

| Reference:      | ISM 13/14 TR.2021-2 |
|-----------------|---------------------|
| Issue date:     | 12-Apr-2021         |
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### **Approval Section**

| Step            | Name  | Date       |
|-----------------|---|------------|
| Reviewed by:    | Serkan Simitcioglu<br>Head, IOSA  | April 2021 |
| Recommended by: | Catalin Cotrut Director, Audit Programs                                       | April 2021 |
| Approved by:    | Gilberto Lopez Meyer<br>Senior Vice President<br>Safety and Flight Operations | April 2021 |

#### **General Overview**

This Temporary Revision (TR) 2021-2 to the IOSA Standards Manual (ISM) Edition 13 (ISM 13) and Edition 14 (ISM 14) is issued to address revisions in the aircraft systems and equipment tables located in the ISM Engineering and Maintenance (MNT) section. Such revisions are included in:

- (i) Applicable to ISM 13 and 14, Table 4.11 (vii), which addresses installation of ELTs.
- (ii) Applicable to ISM 14 only, Tables 4.11 (xv), 4.12 (xv), 4.14 (v) and 4.15 (v), all of which address installation of a DLR.

#### **Effective Date**

This TR will become effective as of 26-Apr-2021.

### **Change Mark-up**

- New wording is shown in shaded text (example).
- Deleted wording is shown in strike-through text (example).

#### **Abbreviations**

- DLC Data Link Communication.
- DLR Data Link Recorder.
- ELT Emergency Locator Transmitter

### (1) ELT Installation (applicable to ISM 13 and 14)

ICAO Annex 6 standards specify the types of ELTs that must be installed on various categories of aircraft. MNT Table 4.11 (vii), as currently written in ISM 13 and ISM 14, is aligned with the Annex 6 standards and specifies the type(s) of ELT that must be installed on four categories of aircraft. However, there are some regulators that do not require an ELT in accordance with Annex 6 standards on aircraft used for domestic flight operations.



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This TR specifies the restoration of certain wording in ISM 13 and ISM 14, which includes a note, in Table 4.11 (vii). Such wording was deleted in ISM 13 and ISM 14. Importantly, the restored wording and note specify that stated ELT requirements for the four categories of aircraft in 4.11 (vii) are applicable only to aircraft *used in international flight operations*. The note also addresses ELT requirements that might be associated with international flights conducted into adjacent or nearby countries under a bilateral agreement.

With this TR, applicable to ISM 13 and ISM 14, Table 4.11 (vii) is revised with restoration of the above-described wording and note as shown below in shaded text.

| Table 4.11–Required Aircraft Systems and Equipment   |   |   |  |  |
|--|---|---|--|--|
| As specified in MNT 1.9.1, aircraft in the Operator's fleet shall be equipped with, in accordance with conditions of applicability, the systems and equipment specified in this table. Where referenced, refer to guidance material in Table 4.12 or Table 4.13. |   |   |  |  |
|  | Equipment   | Applicability   | Requirement  | Notes  |
|  | Line items (i) th   | rough (vi) in this table a  | are not affected by this TR  | and are omitted for brevity  |
| (vii)  | Emergency<br>Locator<br>Transmitters<br>(ELTs)  | Aircraft used for international flights with more than 19 passenger seats.  | (a) Equipped with one automatic ELT or two ELTs of any type  | <b>Note</b> : These specifications are applicable to all aircraft utilized to conduct international flights unless the State differentiates  |
|  |   | Aircraft used for international flights with more than 19 passenger seats for which the individual certificate of airworthiness was first issued on or after 1 July 2008. | Equipped with a minimum of either:  (b) Two ELTs, one of which shall be automatic, or  (c) One ELT and a capability for autonomously transmitting position information at least once every minute, when in distress. | between domestic and international flights for the purpose of establishing ELT equipage requirements. In such cases, a state's domestic regulations, which typically apply to flights within the territory of that state, may be extended by a special authorization, issued by in nearby states. This specification would not apply to aircraft used to conduct such international flights if the |
|  |   | Aircraft used for international flights with 19 or less passenger seats.  | (d) Equipped with one ELT of any type.   | requirements specified in the special authorization, as well as the regulations established by the applicable nearby   |
|  |   | Aircraft used for international flights with 19 or less passenger seats for which the individual certificate of airworthiness is first issued after 1 July 2008.          | (e) Equipped with a minimum of one automatic ELT.  | state(s), define ELT equipage requirements.  |
|  | The remaining line items in this table are not affected by this TR and are omitted for brevity. |   |  |  |



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### (2) DLR Installation (applicable only to ISM 14)

Annex 6 standards specify that data link messages must be recorded on aircraft that use data link communications for the authorization and/or control of the aircraft flight path. The current MNT tables in ISM 14 that address installation of a DLR do not fully align with the Annex 6 standards.

ISM 13 TR 2020-1 was issued on 1 February 2021 and revised the DLR specifications in the ISM 13 MNT tables for alignment with Annex 6.

The purpose of this TR is to apply revisions contained in ISM 13 TR 2020-1 in the ISM 14 MNT tables, which results in alignment with Annex 6 in both, ISM 13 and ISM 14.

With this TR, applicable to ISM 14 only, Table 4.12 (xv), 4.14 (v) and 4.15 (v) are revised as shown below in shaded text.

| ·   | Table 4.12 – Guidance Material: Required Aircraft Systems and Equipment   |
|---|---|
|   | Line items (i) through (xiv) are not affected by this TR and are omitted for brevity  |
| (xv)  | Applicable data link messages as specified in the Requirement column would be those messages related to the authorization and/or control of the aircraft flight path. |
|   | The minimum recording duration of the DLR is typically equal to the recording duration of the CVR.  |
| The remaining line items in this table are not affected by this TR and are omitted for brevity. |   |

| Table 4.14 – Recommended Aircraft Systems and Equipment  |                             |   |   |   |
|--|-----------------------------|---|---|---|
| Line items (i) through (iv) in this table are not affected by this TR and are omitted for brevity. |                             |   |   |   |
| (v)  | Data Link<br>Recorder (DLR) | Aircraft using datalink communications for the authorization and/or control of the aircraft flight path that:  Have the individual aircraft certificate of airworthiness first issued before 1 January 2016, and Had no approved modification available for DLC on the aircraft type (make / model / series) prior to 1 January 2016, and  Were modified on or after 1 January 2016 for such use, | A DLR that records the applicable data link messages is integrated with a CVR or an FDR or with a combination FDR/CVR unit.  (GM) See Table 4.15  (v) | Note: Effective 1 September 2023, this recommended practice will be upgraded to a standard; IOSA registration will require conformance by the Operator. |
|  |                             | Aircraft using datalink communications for the authorization  | A DLR that records the applicable data link messages is integrated  | Note: This recommended practice will not be   |



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|                    | and/or control of the aircraft flight path that:  Have the individual aircraft certificate of airworthiness first issued before 1 January 2016, and  Had an approved modification available for DLC on the aircraft type (make / model / series) prior to 1 January 2016, and  Were modified on or after 1 January 2016 for such use. | with a CVR or an FDR or with a combination FDR/CVR unit.  (GM) See Table 4.15 (v) | upgraded to a standard. |
|--------------------|---|---|-------------------------|
| The remaining line | e item in this table is not aff   | ected by this TR and is omi   | tted for brevity.       |

| Table 4.15 – Guidance Material: Recommended Aircraft Systems and Equipment |   |  |
|--|---|--|
| L  | ine items (i) through (iv) in this table are not affected by this TR and are omitted for brevity.   |  |
| (v)  | Applicable data link messages as specified in the Requirement column would be those messages related to the authorization and/or control of the aircraft flight path.  The minimum recording duration of the DLR is typically equal to the recording duration of the CVR. |  |
|  | The remaining line item in this table is not affected by this TR and is omitted for brevity.  |  |