

Newhaven / Transmanch incidents 2001 - 2005

Extracts from MAIB report on the grounding of *Sardinia Vera*

SYNOPSIS



Narrative

At 1946 UTC on 11 January 2005, the Italian registered ro-ro passenger ferry *Sardinia Vera* ran aground in the approach channel to the port of Newhaven on the south coast of England. The position of the grounding was in the charted deep water channel about 20 metres to starboard of the centreline, a position where the master should have been able to expect sufficient depth of water to navigate safely. The vessel re-floated at 2131 UTC with the rising tide and proceeded to sea stern first, where safety checks were completed before re-entering harbour to berth safely at 2223 UTC. There were no injuries or pollution, and the vessel did not sustain any damage.

The grounding on 11 January brought to 13 the number of reportable accidents involving the two Transmanche Ferries vessels in the port of Newhaven in less than 4 years. Ten of the accidents and incidents were groundings or near groundings, and three were collisions and contacts involving the other ferry, *Dieppe*. As a consequence, MAIB took the opportunity to probe more deeply the management of safety at Newhaven as it pertained to the Newhaven-Dieppe ferry operation.

Analysis

Newhaven channel is prone to heavy silting. On 11 January 2005, bad weather over the preceding week had caused a significant increase in the rate of silting, especially on the eastern side of the channel. The harbourmaster had been unable to carry out either the routine monthly, or post bad weather hydrographic surveys due to defective surveying equipment, and consequently accurate depths in the channel were not known. No control measures were implemented to mitigate the risk of unknown depth, save that the master attempted to navigate in what he assessed to be the deeper side of the channel. In this, he was hampered by a lack of suitable fixed navigation aids at Newhaven.

The MAIB had only been aware of five of the earlier groundings, investigating one fully and two to Preliminary Examination level. However, most of the other groundings appeared to have had similar causal factors. The MAIB had not been aware of the collisions and contact accidents involving *Dieppe*, but from data collected, the vessel's high windage and vulnerability to strong crosswinds in the approach channel appear to have been significant contributory factors.

Despite having been accredited with implementing the Port Marine Safety Code, the investigation found that Newhaven Ports and Properties (NPP) was apparently unable or unwilling to ensure an adequate level of safety was maintained, as it pertained to the Transmanche Ferry operation in the port. Specifically, the board of NPP appeared not to have assimilated its statutory responsibility for safety of navigation in the port,

and within the management structure the process for conducting risk assessments and implementing risk control measures was largely ineffective. Further, there was no evidence of an effective dialogue between Transmanche Ferries, the ship managers, and NPP, to assess the risks associated with operating a scheduled service of large ferries from the port. As a consequence, safe operating criteria had been defined piecemeal over the years, often following accidents and incidents.

A proper assessment of the risks involved in operating *Sardinia Vera* and *Dieppe* from Newhaven, before the vessels commenced operations, would have identified, and therefore possibly prevented, many issues that have emerged in accidents and incidents in the last 4 years. In addition, proper adherence to the tenets of the port marine safety code would have ensured that post incident analysis was effective, and that the necessary lessons were identified. Finally, an improved safety culture would have ensured that the lessons identified were acted upon effectively to prevent recurrence.

Of specific concern, is that the suitability of *Dieppe* to safely operate a scheduled service out of Newhaven is questionable.

Recommendations

Newhaven Port and Properties, Transmanche Ferries, and V Ships Leisure have been recommended to conduct a comprehensive joint risk assessment to assess the suitability of vessels present and future operating in and out of the port on a scheduled programme, and to formulate robust minimum operating criteria for the individual vessels involved.

Maritime and Coastguard Agency has been recommended to assist the operators, where appropriate, to determine that the planned two new build ferries for this route are suitable to be safely employed on a scheduled service into the port of Newhaven.

Newhaven Port and Properties has been recommended to improve the level of maritime safety within the port by fully implementing the requirements of the port marine safety code.

Department for Transport has been recommended to review the provision of powers necessary for the Maritime Coastguard Agency to effectively monitor implementation of the port marine safety code and provide direction, where necessary, to ensure necessary levels of safety are maintained.

SECTION 3 - CONCLUSIONS

3.1 SAFETY ISSUES

The following safety issues have been identified by the investigation. They are not listed in any order of priority:

Grounding:

- Beyond the first annual review of the risk assessments in January 2003, there is no evidence that the assessments were formally reviewed following any of the subsequent grounding incidents. [2.4.1]
- It took 12 months from the first MAIB recommendation for NPP to procure and make operational the survey equipment, during which time a further grounding and one near grounding occurred. [2.4.2]
- Due to having only one set of surveying equipment and a single surveying launch, both of which were frequently defective, the surveying regime identified in NPP's risk assessment was ineffective, resulting in significant gaps between surveys. [2.4.2]
- The importance of the surveying regime was identified in NPP's risk assessment yet, despite 9 ferry groundings in less than 4 years, NPP did not take steps to make the surveying regime effective. [2.4.2]
- The lack of fixed navigation aids made it difficult for vessels to monitor, and so adjust, their turn into the Newhaven approach channel [2.4.6], and to navigate accurately within it [2.4.5]. Improving the fixed aids to navigation would likely, therefore, improve the safety of the approach to Newhaven. [2.4.7]
- Once it was clear the channel depth was unknown, additional control measures should have been applied to the Transmanche Ferries' vessels until either the charted depth was restored by dredging, or the actual depth established and promulgated by surveying and charting. [2.4.3]
- Frequent dredging remains the most effective way of ensuring that a safe navigable channel is maintained in Newhaven and that the ferries are able to keep to schedule. The current dredging policy, therefore, is difficult to justify from a risk-based approach, and appears contrary to the philosophy and the requirements of the PMSC. [2.4.8]

Operation of *Dieppe*:

- No risk assessment was conducted before *Dieppe* began operations from Newhaven. [2.5.1]
- That the turning basin was not made available to *Dieppe*, has avoidably increased the risk to the vessel when departing Newhaven. [2.5.1, 2.5.3]

- Transmanche Ferries has not consulted NPP over the size, power, propulsion or operating patterns of the new vessels; nor has any risk assessment of their operations been conducted by the port. [2.5.4]
- The harbour tug appears inadequate to support *Dieppe*'s current pattern of operation. [2.6]
- The suitability of *Dieppe* to safely operate a scheduled programme from the port of Newhaven is questionable. [2.5.3]

Port management:

- The management structure does not allow for a source of independent safety advice to the board of NPP, which is therefore deprived of a source of information crucial to the effective discharge of their statutory duties. [2.7.1]
- The board of NPP has taken insufficient steps to implement a safety regime sufficient for the safe operation of the current scheduled ferry service. [2.7.1]
- Had the MCA been able to monitor more closely the application and implementation of the PMSC at Newhaven, many safety shortfalls could have been identified early, and appropriate rectification measures introduced. [2.7.2]

Risk assessment and management:

- That the risk assessment was not updated annually or after each incident, nor amended to show the further control measures discussed and approved by the pilotage committee, implies that the risk assessment process was not adequately understood or applied at Newhaven. [2.7.3]
- The pilotage committee had limited effectiveness as a safety forum. [2.7.4]

Previous incidents:

- The ship managers have not questioned the port's procedures for maintaining a safe navigable channel for their vessel, and have apparently accepted that the five groundings were a necessary consequence of the vessel's operating pattern. [2.8.1]
- Two ferries operating a regular service to a UK port have failed to report six accidents to MAIB as required by the Merchant Shipping (Accident Reporting and Investigation) Regulations 1999. [2.8.2]

VDR manufacturers:

- The VDR alarm system did not alert the operator to the system's failure to record radar data. [2.4]

SECTION 4 - ACTION TAKEN

4.1 DREDGING

Subsequent to the grounding on 11 January 2005, NPP awarded a contract to Westminster Dredging for dredging the main approach channel and the inner harbour. The operation was undertaken in March 2005 and took 2 weeks to complete. A survey undertaken by the contractor on completion of the dredging operation, to confirm the depth of the approach channel, showed that the area on the eastern side, which is particularly prone to heavy silting, had a depth slightly less than the 6.0 metres requested. The remainder of the channel had been increased to a minimum of 6.0 metres throughout.

4.2 REPORTING OF ACCIDENTS

The chief inspector has written to NPP and to the owners of both ferries informing them of the requirement under the Merchant Shipping (Accident Reporting and Investigation) Regulations 2005 for them to report all accidents to the MAIB.

4.3 INVESTIGATION BY BEAMer

The Bureau d'enquêtes sur les événements de mer (BEAMer), the French counterpart to the MAIB, has been conducting a parallel investigation into three other accidents involving *Dieppe*. In accordance with the IMO Code, BEAMer and MAIB have kept in close touch during their investigations. BEAMer intends to publish its report later in the autumn; however it has been consulted on the findings of this report, and fully supports the MAIB recommendations at Section 5, which are consistent with its own emerging recommendations.

SECTION 5 - RECOMMENDATIONS

Newhaven Port and Properties, Transmanche Ferries, V Ships Leisure and D'Orbigny Ship Management are recommended to:

2005/193 Conduct a joint risk assessment to assess the suitability of all Transmanche Ferries' vessels to operate from the port on a scheduled programme. Part of the risk assessment should be to formulate robust minimum operating criteria for individual vessels, with specific consideration given to wind and depth limitations. The operating criteria should take into consideration the effect of weather conditions on the channel and the change in operating schedule and under keel clearance that will be required.

The Maritime and Coastguard Agency is recommended to:

2005/194 Assist the operators where appropriate, to determine that the planned two new build ferries are suitable to be safely employed on a scheduled service into the port of Newhaven.

Newhaven Port and Properties is recommended to:

2005/195 Improve the level of maritime safety within the port of Newhaven by fully implementing the requirements of the port marine safety code. Such improvements should, as a minimum:

- Generate a source of independent advice to the board on the effectiveness of the port's safety management system.
- Ensure the training requirement for staff is identified and the necessary training achieved.
- Ensure the safety management system is effective, and empower the port manager⁴ to implement such safety measures as he considers necessary to ensure that safety of navigation at Newhaven is maintained.

⁴ This does not countermand the harbourmaster's operational responsibilities outlined in the PMSC paragraph 1.5.14.

The **Department for Transport** is recommended to:

2005/196 Review the provision of powers necessary for the Maritime and Coastguard Agency to effectively monitor implementation of the port marine safety code and provide direction, where necessary, to ensure necessary levels of safety are maintained.

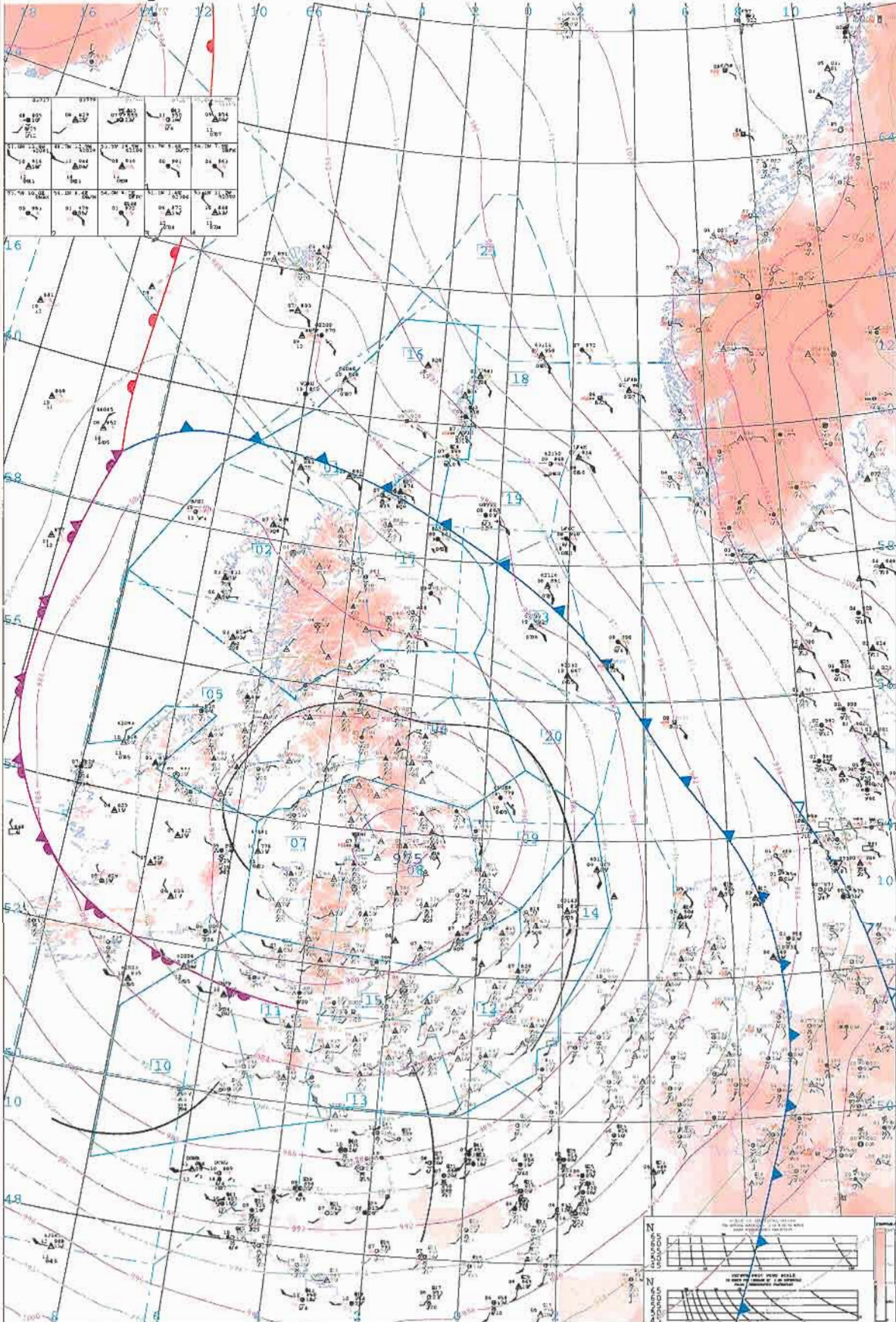
Marine Accident Investigation Branch
September 2005

Safety recommendations shall in no case create a presumption of blame or liability

Meteorological charts from 3, 4 and 5 December 2005

06Z Saturday 03rd Dec 05

CF FORM31A



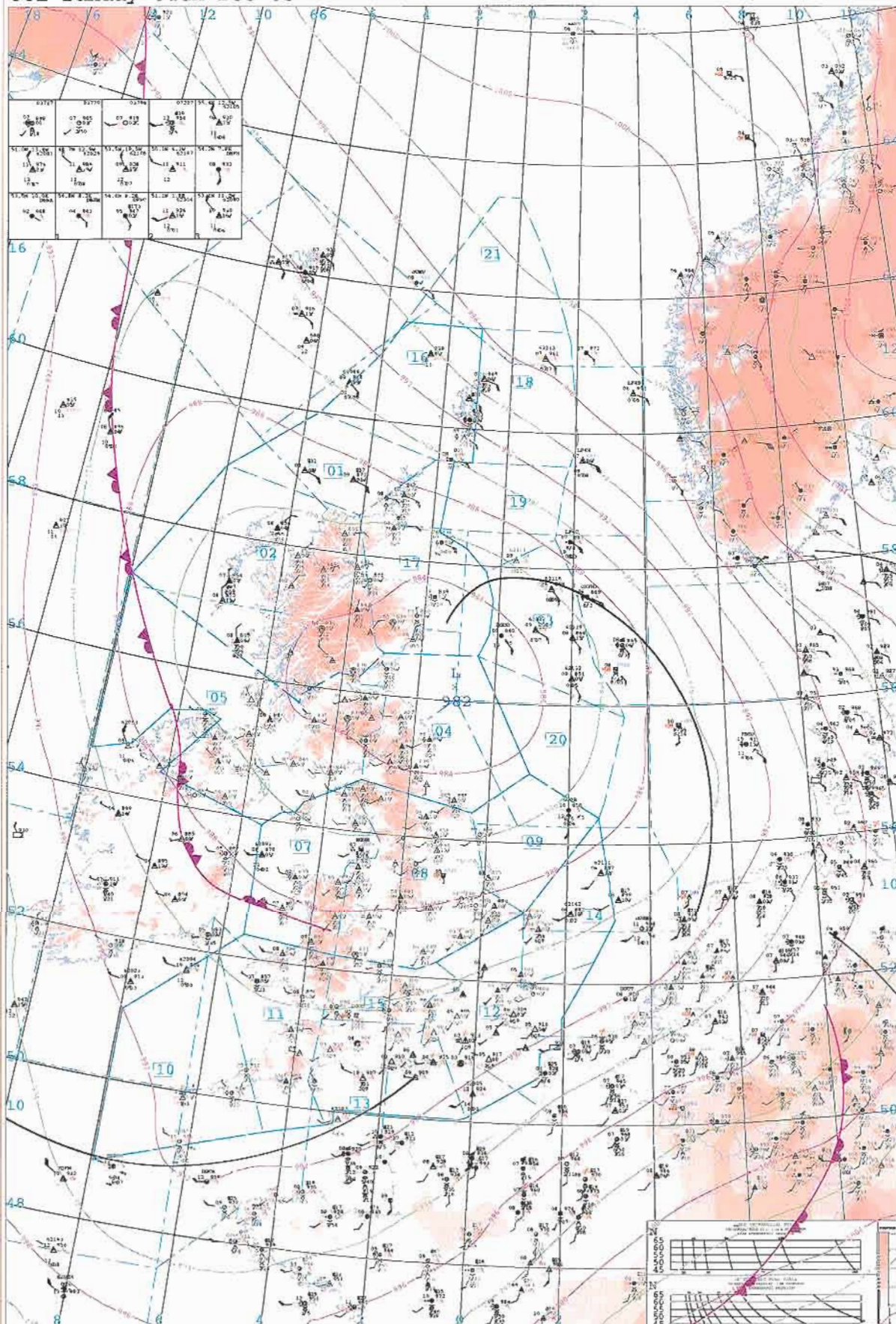
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LDB 0734Z

MSL PRESSURE (mb) DT 6Z 3/12/ 5 06Z Saturday 03rd Dec 05 T+ 0 VT 6Z 3/12/ 5

06Z Sunday 04th Dec 05

CF FORM31A



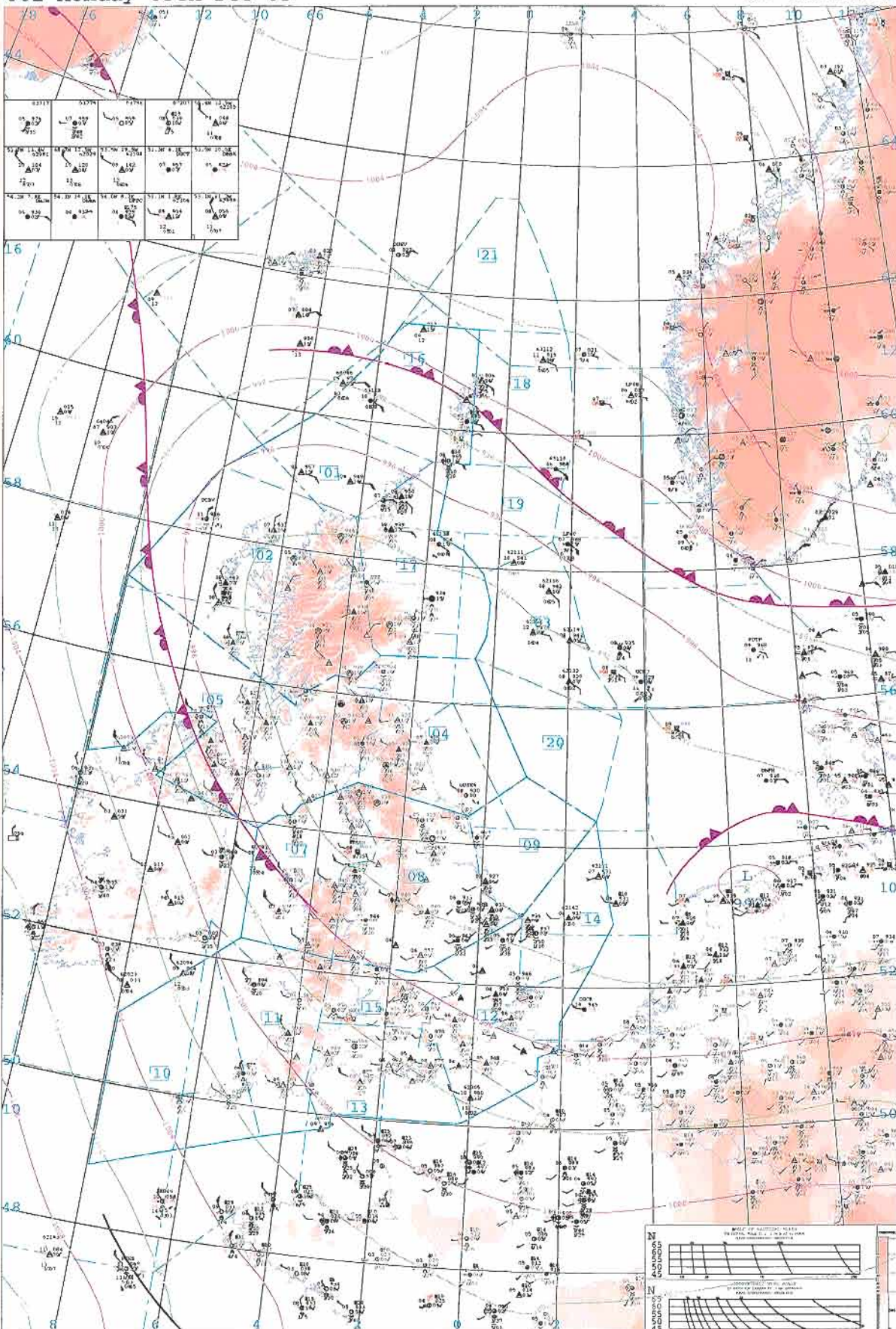
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LDB 0737Z

MSL PRESSURE (mb) DT 6Z 4/12/ 5 T+ 0 VT 6Z 4/12/ 5

06Z Monday 05th Dec 05

CF FORM31A



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LDB 0715Z

06Z Monday 05th Dec 05

MSL PRESSURE (mb) DT 6Z 5/12/ 5 T+ 0 VT 6Z 5/12/ 5

Recorded data

Date	Time(UTC)	Tide Gauge	Wind Speed	Wind Direction
01/12/2005	100	5.316	19	194
	700	2.829	24	190
	1800	1.445	35	165
02/12/2005	100	6.125	35	163
	700	2.343	29	167
	1800	1.414	37	187
03/12/2005	100	6.734	35	228
	700	1.515	26	208
	1800	1.05	14	258
04/12/2005	100	6.636	12	261
	700	1.206	2	357
	1800	1.472	9	286
05/12/2005	100	6.316	10	265
	700	1.362	6	258
	1800	2.174	9	267

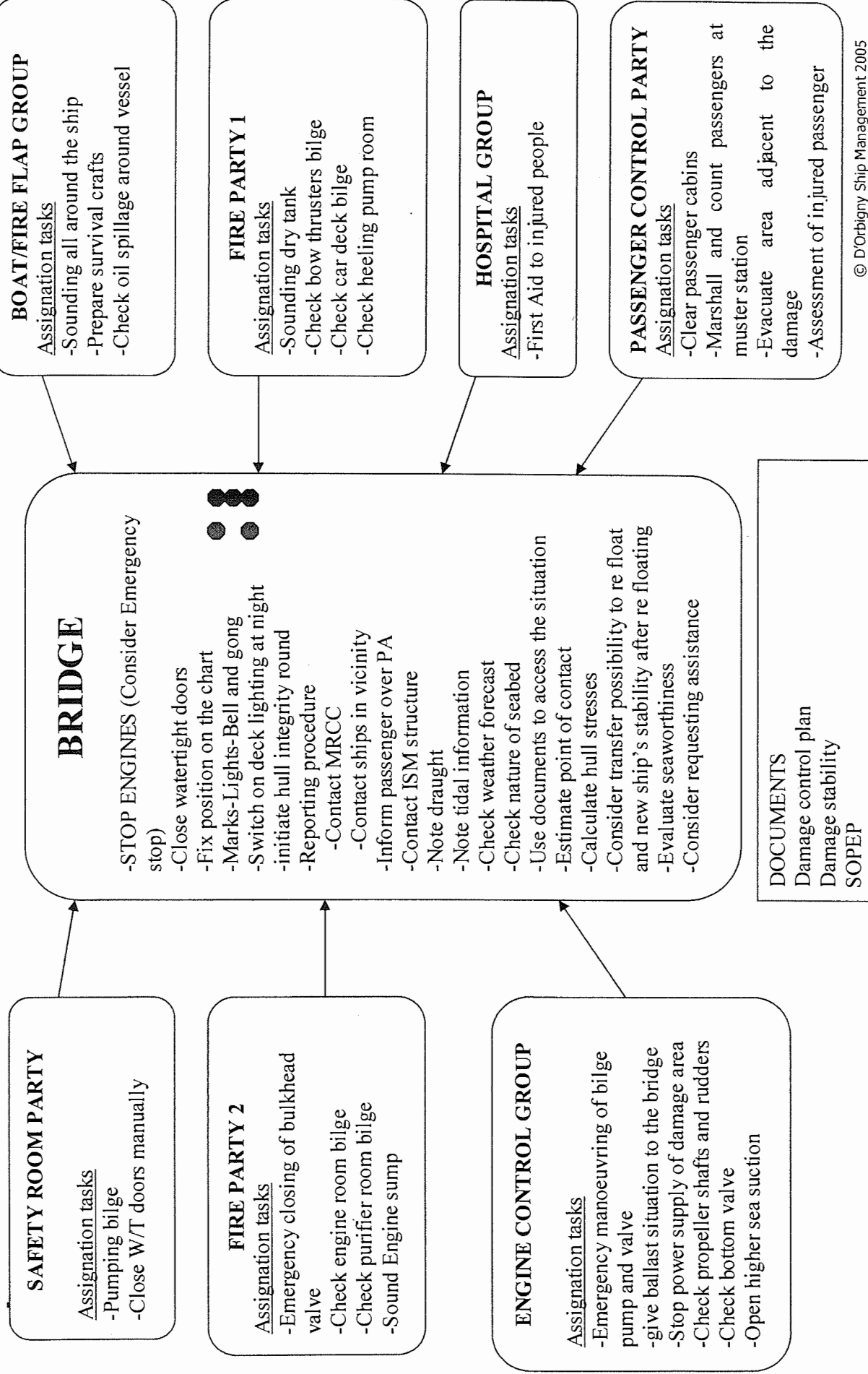


'O' proceed time

Harbourmaster's locally produced chart - issued 28 November 2005

D'Orbigny Ship Management - grounding action plan

GROUNDING



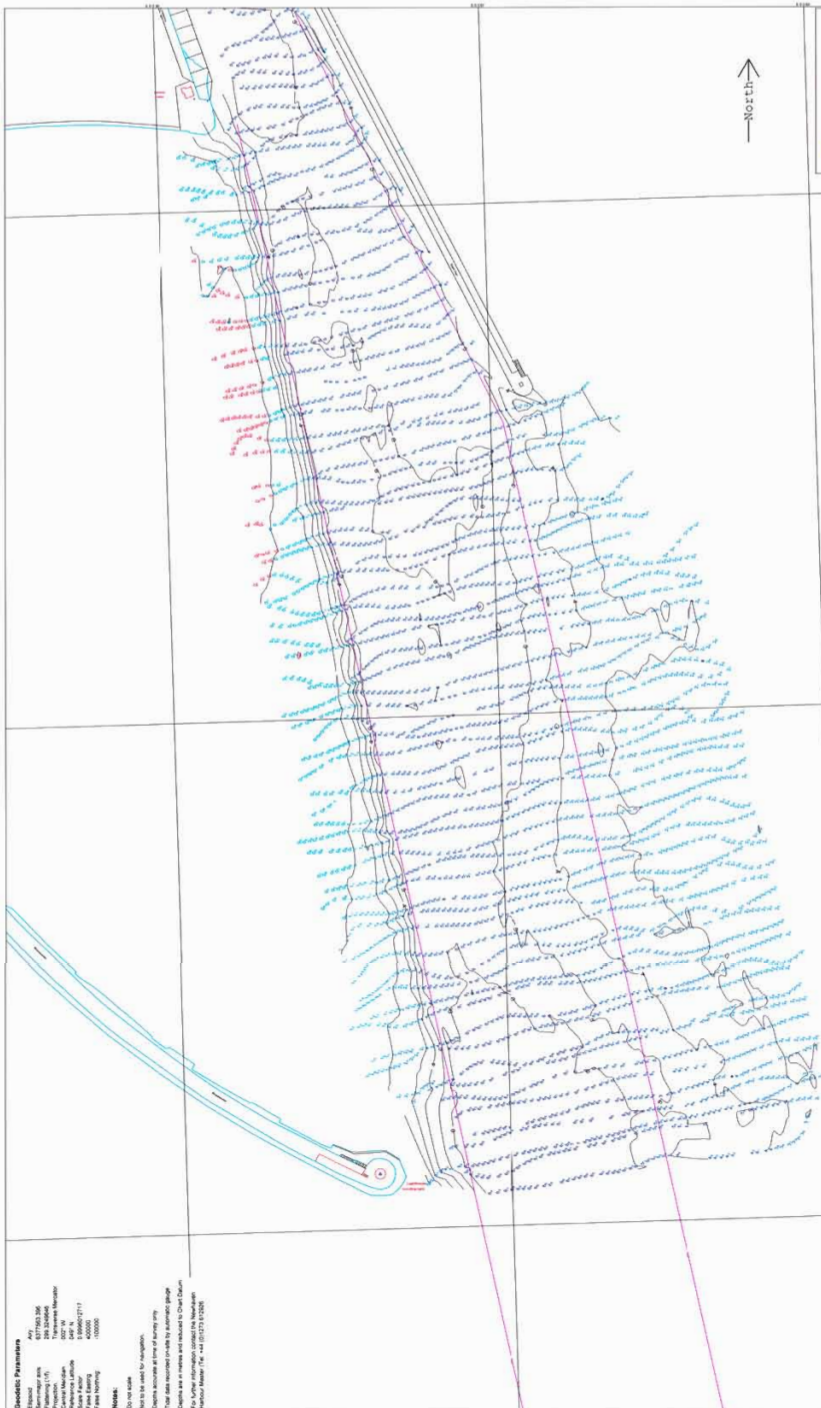
Results from the 5 December survey

Geospatial Parameters

Project Name: 03770003-000
 Administrative Area: 03770003-000
 Project Number: 03770003-000
 Project Name: 03770003-000
 Project Number: 03770003-000
 Project Name: 03770003-000
 Project Number: 03770003-000
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 Project Number: 03770003-000

Notes

Do not scale
 Not to be used for navigation
 This document is for reference only
 Users are to verify and validate the data before
 use. Further information contact the National
 Hydrographic Office (NHO) at 03770003-000



NPP wind speed and depth action chart

Newhaven Port & Properties Limited

Wind Speed & Depth Action Charts

<u>Mean Wind Speed:</u>	<u>Action:</u>
50 Knots or above	Port closed to all vessel traffic
All wind speeds	Refer to additional 'Vessel Specific' limits

The responsibility for applying the identified limits will rest with the Port Duty Supervisor.

Newhaven Port & Properties Limited

Specific Wind Speed & Depth Action Chart – MV Dieppe

<u>Mean Wind Speed:</u>	<u>Action:</u>
30 Knots or above	To be refused permission for entry or departure
25 Knots or above	To be refused entry whilst other commercial vessels are berthed on East Quay
23 Knots or above	To have tug on stand-by for departure
20 Knots or above	To be refused entry, whilst other commercial vessels are berthed on East Quay, until tide height is 3 metres or above
17 Knots or above	To be refused entry, whilst other commercial vessels are berthed on East Quay, until tide height is 2 metres or above
All Wind Speeds	Under Keel Clearance restrictions to be applied as listed below

<u>Mean Wind Speed:</u>	<u>Minimum Under Keel Clearance (in metres):</u>	
	Ebb Tide:	Flood Tide:
25 to 30 Knots	3.0	2.5
22 to 25 Knots	2.5	2.0
17 to 22 Knots	1.6	1.4
10 to 17 Knots	1.4	1.2
Below 10 Knots	1.0	1.0

Newhaven Port & Properties Limited

Specific Wind Speed & Depth Action Chart – MV Sardinia Vera

<u>Mean Wind Speed:</u>	<u>Action:</u>	
	Arrival:	Departure:
40 Knots or above	To be refused permission for entry or departure	
35 to 40 Knots	Entry to be agreed between Master and Port Supervisor	Tug assistance required
30 to 35 Knots	Tug assistance required in Easterly winds	Tug assistance required
25 to 30 Knots	Tug assistance required in Easterly winds	Tug on stand-by
20 to 25 Knots	Tug on stand-by in Easterly winds	Tug on stand-by for Westerly winds with flood tide
All Wind Speeds	Under Keel Clearance restrictions to be applied as listed below	

<u>Mean Wind Speed:</u>	<u>Minimum Under Keel Clearance (in metres):</u>	
	Arrival:	Departure:
35 to 40 Knots	2.4	2.2
30 to 35 Knots	2.2	2.0
25 to 30 Knots	2.0	1.6
20 to 25 Knots	1.6	1.3
15 to 20 Knots	1.4	1.2
10 to 15 Knots	1.2	1.0
Below 10 Knots	1.0	1.0

Newhaven Port & Properties Limited

Specific Wind Speed & Depth Action Chart – MV Côte D’Albâtre

<u>Mean Wind Speed:</u>	<u>Action:</u>
30 Knots or above	To be refused permission for entry or departure
25 Knots or above	
23 Knots or above	
20 Knots or above	
17 Knots or above	
All Wind Speeds	Under Keel Clearance restrictions to be applied as listed below

<u>Mean Wind Speed:</u>	<u>Minimum Under Keel Clearance (in metres):</u>	
	Ebb Tide:	Flood Tide:
25 to 30 Knots		
22 to 25 Knots		
17 to 22 Knots		
10 to 17 Knots		
Below 10 Knots	1.0	1.0

D'Orbigny Ship Management - operational limitations

Operational Limitations

The following table is a guideline to the limits of berthing in the ports in the normal trading area

If other ports are used local knowledge from the pilot and experience should be used . These are considered the maximum winds speeds for manouvering but other factors such as tidal height will need to be taken into account .

Minimal tidal hieght for both ports is 1.0 metres

Newhaven

Direction	Arrival/Departure	Max wind speed at breackwater	Comments
N	A	35-40	
	D	30-32	
NE	A	35-40	
	D	30-30	
E	A	35-40	With Tug Assistance
	D	28-30	With Tug Assistance
SE	A	35-40	
	D	30-32	With Tug Assistance
S	A	35-40	
	D	30-32	
SW	A	35-40	
	D	30-32	
W	A	35-40	
	D	30-32	

The above limits
will be adjusted
when turning circle
will be available for
this vessel

Dieppe

Direction	Arrival/Departure	Maximum wind speed	Comments
N	A	35-40	
	D	35-40	With Tug Assistance
NE	A	35-40	
	D	35-40	
E	A	35-40	
	D	35-40	
SE	A	35-40	
	D	35-40	
S	A	35-40	
	D	35-40	
SW	A	35-40	
	D	35-40	
W	A	35-40	
NW	A	25-30	
	D	35-40	

Timetable

(AMENDEMENTS LIES AUX CONDITIONS METEO)

* Conditions météo permettant

A prévoir pilote pour

F.G.
09/03/2006
13H00

TRANSMANCHE FERRIES

HORAIRES

M/V CÔTE D'ALBÂTRE - M/V SV - M/V DIEPPE
SEMAINE 13/2006

	DIEPPE/NEWHAVEN		NEWHAVEN/DIEPPE	
	DEPART	ARRIVEE	DEPART	ARRIVEE
LUNDI 27/03/06	03H00	06H00	08H00	13H00
			18H30	23H30
	19H00	22H20	23H30	04H50 (J+1)
MARDI 28/03/06	01H00	06H30	08H00	13H00
	12H00	15H20	19H30	00H50 (J+1)
	20H00	23H00	00H30	05H30 (J+1)
MERCREDI 29/03/06	02H30	07H30	09H30	14H20
	12H30	15H30	20H30	01H30 (J+1)
	18H00	21H20	23H00	04H30 (J+1)
JEUDI 30/03/06	03H00	08H00	09H30	14H30
	11H30	14H50	16H30	23H30
	18H00	21H00	23H00	04H30 (J+1)
	10H30 Graves de Mer - Visite redélivraison - Off-Hire - Route Italie			
	18H30 *	Process Avitaillement		
	23H00	05H00		
VENDREDI 31/03/06			09H00	14H20
	12H30	15H30	17H30	22H30
	18H00	21H20	23H00	04H30 (J+1)
SAMEDI 01/04/06	01H00	05H00	09H30	14H30
	07H30	10H50		
	19H30	22H30	21H30	02H50 (J+1)
DIMANCHE 02/04/06	08H00	11H20	09H30	14H30
	20H00	23H00	19H30	00H50 (J+1)

M/V SARDINIA VERA

M/V DIEPPE

M/V CÔTE D'ALBÂTRE

* Horaire Impératif

F.G.
24/03/2006
09H00