSS, *Saint Jacques II* headed back to Boulogne-Sur-Mer where she arrived at about 0915. It is not known if the attempts by *Gudermes* to make contact via VHF radio were heard; no attempt was made to contact *Gudermes*.

CNIS

At 0449, following the interception of *Gudermes'* VHF radio calls to *Saint Jacques II* by MRSC Thames and, after Gris-Nez CROSS had been alerted by *Saint Jacques II*, Dover Coastguard called *Gudermes* on VHF channel 16. It was confirmed that *Gudermes* and *Saint Jacques II* had collided and that oil was leaking from *Gudermes.* A tug, *Anglian Monarch,* was alerted at 0453 and, at 0506, the fixed wing aircraft previously activated to locate and identify the 'rogue' vessel, was re-tasked to check for pollution.

Pollution

After the collision, up to 71 tonnes of oil was lost overboard. Pollution, however, was minimal and the oil dispersed naturally.

1.4 ENVIRONMENTAL CONDITIONS

Visibility was about 5 miles. Civil twilight was at 0407 and sunrise at 0443, the sea was slight, wind was south-east force 2 and the weather fair. The predicted tidal stream was 246° at 0.6 knot.

1.5 CREW AND BRIDGE MANNING

Gudermes

The Russian chief officer was the OOW and spoke English. He first went to sea in 1986 and, serving mainly on tankers, had been an OOW for about six passages through the Dover Strait during his career. He joined European Navigation in 1995, was promoted to chief officer in 1996, and joined *Gudermes* in December 2000. He had drunk no alcohol since about 1996, had not taken drugs of any kind, and did not feel tired at the time of the collision. During the 24 hours before the collision he had worked for 10.5 hours and was able to eat, sleep and rest during the remainder. The lookout accompanying the chief officer on the bridge was also Russian, but could not speak English.

Saint Jacques II

Four of the all-French crew were qualified to act as skipper and one was a qualified engineer. The deckhand on watch at the time of the collision was 17 years old and, although not qualified as a skipper, had held a 'maritime certificate of professional aptitude' since 30 June 1999. He had worked on board for almost 2 years and had been keeping watches alone in the wheelhouse for about the previous 6 months. The deckhand was alone in the wheelhouse and did not speak English.

Before sailing, the deckhand had been in bed from 2030 until 2400. It is not known if he had recently consumed any alcohol or drugs. He felt drowsy on two or three occasions during his watch and appeared 'red-eyed' immediately following the collision. He was familiar with the route taken from Boulogne-Sur-Mer to the South Falls fishing grounds.

1.6 BRIDGE ENVIRONMENT AND NAVIGATION EQUIPMENT

Gudermes

Gudermes was fitted with two Kelvin Hughes MR 3061 semi-automatic displays and a Nor Control Databridge ARPA. All were functioning correctly and the chief officer primarily was using a semi-automatic display positioned at the front of the bridge on the starboard side. This display required the operator to acquire a radar echo manually before information about the echo, such as range, bearing, course, speed and CPA could be shown. The display was north up, off-centred to the north-east, in relative motion, and set on the 6-mile range scale. The other semi-automatic display, along with the ARPA, was positioned towards the rear of the port side of the bridge, adjacent to the chart table. These displays were on the 12-mile range scale. Guard zones were not set on any of the displays.

On detecting *Saint Jacques II* by radar, the chief officer assessed her CPA by aligning the EBL over the radar echo and its velocity trail, then measuring the range of the nearest point of the EBL from the radar origin.

The VHF radios on the bridge were set to channels 11 and 16. Before the collision the chief officer did not hear any broadcasts by Dover Coastguard, but he did hear another vessel asking a fishing vessel to alter course.

Saint Jacques II

Two Koden 7-inch (178mm) radar displays were fitted and were operating on the 3 and 6-mile range scales. Guard zones could be set around the vessel, but were not. Also, on-screen plotting indicated the relative course and speed of moving targets. The Turbo 2000 video plotter was functioning correctly, and the three VHF radios were tuned respectively to channel 16, channel 79 (weather) and channel 15 (inter-ship). A CD player was on a low volume in the background. The watch alarm fitted required resetting every 10 minutes, otherwise a general alarm would sound. This interval could be set to 3 minutes if required. This alarm was not part of the autopilot and, as the skipper held the key, it could not be disabled. Most of the wheelhouse navigational equipment was within reach or could be monitored from a chair provided for the watchkeeper towards the centre of the bridge. Windows were fitted on all four sides of the wheelhouse, affording good all-round visibility. The navigation lights were switched on, but it has not been possible to determine if they were working correctly at the time of the collision.

1.7 MASTER'S AND SKIPPER'S ORDERS

Gudermes

The master's night orders for 23 April 2001 were (translated from Russian):

Keep watch according to bridge standing orders and proceed by course as per sea passage plan. Always lookout carefully in traffic separation zone. Keep clear from crossing vessels especially small fishing boats with minimum distance of 2 miles. Keep watch in VHF Channel 16. If any doubt call immediately to master or press to alarm one short blast.

Saint Jacques II

The skipper instructed the deckhand verbally to follow the track on the video plotter. He also asked him to call him if there were any radar echoes entering within the VRM which had been set to 1 mile, or which were likely to pose a problem, and when the vessel was approaching the fishing grounds. The skipper had previously made all watchkeeping crew aware of the need to call him if they were in the slightest doubt. He also stated that any manoeuvre taken to avoid a collision should result in passing at a distance of not less than 1 mile. The deckhand at the time of the collision was familiar with these requirements and for these reasons had called the skipper on several occasions during previous passages.

1.8 ROUTE SELECTION

The planned track of *Gudermes* followed the axis of the south-west bound lanes in the Dover Strait while *Saint Jacques II*'s was the direct route between Cap Gris Nez and the South Falls Buoy **(Figure 6)**. The skipper and deckhand on *Saint Jacques II* were aware that their track through the south-west bound lane of the Dover Strait TSS contravened the Collision Regulations. The skipper, however, was prepared to do this in order to arrive at the fishing grounds before other vessels which had left Boulogne at about the same time.

Figure 6

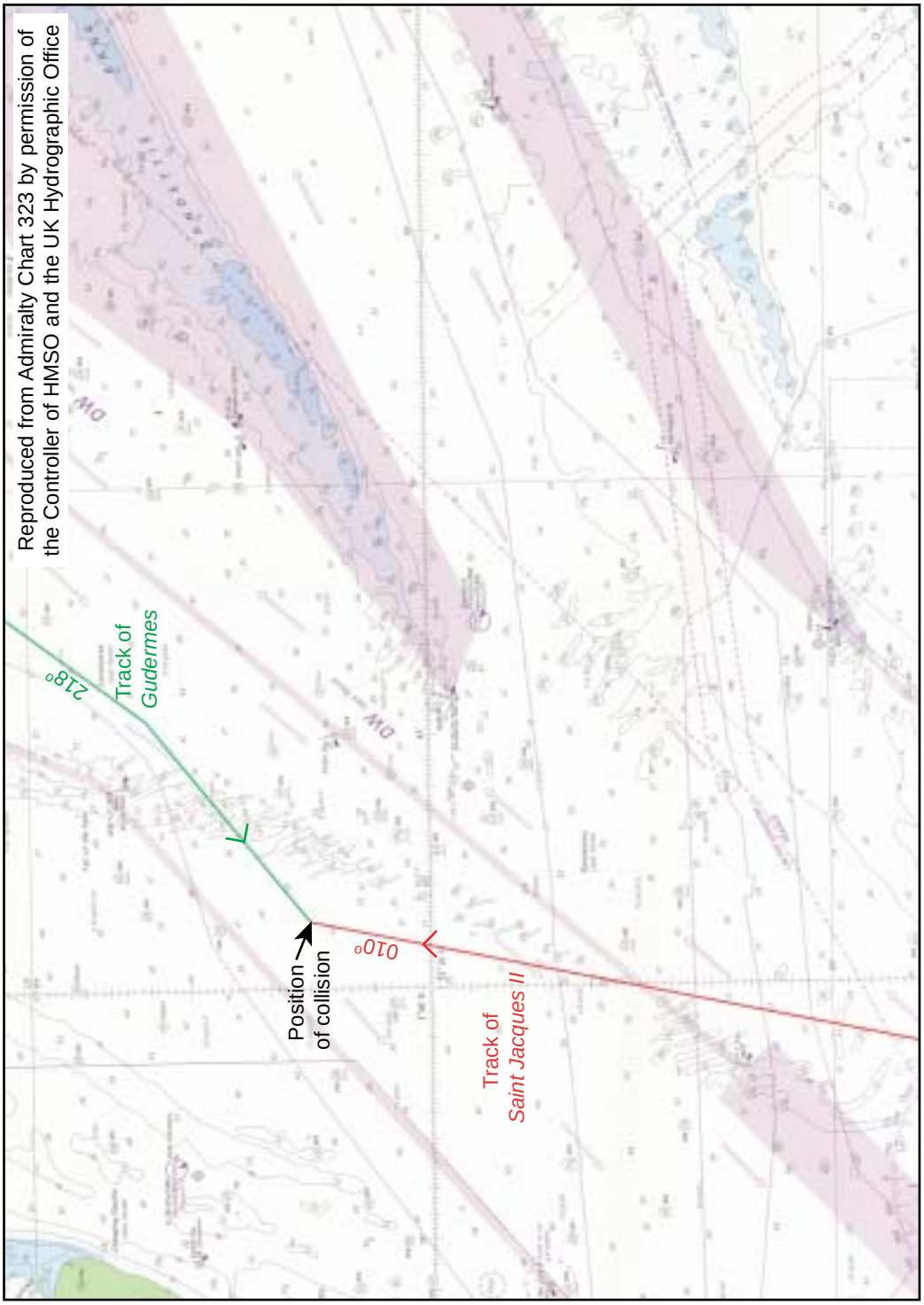


Chart showing the tracks of *Gudermes* and *Saint Jacques II*

1.9 STATUS OF THE VESSELS WITH REGARD TO THE COLLISION REGULATIONS

Both vessels were power-driven, under way, making way and in an approved TSS. The following rules, taken from the *International Regulations for the Prevention of Collisions At Sea 1972 (as amended) (Collision Regulations)* are relevant:

Rule 5 - Lookout

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 7 – 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.*

Rule 10 – Traffic Separation Schemes

(a) *A vessel using a Traffic Separation Scheme shall:*

(i) proceed in the appropriate traffic lane in the general direction of flow for that lane.

(c) *A vessel shall, so far as practicable, avoid crossing traffic lanes but if obliged to do so shall cross on a heading as nearly as practicable at right angles to the general direction of traffic flow.*

Rule 15 – Crossing Situations

When two power driven vessels are crossing so as to involve risk of collision, the vessel which has the other on her own starboard side shall keep out of the way and shall, if the circumstances of the case admit, avoid crossing ahead of the other vessel.

Rule 16 – Action by give-way vessel

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 clear.

Rule 17 – Action by stand-on vessel

(a)(i) Where one of two vessels is required to keep out of the way the other shall keep her course and speed.

(ii) The latter 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.

Rule 34 – Manoeuvring and warning signals

(c) *When vessels in sight of one another are approaching each other and from any cause either vessel fails to understand the intentions or actions of the other, or is in doubt whether sufficient action is being taken by the other to avoid collision, the vessel in doubt shall immediately indicate such doubt by giving at least five short and rapid blasts on the whistle. Such signal may be supplemented by a light signal of at least five short and rapid flashes.*

1.10 SAFETY MEASURES IN THE DOVER STRAIT

General

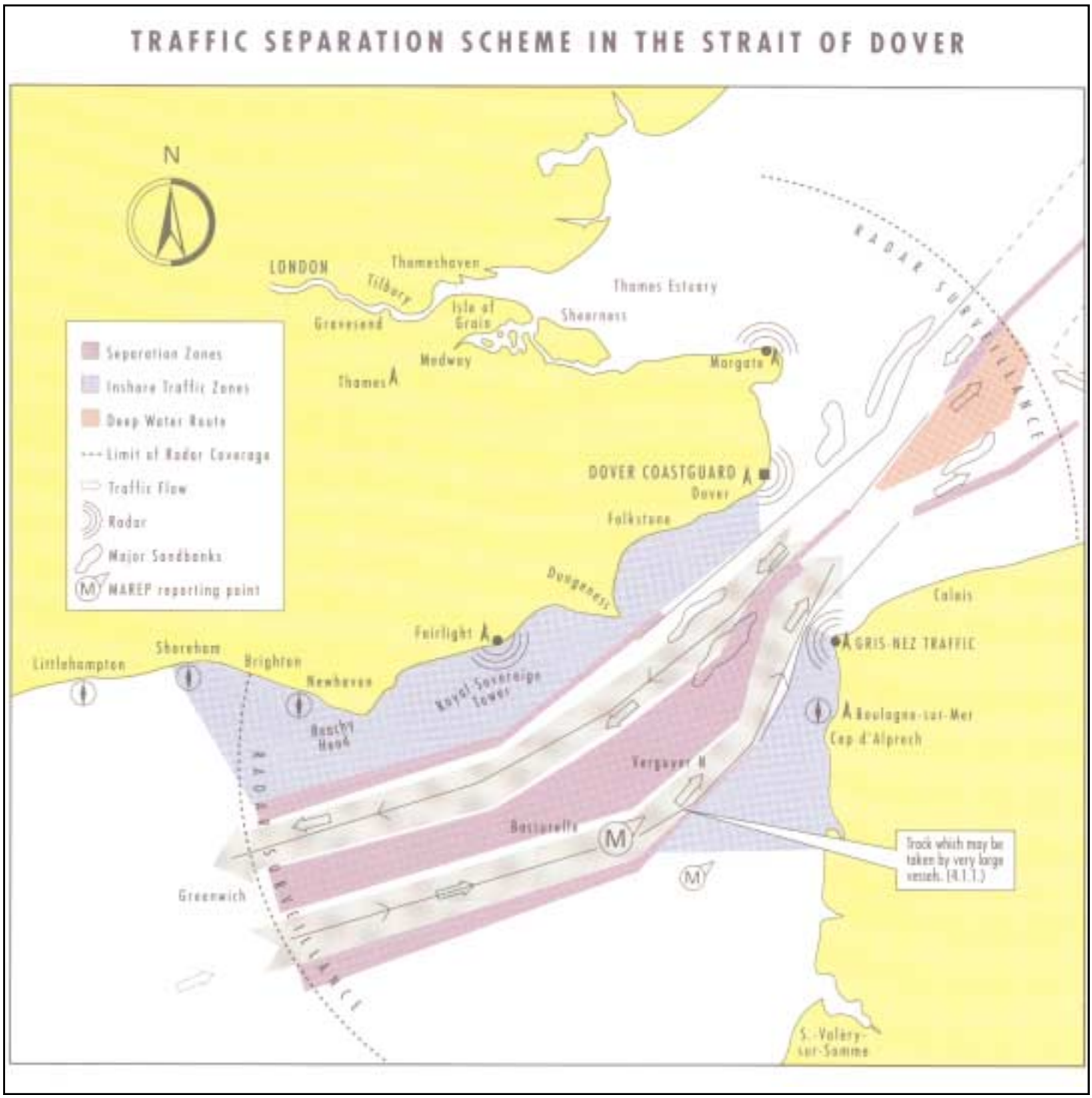
The Dover Strait/Pas de Calais and its approaches is one of the busiest waterways in the world, and is complicated by the proximity of navigational hazards. To improve safety in this area, CNIS was established in 1972, the traffic separation scheme became compulsory in 1977, and a mandatory reporting scheme was introduced in 1999.

CNIS

a. Radar Surveillance and Radio Safety Service

CNIS provides a 24-hour radio safety service by scheduled broadcasts or, on request, to individual vessels on passage through the Dover Strait. The area covered by the service and radar coverage of the area is shown at **Figure 7**. Continuous radar coverage is achieved via radar aerials sited at Margate, Dover, and Hastings. These aerials feed into the MRCC Dover which is also equipped with VHF DF sensing equipment, and monitors and records a selection of VHF channels, including 11 and 16.

Information broadcasts are made on VHF channel 11 by Dover Coastguard at 40 minutes past each hour, and by Gris-Nez traffic at 10 minutes past each hour. These broadcasts give warnings of navigational difficulties and unfavourable conditions likely to be encountered in the Dover Strait.



b. Operation and Manning

Radar surveillance of the area is normally achieved by using three displays; one for each of the radar heads. All radar contacts entering the area are automatically acquired, labelled with a unique track number, and displayed on a synthetic map, which is routinely set on a scale of 1:15000. Operators are able to zoom into a particular part of the area of coverage if required, but coverage of the whole area cannot be maintained when doing so. Track labels may also be changed manually. Due to the traffic density and the scale of the radar displays,

the merging of radar tracks is a very frequent occurrence, and results in one of the track labels being automatically dropped from the system. When the radar echo eventually splits, the system automatically generates a new track number for the unlabelled echo. Automatic relabelling of contacts also occurs when tracking is intermittent, with a new label being allocated each time a contact is reacquired.

Recording equipment stores information automatically from all tracks which can be replayed on the system, or specific track movements can be plotted on to an A0-size sheet of paper.

Information obtained from VHF DF equipment is not shown on the radar displays; it must be plotted on a paper chart.

The MRCC operations room is usually manned by a watch of six personnel filling five positions: a watch leader controls and co-ordinates all activities, two radar operators monitor the three displays, one person maintains a dedicated watch on VHF channel 16, and a SAR operator who, among other things, monitors 999 calls (the emergency telephone number in the UK) and prepares meteorological information. A watch of six people is required to allow operators to rotate positions and take adequate breaks.

c. Rogue Procedure

When a vessel appears to be contravening the provisions of Rule 10 of the Collision Regulations, it is termed a ‘rogue’, and action is taken to identify and contact the vessel concerned, to warn other ships in the vicinity, and to inform the vessel’s flag state.

From 1 January 1998 until 15 June 2001, MRCC Dover reported 227 contraventions of Rule 10 by French fishing vessels in the Dover Strait to the French administration. The 53 vessels involved were all registered in Boulogne-Sur-Mer, and one vessel had been reported on 18 occasions. *Saint Jacques II* had been identified as a ‘rogue’ and reported on five previous occasions.

d. Mandatory Reporting System (CALDOVREP)

The CALDOVREP reporting system covers a 65-mile stretch of the Dover Strait/Pas de Calais**.** All vessels over 300 gt are required to participate in the system, as must vessels under 300 gt if they are not-under-command, at anchor, restricted in their ability to manoeuvre or have defective navigational aids.

South-west bound vessels must report to Dover Coastguard via VHF channel 11 when within VHF range of North Foreland, and not later than passing the northerly reporting line. North-east bound vessels must report to Gris-Nez Traffic 2 miles before crossing the southerly reporting line on VHF channel 13. Vessels departing ports within the ITZ of the TSS should report to the nearest shore station. Full details of the reporting system can be found in Admiralty List of Radio Signals (ALRS) Volume 6(1).

1.11 GUIDANCE TO FISHING VESSELS

MGN 84 (F) titled *Keeping a* Safe *Navigational Watch on Fishing Vessels* provides guidance to UK fishing vessels. Key points of this guidance includes:

- *Watches must be properly manned by competent people who are fit for duty.*
- *A proper lookout must be kept at all times.*
- *Other traffic must always be monitored.*

Detailed advice on how to achieve these key points is also included.

SECTION 2 - ANALYSIS

2.1 COMPLIANCE WITH RULE 10 OF THE COLLISION REGULATIONS

Gudermes

Gudermes' planned tracks through the Dover Strait TSS followed the general direction of the south-west traffic lanes and were therefore in accordance with Rule 10.

Saint Jacques II

Saint Jacques II crossed the south-west bound traffic lane in the Dover Strait TSS adjacent to the South Falls Bank on a heading of 010°. The axis of this traffic lane is 230°/050° ie at right angles. In order to comply with Rule 10c, therefore, north-bound vessels crossing this lane should do so on a heading as close as practicable to 320°, i.e. at right angles. As *Saint Jacques II*'s course was displaced 50° to the east of the required heading, she was in contravention of Rule 10c. In effect, she was crossing the south-west traffic lane in a contrary direction to the flow of traffic, rather than at right angles.

General

A fundamental purpose of the Collision Regulations and TSS is to improve safety at sea by requiring vessels to behave in a predictable manner. Within a TSS, vessels following a traffic lane should be either overtaking or being overtaken, and the status of crossing vessels should be unambiguous. When this is not the case, the benefits of a TSS, including those of the precautions of radar coverage and reporting schemes, are jeopardised.

It is unfortunate that, despite the efforts made by CNIS to identify and report vessels not complying with Rule 10 of the Collision Regulations in the Dover Strait, the French administration does not seem to have taken any action. It should not be surprising, therefore, that in the absence of any educational measures or disincentives, many vessels continue to ignore the requirements of the Dover Strait TSS. The attitude of *Saint Jacques II*'s skipper in planning to cross the south-west lane contrary to the traffic flow, to reach the fishing grounds before rival vessels, despite being reported on five previous occasions, is evidence of this. It also indicates that the requirements of the TSS are viewed with a lesser consideration than commercial interests.

2.2 LOOKOUT AND MONITORING OF OTHER VESSELS

Gudermes

An OOW assisted by a lookout and three operational radar displays should normally be sufficient to maintain an adequate visual and radar lookout. *Saint Jacques II*, however, was not detected until she was at a range of 2 miles. During the 12 minutes from 0411 until 0423, namely from when the ship started

to turn to 230° until *Saint Jacques II* was detected on radar, the OOW was busy at the chart table and, for much of this time the lookout was on the helm. Their pre-occupation with these activities inevitably reduced the effectiveness of the long and medium range lookout being maintained, and hindered earlier detection of *Saint Jacques II*. It is also likely that the OOW's concentration on his navigational duties caused him not to take notice of the broadcasts from Dover Coastguard regarding the 'rogue' vessel which were made on VHF channels 11 and 16. The lookout might have heard these broadcasts, but would not have understood them.

Guard zones could have been set on the radar displays and led to an earlier detection of *Saint Jacques II.* The use of guard zones to provide early warning in areas of high traffic density such as the Dover Strait, however, is likely to result in numerous alarms. In these circumstances, the frequency of the alarms may be a distraction to an OOW, not an aid. The decision not to use guard zones for long range detection in this instance was, therefore, understandable.

It is also considered that the OOW's use of the semi-automatic radar to monitor *Saint Jacques II*, and determine if a risk of collision existed, followed the same principles as manual plotting. This resulted in a quick and accurate assessment of her CPA, and would have provided an early detection of course alterations.

Saint Jacques II

The deckhand on watch detected a radar contact at a range of 3 miles on his starboard bow. The sidelights he saw and associated with this contact, namely both port and starboard lights on the first occasion, followed by just the starboard sidelight when the radar contact was at 2 miles, indicates that he crossed ahead of the vessel. Based on this change of aspect, his assessment that the vessel would pass to starboard and under his stern would, therefore, seem logical. The following information, taken from **Figure 4**, shows the distance and bearing of *Gudermes* and *Romandie,* the ship immediately astern of *Gudermes,* from *Saint Jacques II*. It also gives the aspect of the ships as seen from *Saint Jacques II.*

	Gudermes	*Romandie*
Time	Distance/bearing/aspect	Distance/bearing/aspect
0419	3.5 miles/032.5°/port bow	4.5 miles /035°/port bow
0421	2.8 miles/032.5°/port bow	3.7 miles/036°/port bow
0423	2.1 miles/032.5°/port bow	2.85 miles/037.5°/fine port bow
0425	1.35 miles/032.5°/port bow	2.05 miles/040°/ship's head
0427	0.75 miles/032.5°/port bow	1.4 miles/047.5°/starboard bow
0429	Collision/port bow	0.6 mile

It is evident from this, that *Saint Jacques II* never crossed ahead of *Gudermes*; she remained on her port bow throughout and, therefore, only her port sidelight would have been visible. Consequently, either the deckhand's assessment of the lights he saw was incorrect, or the lights observed were those of another ship, possibly *Romandie*. *Saint Jacques II* had passed ahead of her at about 0425. With *Gudermes* and *Romandie* on similar bearings and within a mile of each other, it is possible that *Romandie*, being the larger and southerly of the two, might have appeared closer and been mistaken by the deckhand as the nearest radar contact. This perception might have been reinforced further if her navigation lights were also the brighter of the two ships.

Analysis of **Figure 4** shows the deckhand's assessment that the radar contacts would not approach within 1 mile was also inaccurate; *Gudermes* had been on a steady bearing for about 16 minutes and the CPA of *Romandie* would have been about 5 cables on the starboard quarter.

Such errors may explain why the deckhand did not take appropriate action at an early stage. However, had a proper and continuous lookout been maintained, it is difficult to see any reason why these errors would not have been apparent in sufficient time to allow successful avoiding action to be taken.

Why the deckhand failed to maintain an effective lookout for several minutes before the collision is not certain. It is likely, however, that he was either distracted or fell asleep. He had only managed to sleep for about 3.5 hours before sailing, and occasionally felt drowsy during the watch. A propensity to fall asleep could only have been aided by the provision of a chair and a CD playing gently in the background. The deckhand also appeared 'red-eyed' when the skipper arrived on the bridge. If the deckhand was asleep, this might explain why he did not call the skipper or hear the sound signals made by *Gudermes*. With a closing speed in excess of 20 knots the deckhand did not have to be distracted or fall asleep for very long. From making an incorrect assessment at 0421, it was only 8 minutes until the vessels collided; a period during which the bridge alarm need not have sounded.

The skipper wanted to be called for any vessel approaching within 1 mile, and the VRM had been set accordingly. A guard zone had not. Unlike guard zones set at distances to give early warning of a vessel's approach, those set at close range do not normally result in numerous alarms that may distract the OOW, but can provide warning of the close proximity of a vessel. In this case the use of a guard zone, possibly set at the same range as the VRM, might have alerted the lone, and relatively experienced, deckhand in sufficient time to take avoiding action.

The effectiveness of the lookout also could have been improved, had the deckhand not been alone on the bridge. The assistance of one of the more experienced crew during the passage across these busy waters would have been of considerable benefit to the young deckhand. Not only would an

additional lookout have helped to keep him alert, but the probability of *Gudermes* getting so close without being seen would have been substantially reduced. It is also possible that, had the watchkeeper understood English, he would have been alerted by the preliminary broadcast made by CNIS on VHF channel 16. Had *Saint Jacques II* been a UK fishing vessel, she would have had to carry MGN 84(F) and would have been expected to comply with the guidance it provides.

2.3 ACTION TAKEN TO AVOID COLLISION

General

Although *Saint Jacques II* was contravening Rule 10c of the Collision Regulations, a crossing situation still existed in accordance with Rule 15, with *Gudermes* being the stand-on, and *Saint Jacques II* the give-way vessel.

Gudermes

Under Rule 17 of the Collision Regulations, the OOW was obliged to maintain the vessel's course and speed. As it was quickly apparent, however, that *Saint Jacques II* was neither complying with Rule 10c, nor taking any action to avoid a collision, the additional provisions of the rule gave the OOW the option to take action to avoid collision, should he have wanted to. The sounding of the five short blasts on the ship's whistle could also have been sounded earlier. It is not certain why the OOW did not take action sooner. One possible reason is that he would not have been expecting to see a vessel proceeding against the traffic flow with a closing speed in excess of 20 knots. Inevitably, this would have taken him by surprise and, if only a single white light was visible, this could have created further confusion. In such circumstances it is understandable that the OOW took longer than usual to assess the situation. Another possible reason is that fishing vessels are renowned for delaying avoiding action until the last possible moment. Accordingly, the OOW might have been expecting *Saint Jacques II* to alter course at the last minute; unfortunately she did not.

With a vessel so close, the OOW was required to call the master, but he did not. This, however, was probably due to his concentration on *Saint Jacques II* and the speed of events, rather than a conscious decision not to do so. Had the master been called when *Saint Jacques II* was first detected at 2 miles, in accordance with his standing orders, it is possible avoiding action might have been taken sooner.

The alteration to starboard just before the collision was appropriate and in compliance of the provisions of Rule 17, but was taken too late to avoid collision.

Saint Jacques II

As the give-way vessel, *Saint Jacques II* was required to take early and substantial action to keep clear; she did neither. Initially, no action was taken because the deckhand was not aware of *Gudermes'* relative position, and his attempt to alter course manually at the last minute failed because the autopilot was still engaged. The deckhand's failure to change to manual steering before applying the helm, or to reduce speed, was possibly due to the effects of fatigue and/or inexperience.

2.4 ACTION FOLLOWING THE COLLISION

The internal actions taken by *Gudermes* following the collision appear to have been effective at minimising the resulting pollution. Her failure to report the accident to CNIS immediately, however, could have delayed the deployment of counterpollution units had they been required. It is not certain why the master failed to pass details of the collision and pollution until prompted by CNIS, but it is likely that this omission was the result of the confusion following the collision and the master's preoccupation with determining the extent of the damage to his vessel, rather than a conscious decision not to inform the CNIS.

2.5 THE ROLE OF CNIS

Saint Jacques II was identified as a vessel not complying with Rule 10 of the Collision Regulations and the 'rogue' procedure was instigated. The warning broadcasts made on VHF channels 16 and 11, however, were not heard by the OOW on *Gudermes*; the vessel with whom *Saint Jacques II* was known to be closing. The broadcasts were addressed to 'all ships' and, while this should have alerted the OOW, he was busy at the chart table, and failed to take notice. It is possible, however, that in this situation, a call to the ship using the ship's name might have been more successful. A direct call was possible on this occasion because *Gudermes* was being tracked by radar and the CNIS operators knew her identity. It is recognised, however, that this may not always be the case, as intermittent tracking and merging contacts frequently result in new labels being generated and may cause problems with positive identification.

SECTION 3 - CONCLUSIONS

3.1 FINDINGS

3.1.1 General

1. *Gudermes* and *Saint Jacques II* collided at 0429 on 23 April 2001 in the south-west lane of the Dover Strait TSS. [1.3]

2. It was twilight and visibility was 5 miles. The sea state slight. [1.4]

3. At 0413, *Saint Jacques II* was observed by CNIS to be contravening Rule 10c of the Collision Regulations, and, at 0416, a broadcast was made via VHF channel 11 warning all ships and giving details of her position, course, and speed. [1.3]

4. The two vessels had been on a steady bearing since 0413 and were closing at a speed in excess of 20 knots **[Figure 3]**.

5. Up to 71 tonnes of oil were lost overboard from *Gudermes* but dispersed naturally. [1.3]

3.1.2 *Saint Jacques II*

1. The lone watchkeeper was a 17 year old deckhand who did not speak English. [1.3,1.5]

2. The vessel was on passage from Boulogne-Sur-Mer to the fishing grounds in the vicinity of the South Falls bank; she was crossing the Dover Strait TSS on a heading of 010° at a speed of 11 knots. [1.3]

3. On entering the south-west traffic lane, the deckhand detected a radar contact 3 miles on his starboard bow. After sighting a vessel, he assessed she would pass clear to starboard. [1.3]

4. The vessel was observed again at 2 miles and the assessment confirmed. The deckhand paid no further attention to this vessel. [1.3]

5. At 0429, the deckhand saw *Gudermes* directly ahead at close range. He turned the helm to starboard but, as autopilot was selected, this had no effect. The deckhand took no further action. [1.3]

6. The vessel's stem collided with *Gudermes's* port bow, followed by lesser impacts amidships and aft in the vicinity of the accommodation as *Gudermes* continued to move ahead. [1.3]

7. The skipper was woken by the collision and went straight to the wheelhouse where he saw the deckhand getting to his feet. [1.3]

8. The skipper contacted Gris-Nez CROSS before returning to Boulogne-Sur-Mer. [1.3.2]

9. The wheelhouse VHF radios were set to channels 15,16, and 79. The deckhand heard some talk on the VHF radio before the accident, but did not understand it. [1.3,1.6]

10. Guard zones were not set on either of the two radar displays available. [1.6]

11. The skipper had given verbal orders to be called if any vessel came within 1 mile or was likely to be a problem. [1.7]

3.1.3 *Gudermes*

1. The OOW was the Russian chief officer who spoke English. He was accompanied by a Russian lookout who did not speak English. [1.3,1.5]

2. The ship was following the south-west traffic lane of the Dover Strait TSS. Three other vessels, *Romandie, Fenella,* and *Futura* were following same lane astern of *Gudermes.* [1.3,1.8]

3. Speed was between 10.5 and 11 knots. [1.3]

4. Course was altered from 218° to 230° at about 0411. [1.3 and **Figure 5**]

5. The lookout manned the helm for the alteration from 218° to 230°. [1.3]

6. After the alteration, the OOW fixed the ship's position and annotated the ship's log. [1.3]

7. *Saint Jacques II* was first detected using a semi-automatic radar display when at a range of 2 miles; she was on the port bow and her CPA was assessed as one cable to port. [1.3]

8. Guard zones were not set on any of the three radar displays available. [1.6]

9. The bridge VHF radios were set to channels 11 and 16. [1.6]

10. The OOW did not hear the warning broadcast by CNIS at 0416. [1.3]

11. As *Saint Jacques II* did not appear to be taking any action, the OOW ordered the helmsman to apply 10° of helm to starboard then sounded 5 blasts on the whistle. [1.3]

12. The master had instructed the OOW in his night orders to remain clear of other vessels by a distance of 2 miles. [1.8]

13. After hearing the ship's whistle, the master of Gudermes went to the bridge and saw *Saint Jacques II* about 1 cable on the port bow. He ordered the helm to be increased then repeated the five short blasts on the whistle. [1.3]

14. After the collision the general alarm was sounded and oil was seen leaking from No1 (port) tank into the sea. [1.3]

15. The oil in No1 (port) tank was transferred to other tanks. [1.3]

16. Several attempts were made to contact *Saint Jacques II* via VHF radio but without success. [1.3]

17. *Gudermes* did not report the collision or pollution to CNIS. [2.4]

18. Dover Coastguard was not advised by *Gudermes* of the collision or pollution until calling the ship by VHF radio at 0449. [1.3.2]

19. The ship anchored off Dover at 0810 for survey before proceeding to Southampton the following day for repair. [1.3]

3.2 CAUSE

Saint Jacques II and *Gudermes* closed on converging courses and the actions taken by the vessels failed to prevent a collision.

3.3 CONTRIBUTORY FACTORS

3.3.1 *Saint Jacques II*

1. The track across the south-west traffic lane was in a contrary direction to the flow of traffic and was not in accordance with Rule 10c of the Collision Regulations. [2.1]

2. Compliance with Rule 10 of the Collision Regulations was a lesser consideration than commercial interests and the vessel had a history of non-compliance of Rule 10 in the Dover Strait TSS. [2.1]

3. The deckhand might have mistakenly identified *Romandie* as the nearest radar contact. [2.2]

4. The deckhand's assessment of the CPA of *Gudermes* and *Romandie* was inaccurate. [2.2]

5. An effective lookout was not maintained due to the deckhand being distracted or asleep. [2.2]

6. The deckhand was alone on the bridge. [2.2,2.3]

7. The period the deckhand was distracted or asleep was within the interval set on the bridge watch alarm. [2.2]

8. Guard zones were not set on the radar displays to provide warning of the close proximity of other vessels. [2.2]

9. Fatigue or inexperience caused the watchkeeper to fail to switch from autopilot to manual when attempting to take avoiding action. [2.3]

10. The watchkeeper had only managed to sleep for a short period before sailing and his propensity to fall asleep might have been assisted by the provision of a chair and a CD playing gently in the background. [2.2]

11. It is possible that the watchkeeper was not alerted by the broadcast made by CNIS via VHF channel 16 because he did not speak English. [2.2]

12. Although many French fishing vessels have been identified and reported for failing to comply with the requirements of the Dover Strait TSS, the French administration appears to have taken no action to discourage this practice. [2.1]

3.3.2 *Gudermes*

1. The effectiveness of the lookout maintained was reduced between 0411 and 0423 when the OOW was busy at the chart table and the lookout was on the helm. [2.2]

2. The presence of a vessel proceeding against the flow of traffic was unexpected and might have caused a delay in the OOW's assessment of the situation. [2.2]

3. The practice of fishing vessels delaying avoiding action until the last moment might have caused the OOW to delay taking action to avoid a collision. [2.3]

4. The OOW did not call the master as required by his night orders. Had he done so, avoiding action might have been taken earlier. [2.3]

5. The broadcast by CNIS to 'all ships' did not catch the attention of the OOW in *Gudermes.* [2.5]

SECTION 4 - RECOMMENDATIONS

L&J Margolle, the owner of *Saint Jacques II*, is recommended to:

1. Instruct skippers to comply with Rule 10 of the Collision Regulations when operating in the Dover Strait TSS.

2. Have two crew on the bridge at night and when operating in areas of high traffic density.

3. Reduce the time interval on the bridge watch alarm to 3 minutes.

4. Encourage the use of radar guard zones to give warning of vessels approaching at close range.

The Maritime and Coastguard Agency is recommended to:

5. Consider amending the 'rogue procedure' used by CNIS to include, where practicable, a VHF warning directly to vessels considered to be at risk by the actions of a 'rogue' vessel.

The Ministere de l'Equipment des Transports et du Logement, the French maritime authority, is recommended to:

6. Investigate and implement methods to ensure French fishing vessels comply with Rule 10 of the *The International Regulations for Preventing Collisions at Sea* when operating in the Dover Strait TSS.

Marine Accident Investigation Branch
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