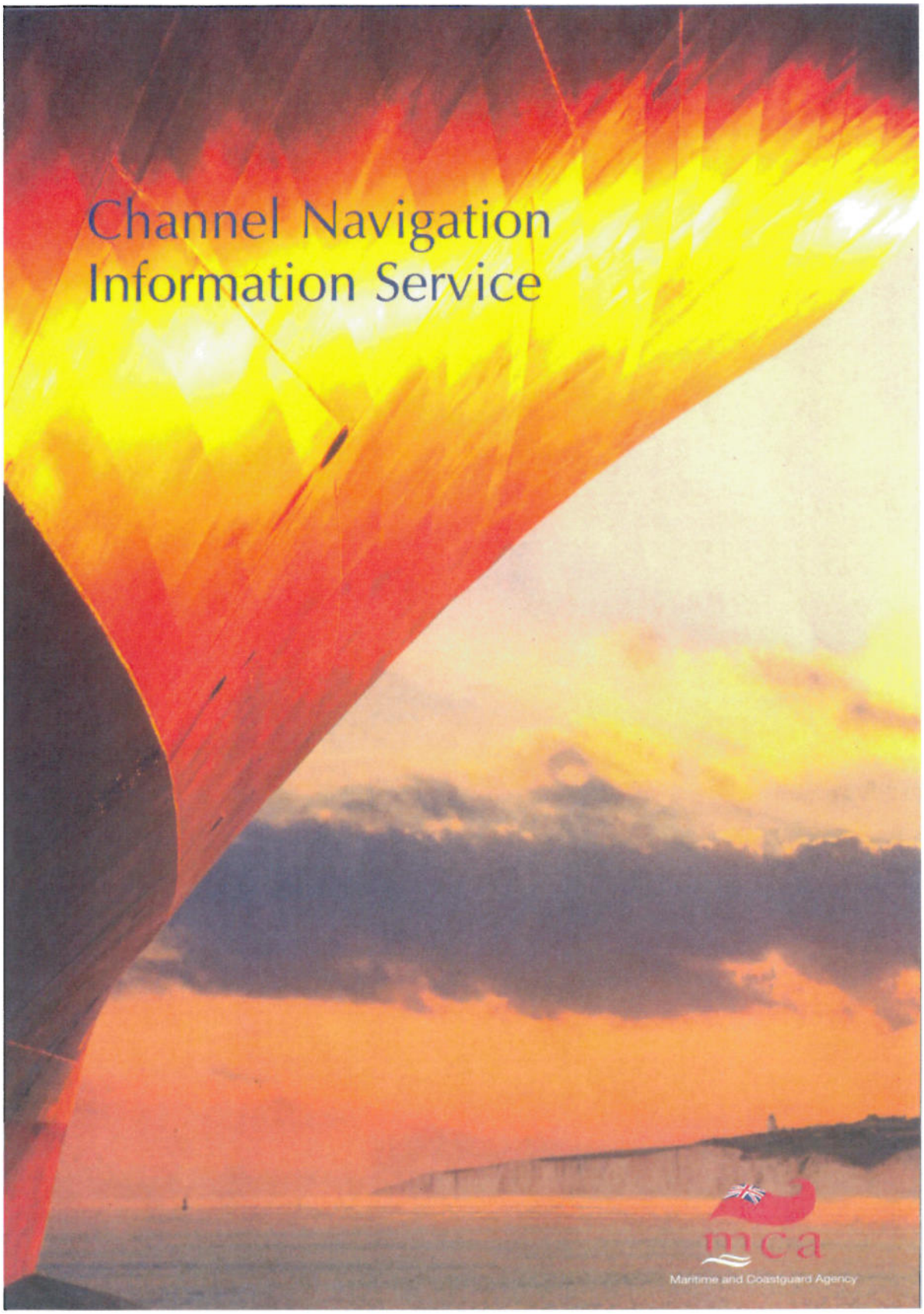

Channel Navigation
Information Service
mca
Maritime and Coastguard Agency

The Dover Strait

The Dover Strait is one of the busiest international seaways in the world, regularly used by over 400 commercial vessels daily

It became the first IMO approved Traffic Separation Scheme (TSS) in the world in the early seventies and was the first to come under full radar surveillance. The Channel Navigation Information Service (CNIS), introduced in 1972, provides a 24 hour radio and radar safety service for all shipping in the Dover Strait. It is jointly operated by the UK and French Administrations from the Dover Maritime Rescue Co-ordination Centre (MRCC) and CROSS Gris Nez in France. The Dover Strait is a mandatory reporting area. Under SOLAS regulation vessels over 300 gross tonnes are required to make a report to either Dover MRCC (SW Lane) or CROSS Gris-Nez (NE Lane) before proceeding through the service area.

The Dover CNIS system has the latest radar and Vessel Tracking System technology combined with data fusion from other sensors including Automatic Identification System (AIS) and Very High Frequency Direction Finding (VHFDF). CNIS is used in conjunction with the Integrated Coastguard Communications System (ICCS) and the Information Management System (IMS) to make Dover one of the most advanced Coastal Vessel Traffic Services in the world.

The functions of CNIS are to keep the Dover Strait TSS under observation, to monitor the flow of traffic and to detect and report vessels which contravene the International Regulations for Preventing Collisions at Sea 1972, as amended (COLREGS). The UK responsibility for operating CNIS is vested in HM Coastguard at Dover MRCC. The modern technology installed will support the MCA and HM Coastguard in promoting Safety of Life at Sea, enhance Counter Pollution measures and provide improved support to enforcement activity.

Glossary of terms

AIS - Automatic Identification System
CNIS - Channel Navigation Information Service
COLREGS - Collision Regulations
DWR - Deep Water Route
ETV - Emergency Towing Vessel
ICCS - Integrated Coastguard Communication System
IMO - International Maritime Organization
IMS - Information Management System
ITZ - Inshore Traffic Zones
MARPOL - International Convention for the Prevention of Pollution from Ships
MCA - Maritime and Coastguard Agency
MRCC - Maritime Rescue Co-ordination Centre
NE - North East
SOLAS - Safety of Life at Sea
SW - South West
TSS - Traffic Separation Scheme
VHFDF - Very High Frequency Direction Finding
VTIS - Vessel Traffic Information Service

Notable dates

1967 TSS was introduced on a voluntary basis.

1971 Limited radar surveillance of TSS from Dover Coastguard at St Margaret's Bay.

1972 CNIS begins.
Traffic is monitored by radar from Dover Coastguard.

1973 France begins radar monitoring from CROSS Gris Nez.

1976 Radar coverage is improved by the installation of new longer-range radar at Dover and Dungeness.

1977 Revised Regulations for the Prevention of Collisions at Sea come into force. Traffic Separation becomes mandatory for all vessels.

1979 The voluntary ship movement reporting scheme, MAREP, for oil, chemical and gas carriers, vessels not under command, vessels restricted in their ability to manoeuvre and vessels with a defect in navigational aids introduced. The ESSO WARWICKSHIRE was the first vessel to report details under the scheme. The new Operations Centre at Langdon Battery opens.

1981 The Passage Planning guide for the English Channel is published as an Admiralty Chart.

1983 Radar surveillance is improved by the introduction of Automatic Data Processing.

1993 Radar surveillance is improved and extended to three radar stations feeding into a modernised automatic data processing system.

1999 Mandatory Ship Reporting system for all vessels over 300 gross tonnes introduced – CALDOVERP.

2003 New radar surveillance system installed and building refurbishment.

Picture shown is Fairlight Radar image of traffic through TSS during 12 hour period.

History

The TSS developed out of limited experiments begun in 1967, but it was not until 1971 after a series of accidents that the authorities were galvanised into action.

The first accident occurred on 11th January 1971 when the Cypriot registered vessel PARACAS, 10,000 tonnes, collided with the Panamanian registered tanker TEXACO CARIBBEAN, 14,000 tonnes.

The PARACAS was badly damaged and towed to Hamburg for repairs, the TEXACO CARIBBEAN exploded and broke in two. The after section remained afloat for some time before sinking, the bow section was semi submerged just below the surface and eight of the crew lost their lives. The following day the German registered vessel BRANDENBURG, 3,000 tonnes, struck a section of the TEXACO CARIBBEAN and within two miles capsized and sank with the loss of 21 crew members. The final part of the disaster came on 27th February 1971 when the Norwegian registered tanker HEBRIS reported seeing a ship sink ahead of her. Several vessels and lifeboats responded to this dramatic message but there were no survivors from a crew of 22 who were on board the Greek registered vessel NIKI, 3,000 tonnes. Every effort was made by Trinity House to mark the wrecks and warn mariners of their existence, but as can be seen there was a tragic loss of life; in total 51 people died with the loss of three vessels and one badly damaged. This multiple collision together with other maritime disasters around the UK coast brought action on maritime safety from the Department of Trade which was responsible, at the time, for maritime affairs. TSS without radar surveillance was inadequate for the dense and complex traffic situations in the Dover Strait.

Action was taken through the International Maritime Organization (IMO) which resulted in the formation of the Dover Strait Traffic Separation Scheme (TSS). Shipping is separated into two lanes divided by a separation zone. There are two inshore traffic zones, one English and one French. The scheme was the first to be set up in the world and also the first to be under radar surveillance. It was also the first to be adopted by the IMO and coincided with the revised COLREGS of 1972 which includes Rule 10 (Traffic Separation Schemes). The adoption was not finalised until 1977.

How the CNIS works

Dover CNIS is a Coastal Vessel Traffic Information Service (VTIS) mainly concerned with traffic passing through the area to ensure that essential information becomes available in time for on-board navigational decision making by the mariner.

The information service provides broadcasts at fixed times and intervals, when deemed necessary by the VTIS or at the request of a vessel.

CNIS broadcasts on VHF radio channel 11 every 60 minutes (every 30 minutes if visibility drops below two miles) to give warnings of navigational difficulties, weather conditions and traffic information in the TSS. This includes misplaced or defective navigational aids, hampered vessels, deep draught bulk carriers and tankers, vessels under tow, surveying vessels and unorthodox crossings such as cross channel swims. A broadcast is also transmitted for any vessel that appears to be in contravention of the COLREGS, to warn other vessels that a potentially hazardous situation exists in a particular part of the TSS.

Ships using the TSS are automatically tracked by radar and evidence collected, which can be used in possible prosecutions of alleged contraventions of the COLREGS. If the alleged offending vessel is bound for a UK port then action may be taken but otherwise the evidence is forwarded to the Flag State for them to investigate and take action under the International Rules.

In the case of UK registered vessels, all information is forwarded to the MCA Enforcement Unit to investigate.

The Mandatory Reporting Scheme, in accordance with Safety of Life at Sea (SOLAS) convention 1974, Chapter V, Regulation 11-1, was introduced in the Dover Strait TSS in July 1999 , whereby all vessels over 30 gross tonnes are required to participate. The service area covers a stretch of the Dover Strait/Pas-de-Calais from the Noordhinder Light (52 00.00N 002 51.00E) down the SW Traffic Lane to the Greenwich Light Buoy (50 24 N 000 00 W) including the English ITZ to Shoreham.

An Islander surveillance aircraft is also available to CNIS for regular patrols of the service area to identify unknown vessels.

The Traffic Lanes are to be used for NE and SW bound vessels and have been developed and adopted by IMO in order to provide the safest possible navigational assistance to the mariner. This takes into account the deepest water – there is a section of the NE Lane which is specifically designated a Deep Water Route (DWR) – and underwater hazards such as sand banks and obstructions, i.e. wrecks.

ITZs are designated areas along both the UK and French coasts, the UK ITZ is bounded by a line drawn from Shoreham to the CS1 Light Buoy (marking the termination of the SW Lane) and a line drawn South from South Foreland to the SW Lane. This area has restrictions; a vessel shall not use an ITZ when she can safely use the appropriate traffic lane within the adjacent TSS. However, vessels of less than 20 metres in length, sailing vessels and vessels engaged in fishing may use the zone.

In addition, a vessel may use an ITZ when en route to or from a port, offshore installation or structure, pilot station or any other place situated within the ITZ or to avoid immediate danger.

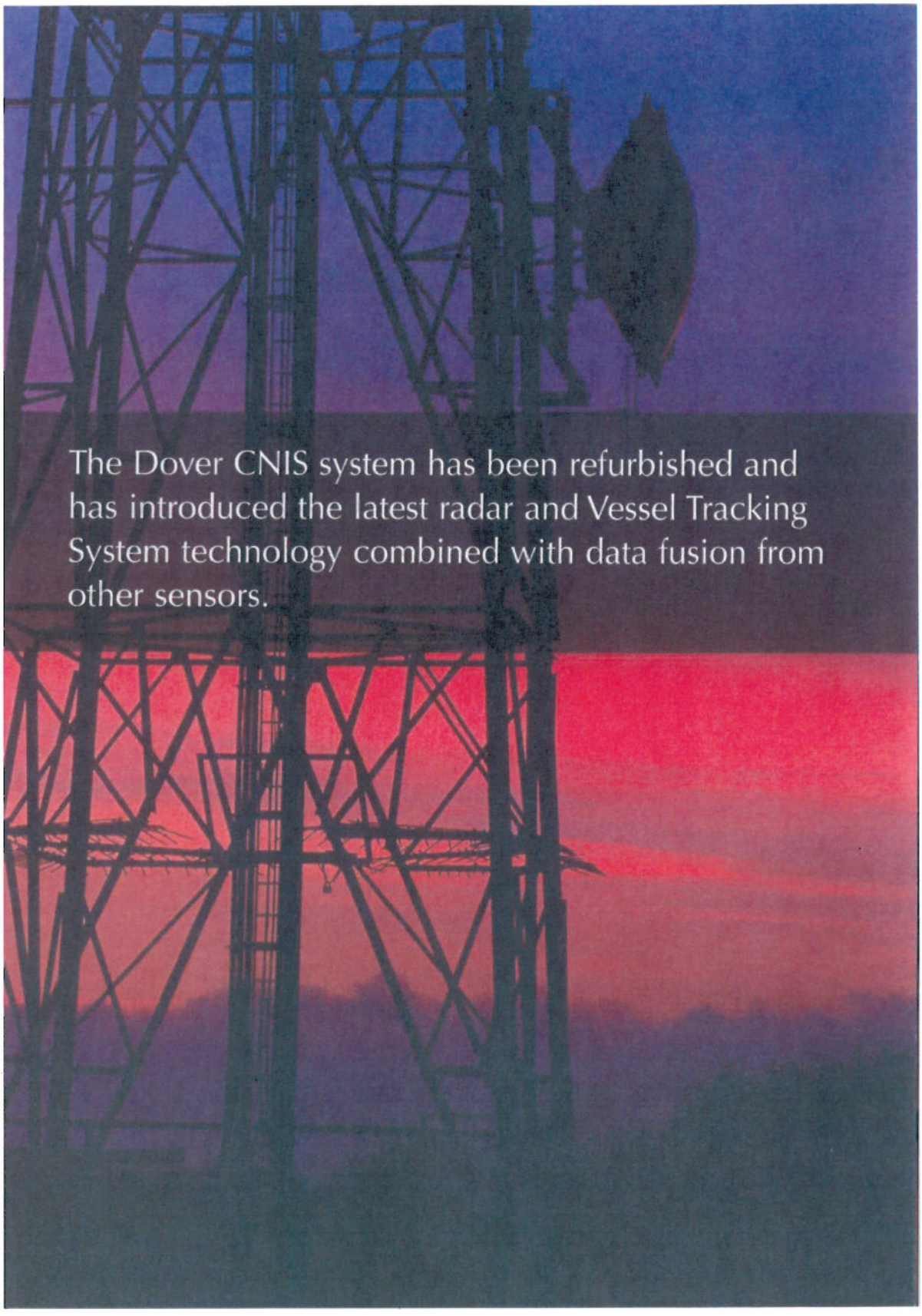
This does not preclude the master of a vessel using the ITZ if he/she considers it necessary for the safety of the vessel and its crew providing the CNIS is advised of the intended route and reasons for the passage.

The Mandatory requirement from ships entering the area covered by the system is the Pas de Calais/Dover Strait Report; the short title for the ship report is CALDOVREP.

The report should contain the following information:

- Name of the ship, callsign, IMO identification number and MMSI number.
- Position expressed in latitude and longitude.
- Course and speed of the ship.
- Vessel's draught.
- Route information.
- Hazardous cargo, IMO class and quantity (if applicable).
- Breakdown, damage and/or deficiencies affecting the structure, cargo or equipment of the ship or any other circumstances affecting normal navigation in accordance with the provisions of the SOLAS and MARPOL Conventions.

Vessels on passage NE should report to CROSS Gris Nez traffic, on the French Coast, two nautical miles before crossing the boundary line in the NE Traffic Lane. Vessels on passage SW should report to Dover Coastguard on the English Coast when within VHF radio range of North Foreland, and not later than when crossing the boundary line in the SW Traffic Lane. The majority of reports are received via VHF radio; however AIS transponder reports can be received by Dover Coastguard. Radio and telephone traffic to and from Coastguard co-ordinator centres is recorded for the purposes of public safety, preventing and detecting crime and to maintain the operational standards of HM Coastguard.


The Dover CNIS system has been refurbished and has introduced the latest radar and Vessel Tracking System technology combined with data fusion from other sensors.

Who is exempt?

There are exemptions from the CALDOVREP scheme:

Cross Channel ferries are not required to participate in full, as the freight cargo can, and does, cover a vast amount of different categories and to expect a full manifest via VHF radio would be unreasonable. Therefore, ferries on a regular scheduled short sea crossing only have to advise Dover Coastguard or CROSS Gris Nez that they have departed. Ferry companies hold the manifest which is available at immediate notice should this be necessary following an incident with a ferry. Cross Channel ferry movements, whether freight or passenger, have reached more than 100 per day, with the main Dover-Calais route being by far the busiest with four main operators. The other route taking freight and passengers is Ramsgate to Ostend.

Naval vessels, irrespective of nationality, are also exempt from reporting, this is due to the very nature of their role. However, the vast majority comply with the reporting scheme, mainly to advise the CNIS that they are on passage. No other details are requested.

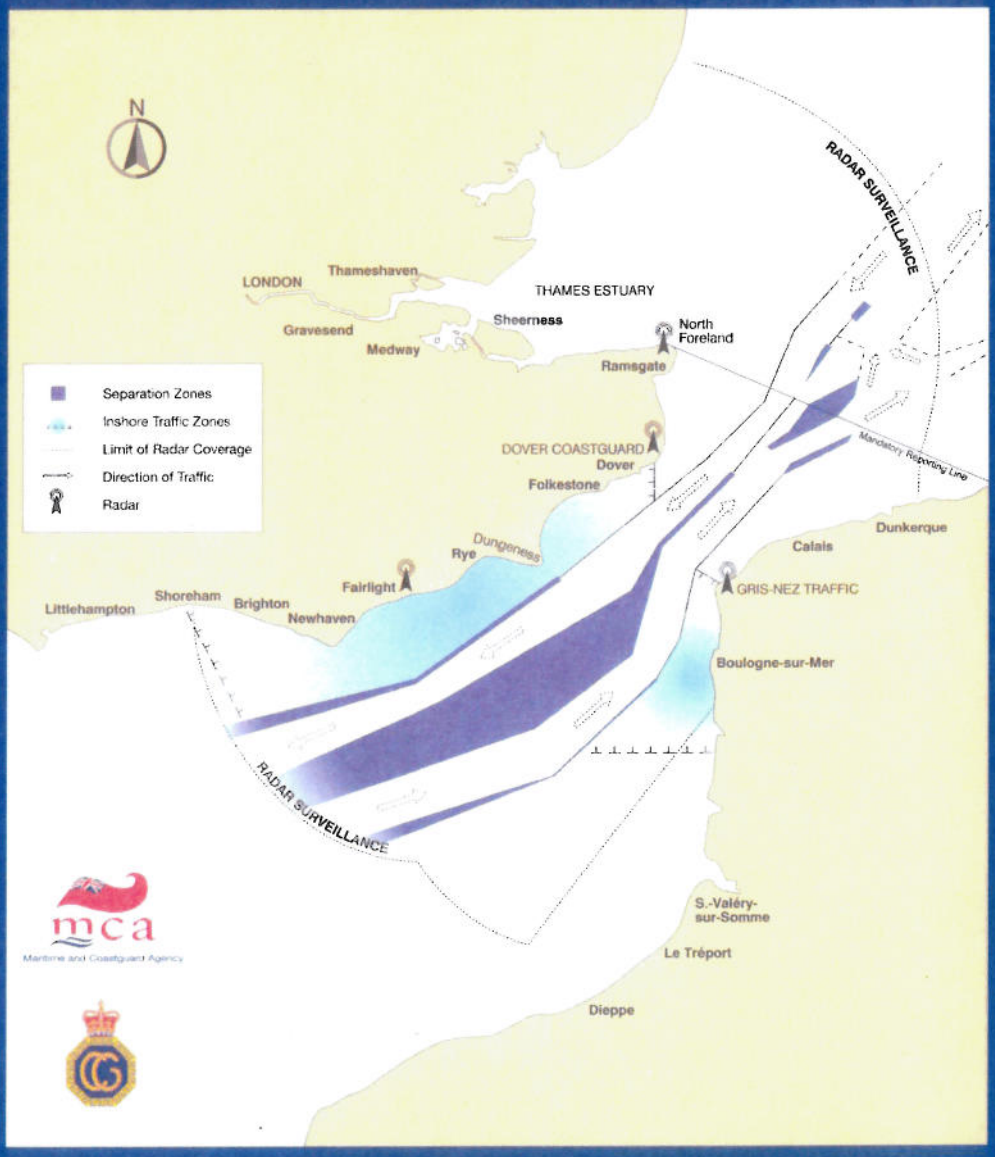
There are approximately 500 shipping movements, SW, NE and crossing, per 24 hour period, which include the following:
Merchant vessels from all corners of the globe, carrying every category of cargo imaginable, from iron ore to wheat, and crude oil to sugar.

Fishing vessels are from Channel Ports in the main, such as Belgium, France, UK and Holland, although other nationalities ply their trade on occasion.

Other movements include a considerable number of pleasure craft, such as yachts, primarily in summer. These are combined with other marine associated pleasure craft such as jet skis and cruisers.

There are a number of vessels with engine defects each year, most classified as minor problems; rectification is quick and the vessel continues on its intended passage without involvement of CNIS. Others are more serious and can take some days to resolve. These situations can develop without notice and require a vessel to anchor or drift not under command possibly in a traffic lane of the TSS or near to the coast. In order to prevent a collision or hazardous situation and protect the environment an Emergency Towing Vessel (ETV) has been chartered to patrol the TSS and will be called upon to guard or assist the vessel that has suffered an engine problem. It will also warn other vessels of the situation.

Traffic Separation Scheme



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The Maritime and Coastguard Agency is an Executive Agency
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