



Exploration & Production

GENERAL SPECIFICATION

Logistic and Operational Support

GS EP LSO 207

Notices to mariners and restricted navigation zone

01	01/2012	Update following the EP reorganisation, march 2011
00	01/2008	First issue
Rev.	Date	Notes

Owner: OPS/LSO	Managing entity: OPS/LSO
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1. Scope

This General Specification is applicable to Notices to Mariners and Restricted Area dossier data acquisition system that shall be instructed for offshore installations including either fixed platforms or floating units.

This specification covers the design and procedure for manage the issue of Notices to Mariners and Restricted Area dossier in International Marine Navigations charts and Notices.

This specification is common to fixed platforms and floating units.

2. Reference documents

The reference documents listed below form an integral part of this General Specification. Unless otherwise stipulated, the applicable version of these documents, including relevant appendices and supplements, is the latest revision published at the EFFECTIVE DATE of the CONTRACT.

Standards

Reference	Title
Not applicable	

Professional Documents

Reference	Title
Not applicable	

Regulations

Reference	Title
International Convention on Law of the Sea	International Convention on the Law of the Sea concluded at Montego Bay, 1982
IMO	IMO rules, Geneva Convention 1958
IHO	International Hydrographic Organisation

Codes

Reference	Title
Not applicable	



Other documents

Reference	Title
Not applicable	

Total General Specifications

Reference	Title
Not applicable	

3. Definitions, Abbreviations

3.1 Definitions

For this specification:

Offshore units means either fixed platforms or floating units.

Floating unit is defined as all floating platforms used for production (for example FPSO, FSO, TLP, Semi-submersible) or floating platforms installed at the same location for a long term period. Long term period is defined as greater than one year. Smaller floating units used in association with main Floating Unit are excluded from this definition (e.g. offloading buoy)

3.2 Abbreviations

NAVAREA: Navigational Area

4. International Rules Applicable

International rules applicable for determination of Restricted Areas Navigation Zones is issued from the [International Convention on the Law of the Sea](#) concluded at Montego Bay, 1982, Clauses 60, 80 and 81.

[IMO](#) rules, Geneva Convention 1958 Section 5, paragraphs 2 and 3 require a safety zone of 500 meters radius around offshore oil and gas installations, where navigation is restricted.

Mining oil and gas zones within which navigation is restricted or prohibited are fixed locally by national legislation inside territorial or economic zone waters. Coastal State can establish, on continental shelf, safety zones around oil mining research and production installations. These safety zones, that all vessels must respect, may have a minimum of 500 meters distance around offshore oil installation measured at the external sides contour of oil installations structures. This minimum 500 meters distance may be upgraded more than 500 meters as an exception to this rule agreed by IMO and the extension of the restricted area shall be notified.

Maritime territorial and economical size waters:

- Extension of National Territorial waters size is normally 12 nautical miles from coasts, in certain cases, extension could reach 20 miles.
- Extension of National Economic or Fishing water size is 200 nautical miles from coasts

Oil and Gas restricted navigation area information must be distributed so that all vessels are made aware of protected sites. Readers should refer to **IHO** (International Hydrographic Organization) rules and to the Individual countries responsible for the nautical information on such zones (NAVAREA, Notices to Mariners).

There are three types of action to be taken when protecting an oil and gas installation from navigation hazards:

1. Checks to ensure that the maritime signaling of fixed installation and marine units complies with international regulations and is in good working order.
2. Compilation of a nautical information file, then the technical dossier to be submitted to the country coordinating the NAVAREA zone (responsible Hydrographical offices) via the appropriate authorities in the country concerned.
3. If the host country does not have the necessary administrative structures to process and communicate navigation protection information, this file may be forwarded to the appropriate recognized hydrographical office, subject to approval by the applicable authorities in the host country. This hydrographical service will forward the information to the NAVAREA zone responsible authority.

The authority responsible for the maritime zone (NAVAREA zone) in which the safety zone lies is required to distribute this information in such a way that the appropriate international maritime charts and Notices to Mariners are updated and that vessels travelling in the vicinity can take the necessary action for safe navigation.

5. Technical Dossier

The aim of this technical document is:

- Firstly to show the existing Oil and Gas installations, the new or future installations as well as the naval means which are or will be used on site;
- Secondly to define or redefine the existing restricted area to protect the installations from sailing routes of national or international passing vessels;
- This document is to be sent to the Hydrographical Office in charge of nautical information in waters where is situated the existing Oil and Gas installation area.

This file must comprise as a minimum to the following technical information:

a) Fishing and navigation restricted areas characteristics

b) Appended documents:

- Drawings N°1 : Geographic position (Fields Location maps)
- Drawings N°2 : Design data of the restricted area (Fields Location maps and safety zones)
- Drawings N°3 : Geographic position and design of the stand by zone for Export Tankers
- Sheet N°4 : Storage facility radio codes
- Sheet N°5 : Maritime beaconing system (A or B system and cardinal marks)
- Sheet N°6: Marine radio information
- Sheet N°7: Local marine nautical instructions and information

- Sheet N°8: Lights characteristics
- Sheet N°9: Technical data sheet of vessels or marine operations involved in the oil or gas installation.(drilling vessels, production and storage Barges, lifting tankers, services and marine operation vessels, subsea vessels)

6. Sizes of marine restricted areas

6.1 Typical existing sizes of marine restricted areas in TOTAL Group:

- For SPM Buoys: Restricted Area of 500 meters radius around Buoys (For example: Thailand, Indonesia, Argentina, Djeno)
- Nigeria: Restricted Area of ODUDU , area of 10 Nautical Miles x 5 Nautical Miles
- Gabon: Restricted Area of 30 x 10 Nautical Miles and Terminal Cap Lopez of 1 Nautical Mile x 0.5 Nautical Mile
- Congo: Restricted Area Emeraude/Likouala of 13 x 7 Nautical Miles; Tchibouela 11 Nautical Miles x 2 Nautical Miles NKOSSA triangle area of 7 x 7 x 6 Nautical Miles.

6.2 Typical existing sizes of marine restricted areas of other Oil Operators:

- Cabinda: Takula and Malongo Field, Restricted Area of 10 x 10 Nautical Miles
- Oman: Mina al Fahal, Restricted Area of 3 x 3 Nautical Miles
- Iran: Lavan Terminal, Restricted Area of 3 x 1 Nautical Miles

6.3 Criteria for definition of the sizes of marine restricted area

The size of such areas depends upon the surface, subsurface and seabed objects existing on the site. It also depends upon the level of shipping traffic in the area including the size, speed and activity of the shipping.

The parameters to be considered when establishing a Restricted Navigation Zone are:

- Size of Oil and Gas installation to protect, surface and underwater installations
- Maritime traffic, fishing vessels or cargo vessels passing through or near the zone
- Deadweight and speed of vessel passing through or near the zone
- Stopping distances for large vessels could be 5000 metres.
- During a vessel crash stop, the heading of a ship is uncontrollable and stopping distance could be 3000 metres.

7. Examples, feedback information from subsidiary:

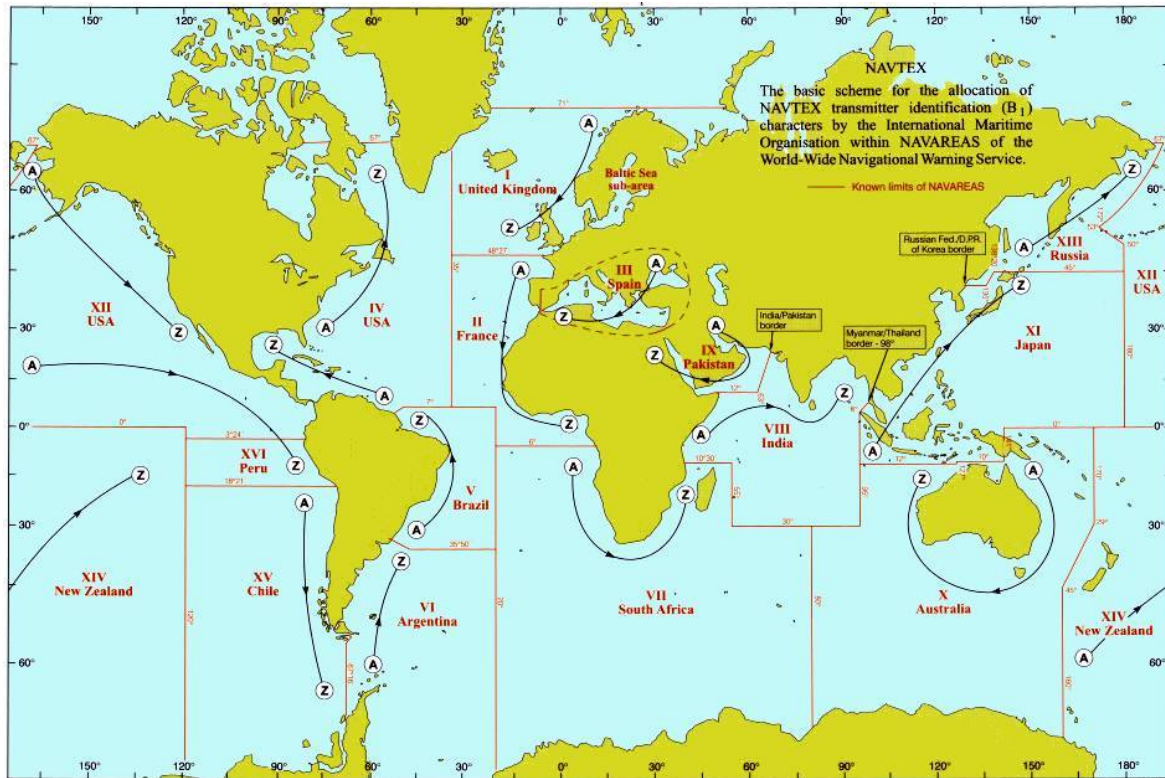
- At the Nkossa site, in Congo, heavy shipping traffic consisting of small fishing vessels working at low speeds has been identified. Larger cargo vessels pass well away from site.
- At the Peciko-Bekapai field in Indonesia (East-Kalimantan- Balikpapan) per year about 6,000 vessels are crossing the field, going from small wooden fishing vessels to 10,000 ton coal barges under tow coming from or proceeding to Samarinda harbour. Navigation



buoys have been installed to allow the safe passage of the vessels towards the entrance channel of Samarinda harbour.

- At the Girassol site, in Angola, 2 to 3 large cargo vessels travelling at high speeds have been identified but there is little or no fishing vessel activity.
- In the specific case of Girassol, the restricted area has been designed with a circle of 7 Nautical Miles radius around the FPSO. Such a zone of this size allows time for passing vessels to modify their routes and to steer clear of the installations. It also permits at the FPSO time to put in place the alert contingency plan.
- At 7 Nautical Miles distance, a VLCC sailing at speed proceeding at 15 knots should take 25 minutes to come close to the FPSO.
- At 7 Nautical Miles distance, a Container Ship sailing at speed of 25 knots should take 15 minutes to come close to the FPSO.
- With a restricted navigation zone of 7 Nautical Miles radius around the FPSO, there is a time margin of about 13 to 22 minutes to divert a passing vessel on a collision course with the FPSO.

Appendix 1 World NAVAREA Zones of countries hydrographical Offices responsibility for Notices to Mariners





Appendix 2 Specification of a Typical summary for a Technical Dossier

1. Introduction
2. Objective & Addressees
3. Characteristics of the restricted area
 - 3.1 Geographic position of the restricted area (appendices)
 - 3.2 Design data (appendices)
 - 3.2.1 The existing installations
 - 3.2.1.1 General
 - 3.2.1.2 Terminal installation (F.P.S.O and SPM buoy units)
 - 3.2.1.3 Process data
 - 3.2.1.4 Offloading operations
 - 3.2.1.5 Control command and automation
 - 3.2.1.6 Handling and naval operations
 - 3.2.2 Planned New installations
 - 3.2.3 Planned Terminal installations
 - 3.2.3.1 General
 - 3.2.3.2 Terminal (F.P.S.O and SPM buoy units)
 - 3.2.3.3 Process data
 - 3.2.3.4 Offloading operation
 - 3.2.3.5 Handling and naval operations
 - 3.2.4 Drilling Units main characteristics
 - 3.2.4.1 Drilling Unit Name XXX
 - 3.2.4.2 Drilling Unit Name YYY
 - 3.2.4.3 Third Drilling Unit (not yet selected)
 - 3.2.5 Other floating units main characteristics (Appendix)
 - 3.2.5.1 Field Name F1 Development
 - 3.2.5.2 Field Name F2 Development
 - 3.3 Geographic position of the stand by zone for loading tankers