

**ANNEX 2
(English only)**

**AMENDMENTS
TO MSC.1/CIRC.1259/REV.3
(TECHNICAL DOCUMENTATION – PART I)**

**INTERIM REVISED TECHNICAL SPECIFICATIONS
FOR THE LRIT SYSTEM (VERSION 4)**

**Part I
Amendments
to the
Technical specifications for the International LRIT Data Exchange**

- 1 *The following sentence is deleted from paragraph 2.1.1.5:*

 "All actions of the IDE Operator should be logged in the Journal."
- 2 *The existing paragraph 3.3.2.3 is replaced by the following paragraph:*

 "3.3.2.3 SAR messages (Message types 3, 5, 6, and 7 where *ReceiptCode* = 1 (no ship in SAR SURPIC area)) regardless of the DDP version used, should always be routed. The IDE should also consider as SAR messages (and pass without DDP version checking) message types 1 and 2 with *ResponseType* = 4 even though these are not proper message parameter combinations."

**Part II
Amendments
to the
Technical specifications for the International LRIT Data Centre**

- 3 *Paragraphs 1 to 4.5.2.15 are deleted and the following sentence is added:*

 "To be updated when an International LRIT Data Centre is to be established."

**Part III
Amendments
to the
Technical specifications for communications within the LRIT system**

- 4 *In paragraph 2.2.3.16 the following sentence is added before the full stop:*

 "at the time the message is sent (timestamp5)"

- 5 *In paragraph 2.3.3.1, the following text is added before the full stop:*
- "while checking the entitlement of Contracting Governments to receive a particular LRIT information, DCs should either use timestamp1 or timestamp4 parameters to determine the DDP version to be utilized"
- 6 *In paragraphs 2.3.4.1.2, 2.3.4.1.3, 2.3.4.2.3 and 2.3.4.2.4, the following text is added after "Contracting Government":*
- "(including non-metropolitan territories or special administrative regions listed in the DDP under the requesting Contracting Government)"
- 7 *In paragraph 2.3.4.5, the following text is added in the first sentence after "all internal waters polygons":*
- "(including internal waters polygons associated with non-metropolitan territories or special administrative regions listed in the DDP under the requesting Contracting Government)"
- 8 *In paragraph 2.3.4.5, the following text is added in the first sentence after "of another Contracting Government":*
- "(or non-metropolitan territory or special administrative region even if they are listed, in the DDP, under the requesting Contract Government)"
- 9 *After paragraph 2.3.4.5, the following paragraphs are added:*
- "2.3.4.6 When comparing the location of the ship against geographical polygons and other locations contained within the DDP, DCs should use an industry-standard GIS software application, or a custom-coded solution that implements well-established computational geometric algorithms. These different industry standard GIS tools include, but are not limited to, Oracle Spatial, SQL Server Spatial, PostGIS, ESRI, etc., and/or custom-coded solutions which utilize different computational geometric algorithms/methodologies. The most commonly used methodologies/algorithms that exist are Great Circle, Ellipsoidal and Rhumb line. For example Oracle Spatial uses Ellipsoidal methodology which is similar to Great Circle, with one significant difference. Rather than assuming a spherical Earth, ellipsoidal logic is based on a Reference Ellipsoid (a mathematical model of the Earth that takes into account the flattening that occurs at the Poles).
- 2.3.4.7 Given the different geometric algorithms/methodologies, when DCs process LRIT position reports there may on occasion be legitimate technical differences between LRIT components when determining which Contracting Governments are entitled to a particular ship position."
- 10 *Paragraph 2.3.5 is replaced by the following paragraph:*
- "2.3.5 General processing of position request (Message type 4), SAR position request (Message type 5) and SAR SURPIC message (Message Type 6)"**

11 After paragraph 2.3.5 the following new paragraph and table is added:

"2.3.5.1 DCs should respond to position request messages (Message type 4), SAR position request messages (Message type 5) and SAR SURPIC messages (Message type 6) with valid LRIT position report messages (Message types 1, 2 and 3) as listed in table 14.

Table 14

Operational scenarios that terminate, suspend or modify a request message

| | | | | Position Request Message MT 4 | | | SAR Position Request Message MT 5 | | | SAR SURPIC MT 6 | Coastal State Standing Order |
|------------------------------|------|---------------|-----------|----------------------------------|--------------------|-----------|--------------------------------------|-------------|--------------------|--------------------|------------------------------|
| | | | | Access Type | | | Access Type | | | - | |
| | | | | 1 Coastal | 3-5 Port | 6 SAR | 1 Coastal | 3-5 Port | 6 SAR | - | |
| LRIT Position Report Message | MT 1 | Response Type | 1 Coastal | VALID ¹ | Not valid | Not valid | Not valid | Not valid | Not valid | Not valid | VALID |
| | | | 3 Port | Not valid | VALID ² | Not valid | Not valid | Not valid | Not valid | Not valid | Not valid |
| | | | 4 SAR | Not valid | Not valid | Not valid | Not valid | Not valid | Not valid | Not valid | Not valid |
| | MT 2 | | 1 Coastal | VALID ³ | Not valid | Not valid | Not valid | Not valid | Not valid | Not valid | Not valid |
| | | | 3 Port | Not valid | VALID ⁴ | Not valid | Not valid | Not valid | Not valid | Not valid | Not valid |
| | | | 4 SAR | Not valid | Not valid | Not valid | Not valid | Not valid | Not valid | Not valid | Not valid |
| | MT 3 | | 1 Coastal | Not valid | Not valid | Not valid | Not valid | Not valid | Not valid | Not valid | Not valid |
| | | | 3 Port | Not valid | Not valid | Not valid | Not valid | Not valid | Not valid | Not valid | Not valid |
| | | | 4 SAR | Not valid | Not valid | Not valid | Not valid | Not valid | VALID ⁵ | VALID | Not valid |

- 1 Only valid for Position Request Message with Access Type 1 and Request Type parameter 2-7, 9, 10 or 11.
- 2 Only valid for Position Request Message with Access Type 3-5 and Request Type parameter 2-7, 9, 10 or 11.
- 3 Only valid for Position Request Message with Access Type 1 and Request Type parameter 1, 7 or 9.
- 4 Only valid for Position Request Message with Access Type 3-5 and Request Type parameter 1, 7 or 9.
- 5 Only valid for SAR Position Request with Access Type 6 and Request Type parameters 1 and 9."

12 The existing paragraphs 2.3.5.1 and 2.3.5.2 are renumbered as 2.3.5.2 and 2.3.5.3, respectively.

13 The existing tables 14, 15 and 16 are renumbered as 15, 16 and 17, respectively.

- 14 *Paragraphs 2.3.9.1 and 2.3.9.2 are moved after the renumbered paragraph 2.3.5.3 and are renumbered, as follows:*

"2.3.5.4 The *SARCircularArea* and *SARRectangularArea* parameters should not be populated in the same SAR SURPIC request message. If both parameters are populated, then the providing DC should ignore the contents of the *SARRectangularArea* parameter and use the contents of the *SARCircularArea* parameter in responding to the SAR SURPIC request message.

2.3.5.5 DCs have the option of processing the *DataUserRequestor* parameter of the SAR SURPIC message in order to determine if the requestor is a SAR service entitled to receive the information requested. If a DC chooses to check the validity of a requestor then it should check the LRIT ID contained in the *DataUserRequestor* parameter against the SAR service LRIT IDs in the DDP. If a DC chooses to reject a SAR SURPIC message based upon the LRIT ID in the *DataUserRequestor* parameter then the DC should send a receipt message with receipt code 0 (not entitled to data) to the requestor."

- 15 *Paragraphs 2.3.9 and 2.3.9.1 and 2.3.9.2 are deleted.*

- 16 *The following paragraphs are added after paragraph 2.3.7.1:*

"2.3.8 Processing of Port State Request Messages in the Context of Special Administrative Regions and non-metropolitan territories

2.3.8.1 DCs that receive a port State request message should check to ensure that the port listed in the port parameter of the request message is a valid port associated with the Contracting Government specified by the *DataUserRequestor* parameter of the request message. Port validation for Contracting Governments should be achieved by checking the DDP for ports associated with the requesting Contracting Government.

2.3.8.2 The port should be considered a valid port for the requesting Contracting Government if, within the context of the DDP, the port is directly listed under the Contracting Government or if the port is listed under a special administrative region or non-metropolitan territory associated with the Contracting Government.

2.3.8.3 A port State request message transmitted by a special administrative region or non-metropolitan territory with the port parameter of the request message populated with a port directly listed under the Contracting Government associated with the special administrative region or the non-metropolitan territory should be considered not valid. A receipt message (receipt code 0) should be sent to the requestor indicating that the requestor is not entitled to the data."

- 17 *The existing paragraphs 2.3.8 and 2.3.8.1 to 2.3.8.3 are renumbered as 2.3.9 and 2.3.9.1 to 2.3.9.3, respectively.*

ANNEX 3
(English only)

AMENDMENTS TO MSC.1/CIRC.1294/REV.1
(TECHNICAL DOCUMENTATION – PART II)

Amendments
to the
Protocols and arrangements for the prototype, developmental and integration,
and modification testing phases of the LRIT system (Version 3)
(annex 1 to MSC.1/Circ.1294/Rev.1)

1 *Section 3.5 is replaced as follows:*

"3.5 Modification testing phase

3.5.1 Overview

3.5.1.1 Modification testing is conducted in the testing environment and, if necessary, in the production environment. Modification testing should be conducted whenever new test procedures and test cases are required to be conducted as a result of amendments to the provisions of regulation V/19-1, the Revised performance standards or the Technical specifications for the LRIT system, or any related decision of the Maritime Safety Committee.

3.5.1.2 The detailed modification test procedures and test cases, as well as any decisions or additional guidance, will be prepared and approved by either the Committee or the LRIT operational governance body, as defined within the Continuity of Service Plan for the LRIT System, on a case by case basis taking into consideration the impact and urgency of the modification.

3.5.2 Pre-modification testing process

3.5.2.1 The Secretariat should notify all LRIT system components (IDE, DDP server and DCs) operating in the production environment of the LRIT system and the LRIT Coordinator, about any decision (schedule, deadlines, etc) relating to the implementation of amendments to the provisions of regulation V/19-1, the Revised performance standards or the Technical specifications for the LRIT system, or any decision of the Maritime Safety Committee, which may require additional testing to be conducted in the testing and the production environments of the LRIT system.

3.5.2.1.1 The Secretariat should provide those LRIT system components required to undergo modification testing with a bespoke version of the Summary report and the Report of test results, including the required test procedures and test cases, as well as any particular instructions to be observed.

3.5.2.2 In case a new version of the XML schemas needs to be implemented, the corresponding release version should be available for download in the testing environment of the DDP.

3.5.3 Modification testing process

3.5.3.1 The LRIT system component concerned should undergo and satisfactorily complete the communications and functional tests specified in the Secretariat's notification for the testing environment.

3.5.3.2 As soon as the testing is completed, the LRIT system component that has undergone testing in the testing environment should complete the Summary report and the Report of test results and forward these to the Organization.

3.5.3.2.1 When completing the testing documentation, the existing text should not be amended in any way as this may invalidate the whole testing process.

3.5.3.2.2 The entries in the Report of test result should be limited to either include a Pass or a Fail under the column headed Pass/Fail.

3.5.3.2.3 The LRIT system component should only complete the relevant part of the Summary report which is required to be completed by the LRIT system component undergoing testing. Other relevant parts of the Summary report which may require external certification, if any, will be forwarded by the Secretariat to those LRIT system components, which have assisted the testing, for its completion.

3.5.3.3 The Secretariat should provide those system components which have assisted the testing with copies of the Report of test results and of the related Summary report as soon as it receives them.

3.5.3.4 Those assisting the testing should, no later than two working days after receiving the testing documentation, advise the Organization whether they are satisfied with the results of the testing as documented by the LRIT system component which has undergone testing and confirm that they certify these as true and correct by completing the relevant parts of the related Summary report and returning it to the Organization.

3.5.3.5 Having received the relevant parts of the Summary report from those which were required to externally certify the test cases, if any, the Secretariat will forward the complete Summary report and Report of test results to the LRIT Coordinator for information.

~~[3.5.3.6 The LRIT Coordinator, after examining the Report of test results and the related Summary report, if satisfied, should authorize the integration of the system component which has undergone modification testing into the production environment of the LRIT system and should advise the Organization to this end. The LRIT Coordinator, if not satisfied with the results reported therein, should communicate its decision to the LRIT system component concerned and the Organization, together with the reasons thereof.]~~

~~3.5.3.7 The Secretariat should communicate the decisions of the LRIT Coordinator to the LRIT system component concerned and those who have assisted the testing.]~~

3.5.3.7.16 In case an LRIT system component undergoing testing in the testing environment fails to satisfactorily complete all required tests, that system component should be treated as a system component which has not undergone any testing and should commence testing anew through the modification testing phase route.

3.5.4 Implementation in the Production environment

3.5.4.1 Depending on the scope of the modification to the LRIT system, the modification can either be made by the required system component(s) all at the same time or in stages. The preferred implementation approach will be based on the specifics of the modification concerned. Either the Committee or the LRIT Operational Governance body, defined within the Continuity of Service Plan for the LRIT system, will decide the preferred, or required, implementation approach.

3.5.4.1.1 For modifications that must be implemented at the same time, it is anticipated that all of the LRIT system components will have successfully completed their testing well before the planned cut over date. If problems occur during the cut over, operational decisions will be made as defined within the Continuity of Service Plan for the LRIT system to ensure the continued operation of the system.

3.5.4.1.1.1 If all system components have not successfully completed testing prior to the planned cut over, the LRIT Operational Governance body will decide whether or not to continue the cut over. The decision will be based on the desire to maintain the LRIT system in operation with the maximum number of LRIT system components on line and capable of exchanging LRIT information.

3.5.4.1.2 For modifications that can be implemented in stages, the cut over will occur within the time period defined by the guidance prepared for the modification. As each system component completes the modification testing it will be re-integrated into the production system in a coordinated manner.

3.5.4.1.2.1 LRIT system components, which have satisfactorily completed all required tests in the testing environment ~~{and were authorized by the LRIT Coordinator to be integrated into the production environment,}~~ should implement the modification in the production environment within the time period defined by the guidance prepared for the modification. The time period could be extended by the Secretariat depending on the magnitude of the test required to be conducted.

3.5.4.2 In case there were no additional test procedures and test cases required to be conducted and having implementing the necessary system modifications in the production environment, the LRIT system component concerned should notify the Organization and the LRIT Coordinator once the required system modifications were satisfactory implemented. Having received this notification, the modification testing phase would be considered as complete for that system component.

3.5.4.3 In case there are test procedures and test cases required to be conducted in the production environment, the Secretariat should provide those required to undergo testing with a bespoke version of the Summary report and Report of test results, including the required test procedures and test cases, as well as any particular instructions to be observed. In this case, the following procedures should be observed:

- .1 As soon as the testing is completed, the LRIT system component which has undergone testing in the production environment should complete and forward its Summary report and Report of test results to the Organization.

- .1 When completing the testing documentation, the existing text should not be amended in any way as this may invalidate the whole testing process.
- .2 The entries in the Report of test results should be limited either to include a Pass or a Fail under the column headed Pass/Fail.
- .3 LRIT system components should only complete the relevant part of the Summary report which is required to be completed by the DC undergoing testing. Other relevant parts of the Summary report which may require external certification, if any, will be forwarded by the Secretariat to those system components, which have assisted the testing, for its completion.
- .2 The Secretariat should provide those participating in the testing process with copies of the Report of test results and of the related Summary report as soon as it receives them.
- .3 Those assisting the testing should, no later than two working days after receiving the testing documentation, advise the Organization whether they are satisfied with the results of the testing as documented by the LRIT system component which has undergone testing in the production environment and confirm that they certify these as true and correct by completing the relevant parts of the related Summary report and returning it to the Organization.
- .4 Having received the relevant parts of the Summary report from those which were required to externally certify the test cases, if any, the Secretariat will forward the complete Summary report and Report of test results to the LRIT Coordinator.
- .5 If the LRIT system component fails to satisfactorily complete all required tests, that system component should be treated as a system component which has not undergone any testing and should commence testing anew through the modification testing phase route. In this case, the Secretariat should, as soon as the Organization has been notified, inform accordingly those operating in the production environment and those who participated in the modification testing of the system component in question."

2 *The following new Appendix is added after Appendix 2:*

Appendix 2-A

LRIT DATA CENTRE TEST PROCEDURES AND CASES

Test Procedures for Modification testing

Table 2-A.1

Test procedure DC-17.0

| Test | REF | Test procedure | Pass/Fail |
|---------|---------------------------|---|-----------|
| DC-17.0 | PS: 7.1.1.7 TS3: 2.2.3 | DC1 receives a Ship Position Poll Request (Message Type 4, Access Type 5, Request Type 1) sent by another LRIT Data Centre (DC2) through IDE (C). Communication paths specified in parentheses for each test case. All parameters associated with each message should be valid unless specified otherwise in a given test case. | |

Test cases DC-17.1 to DC-17.3

| Test | REF | Case | Expect results | Test type | Environment | Required before entering | Required during | Certification | Pass/Fail |
|---------|---------------------------------------|--|--|-----------|---------------------------------|--------------------------|------------------|------------------------|-----------|
| DC-17.1 | PS: 7.1.7 TS3:2.2.3 TS3:2.2.1.4 | DC1 receives a position request Message from a contracting government with a valid port parameter (a port listed under the special administrative region of the contracting government). | DC1 sends the appropriate position report. (D) All timestamps should be in accordance with the provision of TS3 | F/C | Prototype Test Production | N/A Yes N/A | N/A Yes No | N/A Internal N/A | |
| DC-17.2 | PS: 7.1.7 TS3:2.2.3 TS3:2.2.1.4 | DC1 receives a position request Message from a special administrative region with an invalid port parameter (a port listed under the contracting government associated with the special administrative region's contracting government). | DC1 sends a receipt message with receipt code 0 (not entitled to data). (D) All timestamps should be in accordance with the provision of TS3 | F/C | Prototype Test Production | N/A Yes N/A | N/A Yes No | N/A Internal N/A | |
| DC-17.3 | PS: 7.1.7 TS3:2.2.3 TS3:2.2.1.4 | DC1 receives a SAR request Message with all valid parameters. Tests should be performed for all test cases as stipulated in Table 2-A.1.1. (C) | DC1 sends the appropriate position report or receipt for each test case to DC2. (D) All timestamps should be in accordance with the provision of TS3 | F/C | Prototype Test Production | N/A Yes N/A | N/A Yes No | N/A Internal N/A | |

Table 2-A.1.1

| Test case | | | | | Expected Result | Pass/Fail |
|-------------|--------------|-----------------------|----------|------------------|--|-----------|
| Access Type | Request Type | Port or port facility | Distance | Request duration | | |
| 6 | 7 | Not valid | zero (0) | Valid | DC1 sends the appropriate position reports to DC2 (D). | |
| | 9 | Not valid | zero (0) | Null | DC1 sends the appropriate position report to DC2 (D). | |

Table 2-A.2
Test procedure DC-8.0

| Test | | REF | Test procedure | | | | Pass/Fail |
|--------|--|------------------------|---|--|--|--|-----------|
| DC-8.0 | | PS: 7.4 TS3: 2.2.12 | DC1 sends a Pricing request message (Message Type 14) to the IDE. Communication paths specified in parentheses for each test case. All parameters associated with each message should be valid unless specified otherwise in a given test case. | | | | |

Test case DC-8.1

| Test | REF | Case | Expect results | Test type | Environment | Required before entering | Required during | Certification | Pass/Fail |
|--------|------------------------|--|--|-----------|---------------------------------|--------------------------|-------------------|-----------------------------|-----------|
| DC-8.1 | PS: 7.4 TS3: 2.2.12 | DC sends a pricing request message to the IDE with all valid Message parameters. (D) | Verify correct transmission of message and no further action required by DC. | C | Prototype Test Production | N/A Yes N/A | N/A Yes Yes | N/A External External | |

3 *In Appendix 3:*

- .1 In all Test cases, in the second row named "Test" under the column named "Environment", the entries indicated as "N/A" under the columns named "Required before entering", "Required during" and "Certification" should be replaced by "No", "Yes" and "External", respectively, (i.e. the Test cases required to be conducted in the Testing environment should be the same that the ones that were required to be conducted in the Prototype environment);*
- .2 In Test cases IDE-1.5, IDE-2.8 and IDE-3.10, in the third row named "Production" under the column named "Environment", the entries indicated under the columns named "Required before entering", "Required during" and "Certification" should be replaced by "No", "Yes" and "External", respectively;*
- .3 In Test case IDE-7.3, in the third row named "Production" under the column named "Environment", the entries indicated under the columns named "Required before entering", "Required during" and "Certification" should be replaced by "No", "Yes" and "Internal", respectively; and*
- .4 In all Test cases, with the exception of the Test cases mentioned in paragraphs 2 and 3 above, in the third row named "Production" under the column named "Environment", the entries indicated under the columns named "Required before entering", "Required during" and "Certification" should be replaced by "No".*

4 *The following new Appendix is added after Appendix 3:*

Appendix 3-A

INTERNATIONAL LRIT DATA EXCHANGE TEST PROCEDURES AND CASES

Test Procedures for Modification testing

Table 3-A.1

Test procedure IDE-11.0

| Test | REF | Test procedure | Pass/Fail |
|----------|---|---|-----------|
| IDE-11.0 | PS: 10.3.1 to PS: 10.3.4 PS: 10.3.8 to PS: 10.3.11 PS: 12.1 TS1: 2.1.1 TS1: 3.2 TS1: 3.3.2 TS1: 3.3.3 TS1: 3.3.4 TS3: 2.2.5 | IDE receives a Receipt Message from DC1. Communication paths specified in parentheses for each test case. All parameters associated with each message should be valid unless specified otherwise in a given test case. | |

Test cases IDE-11.1 to IDE-11.2

| Test | REF | Case | Expect results | Test type | Environment | Required before entering | Required during | Certification | Pass/Fail |
|----------|---|---|--|-----------|---------------------------------|--------------------------|------------------|------------------------|-----------|
| IDE-11.1 | PS: 10.3.1 to PS: 10.3.4 PS: 10.3.8 to PS: 10.3.11 PS: 12.1 TS1: 2.1.1 TS1: 3.2 TS1: 3.3.2 TS1: 3.3.3 TS1: 3.3.4 TS3: 2.2.5 | Receipt Message received with all valid message parameters addressed to a Data Centre. (D) | Message stored in Journal, IDE routes message to the appropriate DC. (F) | F | Prototype Test Production | N/A No No | N/A Yes No | N/A Internal N/A | |
| IDE-11.2 | PS: 10.3.1 to PS: 10.3.4 PS: 10.3.8 to PS: 10.3.11 PS: 12.1 TS1: 2.1.1 TS1: 3.2 TS1: 3.3.2.3 TS1: 3.3.3 TS1: 3.3.4 TS3: 2.2.5 | SAR SURPIC Receipt message received (Message type 7 with ReceiptCode = 1, 'no ship in SAR SURPIC area') with invalid DDP version number parameter (D) | Message stored in Journal, IDE routes message to the appropriate DC. (F) | F | Prototype Test Production | N/A No No | N/A Yes No | N/A Internal N/A | |

Table 3-A.2
Test procedure IDE-12.0

| Test | REF | Test procedure |
|----------|--|--|
| IDE-12.0 | PS: 10.3.1 to PS: 10.3.4 PS: 10.3.8 to PS: 10.3.11 PS: 10.3.15 TS1: 2.1.1 TS1: 3.2 TS1: 3.3.2 TS1: 3.3.3 TS1: 3.3.8 TS1: 3.9 TS3: 2.1 TS3: 2.2.1 TS3: 2.2.12 TS3: 2.3.11 | IDE receives a Pricing Request message. Communication paths specified in parentheses for each test case. All parameters associated with each message should be valid unless specified otherwise in a given test case. |

Test case IDE-12.1

| Test | REF | Case | Expect results | Test type | Environment | Required before entering | Required during | Certification | Pass/Fail |
|----------|---|---------------------------------------|---|-----------|---------------------------------|--------------------------|-------------------|------------------------|-----------|
| IDE-12.1 | PS: 10.3.1 to PS: 10.3.4 PS: 10.3.8 to PS: 10.3.11 PS: 10.3.15 TS1: 2.1.1 TS1: 3.2 TS1: 3.3.2 TS1: 3.3.3 TS1: 3.3.8 TS1: 3.9 TS3: 2.1 TS3: 2.2.1 TS3: 2.2.12 TS3: 2.2.13 TS3: 2.3.11 | Valid Pricing Request Message. (D) | Message stored in Journal, pricing update message (message type 15) is sent to the requestor. (C) | F | Prototype Test Production | N/A No No | N/A Yes Yes | N/A Internal N/A | |

- 5 *In Appendix 6, the following new paragraphs are added after the existing subparagraph 7.4:*

"8 Table "Explanatory notes and guidance" provides the necessary guidance and additional expected results in relation to the test cases stipulated in the Protocols for the testing environment only.

9 A template with the necessary guidance to create the "Testing Plan" provided in item 7.4 is given at final of this annex."

- 6 *In Appendix 6, Table "Explanatory notes and guidance", the following Test cases should be added in the second row, under the column named "Test case" and after the test case "DC-4.2":*

"DC-5.1 and DC-5.2
DC-6.1
DC-7.1
DC-8.1
DC-9.1 and DC-9.2
DC-11.1 to DC-11.3
DC-12.1
DC-13.1 to DC-13.4"

- 7 *In Appendix 6, the following template of the Testing plan required to be submitted should be inserted after the Table "Explanatory notes and guidance":*

DEVELOPMENTAL TESTING PHASE

TESTING PLAN

| | |
|--------------------|---------|
| Environment | Testing |
|--------------------|---------|

1 Details of the LRIT Data Centre (DC) to be tested or tested

| | |
|---|--|
| Contracting Government¹ | |
| Type of LRIT Data Centre | National/Regional/Cooperative ² |
| Providing services also to³ | |
| Contracting Governments covered by the testing⁴ | |
| LRIT ID (of DC)⁵ | |

2 Details of the Contracting Governments to be used/used⁶ for each test required

| | | Dates⁷ and times⁸(UTC) between which the testing was conducted (the columns below to be completed during testing) | |
|------------------|--|--|-----------------|
| Test case | Name of the Contracting Government(s) to be used or used for the specific test | Started on | Ended on |
| DC-1.1 | <i>[enter the name and LRIT ID of <u>each</u> of the Contracting Governments establishing or using the centre to be used for or used for the test]</i> | | |
| DC-1.4 | <i>[enter the name and LRIT ID of <u>each</u> of the Contracting Governments establishing or using the centre to be used for or used for the test]</i> | | |
| DC-1.2 | <i>[enter the name and LRIT ID of <u>one</u> of the Contracting Governments to be used or used for the test]</i> | | |

¹ In the space provided enter the name of the Contracting Government(s) establishing the LRIT Data Centre.

² Delete as appropriate.

³ In the space provided enter the name(s) of the Contracting Government(s) (other than the Contracting Government(s) establishing the LRIT Data Centre tested) to which the LRIT Data Centre is providing services.

⁴ In the space provided enter the name(s) of the Contracting Government(s) for which the LRIT Data Centre is or has been tested.

⁵ In the space provided enter the LRIT ID used by LRIT Data Centre during the testing.

⁶ Delete as appropriate.

⁷ All dates should be numeric in the format DD/MM/YY.

⁸ All times should be UTC in the format HH:MM.

| | | Dates⁷ and times⁸ (UTC) between which the testing was conducted (the columns below to be completed during testing) | |
|------------------|---|---|-----------------|
| Test case | Name of the Contracting Government(s) to be used or used for the specific test | Started on | Ended on |
| DC-1.3 | <i>[enter the name and LRIT ID of <u>one</u> of the Contracting Governments to be used or used for the test]</i> | | |
| DC-1.5 | <i>[enter the name and LRIT ID of <u>one</u> of the Contracting Governments to be used or used for the test]</i> | | |
| DC-1.6 | <i>[enter the name and LRIT ID of <u>one</u> of the Contracting Governments to be used or used for the test]</i> | | |
| DC-2.1 | <i>[enter the name and LRIT ID of <u>two</u> Contracting Governments, including into brackets the IMO ship identification number of the selected ship for each one of the Contracting Governments, to be used or used for the tests specified in Table 2.2.1 and 2.2.2 of the Protocols]</i> | | |
| DC-2.2 | <i>[enter the name and LRIT ID of <u>one</u> of the Contracting Governments to be used or used for the test]</i> | | |
| DC-2.3 | <i>[enter the name and LRIT ID of <u>one</u> of the Contracting Governments to be used or used for the test]</i> | | |
| DC-2.4 | <i>[enter the name and LRIT ID of the Contracting Government, including into brackets the IMO Ship identification number of a ship that is not associated with the LRIT Data Centre, to be used or used for the first test]</i> | | |
| | <i>[enter the name and LRIT ID of the Contracting Government, including into brackets the IMO Ship identification number of a ship that is associated with other Contracting Government establishing or using the services of the LRIT Data Centre, to be used or used for the second test]</i> | | |
| DC-2.5 | <i>[enter the name and LRIT ID of <u>one</u> of the Contracting Governments to be used or used for the test]</i> | | |
| DC-2.6 | <i>[enter the name and LRIT ID of <u>one</u> of the Contracting Governments to be used or used for the test]</i> | | |
| DC-2.7 | <i>[enter the name and LRIT ID of <u>one</u> of the Contracting Governments to be used or used for the test]</i> | | |

| | | Dates⁷ and times⁸ (UTC) between which the testing was conducted (the columns below to be completed during testing) | |
|------------------|---|---|-----------------|
| Test case | Name of the Contracting Government(s) to be used or used for the specific test | Started on | Ended on |
| DC-2.8 | <i>[enter the name and LRIT ID of <u>one</u> of the Contracting Governments to be used or used for the test]</i> | | |
| DC-2.9 | <i>[enter the name and LRIT ID of <u>one</u> of the Contracting Governments to be used or used for the test]</i> | | |
| DC-3.1 | <i>[enter the name and LRIT ID of <u>each</u> of the Contracting Governments establishing or using the centre to be used for or used for the test]</i> | | |
| DC-3.2 | <i>[enter the name and LRIT ID of <u>each</u> of the Contracting Governments establishing or using the centre to be used for or used for the test]</i> | | |
| DC-4.1 | <i>[enter the name and LRIT ID of <u>each</u> of the Contracting Governments establishing or using the centre to be used for or used for the test]</i> | | |
| DC-4.2 | <i>[enter the name and LRIT ID of <u>one</u> of the Contracting Governments to be used or used for the test]</i> | | |
| DC-10.1 | <i>[enter the name and LRIT ID of <u>each</u> of the Contracting Governments establishing or using the centre to be used for or used for the test]</i> | | |
| R/CDC-14.1 | No additional details are required | | |
| DC-15.1 | <i>[enter the name and LRIT ID of <u>two</u> Contracting Governments, including into brackets the IMO ship identification number of the selected ship for each one of the Contracting Governments, to be used or used for the test]</i> | | |
| DC-15.2 | <i>[enter the name and LRIT ID of <u>one</u> of the Contracting Governments to be used or used for the test]</i> | | |
| DC-15.3 | <i>[enter the name and LRIT ID of <u>one</u> of the Contracting Governments to be used or used for the test]</i> | | |
| DC-16.1 | <i>[enter the name and LRIT ID of <u>one</u> of the Contracting Governments to be used or used for the test]</i> | | |
| DC-16.2 | <i>[enter the name and LRIT ID of <u>one</u> of the Contracting Governments to be used or used for the test]</i> | | |

- 3 *Comments⁹ in relation to the test cases specified in section 2 (for use, when necessary, to provide additional details of the test or when a Contracting Government was not considered for a specific test) (please include additional rows as necessary)*

| Test case | Name and LRIT ID of the Contracting Government(s) | Comment(s) |
|------------------|--|-------------------|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

- 4 *Details of the person who submitting the plan/confirming that the above tests have been carried out¹⁰*

| |
|--|
| <p>.....</p> <p>(Signature¹¹ of the person) Date¹²</p> |
| <p><i>Name, title and contact details (telephone and facsimile numbers and e-mail address) of the person who signed above</i></p> <p>.....</p> |

⁹ Further comment boxes may be added as necessary.

¹⁰ Delete as appropriate.

¹¹ The part containing the signature should be scanned after it has been signed and sent to the Secretariat together with the electronically completed report.

¹² All dates should be numeric in the format DD/MM/YY.