LRIT DATA DISTRIBUTION PLAN

ACCESSING AND ENTERING INFORMATION

GUIDANCE NOTES FOR CONTRACTING GOVERNMENTS

1 General

1.1 This note provides guidance to Contracting Governments wishing to enter in the LRIT Data Distribution Plan (DDP) the information which are required to communicate to the Organization in accordance with the provisions of paragraph 11.2 of the Revised performance standards and functional requirements for the long-range identification and tracking of ships (Revised performance standards) adopted by resolution MSC.263(84).

2 Communication of information to the Organization

- 2.1 Contracting Governments are required to communicate to the Organization in writing the information specified in regulation V/19-1.8.2 and paragraphs 5.2, 8.1 or 8.2, 8.3.2, 11.2 and 16.1.1 of the Revised performance standards. In this regard, paragraphs 8.1.1 to 8.1.6 of, and appendix 1, to the annex to MSC.1/Circ.1298 provide the necessary guidance for communication of the required information.
- 2.2 The information specified in paragraphs 11.2.2.1, 11.2.2.2 and 11.2.2.3 of the Revised performance standards should be provided either in a printed or in an electronic form and should be forwarded together with the rest of the information which needs to be communicated to the Organization. The Secretariat is unable to process any incomplete communication of information or participate or conduct any tests which involve an LRIT Data Centre established by or providing services to a Contracting Government which has not provided all the information required.
- 2.3 Contracting Governments will be considered, for the purposes of annex 1 to MSC.1/Circ.1299, as having communicated to the Organization the information specified in paragraphs 11.2.2.1, 11.2.2.2 and 11.2.2.3 of the Revised performance standards as long as they have provided the related information to the Organization in a printed or electronic form (see paragraph 2.2) or have entered the information in the **Testing** and/or **Production environment** of the DDP.

3 Entries in the LRIT Data Distribution Plan

3.1 General

3.1.1 The Secretariat, on the basis of the information communicated to the Organization and provided **all** the information specified in the model letter set out in appendix 1 to the annex to MSC.1/Circ.1298 have been submitted, will enter into the **Testing** and **Production environments**

Regulation means, unless expressly provided otherwise, a regulation of the annex to the International Convention for the Safety of Life at Sea, 1974, as amended.
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of the LRIT Data Distribution Plan (DDP) the information provided by each Contracting Government in relation to:

- .1 the designated national and alternate national point(s) of contact for LRIT-related matters;
- .2 the recognized Application Service Provider (ASP); and
- .3 the LRIT Data Centre which is being established or is to be used.
- 3.1.2 Following the aforesaid entries in the **Testing** and **Production environments** of the DDP, the related LRIT identities will be created by the Secretariat and the Contracting Government concerned will be considered as having met the requirements of paragraphs 11.2.1 (in part); 11.2.5 to 11.2.8; 11.2.10 and 11.2.11 of the Revised performance standards.
- 3.2 Usernames and passwords
- 3.2.1 A single shared username and password will be allocated to each of the Contracting Governments, non-metropolitan territory or special administrative region (subject to the decisions of the Contracting Government which has extended the application of the 1974 SOLAS Convention to the territory or region in question) for accessing the **Testing environment** of the DDP. This information will be sent by e-mail to the national and alternate national point(s) of contact for LRIT-related matters designated by each Contracting Government together with guidance on how to access the **Testing environment** of the DDP.
- 3.2.2 An individual username and password will be allocated to each designated national and alternate national point(s) of contact for LRIT-related matters for accessing the **Production environment** of the DDP. This information will be sent on an individual basis by a separate official letter to the designated national and alternate national point(s) of contact in accordance with the information provided by each Contracting Government. However, if any one of the designated persons has already an existing IMO Web Account, as described in Circular letter No.2892, the Secretariat will assign the relevant permissions for accessing the **Production environment** of the DDP in his/her existing IMO Web Account.
- 3.2.3 Annex 1 provides guidance for login into the **Testing** and **Production environments** of the DDP.
- 3.3 Geographical areas
- 3.3.1 The national and/or alternate national point(s) of contact should use the shared username and password allotted to them (refer to paragraph 3.2.1) for entering the information required in paragraph 11.2.2 of the Revised performance standards in the **Testing environment** of the DDP.
- 3.3.2 The national and/or alternate national point(s) of contact should use the individual username and password allotted to them (refer to paragraph 3.2.2) for entering the information required in paragraph 11.2.2 of the Revised performance standards in the **Production environment** of the DDP.

- 3.3.3 The geographical coordinates of points should be entered either manually or by uploading the relevant files in GML format as specified in the Technical specifications for the LRIT Data Distribution Plan. As far as the polygons of the geographical areas which should be included in the DDP, the Contracting Government should ensure that these fully comply with the provisions of regulation V/19-1; paragraph 11.2.2 of the Revised performance standards; and those set out in the Technical specifications of the LRIT Data Distribution Plan, in particular the constraints specified in section 5 thereto. For convenience the aforesaid constraints are reproduced in annex 2.
- 3.3.4 In order to prevent malfunctions into the **Testing** and **Production environments** of the LRIT system, Contracting Governments are advised, before entering the information in the **Testing** and/or **Production environments** of the DDP, to ask the LRIT Data Centre which are establishing or will be using to ascertain whether the polygons of the geographical areas which would be included by the Contracting Government in the DDP comply with the criteria referred to in paragraph 3.3.3.
- 3.3.5 Following the entries of the details of the polygons in the **Testing** and **Production environments** of the DDP, the Contracting Government concerned will be considered as having met the requirements of paragraphs 11.2.2.1, 11.2.2.2 and 11.2.2.3 of the Revised performance standards.

3.4 SAR services

- 3.4.1 Contracting Governments should update the information they communicated to the Organization in response to COMSAR/Circ.27 on Data format for new SAR.2 and SAR.3 circulars concerning information on current availability of SAR services or, in case they have not provided such information to do so.
- 3.4.2 On the basis of the information communicated to the Organization pursuant to COMSAR/Circ.27 the Secretariat will allocate the relevant LRIT identities for the SAR services of the Contracting Government concerned and will enter them in the **Testing** and **Production environments** of the DDP.
- 3.4.3 Unless a Contracting Government advises the Organization in writing otherwise the Secretariat will consider that the Contracting Government concerned requires **all** its SAR services to be able to request and receive LRIT information.
- 3.4.4 Contracting Governments communicating to the Organization information pursuant to COMSAR/Circ.27 will be considered as having met the requirements of paragraphs 11.2.1 (in part) and 11.2.9 of the Revised performance standards.
- 3.5 Ports, port facilities and places under jurisdiction
- 3.5.1 The information related with ports, port facilities and places is shared between different modules of the Global Integrated Shipping Information System (GISIS). Any changes in the information provided will affect all GISIS modules using this information. For this reason, all communications of information to the Organization related with ports, port facilities or places should be provided in accordance with the procedures established in paragraphs 8.1.3 and 8.1.4 of the annex to MSC.1/Circ.1298.

3.6 Ports

- 3.6.1 The Technical specifications for communications within the LRIT system and the Technical specifications for the LRIT Data Distribution Plan note the UN/LOCODE database, as maintained by UN ECE², as the source of international ports on which the present GISIS system, and hence the DDP, is based, which includes the name, geographical position and unique global LOCODE for each port.
- 3.6.2 In addition to the ports defined in UN/LOCODE, GISIS presently contains ports requested to be inserted into GISIS by Contracting Governments for information submitted for the Maritime Security module of GISIS and by Parties to MARPOL 73/78 as amendment for the Port Reception Facilities module of GISIS.
- 3.6.3 In response to queries from Contracting Governments regarding discrepancies in their port data within UN/LOCODE, and also as reflected within GISIS, the following approach should be adopted to ensure that consistent and accurate information relating to ports of each Contracting Government is reflected within the DDP and all other GISIS modules:
 - .1 Each Contracting Government shall ensure that all information related with its ports within the UN/LOCODE database is up-to-date. If this is the case, the Contracting Government concerned should first submit the necessary requests for amendments to the UN ECE (in accordance with procedures they have established for this purpose) in order to accurately reflect information on their ports. Contracting Governments should ensure that the list of ports submitted for inclusion within UN/LOCODE includes any ports which, in the past, the Contracting Government may have notified the Organization^{3.} In accordance with the procedures established by UN ECE for the assignment of new LOCODEs, a newly assigned code must be confirmed as "Noted" or "Accepted" by the UN ECE before it can be considered an official LOCODE for use within GISIS.
 - .2 After the UN/LOCODE database has been updated as necessary, Contracting Governments should communicate to the Organization, in a printed and electronic format and in accordance with the procedures specified in paragraph 3.5.1, the current information on all of its ports, including LOCODEs assigned by UN ECE to any new port entries.
 - .3 If a Contracting Government decide not to submit its list of ports for the DDP or any amendments thereto, the list of ports as currently held within the GISIS system will continue to be used as the list of ports for that Contracting Government for all GISIS modules (including the DDP).
- 3.6.4 The following items of information should be provided for each port, unless it is marked as optional:
 - .1 official representation of the port name;
 - .2 port name without diacritical marks (optional);

The UN/LOCODE website is at http://www.unece.org/locode.

The current list of ports is available by accessing the DDP module. Alternatively, it should be provided by the Organization in XML format upon request.

- .3 the latitude and longitude coordinates of the port;
- .4 LOCODE, as assigned by UN ECE;
- .5 the subdivision code for the port, as assigned by UN ECE (optional);
- .6 a secondary or alternate name for this port (optional);
- .7 if the information referred in subparagraph .5 is given, the secondary or alternative name without diacritical marks (optional); and
- .8 date of acceptance by UN ECE for inclusion in UN/LOCODE.
- 3.6.5 It is the responsibility of Contracting Governments to take into consideration any consequential effects of amendments or deletions to their port information on any other information previously communicated to the Organization relating to those ports within GISIS. For example, if a Contracting Government requests the deletion of a particular port, then any information previously submitted within the Maritime Security, the Port Reception Facilities or the DDP modules of GISIS relating to that port will also be deleted.
- 3.6.6 In the case of requests for amendment of a port's details or for deletion of a port, the Secretariat will implement the requested amendment or deletion within GISIS without further confirmation of any consequential effects.
- 3.7 Electronic format for the communication of information relating to ports
- 3.7.1 Information on ports within the territory or jurisdiction of a Contracting Government should be communicated to the Organization in an XML format to facilitate the electronic processing and importing of the information into GISIS.
- 3.7.1.1 Annex 3 provides the XML Schema against which the XML to be submitted by Contracting Governments must be validated.
- 3.7.2 Contracting Governments should submit a separate XML file for ports within their non-metropolitan territories, if any. Each file should contain all ports for that Contracting Government or non-metropolitan territory as at the time of submission.
- 3.7.3 The following subparagraphs describe the information items required to be provided within the XML for each submission:
 - .1 "name" attribute of the root element should be the name of the Contracting Government or non-metropolitan territory whose ports are being enumerated in the file.
 - .2 "isoCode" attribute of the root element should be the ISO 3166-1 Alpha 3 code of the Contracting Government or non-metropolitan territory named as above. If a territory code not have an ISO-assigned code, the code to use should be requested from the Secretariat.
 - .3 "date" attribute of the root element should be the date of generation of the XML file for communication to the Organization.

- .4 "numberOfPorts" attribute of the root element should be the total number of ports for the Contracting Government or non-metropolitan territory, enumerated within the XML file.
- .5 The root element should contain one or more child *Port>* elements, one per port. The child elements of *Port>* contain the information detailed in paragraph 3.6.4.
- 3.7.4 Annex 4 provides a sample XML file that may be used by a Contracting Government when submitting information on its ports to the Organization.
- 3.8 Port facilities
- 3.8.1 Contracting Governments should update the information they have communicated to the Organization pursuant to the provisions of regulation XI-2/13 in accordance with the procedures established for the Maritime Security module of GISIS and in case they have not provided such information to do so.
- 3.9 Places under jurisdiction
- 3.9.1 Contracting Governments contemplating to request, pursuant to the provisions of regulation V/19-1.8.1.2, the provision of LRIT information transmitted by ships to a place under their jurisdiction (i.e. to a place other than a port facility as defined in regulation XI-2/1.1.9) should note that neither GISIS nor the **Testing** nor the **Production environment** of the DDP include at this stage such places. The Contracting Governments concerned should contact the Secretariat with a view to discussing the information required and the arrangements for including such places into the DDP.

4 Access to the DDP

- 4.1 Recognized Application Service Providers
- 4.1.1 The provisions of the Technical specifications for the LRIT Data Distribution Plan allow recognized Application Service Providers (ASPs) to have limited access to the DDP.
- 4.1.2 Contracting Governments wishing to allow their recognized ASP(s) to have access to the DDP should inform the Organization to this end and should communicate the name and the contact details of the person to whom access should be granted.

5 Process for amending existing entries in the DDP

- 5.1 Contracting Governments are able to enter and amend in the **Testing** and **Production environments** of the DDP the geographic coordinate points of the polygons of the geographical areas they need to specify pursuant to the provisions of paragraph 11.2.2 of the Revised performance standards.
- 5.2 Contracting Governments are also able to activate in the **Testing** and **Production environments** the functionality of the DDP in relation to communication of information to the Organization pursuant to the provisions of regulation V/19-1.9.2.
- 5.3 Contracting Governments should communicate to the Organization changes affecting the entries in the **Testing** and **Production environments** of the DDP in connection with:

- .1 the designated national and alternate national point(s) of contact for LRIT-related matters:
- .2 the recognized Application Service Provider (ASP); and
- .3 the LRIT Data Centre which is being established or is to be used,

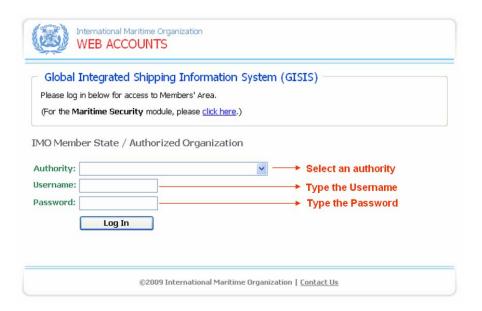
in writing following the guidance provided in paragraphs 8.1.1 to 8.1.6 of, and appendix 1, to the annex to MSC.1/Circ.1298. The model letter provided in appendix 1 should be modified as necessary to fit the related purpose.

- 5.4 Contracting Governments should communicate to the Organization changes affecting the entries in the **Testing** and **Production environments** of the DDP in connection with SAR services in accordance with the provisions of paragraphs 3.4.1 to 3.4.4; and ports, port facilities and places under their jurisdiction in accordance with the provisions of paragraphs 3.5.1 to 3.9.1.
- 5.5 On the basis of the information communicated by Contracting Governments in accordance with the provisions of paragraphs 5.3 and 5.4, the Secretariat will make the necessary changes in the related entries in the **Testing** and **Production environments** of the DDP.

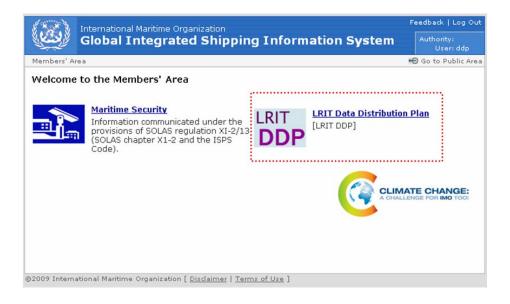
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GUIDANCE FOR LOGIN

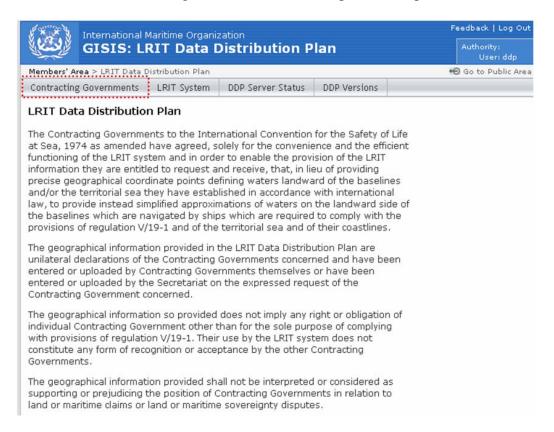
- Open a web browser and type the web address stated in the e-mail or letter through which you have received your user name and password. If a Security Alerts appears, press "accept" or "yes" when asked whether you wish to proceed.
- 2 Complete the required information and press "Log in".



3 Select the "LRIT Data Distribution Plan" link.



4 Select "Contracting Government" and complete the required information.



Extracted from MSC.1/Circ.1259 on Technical specification for the LRIT system
The extract provided below should be read together with all salient provisions of the
Technical specifications for the LRIT Data Distribution Plan

CONSTRAINTS ON POLYGONS OF GEOGRAPHICAL AREAS

5 Constraints on polygons of geographical areas

- 5.1 The following constraints, in addition to others specified in this section, should be adhered to when defining geographical areas within the DDP for a particular Contracting Government:
 - .1 *InternalWaters* polygons:
 - .1 The geographical coordinate points of all vertices should be in degrees and decimal degrees to 2 decimal places;
 - .2 The average separation between adjacent vertices should not be less than 6 nautical miles. For Contracting Governments which are also Small Island Developing States¹, the average separation between adjacent vertices could be reduced to less than 6 nautical miles, however it should not be reduced to less than 2 nautical miles;
 - .3 The total number of vertices for all polygons should not be more than 10,000 vertices; and
 - .4 The total number of polygons should not be more than 1,000 polygons.

.2 *TerritorialSeas* polygons:

- .1 The geographical coordinate points of all vertices should be in degrees and decimal degrees to 2 decimal places;
- .2 The average separation between adjacent vertices should not be less than 6 nautical miles. For Contracting Governments which are also Small Island Developing States², the average separation between adjacent vertices could be reduced to less than 6 nautical miles, however it should not be reduced to less than 2 nautical miles;
- .3 The total number of vertices for all polygons should not be more than 10,000 vertices; and

The Small Islands Developing States are listed by the United Nations at the following web address http://www.un.org/special-rep/ohrlls/sid/list.htm

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- .4 The total number of polygons should not be more than 1,000 polygons.
- .3 SeawardAreaOf1000NM polygons;
 - .1 The geographical coordinate points of all vertices should be in degrees and decimal degrees to two decimal places;
 - .2 The minimum separation between adjacent vertices should not be less than 6 nautical miles (1% error rate) or the overall minimum average (mean) distance between vertices should not be less than 40 nautical miles;
 - .3 The total number of vertices for all polygons should not be more than 1,000 vertices; and
 - .4 The total number of polygons should not be more than 10 polygons.
- .4 *CustomCoastalAreas* polygon:
 - .1 The geographical coordinate points of all vertices should be in degrees and decimal degrees to two decimal places;
 - .2 The average separation between adjacent vertices should not be less than 600 m;
 - .3 The total number of vertices for each polygon should not be more than 100 vertices;
 - .4 The total number of polygons should not be more than 100 polygons; and
 - .5 All polygons should be entirely within the area covered by the SeawardAreaOf1000NM and InternalWaters polygons.
- 5.2 In case any one of the geographical areas to be represented by the polygons referred to in paragraph 5.1 straddles the meridian of 180 degrees longitude, the geographical area in question should be represented by two polygons having a common boundary along the 180 degrees longitude.
- 5.3 All polygons within each set of *InternalWaters, TerritorialSeas, SeawardAreaOf1000NM* and *CustomCoastalAreas* should be *disjoint* (i.e. no overlap between polygons within each set).
- 5.3.1 This constraint should be understood as not preventing adjacent polygons to have a common boundary defined by the same geographical coordinate points, provided the geographical area represented by the two polygons do not overlap.
- 5.4 All polygons should be technically valid, simple polygons (i.e. a simple polygon is closed polygonal chain of line segments that do not cross each other). For any single polygon to be a technically valid simple polygon, the following should be true:
 - .1 The polygon should be continuous and closed (i.e. the first and last vertices should be identical), and should not contain any interior rings;

- .2 The polygon should have at least four total vertices and three distinct vertices (i.e. the first and last vertices are identical);
- .3 The sides of the polygon should not intersect. In other words, the polygon should not be self-intersecting; and
- .4 The polygon should not contain duplicate vertices with the exception of the first and last vertices being identical.

XML SCHEMA FOR PORTS SUBMISSIONS

XML Schema against which the XML to be submitted by Contracting Governments must be validated. The schema may also be obtained in its native XSD format by request to LRIT@imo.org.

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"</pre>
targetNamespace="http://gisis.imo.org/XML/ports/2008"
xmlns="http://gisis.imo.org/XML/ports/2008" elementFormDefault="qualified">
  <xs:simpleType name="iso3166-1Alpha3CodeType">
    <xs:restriction base="xs:string">
       <xs:pattern value="[A-Z]{3}"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:simpleType name="locodeType">
    <xs:restriction base="xs:string">
       < xs:pattern value = "[A-Z]{2}([A-Z2-9]){3}"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:simpleType name="locodeSubdivisionType">
    <xs:restriction base="xs:string">
       <xs:pattern value="[A-Z0-9]{1,3}"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:simpleType name="locodeCoordinatesType">
    <xs:restriction base="xs:string">
       <xs:pattern value="[0-9]{2}[0-9]{2}[NS] [0-9]{3}[0-9]{2}[EW]"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:simpleType name="nameType">
    <xs:restriction base="xs:string">
       <xs:pattern value="[a-zA-Z0-</pre>
9ÀÁÂÃÄÅÆÇÈÉÊÏĬĨÏÑÒÓÔÕÖØÙÚÛÜÝàáâãäåæçèéêëìíîïñòóôõöøùúûüýÿ\., ]{1,255}"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:simpleType name="nameWithoutDiacriticsType">
    <xs:restriction base="xs:string">
       <xs:pattern value="[a-zA-Z0-9\land., ]{1,255}"/>
    </xs:restriction>
  </xs:simpleType>
  <xs:complexType name="portType">
    <xs:annotation>
       <xs:documentation>The ddpValidated attribute is only for use by XML generated by the
Secretariat. "true" indicates that the port meets the criteria for inclusion within the LRIT DDP
XML.</xs:documentation>
    </xs:annotation>
    <xs:sequence>
```

```
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```
<xs:element name="Name" type="nameType"/>
      <xs:element name="NameWithoutDiacritics" type="nameWithoutDiacriticsType"</pre>
minOccurs="0"/>
      <xs:element name="AlternateName" type="nameType" minOccurs="0"/>
      <xs:element name="AlternateNameWithoutDiacritics"</pre>
type="nameWithoutDiacriticsType" minOccurs="0"/>
      <xs:element name="LOCODE" type="locodeType"/>
      <xs:element name="LOCODESubdivision" type="locodeSubdivisionType"</pre>
minOccurs="0"/>
      <xs:element name="LOCODECoordinates" type="locodeCoordinatesType"/>
      <xs:element name="LOCODEDate" type="xs:date" minOccurs="0"/>
    </xs:sequence>
    <xs:attribute use="optional" name="ddpValidated" type="xs:boolean"/>
  </r></rs:complexType>
  <xs:element name="ContractingGovernmentOrTerritory">
    <xs:complexType>
      <xs:annotation>
         <xs:documentation>The numberOfDDPValidatedPorts attribute is only for use by
XML generated by the Secretariat. It indicates the total number of ports which have the
ddpValidated attribute set to "true".</xs:documentation>
      </xs:annotation>
      <xs:sequence>
         <xs:element name="Port" type="portType" maxOccurs="unbounded"/>
      </xs:sequence>
      <xs:attribute name="name" type="xs:string" use="required"/>
      <xs:attribute name="isoCode" type="iso3166-1Alpha3CodeType" use="required"/>
      <xs:attribute name="numberOfPorts" type="xs:int" use="required"/>
      <xs:attribute name="numberOfDDPValidatedPorts" type="xs:int" use="optional"/>
      <xs:attribute name="documentDate" type="xs:dateTime" use="required"/>
    </xs:complexType>
  </xs:element>
</xs:schema>
```

SAMPLE XML FOR PORTS SUBMISSIONS

(The sample is provided solely for the purpose of illustrating the format of the file to be submitted by Contracting Governments, and is not intended to reflect actual information)

```
<?xml version="1.0" encoding="UTF-8"?>
< Contracting Government Or Territory
      xmlns="http://gisis.imo.org/XML/ports/2008"
      xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
      xsi:schemaLocation="http://gisis.imo.org/XML/ports/2008 Ports.xsd"
      name="Marshall Islands"
      isoCode="MHL"
      documentDate="2008-11-11T12:13:14Z"
      numberOfPorts="3"
>
      <Port>
            <Name>Kwajalein</Name>
             <AlternateName>Gómez Palacio</AlternateName>
            <a href="mailto:</a> <a href="mailto:AlternateNameWithoutDiacritics">AlternateNameWithoutDiacritics</a> <a href="mailto:AlternateNameWith
            <LOCODE>MHKWA</LOCODE>
            <LOCODESubdivision>KW</LOCODESubdivision>
            <LOCODECoordinates>1122N 02233E
             <LOCODEDate>2006-05-04</LOCODEDate>
      </Port>
      <Port>
             <Name>Majuro</Name>
            <LOCODE>MHMAJ</LOCODE>
             <LOCODECoordinates>2233N 03344E
      </Port>
      <Port>
             <Name>Taroa</Name>
            <LOCODE>MHTAR</LOCODE>
            <LOCODECoordinates>4455N 05544E
            <LOCODEDate>2006-05-04</LOCODEDate>
       </Port>
</ContractingGovernmentOrTerritory>
```