

## CS-GEN-MMEL ISSUE 2 — CHANGE INFORMATION

EASA publishes amendments to certification specifications and acceptable means of compliance and guidance material as consolidated documents. These documents are used for establishing the certification basis for applications made after the date of entry into force of the applicable amendment.

Consequently, except for a note '[Issue No: GEN-MMEL/2]' under the amended paragraph, the consolidated text of CS-GEN-MMEL does not allow readers to see the detailed changes that have been introduced compared to the previous issue. To allow readers to see these detailed changes, this document has been created. The same format as for publication of notices of proposed amendments (NPAs) has been used to show the changes:

- (a) deleted text is ~~struck through~~;
- (b) new or amended text is highlighted in **blue**;
- (c) an ellipsis [...] indicates that the rest of the text is unchanged.

## CS GEN.MMEL.100 Applicability

~~This CS applies to other than complex motor-powered aeroplanes except for very light aeroplanes (VLA), light sport aeroplanes (LSA) and powered sailplanes.~~

These Certification Specifications are applicable to:

- other than complex motor-powered aeroplanes, except:
  - ELA 1,
  - ELA 2,
- other than complex motor-powered helicopters, except helicopters certificated for:
  - operation under instrument flight rules (IFR),
  - flight into icing conditions, or
  - Category A operations.

## GM1 GEN.MMEL.107 Status of provided data

- (a) Because of the alleviative nature of the MEL, the fact that the MMEL is mandatory data means that the MEL may not be less restrictive than the MMEL ~~as specified under 8.a.3. of Annex IV to Regulation (EC) No 216/2008~~ but may be more restrictive. The MEL may contain less items than the MMEL.

[...]

## CS GEN.MMEL.110 MMEL purpose

The MMEL is a document that lists the items which may be temporarily inoperative ~~in association~~ with special operating conditions, limitations or procedures as applicable, for a specific ~~aeroplane~~ aircraft type or model.

## CS GEN.MMEL.120 Types of operation

The MMEL covers all the types of operation for which the ~~aeroplane~~ aircraft type or model is certified.

**Appendix I — MMEL cover page, control page and general section**

## 1. Cover page:

<p>[Supplemental/Type Certificate Holder Name]</p> <p>[<del>Aeroplane</del> Aircraft Type]</p> <p><b>MASTER MINIMUM EQUIPMENT LIST</b></p> <p>ORIGINAL: [Effective date]</p> <p>(and if applicable)</p> <p>REVISION [Number]: [Effective date]</p> <p>[Supplemental/Type Certificate Holder document reference]</p>
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## 2. Control page:

**MASTER MINIMUM EQUIPMENT LIST**

Type:

[~~Aeroplane~~ Aircraft] type/model]

(and if applicable)

[~~Aeroplane~~ Aircraft] commercial name]

ORIGINAL ISSUE: [Effective date]

(and if applicable)

REVISION [Number]: [Effective date]

This Master Minimum Equipment List (MMEL) is issued by [Supplemental/Type Certificate Holder name] at the above revision and is approved by the European Union Aviation Safety Agency (EASA) as the basis for the preparation and approval of an individual operator's Minimum Equipment List (MEL) for aircraft of this model, as certified by and operated under the jurisdiction of the EASA Member States' national authorities.

Issue: [Revision number]

Date: [Date of approval by the Agency EASA]

Signed by: [Agency's EASA — signature and stamp]

[...]

## Appendix II — Preamble

### PREAMBLE

#### Introduction

The following is applicable for operators ~~under European air operations regulations (Part-CAT, Part-NCO, Part-SPO)~~ subject to Annex IV (Part-CAT), Annex VII (Part-NCO), and Annex VIII (Part-SPO) to Regulation (EU) No 965/2012. Paragraph 1.3.2 of Annex II ~~to Article 5~~ (Essential requirements for airworthiness) of Regulation ~~(EC) No (EU) 2018/1139 216/2008~~ (hereinafter referred to as the 'Basic Regulation') requires that all ~~the~~ equipment ~~items~~ installed on an ~~aeroplane~~ aircraft that are required for type certification or by operating rules shall be operative. However, paragraph 2.a.3(c)(iii) of Annex V ~~to Article 8~~ (Essential requirements for air operations) of ~~to~~ the Basic Regulation also allows the use of a Minimum Equipment List (MEL) where compliance with certain equipment requirements is not necessary in the interest of safety under all operating conditions. Experience has shown that with the various levels of redundancy designed into ~~aeroplanes~~ aircraft, ~~the~~ operation of every system or installed items may not be necessary when the remaining operative equipment can provide an acceptable level of safety.

#### Purpose and limitations

This Master Minimum Equipment List (MMEL) is developed by the Type Certificate Holder or the Supplemental Type Certificate Holder and ~~is~~ approved by ~~the Agency~~ EASA. This MMEL includes those items ~~that are~~ related to airworthiness and air operations regulations, and other items ~~that~~ ~~the Agency~~ EASA finds ~~that~~ may be inoperative ~~and yet while~~ maintaining an acceptable level of safety ~~by through~~ appropriate conditions and limitations; it does not contain obviously required items such as wings, flaps, ~~and rudders~~ gearboxes, and rotors. In order to maintain an acceptable level of safety, the MMEL establishes limitations on the duration of and conditions for operation with inoperative items. Unless specifically permitted by this MMEL, an inoperative item may not be removed from the ~~aeroplane~~ aircraft.

#### Utilisation

The MMEL is the basis for the development of the individual operator's MEL, which takes into consideration the operator's particular ~~aeroplane~~ aircraft equipment configuration and operational conditions.

An operator's MEL may differ in format from the MMEL, but shall not be less restrictive than the MMEL. The individual operator's MEL, when approved or declared as applicable, allows operation of the ~~aeroplane~~ aircraft with inoperative items for a certain period of time until rectification can be accomplished.

The MEL cannot deviate from Airworthiness Directives or any other additional mandatory requirements. It is important to remember that all ~~the~~ items ~~that are~~ related to airworthiness and operational regulations of the ~~aeroplane~~ aircraft ~~but are~~ not listed on the MMEL shall be operative.

Suitable conditions and limitations in the form of placards, maintenance procedures, crew operating procedures and other restrictions as prescribed in this MMEL shall be specified in the MEL to ensure that an acceptable level of safety is maintained. It is important ~~that for~~ rectifications ~~to~~ be accomplished at the earliest opportunity.

When an item is discovered to be inoperative, it is reported by making an entry in the continuing airworthiness record system or the operator's technical log as applicable. Following sufficient fault identification, the item is then either rectified or may be deferred ~~by~~ following the MEL or ~~another~~ approved means of compliance ~~that is~~ acceptable to the competent authority and ~~the Agency~~ EASA prior to further operation. MEL conditions and limitations do not relieve the operator from

determining that the ~~aeroplane~~ aircraft is in a condition for safe operation with the items that are inoperative.

Prior to operation, any inoperative item should be made known to the crew in accordance with the continuing airworthiness requirements. For commercial air transport, acceptance by the crew of the inoperative items is required.

Operators shall establish a controlled and sound rectification programme that includes the parts, personnel, facilities, procedures and schedules to ensure timely rectification.

Operators should include guidance in the MEL to deal with any failures which occur between the commencement of the flight and the start of the take-off.

When developing the MEL, compliance is required with the stated intent of the preamble, the definitions and the conditions and limitations specified in this MMEL is required.

### Multiple inoperative items

Operators are responsible for exercising the necessary operational control to ensure that an acceptable level of safety is maintained. The exposure to additional failures during continued operation with inoperative items shall also be considered. Wherever possible, account has been taken in this MMEL of multiple inoperative items. However, it is unlikely that all possible combinations of this nature have been accounted for. Therefore, when operating with multiple inoperative items, the inter-relationships between those items and the effect on ~~aeroplane~~ aircraft operation and the crew workload shall be considered.

### Rectification intervals

For commercial operations under Part-CAT or Part-SPO, the operators may be allowed by their competent authority a one-time extension of the applicable rectification intervals B, C or D for the same duration as that specified in their MEL.

This extension policy is only applicable when the applicant has taken it into account during the development of this document.

For operations under Part-NCO, the rectification intervals indicated in the item list are only recommended and should be taken as guidelines as for the maximum period of time during which an item would remain inoperative. It is important that for repairs to be accomplished at the earliest opportunity.

## CS GEN.MMEL.140 Definitions and explanatory notes

The MMEL contains sufficient definitions and explanatory notes to provide the user (this is primarily the operator when compiling the MEL) with a full and proper understanding of the intent and purpose of the items it contains.

[Appendix III](#) to this CS contains the definitions that are common to all MMELs. Other definitions that are specific to particular or individual ~~aeroplane~~ aircraft types are added as necessary. Also, explanatory notes are provided in sufficient detail wherever the intent and purpose of a term or phrase or abbreviation, etc., is necessary or advisable.

## Appendix III — Definitions and explanatory notes

- (a) The systems in the MMEL are described and identified in accordance with the numbering system used in the ~~aeroplane~~ aircraft manufacturer's documentation.
- (b) The MMEL item list provides the list of pieces of equipment/system/function which may be inoperative prior to dispatch. Items are gathered by relevant chapter and provided under a table format. The structure of the MMEL item list table is as follows:

[...]

- (3) **Number installed** — column No 3 — is the number (quantity) of items normally installed in the ~~aeroplane~~ aircraft. This number represents the ~~aeroplane~~ aircraft configuration ~~that was~~ considered in developing this MMEL. Should the number be a variable or not applicable, a number is not required; a '–' is then inserted.

Where the MMEL shows ~~that~~ a variable number ~~may be~~ installed, the MEL should reflect the actual number installed, if applicable.

[...]

- (d) Applicability: when a variant of a page is required for certain ~~aeroplanes~~ aircraft, the special applicability is indicated ~~at~~ in the lower part of the relevant page as well as in the list of effective pages.

- (e) Definitions for the purpose of this MMEL:

'~~Aeroplane~~ Aircraft Flight Manual (AFM)' is the document required for type certification and approved by ~~the Agency~~ EASA.

[...]

'**Commencement of flight**' is the point when an aeroplane begins to move under its own power for the purpose of preparing for take-off, ~~or the point when the rotors of a helicopter start to turn for the purpose of taking off.~~

[...]

'**Day of discovery**' means the calendar day ~~that~~ when a malfunction was recorded in the ~~aeroplane~~ aircraft maintenance record/logbook.

'**Flight**' (for the purposes of this MMEL): a flight is the period of time between the moment when an ~~aeroplane~~ aircraft begins to move by its own means, for the purpose of preparing for take-off, until the moment the ~~aeroplane~~ aircraft comes to complete stop on its parking area, after the first landing.

'**Icing conditions**' means an atmospheric environment that may cause ice to form on the ~~aeroplane~~ aircraft or in the engine(s) as defined in the AFM.

'**If installed**' means that the item is either optional or is not required to be installed on all ~~aeroplane~~ aircraft covered by the MMEL.

[...]

'**Master Minimum Equipment List (MMEL)**' means a document approved by ~~the Agency~~ EASA that establishes the ~~aeroplane aircraft~~ items that are allowed to be inoperative under the conditions specified ~~therein~~ in that document for a specific type of ~~aeroplane aircraft~~.

'**Minimum Equipment List (MEL)**' means a document approved by or declared to the competent authority, as applicable, that authorises an operator to dispatch an ~~aeroplane aircraft~~ with ~~aeroplane aircraft~~ items that are inoperative under the conditions specified ~~therein~~ in the document.

[...]

## CS GEN.MMEL.145 Item list

The generic MMEL includes all ~~the~~ items that are permitted to be inoperative.

The MMEL item list is generated by the applicant directly from the generic MMEL by selecting ~~the items~~ from the list in [Appendix IV](#) ~~the items~~ in accordance with their applicability to the ~~aeroplane aircraft~~ type.

For an ~~aeroplane aircraft~~ type with different configurations, the applicant can select all the items ~~that are~~ applicable to the various configurations and add under each affected item '(if installed)'.

For the selected items, the applicant verifies they do not deviate from ~~Aeroplane~~ ~~the Aircraft~~ Flight Manual (AFM) Limitations and Airworthiness Directives.

The applicant also verifies that relief is not given for items ~~that are~~ involved in emergency procedures unless the applicant justifies ~~that~~ the emergency procedure can be fulfilled without the failed item (e.g. VHF Communication Systems).

Consistency of terminology and ~~of means of~~ identification ~~means~~ should be maintained, as far as possible, with the existing ~~aeroplane aircraft~~ documentation.



## Appendix IV — Item list

### Aircraft applicability: Aeroplanes & Helicopters

ATA CHAPTER: 21 Air conditioning		PAGE: 21-x		
(1) System & sequence numbers item	(2) Rectification interval	(3) Number installed	(4) Number required for dispatch	
			(5) Remarks or exceptions	
<b>21-20-1</b> <b>Fresh air ventilation outlets</b>				
21-20-1A      (ALL)	C	–	1	Any in excess of one may be inoperative.
<b>21-30-1</b> <b>Pressurisation controller</b>				
21-30-1A      (CAT aeroplanes)	C	–	0	(O) May be inoperative provided that: (a) the flight is conducted with the cabin unpressurised, and (b) the regulations that require using oxygen-use the use of oxygen are complied with.  (O) Procedures must be established to ensure the aeroplane is operated with the cabin unpressurised.
21-30-1B      (NCO/SPO aeroplanes)	D	–	0	(O) May be inoperative provided that: (a) the flight is conducted with the cabin unpressurised, and (b) the regulations that require using oxygen-use the use of oxygen are complied with.  (O) Procedures must be established to ensure that the aeroplane is operated with the cabin unpressurised.
<b>21-30-2</b> <b>Outflow/safety valves</b>				
21-30-2A      (CAT aeroplanes)	C	–	–	(M)(O) May be inoperative provided that: (a) the affected valve(s) is (are) secured OPEN or removed, (b) the flight is conducted with the cabin unpressurised, and (c) the regulations that require using oxygen-use the use of oxygen are complied with.  (M) Procedures must be established to secure the valve(s) open or remove it (them).  (O) Procedures must be established to ensure the aeroplane is operated with the cabin unpressurised.
(continued)				

ATA CHAPTER: 21 Air conditioning		PAGE: 21-x		
(1) System & sequence numbers item	(2) Rectification interval	(3) Number installed	(4) Number required for dispatch	(5) Remarks or exceptions
(continued)				
21-30-2B (NCO/SPO aeroplanes)	D	–	–	<p>(M)(O) May be inoperative provided that:</p> <p>(a) the affected valve(s) is(are) secured OPEN or removed,</p> <p>b) the flight is conducted with the cabin unpressurised, and</p> <p>(c) the regulations that require <del>ing oxygen-use</del> the use of oxygen are complied with.</p> <p><i>(M) Procedures must be established to secure the valve(s) open or remove it (them).</i></p> <p><i>(O) Procedures must be established to ensure the aeroplane is operated with the cabin unpressurised.</i></p>
<b>21-30-3 Cabin altitude indicator</b>				
21-30-3A (ALL aeroplanes)	D	1	0	<p>(O) May be inoperative provided that:</p> <p>(a) the flight is conducted with the cabin unpressurised, and</p> <p>(b) the regulations that require <del>ing oxygen-use</del> the use of oxygen are complied with.</p> <p><i>(O) Procedures must be established to ensure that the aeroplane is operated with the cabin unpressurised.</i></p>
<b>21-30-4 Cabin altitude warning system</b>				
21-30-4A (ALL aeroplanes)	C	1	0	<p>May be inoperative provided that the flight is conducted at or below the cabin altitude warning limit, but not above 10 000 feet AMSL.</p>
21-30-4B (ALL aeroplanes)	D	1	0	<p>(O) May be inoperative provided that:</p> <p>(a) the flight is conducted with the cabin unpressurised, and</p> <p>(b) the regulations that require <del>ing oxygen-use</del> the use of oxygen are complied with.</p> <p><i>(O) Procedures must be established to ensure that the aeroplane is operated with the cabin unpressurised.</i></p>
<b>21-30-5 Cabin rate of climb indicator</b>				

ATA CHAPTER: 21 Air conditioning				PAGE: 21-x
(1) System & sequence numbers item	(2) Rectification interval			
	(3) Number installed			
	(4) Number required for dispatch			
	(5) Remarks or exceptions			
(continued) 21-30-5A (ALL aeroplanes)	D	1	0	<p>(O) May be inoperative provided that:</p> <p>(a) the flight is conducted with the cabin unpressurised, and</p> <p>(b) the regulations that require <del>ing oxygen use</del> the use of oxygen are complied with.</p> <p><i>(O) Procedures must be established to ensure that the aeroplane is operated with the cabin unpressurised.</i></p>
(continued)				

ATA CHAPTER: 21 Air conditioning				PAGE: 21-x
(1) System & sequence numbers item	(2) Rectification interval			
	(3) Number installed			
	(4) Number required for dispatch			
	(5) Remarks or exceptions			
(continued) <b>21-30-6 Differential pressure indicator</b> 21-30-6A (ALL aeroplanes)	D	1	0	<p>(O) May be inoperative provided that:</p> <p>(a) the flight is conducted with the cabin unpressurised, and</p> <p>(b) the regulations that require <del>ing oxygen use</del> the use of oxygen are complied with.</p> <p><i>(O) Procedures must be established to ensure that the aeroplane is operated with the cabin unpressurised.</i></p>
<b>21-40-1 Heating system</b> 21-40-1A (CAT/SPO)	C	–	0	May be inoperative.
21-40-1B (NCO)	D	–	0	May be inoperative.
<b>21-50-1 Air conditioning system</b> 21-50-1A (CAT/SPO)	C	1	0	<p>(M) May be inoperative.</p> <p><i>(M) Procedures must be established to ensure that the inoperative air conditioning system does not have any adverse effect on engine operation, pressurisation or the cooling of instruments <del>cooling</del>.</i></p>

ATA CHAPTER: 21 Air conditioning			PAGE: 21-x	
(1) System & sequence numbers item	(2) Rectification interval	(3) Number installed	(4) Number required for dispatch	(5) Remarks or exceptions
(continued) 21-50-1B (NCO)	D	1	0	(M) May be inoperative.  <i>(M) Procedures must be established to ensure that the inoperative air conditioning system does not have any adverse effect on engine operation, pressurisation or the cooling of instruments cooling.</i>

**Additional considerations:**

- **21-20-1A Fresh air ventilation outlets:** Cockpit and cabin compartments must be suitably ventilated through an adequate supply of fresh air.
- For unpressurised flights with the cabin unpressurised, the (O) procedure should indicate that when on-board oxygen on-board is not sufficient or oxygen is not used, the flight shall be performed at or below 10 000 ft above Mean Sea Level (AMSL).

**Aircraft applicability: Aeroplanes & Helicopters**

ATA CHAPTER: 22 Auto-flight			PAGE: 22-x	
(1) System & sequence numbers item	(2) Rectification interval	(3) Number installed	(4) Number required for dispatch	(5) Remarks or exceptions
22-10-1 Autopilot/Stability Augmentation System (SAS) 22-10-1A (SPO/NCO)	D	—	0	(M)(O) May be inoperative provided that: (a) the autopilot/SAS is deactivated as applicable, (b) the AFM limitations are observed, and (c) operations do not depend upon its use.  <i>(M) Procedures must be established to ensure that the autopilot/SAS will not engage during the flight.</i>

ATA CHAPTER: 22 Auto-flight		PAGE: 22-x	
(1) System & sequence numbers item	(2) Rectification interval	(3) Number installed	(4) Number required for dispatch
22-10-1B (CAT)	B	–	0
22-10-2 Autopilot/SAS disconnect functions — Quick release controls			(5) Remarks or exceptions <i>(O) Procedures must establish any applicable restrictions (e.g. approach and landing minima, en-route operations, etc.).</i> <b>(M)(O) May be inoperative provided that:</b> (a) <b>the</b> autopilot/SAS is deactivated as applicable, (b) the flight is conducted under VFR for single pilot operations, (c) AFM limitations are observed, and (d) operations do not depend upon its use. <i>(M) Procedures must be established to ensure that the autopilot/SAS will not engage during the flight.</i> <i>(O) Procedures must establish any applicable restrictions (e.g. approach and landing minima, en-route operations, etc.).</i>
22-10-2A (ALL)	C	–	1
22-10-2B (ALL)	B	–	0
(continued)			May be inoperative provided <b>that the</b> autopilot/SAS is not used (refer to item 22-10-1).

ATA CHAPTER: 22 Auto-flight		PAGE: 22-x	
(1) System & sequence numbers item	(2) Rectification interval	(3) Number installed	(4) Number required for dispatch
(continued)			(5) Remarks or exceptions
22-10-4 Yaw damper			

ATA CHAPTER: 22 Auto-flight				PAGE: 22-x	
(1) System & sequence numbers item		(2) Rectification interval			
		(3) Number installed			
		(4) Number required for dispatch			
		(5) Remarks or exceptions			
22-10-4A	(ALL aeroplanes)	C	1	0	(M) May be inoperative provided that the yaw damper is independent and unrelated to autopilot operation.  (M) Procedures must be established to ensure that no electrical or mechanical fault exists that would have an adverse effect on any flight control system.
22-10-4B	(ALL aeroplanes)	-	1	0	May be inoperative provided that the autopilot/SAS is not used (refer to item 22-10-1).

**Additional considerations:**

**22-10-1 Autopilot/SAS:** Any increase in crew workload has to be considered for the intended operations. Any additional limitations, such as the flight duration, may result from this consideration.

**22-10-1B Autopilot/SAS:** Depending upon the use of the autopilot/SAS in routine procedures, single pilot CAT operations may be restricted to day VMC only.

**22-10-4 Yaw damper:** AFM limitations must be complied with, if any.

**Aircraft applicability: Aeroplanes & Helicopters**

ATA CHAPTER: 23 Communications				PAGE: 23-x	
(1) System & sequence numbers item		(2) Rectification interval			
		(3) Number installed			
		(4) Number required for dispatch			
		(5) Remarks or exceptions			
<b>23-10-1 Headsets</b>					
23-10-1A	(NCO)	D	-	0	May be inoperative or missing provided that procedures do not depend upon its use.
23-10-1B	(ALL)	D	-	-	Any in excess of one for each flight crew member may be inoperative or missing. <u>Note:</u> A headset consists of a communication device which includes two earphones to receive and a microphone to transmit audio signals to the aircraft/aeroplane's communication system.
<b>23-10-2 Audio selector panels</b>					
23-10-2A	(ALL)	D	-	-	Any in excess of one for each flight crew member may be inoperative or missing.
23-10-2B	(ALL)	D	-	0	(O) May be inoperative provided that:

ATA CHAPTER: 23 Communications		PAGE: 23-x
(1) System & sequence numbers item	(2) Rectification interval	
	(3) Number installed	
	(4) Number required for dispatch	
	(5) Remarks or exceptions	
	(a) the flight is conducted under VFR, and (b) alternate procedures are established and used for ensuring <b>the</b> required communication.  <i>(O) Procedures must be established to ensure <b>the</b> required communication.</i>	
(continued)		

**Aircraft applicability: Aeroplanes**

ATA CHAPTER: 23 Communications		PAGE: 23-x	
(1) System & sequence numbers item	(2) Rectification interval		
	(3) Number installed		
	(4) Number required for dispatch		
	(5) Remarks or exceptions		
	<b>23-10-3 Flight crew compartment speakers</b> 23-10-3A (SPO/NCO)	C	– 0 (O) May be inoperative provided <b>that</b> alternate means are available and used for ensuring the required communication. <i>(O) Procedures must be established to ensure <b>the</b> required communication</i>
	23-10-3B (CAT)	C	– 0 May be inoperative provided <b>that</b> : (a) one headset is operative and used by each flight crew member, and (b) a spare operative headset is readily available in the flight crew compartment.
<b>23-10-4 Handheld microphones</b> 23-10-4A (SPO/NCO)	C	– 0 May be inoperative provided <b>that each flight crew member has and uses an operative <del>one</del> headset <del>is operative and used by each flight crew member.</del></b>	
23-10-4B (CAT)	C	– 0 May be inoperative provided <b>that</b> : (a) <b>each flight crew member has and uses an operative <del>one</del> headset <del>is operative and used by each flight crew member,</del></b> and (b) a spare operative headset is readily available in the flight crew compartment.	
<b>23-10-5 Stick/yoke mounted push-to-talk switches</b> 23-10-5A (NCO)	D	– 0 May be inoperative provided <b>that the</b> associated handheld microphone is operative.	

ATA CHAPTER: 23 Communications				PAGE: 23-x
(1) System & sequence numbers item	(2) Rectification interval			
	(3) Number installed			
	(4) Number required for dispatch			
	(5) Remarks or exceptions			
23-10-5B (SPO/CAT)	D	–	0	May be inoperative provided that: <ul style="list-style-type: none"> <li>(a) the flight is conducted under day VFR, and</li> <li>(b) the associated handheld microphone is operative.</li> </ul>

**Aircraft applicability: Aeroplanes & Helicopters**

ATA CHAPTER: 23 Communications				PAGE: 23-x
(1) System & sequence numbers item	(2) Rectification interval			
	(3) Number installed			
	(4) Number required for dispatch			
	(5) Remarks or exceptions			
<b>23-11-1 Long range communication systems</b> 23-11-1A (ALL)	D	–	–	Any in excess of those required by regulations may be inoperative.
<b>23-12-1 VHF communication systems</b> 23-12-1A (ALL)	D	–	–	Any in excess of those required by regulations may be inoperative.
<b>23-20-1 Datalink</b> 23-20-1A (ALL)	D	–	0	May be inoperative provided that procedures do not require its use.
<b>23-30-1 Public address system</b> 23-30-1A (ALL)	D	1	0	May be inoperative provided that procedures do not depend upon its use.
23-30-1B (ALL)	C	1	0	(O) May be inoperative provided that alternate procedures are established and used.  (O) Procedures must be established to provide alternate means for communication between the flight crew compartment and the cabin, in normal and emergency situations.
<b>23-40-1 Flight crew interphone system</b> 23-40-1 (ALL)	D	–	–	Any in excess of those required by regulations may be inoperative.

**Additional considerations:**



- **23-10-2 Audio selection panels:** There may be components of the audio control panel that are inoperative; however, the panel is still adequate for flight. The item does not address subcomponents, and it is considered to be the pilot-in-command’s decision to dispatch with necessary equipment that is operative.
- **23-10-3 Flight crew compartment speakers:** It should be ensured that the affected flight crew compartment speaker is not used for crew intercommunication when smoke masks are used unless single pilot operations are conducted. Indeed, with smoke masks on, a typical installation has the pilot talking through the co-pilot’s speaker and the co-pilot through the pilot’s speaker. If there are emergency procedures (e.g. smoke) which require the crew to establish communication, then relief for both cannot be granted, but depending on the flight test results, relief for one may be possible.

All aural alerts, messages and other communication which are normally routed through the flight crew compartment speakers should remain audible through the headsets.

- **23-30-1 Public address system:** 23-30-1B: The alternate procedures will have to be developed to account for any procedures that are based on the use of the public address system, particularly in areas such as lavatories.

**Aircraft applicability: Aeroplanes & Helicopters**

ATA CHAPTER: 24 Electrical		PAGE: 24-x		
(1) System & sequence numbers item	(2) Rectification interval	(3) Number installed		
		(4) Number required for dispatch	(5) Remarks or exceptions	
<b>24-40-1 External power system</b> <del>24</del> -40-1A (ALL)	D	1	0	May be inoperative.

**Aircraft applicability: Aeroplanes & Helicopters**

ATA CHAPTER: 25 Equipment and furnishings		PAGE: 25-x	
(1) System & sequence numbers item	(2) Rectification interval	(3) Number installed	(4) Number required for dispatch
<b>25-11-1 Flight crew compartment seats</b> <b>25-11-1-1 Power adjustments</b> 25-11-1-1A (ALL)	D	–	0
<b>25-11-1-2 Manual adjustments</b> 25-11-1-2-1 Horizontal 25-11-1-2-1A (ALL)	C	–	0
25-11-1-2-2 Vertical 25-11-1-2-2A (ALL)	C	–	0
25-11-1-2-2B (ALL)	C	–	0
<b>25-11-1-3 Other adjustments except horizontal and vertical adjustments</b> 25-11-1-3A (ALL)	C	–	0
(5) Remarks or exceptions  May be inoperative.  (M) May be inoperative provided that: (a) the affected seat is secured and locked, (b) the position is acceptable to the flight crew member, and (c) the seat position when the seat is used allows a full travel of the flight controls.  (M) Procedures must be established to secure the seat position.  May be inoperative provided that the associated power adjustment of the affected seat is operative.  (M) May be inoperative provided that: (a) the affected seat is secured or locked, and (b) the position is acceptable to the flight crew member.  (M) Procedures must be established to secure the seat position.  (M) May be inoperative provided that: (a) the affected seat is secured or locked, and (b) the position is acceptable to the flight crew member.  <u>Note:</u> If an inoperative armrest hinders an emergency evacuation or any other flight crew compartment duties, it should be removed. (M) Procedures must be established to secure the seat position.			

**Aircraft applicability: Aeroplanes & Helicopters**

ATA CHAPTER: 25 Equipment and furnishings		PAGE: 25-x	
(1) System & sequence numbers item	(2) Rectification interval	(3) Number installed	(4) Number required for dispatch
			(5) Remarks or exceptions
(continued)			
<b>25-11-1-4</b> <b>Safety harnesses</b> 25-11-1-4A      (ALL)	C	– 1	Any in excess of <b>those required by regulations</b> <del>one</del> may be inoperative provided <b>that</b> : (a) the flight is conducted in single pilot operations, and (b) the affected seat is not occupied.
<b>25-11-1-5</b> <b>Crew seat armrest</b> 25-11-1-5A      (ALL)	C	– 0	(M) May be inoperative provided <b>that</b> : (a) it <del>doesn't</del> <b>does not</b> hinder emergency egress, and (b) it <del>doesn't</del> <b>does not</b> block access to the flight controls or restrict any other flight deck duties.  <i>(M) Procedures must be established to remove an inoperative armrest if it may harm the crew member.</i>
<b>25-21-1</b> <b>Passenger seats</b> 25-21-1A          (ALL)	D	– –	(M) May be inoperative provided <b>that</b> : (a) <b>the</b> inoperative seat does not block an emergency exit, (b) <b>the</b> inoperative seat does not restrict any passenger from access to the main aeroplane aisle, and (c) <b>the</b> affected seat(s) are blocked and placarded 'DO NOT OCCUPY'.  <u>Note:</u> A seat with an inoperative or missing occupant restraint system (seat belt, safety harness, as applicable) is considered <b>to be</b> inoperative.  <i>(M) Procedures must be established to:</i> – <i>provide guidance for identifying the affected seat(s), and</i> – <i>provide a practical means of prohibiting the use of the affected seat(s).</i>
(continued)			

**Aircraft applicability: Aeroplanes & Helicopters**

ATA CHAPTER: 25 Equipment and furnishings		PAGE: 25-x		
(1) System & sequence numbers item	(2) Rectification interval	(3) Number installed	(4) Number required for dispatch	
			(5) Remarks or exceptions	
(continued)				
25-21-1-1 Recline functions				
25-21-1-1A (ALL)	D	–	–	(M) May be inoperative and the seat may be occupied provided that the seat is secured in the take-off and landing position. <i>(M) Procedures must be established to provide a practical means of securing the seat in the take-off and landing position.</i>
25-21-1-1B (ALL)	C	–	–	May be inoperative provided that the seat back is immovable in the take-off and landing position.
25-21-1-2 Under seat baggage restraining bars				
25-21-1-2A (ALL)	D	–	–	May be inoperative or missing provided that: (a) baggage is not stowed under the associated seat, and (b) the associated seat is placarded 'DO NOT STOW BAGGAGE UNDER THIS SEAT'.
25-21-1-3 Passenger seat armrests with recline control mechanism				
25-21-1-3A (ALL)	D	–	–	(M) May be inoperative, damaged or missing, provided that: (a) the armrest does not block an emergency exit, (b) the armrest is not in such a position that it restricts any passengers from accessing the aeroplane's aisle, and (c) if the armrest is missing, the associated seat is secured in the full upright position. <i>(M) Procedures must be established to provide a practical means of securing the associated seat in the full upright position.</i> <i>(M) Procedures must be established to remove any damaged armrest which may harm the passenger.</i>
(continued)				

**Aircraft applicability: Aeroplanes & Helicopters**

ATA CHAPTER: 25 Equipment and furnishings		PAGE: 25-x	
(1) System & sequence numbers item	(2) Rectification interval		
(continued)  25-21-1-4 Passenger seat armrests without recline control mechanism  25-21-1-4A (ALL)          25-21-1-5 Swivel/travel mechanisms  25-21-1-5A (ALL)          25-21-1-5B (ALL)	D	-	(3) Number installed
			(4) Number required for dispatch
			(5) Remarks or exceptions
			(5) Remarks or exceptions
			(M) May be inoperative, damaged or missing, provided that: (a) <b>the</b> armrest does not block an emergency exit, and (b) <b>the</b> armrest is not in such a position that it restricts any passengers from accessing the aeroplane's aisle.  <i>(M) Procedures must be established to remove any damaged armrest which may harm the passenger.</i>
			(M) May be inoperative provided <b>that</b> : (a) <b>the</b> associated seat is secured in the take-off and landing position, and (b) <b>the</b> associated seat does not restrict emergency egress.  <i>(M) Procedures must be established to provide a practical means of securing the associated seat in the take-off and landing position.</i>
	C	-	May be inoperative provided <b>that</b> the associated seat is immovable in the take-off and landing position.

**Aircraft applicability: Aeroplanes**

ATA CHAPTER: 25 Equipment and furnishings		PAGE: 25-x	
(1) System & sequence numbers item	(2) Rectification interval		
(continued)			(3) Number installed
			(4) Number required for dispatch
			(5) Remarks or exceptions
			(5) Remarks or exceptions

ATA CHAPTER: 25 Equipment and furnishings		PAGE: 25-x	
(1) System & sequence numbers item	(2) Rectification interval	(3) Number installed	(4) Number required for dispatch
			(5) Remarks or exceptions
<b>25-60-1 Electrical torches/flashlights (incl. holders)</b> 25-60-1A (SPO/NCO) 25-60-1B (ALL)	D	– 0	May be inoperative or missing for daylight operations. <del>Any in excess of those required for the intended flight may be inoperative or missing</del> (M) May be inoperative or missing provided that: (a) each required flight crew member has an operative independent portable light readily available. (b) the inoperative unit is removed from its installed location, secured out of sight and placarded as inoperative.  (M) Procedures must be established to: — provide instructions to placard the inoperative unit and its installed location, and — secure the inoperative unit in an out-of-sight location if possible.
<b>25-60-2 Life rafts</b> 25-60-2A (ALL)	D	– –	(M) Any in excess of those required by regulations for the intended flight may be inoperative or missing provided the inoperative unit is removed from the aeroplane, and its installed location is placarded as inoperative; or is removed from the installed location, secured out of sight, and the inoperative unit and its installed location are placarded as inoperative. (M) Procedures must be established to: — provide instructions to placard the inoperative unit and its installed location, and — secure the inoperative unit in an out-of-sight location if possible.
<b>25-60-3 Protective breathing equipment (PBE)</b>			

ATA CHAPTER: 25 Equipment and furnishings		PAGE: 25-x	
(1) System & sequence numbers item	(2) Rectification interval	(3) Number installed	(4) Number required for dispatch
25-60-3A (ALL)	D	—	—
25-60-36 Survival equipment 25-60-6A (ALL)	D	—	—
			(5) Remarks or exceptions Any in excess of those required by regulations may be inoperative or missing provided that the inoperative PBE is placarded as inoperative and is removed.  Note: Inoperative PBE units may be subject to dangerous goods requirements.  (M) Any in excess of those required by regulations for the intended flight may be inoperative or missing provided that the inoperative unit is removed from the aeroplane and its installed location is placarded as inoperative; or is removed from the installed location, secured out of sight, and the inoperative unit and its installed location are placarded as inoperative. (M) Procedures must be established to: <ul style="list-style-type: none"> <li>— provide instructions to placard the inoperative unit and its installed location, and</li> <li>— secure the inoperative unit in an out-of-sight location.</li> </ul>

**Aircraft applicability: Helicopters**

ATA Chapter: 25 Equipment/Furnishings			
(1) System & sequence numbers ITEM	(2) Rectification Interval	(3) Number installed	(4) Number required for dispatch
25-60-7 Emergency Flotation Equipment			
25-60-7A (NCO/non-commercial SPO)	D	—	0
25-60-7B (ALL)	D	—	0
			(5) Remarks or Exceptions Any in excess of those required by regulations may be inoperative.  May be inoperative for flights over land (including take-offs and landings).

25-60-7C	(Performance Class 1)	C	-	0	May be inoperative for flights over water at a distance from land not beyond 10 minutes flying time, at normal cruise speed.
25-60-7D	(Performance Class 2)	C	-	0	May be inoperative provided that: (a) take-offs and landings are not performed over water, and (b) en route operations are not conducted over water at a distance from land that is beyond 10 minutes flying time, at normal cruise speed.
25-60-7E	(Performance Class 3)	C	-	0	May be inoperative provided that: (a) take-offs and landings are not performed over water, and (b) flights are not conducted over water beyond the safe forced-landing distance.

**Aircraft applicability: Aeroplanes & Helicopters**

ATA CHAPTER: 25 Equipment and furnishings				PAGE: 25-x
(1) System & sequence numbers item		(2) Rectification interval		
		(3) Number installed		
		(4) Number required for dispatch		
		(5) Remarks or exceptions		
25-61-1	Crash axes and crowbars			
25-61-1A	(ALL)	D	-	-
25-62-1	First-aid kits			
25-62-1A	(ALL)	D	-	1
25-62-1B	(ALL Helicopters)	A	-	0
	(continued)			



**Aircraft applicability: Aeroplanes & Helicopters**

ATA CHAPTER: 25 Equipment and furnishings		PAGE: 25-x		
(1) System & sequence numbers item	(2) Rectification interval			
	(3) Number installed	(4) Number required for dispatch	(5) Remarks or exceptions	
(continued)				
<b>25-63</b> <b>Emergency locator transmitters</b>				
<b>25-63-1</b> <b>Automatic emergency locator transmitters</b>				
25-63-1A    (ALL)	D	—	—	Any in excess of those required by regulations may be inoperative.
25-63-1B    (ALL aeroplanes)	A	—	0	May be inoperative for a maximum of 6 flights or 25 flight hours, whichever occurs first.
<b>25-63-1C</b> <b>ELT(AF)/ELT(AP) (ALL Helicopters)</b>	<b>A</b>	<b>—</b>	<b>0</b>	<b>May be inoperative provided that:</b>  (a) the helicopter is not operated for more than 6 hours after the ELT was found to be inoperative, and (b) a maximum of 24 hours have elapsed since the ELT was found to be inoperative.
<b>25-63-1D</b> <b>ELT(AD) (ALL helicopters)</b>	<b>C</b>	<b>—</b>	<b>0</b>	May be inoperative for overland operations, or overwater operations at a distance from land that is not beyond 10 minutes flying time at normal cruise speed.
<b>25-63-2</b> <b>Survival emergency locator transmitters</b>				
25-63-2A    (NCO)	D	—	0	Any in excess of those required by regulations may be inoperative or missing.
25-63-2B    (CAT/SPO)	D	—	—	(M) Any in excess of those required by regulations for the intended flight may be inoperative or missing provided that the inoperative unit is removed from the aeroplane aircraft and its installed location is placarded as inoperative; or is removed from the installed location, secured out of sight, and the inoperative unit and its installed location are placarded as inoperative. (M) Procedures must be established to:  — provide instructions to placard the inoperative unit and its installed location,  — secure the inoperative unit in an out-of-sight location.

ATA CHAPTER: 25 Equipment and furnishings				PAGE: 25-x
(1) System & sequence numbers item	(2) Rectification interval	(3) Number installed	(4) Number required for dispatch	(5) Remarks or exceptions
(continued)				
25-63-2C (NCO)	A	–	0	May be inoperative for a maximum of 6 flights or 25 flight hours, whichever occurs first.
<b>25-63-3 Personal locator beacons (PLB)</b>				
25-63-3A (NCO)	D	–	–	Any in excess of those required <b>by regulations</b> may be inoperative or missing.
25-63-3A (NCO)	A	–	0	May be inoperative for a maximum of 6 flights or 25 flight hours, whichever occurs first.
(continued)				

**Aircraft applicability: Aeroplanes & Helicopters**

ATA CHAPTER: 25 Equipment and furnishings				PAGE: 25-x
(1) System & sequence numbers item	(2) Rectification interval	(3) Number installed	(4) Number required for dispatch	(5) Remarks or exceptions
(continued)				
<b>25-64-1 Life jackets (or equivalent individual flotation devices)</b>				
25-64-1A (ALL)	D	–	–	<p>(M) Any in excess of those required <b>by regulations</b> for the intended flight may be inoperative or missing provided <b>that</b>:</p> <p>(a) <b>the</b> required distribution of operative units is maintained throughout the aircraft, and</p> <p>(b) the inoperative unit is removed from the <del>aeroplane</del> <b>aircraft</b> and its installed location is placarded <b>as</b> inoperative; or <b>is</b> removed from the installed location, secured out of sight, and the inoperative unit and its installed location are placarded <b>as</b> inoperative.</p> <p><i>(M) Procedures must be established to:</i></p> <ul style="list-style-type: none"> <li>— <i>provide instructions to placard the inoperative unit and its installed location,</i></li> <li>— <i>secure the inoperative unit in an out-of-sight location.</i></li> </ul>

**Additional considerations:**

- **25-11-1-4 Flight crew compartment seats — Safety harnesses:** Padding may be part of the ETSO/TSO, and **if it is, padding is** therefore required.
- **25-21-1 Passenger seats:**
  - 25-21-1A:

Any damage to passenger seats and components must not be detrimental to passenger safety.

This item and **the** associated sub-items do not include tray tables that may, if **they are** inoperative in the non-stowed position, render the seat by itself or the seat row (behind the seat to which the tray table is attached) inoperative. A tray table **that is** inoperative in the stowed position is considered **as to be** a passenger convenience item.

For single aisle configurations, the affected seat(s) may include the seat behind and/or the adjacent outboard seats.
  - 25-21-1-1:

Any damage to passenger seats and components must not be detrimental to passenger safety.

The seat reclined position can be failed in the take-off and landing position other than the full upright position, ~~when~~ **if** the seat has been certified **for** ~~to~~ this alternate position.
  - 25-21-1-2:

Any damage to passenger seats and components must not be detrimental to passenger safety.

The certification basis of the seat or seat assembly will need to be verified to determine whether an inoperative or missing under seat baggage restraining bar affects the integrity of the seat.
  - 25-21-1-3/4/5:

Any damage to passenger seats and components must not be detrimental to passenger safety.
- **25-60-7 Emergency Flotation Equipment:** the need for additional deactivation/securing conditions should be considered, based on the design of the system.
- **25-63-1 Automatic emergency locator transmitters ELT(AF)/ELT(AP)/ELT(AD) and 25-63-2 Survival Emergency Locator Transmitters ELT(S):**

An emergency locator transmitter (ELT) is a generic term describing equipment which broadcasts distinctive signals on designated frequencies and, depending on the application, may be activated by impact or manually. An ELT is one of the following:

Automatic fixed (ELT(AF)): an automatically activated ELT which is permanently attached to an ~~aeroplane~~ **aircraft**;

Automatic portable (ELT(AP)): an automatically activated ELT which is rigidly attached to an aeroplane but readily removable from the ~~aeroplane~~ **aircraft**;

Automatic deployable (ELT(AD)): an ELT which is rigidly attached to the ~~aeroplane~~ **aircraft** and which is automatically deployed and activated by impact and, in some cases, also by hydrostatic sensors. Manual deployment is also provided; and

Survival ELT (ELT(S)): an ELT which is removable from an **aeroplane aircraft**, stowed so as to facilitate its ready use in an emergency, and manually activated by survivors.

An ELT(S) may be activated manually or automatically (e.g. by water activation). It should be designed to be attached to a life raft or a survivor.

**Aircraft applicability: Aeroplanes & Helicopters**

ATA CHAPTER: 26 Fire protection				PAGE: 26-x	
(1) System & sequence numbers item	(2) Rectification interval		(3) Number installed		
			(4) Number required for dispatch	(5) Remarks or exceptions	
<b>26-24-1 Hand fire extinguishers</b> 26-24-1A (ALL)	D	–	–	Any in excess of those required by <b>regulations</b> <del>the operating rules</del> may be inoperative or missing.	
<del>25-60-1 Protective breathing equipment (PBE)</del> <del>25-60-1A (ALL)</del>	<del>D</del>	<del>–</del>	<del>–</del>	<del>Any in excess of those required may be inoperative or missing provided that the inoperative PBE is placarded inoperative and removed.</del>  <del>Note: Inoperative PBE units may be subject to dangerous goods requirements.</del>	

**Aircraft applicability: Aeroplanes**

ATA CHAPTER: 27 Flight controls				PAGE: 27-x	
(1) System & sequence numbers item	(2) Rectification interval		(3) Number installed		
			(4) Number required for dispatch	(5) Remarks or exceptions	
<b>27-10-1 Aileron trim tab position indication</b>					

ATA CHAPTER: 27 Flight controls		PAGE: 27-x	
(1) System & sequence numbers item	(2) Rectification interval	(3) Number installed	
		(4) Number required for dispatch	(5) Remarks or exceptions
27-10-1A (ALL)	C	1 0	(O) May be inoperative provided that: (a) the tab is visually checked for its full range of operation, (b) the operation of the tab operation is not restricted, and (c) the tab is positioned to NEUTRAL (or the recommended AFM setting) and the appropriate setting is verified by visual inspection prior to each departure.
<b>27-20-1 Rudder trim tab position indication</b>			
27-20-1A (ALL)	C	1 0	(O) May be inoperative provided that: (a) the tab is visually checked for its full range of operation, (b) the operation of the tab operation is not restricted, and (c) the tab is positioned to NEUTRAL (or the recommended AFM setting) and the appropriate setting is verified by visual inspection prior to each departure
<b>27-30-1 Elevator trim tab position indication</b>			
27-30-1A (ALL)	C	1 0	(O) May be inoperative provided that: (a) the tab is visually checked for its full range of operation, (b) the operation of the tab operation is not restricted, and (c) the tab is positioned to NEUTRAL (or the recommended AFM setting) and the appropriate setting is verified by visual inspection prior to each departure.
(continued)			

**Aircraft applicability: Aeroplanes**

ATA CHAPTER: 27 Flight controls		PAGE: 27-x		
(1) System & sequence numbers item	(2) Rectification interval	(3) Number installed	(4) Number required for dispatch	(5) Remarks or exceptions
(continued)				
<b>27-31-1 Electric elevator trim system</b>				
27-31-1A (ALL)	C	1	0	<p>(M) May be inoperative provided that:</p> <p>(a) the manual trim is checked to be operative, and</p> <p>(b) the electric trim is deactivated.</p> <p>(M) Procedures must be established to:</p> <ul style="list-style-type: none"> <li>– deactivate the electric trim system, and</li> <li>– ensure that the manual trim is not affected</li> </ul>
<b>27-50-1 Flaps position indication</b>				
27-50-1A (ALL)	C	1	0	<p>(O) May be inoperative provided that:</p> <p>(a) prior to each flight, the flaps are visually checked for their full travel,</p> <p>(b) the operation of the flaps operation is not restricted, and</p> <p>(c) the flaps are visually checked for their proper setting prior to each departure.</p>
<b>27-70-1 Gust lock</b>				
27-70-1A (ALL)	C	1	0	<p>(M) May be inoperative provided that the gust lock is secured in the unlocked position.</p> <p>(M) Procedures must be established to secure the gust lock in the unlocked position.</p>

**Additional considerations:**

- **27-31-1 Electric elevator trim system:** The A autopilot, if installed, may have to be disconnected.
- **27-50-1 Flaps position indication:** The C crew should be able to visually check the position of the flaps position without having to leave the flight deck.
- **27-70-1 Gust lock:** AFM limitations, if any, must be respected with the inoperative gust lock inoperative. Any other systems that are impacted by the gust lock that is failed in the locked position need to be considered.

**Aircraft applicability: Aeroplanes & Helicopters**

ATA CHAPTER: 28 Fuel		PAGE: 28-x	
(1) System & sequence numbers item	(2) Rectification interval	(3) Number installed	(4) Number required for dispatch
<b>28-40-1 Fuel quantity indication</b> 28-40-1A (ALL)	C	-	1
			(5) Remarks or exceptions
			(O) Any in excess of one may be inoperative provided <b>that</b> a reliable means is established to determine that <b>the</b> fuel quantity on board meets the regulatory requirements for <b>the</b> flight.  <i>(O) Procedures must be established to determine that <b>the</b> fuel quantity on board meets the regulatory requirements for <b>the</b> flight.</i>

**Additional considerations:**

- **28-40-1 Fuel quantity indication:** This proposal is made for tanks with interconnected outlets **that** functioning as a single tank, such that individual tanks cannot be isolated. Fuel migration from one wing to the other **also** needs **also** to be considered.

**Aircraft applicability: Aeroplanes**

ATA CHAPTER: 30 Ice & rain protection		PAGE: 30-x	
(1) System & sequence numbers item	(2) Rectification interval	(3) Number installed	(4) Number required for dispatch
<b>30-00-1 Inertial separators – Position indicating system</b> 30-00-1A (CAT/SPO)	B	-	0
			(5) Remarks or exceptions
30-00-1A (NCO)	C	-	0
<b>30-10-1 Airframe aerodynamic surface ice protection</b> 30-10-1A (CAT/SPO)	B	-	0
			(5) Remarks or exceptions
			May be inoperative provided <b>that</b> operations are not conducted in known or forecasted icing conditions.  May be inoperative provided <b>that</b> operations are not conducted in known or forecasted icing conditions.  One or more may be inoperative provided <b>that</b> operations are not conducted in known or forecasted icing conditions.

ATA CHAPTER: 30 Ice & rain protection		PAGE: 30-x		
(1) System & sequence numbers item	(2) Rectification interval	(3) Number installed		
		(4) Number required for dispatch	(5) Remarks or exceptions	
30-10-1B (NCO)	C	0	One or more may be inoperative provided <b>that</b> operations are not conducted in known or forecasted icing conditions.	
<b>30-31-1 Pitot heating system</b> 30-31-1A (CAT)	B	1	(O) Any in excess of one may be inoperative provided <b>that</b> : (a) operations are conducted under day VMC, (b) operations are not conducted in visible moisture or into known or forecasted icing conditions, and (c) the operative pitot heater is verified <b>as being</b> operative prior to each flight.  <i>(O) Procedures must be established for <b>the</b> required pre-flight check.</i>	
30-31-1B (CAT)	B	0	One or more may be inoperative provided <b>that</b> : (a) operations are conducted under day VFR, and (b) operations are not conducted in visible moisture or into known or forecasted icing conditions.	
(continued)				

ATA CHAPTER: 30 Ice & rain protection		PAGE: 30-x		
(1) System & sequence numbers item	(2) Rectification interval	(3) Number installed		
		(4) Number required for dispatch	(5) Remarks or exceptions	
(continued)				
30-31-1C (NCO/SPO)	B	0	May be inoperative provided <b>that</b> : (a) operations are conducted under VFR, and (b) operations are not conducted in visible moisture or into known or forecasted icing conditions.	
<b>30-31-3 Static port heating system</b>				



ATA CHAPTER: 30 Ice & rain protection				PAGE: 30-x
(1) System & sequence numbers item	(2) Rectification interval		(3) Number installed	(4) Number required for dispatch
				(5) Remarks or exceptions
(continued)				
30-31-3A (CAT)	C	–	0	May be inoperative provided <b>that</b> : (a) operations are conducted under day VFR, and (b) operations are not conducted in known or forecasted icing conditions.
30-31-3B (CAT)	B	–	1	(O) Any in excess of one may be inoperative provided <b>that</b> : (a) operations are conducted under day VMC, (b) operations are not conducted in visible moisture or into known or forecasted icing conditions, and (c) the operative static port heater is verified <b>as being</b> operative prior to each flight.  (O) Procedures must be established for <b>the</b> required pre-flight check.
30-31-3C (NCO/SPO)	C	–	0	One or more may be inoperative provided <b>that</b> : (a) operations are conducted under day VFR, and (b) operations are not conducted in known or forecasted icing conditions.
<b>30-32-1 Stall warning mounting plate heater</b>				
30-32-1A (ALL)	B	–	0	One or more may be inoperative provided <b>that</b> : (a) operations are conducted under day VMC, and (b) operations are not conducted in known or forecasted icing conditions.
(continued)				

ATA CHAPTER: 30 Ice & rain protection				PAGE: 30-x
(1) System & sequence numbers item	(2) Rectification interval		(3) Number installed	(4) Number required for dispatch
				(5) Remarks or exceptions
(continued)				

ATA CHAPTER: 30 Ice & rain protection				PAGE: 30-x	
(1) System & sequence numbers item	(2) Rectification interval		(3) Number installed	(4) Number required for dispatch	(5) Remarks or exceptions
<b>30-41-1</b> <b>Windshield heating/De-icing system</b>					
30-41-1A      (ALL)	C	–	0		May be inoperative provided that operations are not conducted in known or forecasted icing conditions.
<b>30-61-1</b> <b>Propeller de-ice/anti-ice system</b>					
30-61-1A      (CAT/SPO)	B	–	0		One or more may be inoperative provided that operations are not conducted in known or forecasted icing conditions.
30-61-1B      (NCO)	C	–	0		One or more may be inoperative provided that operations are not conducted in known or forecasted icing conditions.

**Additional considerations:**

Relief for the above-mentioned items should be further restricted or removed when the loss of the heating/anti-icing system would impact other systems which are integrated with the considered item.

**Aircraft applicability: Aeroplanes & Helicopters**

ATA CHAPTER: 31 Indicating/Recording systems				PAGE: 31-x	
(1) System & sequence numbers item	(2) Rectification interval		(3) Number installed	(4) Number required for dispatch	(5) Remarks or exceptions
<b>31-21-1</b> <b>Clock</b>					
31-21-1A      (ALL)	C	–	0		May be inoperative provided that an accurate timepiece is operative in the flight crew compartment, and that it indicates the time in hours, minutes and seconds.  <u>Note:</u> On the basis that the timepiece required does not need to be approved, an accurate pilot’s wristwatch which indicates hours, minutes and seconds is acceptable.
<b>31-22-1</b> <b>Hour meter</b>					
31-22-1A      (ALL)	D	1	0		(O) May be inoperative provided that a procedure is established to record the flight time.

				(O) Procedures must be established to record the flight time.
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**Aircraft applicability: Aeroplanes**

ATA CHAPTER: 32 Landing gear				PAGE: 32-x
(1) System & sequence numbers item	(2) Rectification interval	(3) Number installed	(4) Number required for dispatch	(5) Remarks or exceptions
<b>32-40-1 Parking brake</b> 32-40-1A (ALL)	C	1	0	(O) May be inoperative provided that a procedure is established to prevent any movement of the aeroplane when it is stopped or parked. (O) Procedures must be established to prevent any movement of the aeroplane when it is stopped or parked.

**Additional considerations:**

- **32-40-1 Parking brake:** This item is only applicable to aeroplanes for which the parking brake is not required by certification.

**Aircraft applicability: Aeroplanes & Helicopters**

ATA CHAPTER: 33 Lights				PAGE: 33-x
(1) System & sequence numbers item	(2) Rectification interval	(3) Number installed	(4) Number required for dispatch	(5) Remarks or exceptions
<b>33-10-1 Flight crew compartment lighting</b> (Excluding internally lighted buttons/switches, emergency lights and annunciations) 33-10-1A (ALL)	C	—	0	May be inoperative for daylight operations.

ATA CHAPTER: 33 Lights		PAGE: 33-x		
(1) System & sequence numbers item	(2) Rectification interval	(3) Number installed	(4) Number required for dispatch	(5) Remarks or exceptions
33-10-1B (ALL)	C	-	-	Individual lights may be inoperative provided that: (a) sufficient lighting is operative to make each required instrument control and other device for which it is provided easily readable, and (b) the lighting configuration at dispatch is acceptable to the flight crew.
<b>33-20-1 Passenger compartment lighting</b>				
33-20-1A (ALL)	D	-	0	May be inoperative provided that passengers are not carried when the aircraft operates at night.
33-20-1B (ALL)	C	-	-	Individual lights may be inoperative provided that the lighting configuration at dispatch is acceptable to the flight crew.
<b>33-20-2 Cabin signs (Fasten seat belt/No smoking)</b>				
33-20-2A (ALL)	C	-	0	(O) May be inoperative provided that alternate procedures are established and used for briefing passengers.
33-20-2B (ALL)	D	-	0	May be inoperative provided that no passenger is carried.
<b>33-41-1 Navigation/ Position lights</b>				
33-41-1A (ALL)	C	-	0	One or more may be inoperative for daylight operations.
33-41-1B (ALL)	C	-	-	Any in excess of those required by regulations may be inoperative for night operations.
(continued)				

ATA CHAPTER: 33 Lights		PAGE: 33-x		
(1) System & sequence numbers item	(2) Rectification interval	(3) Number installed	(4) Number required for dispatch	(5) Remarks or exceptions
(continued)				
<b>33-42-1 Anti-collision light system</b>				

ATA CHAPTER: 33 Lights				PAGE: 33-x
(1) System & sequence numbers item	(2) Rectification interval	(3) Number installed		
		(4) Number required for dispatch	(5) Remarks or exceptions	
33-42-1A (CAT aeroplanes and ALL helicopters )	C	–	1	Any in excess one may be inoperative.
33-42-1B (NCO/SPO aeroplanes )	C	–	0	One or more of these may be inoperative for daylight operations.

**Aircraft applicability: Aeroplanes**

ATA CHAPTER: 33 Lights				PAGE: 33-x
(1) System & sequence numbers item	(2) Rectification interval	(3) Number installed		
		(4) Number required for dispatch	(5) Remarks or exceptions	
<b>33-43-1 Wing illumination light</b>				
33-43-1A (ALL)	D	1	0	May be inoperative for daylight operations.
33-43-1B (ALL)	C	1	0	May be inoperative provided that operations are not conducted at night into known or forecasted icing conditions.

**Aircraft applicability: Aeroplanes & Helicopters**

ATA CHAPTER: 33 Lights				PAGE: 33-x
(1) System & sequence numbers item	(2) Rectification interval	(3) Number installed		
		(4) Number required for dispatch	(5) Remarks or exceptions	
<b>33-44-1 Landing lights</b>				
33-44-1A (CAT aeroplanes)	B	–	–	50 % of landing lights may be inoperative for night operations.
33-44-1B (NCO/SPO)	C	–	1	Any in excess of one may be inoperative for night operations.
33-44-1C (ALL)	C	–	0	One or more may be inoperative for daylight operations.

**Additional considerations:**

- **33-10-1B Flight deck lighting:** Emergency lighting might need to be taken into consideration.
- **33-20-1C Passenger compartment lighting:** No reference **is** available for the level of required illumination in the cabin.
- **33-20-2 Cabin signs:** A passenger address system might have to be considered.
- **33-42-1 Anti-collision light system:** Strobe lights can be considered **as to be** anti-collision lights only if **that was** granted by **the** certification.
- **33-44-1 Landing lights:** Alternate dispatch conditions may be proposed **that are** based on the use of taxi lights if **they are** adequate for the intent of **the** purpose.
- **Additional optional lights:** Additional dispatch relief could be given for optional lights (external courtesy/utility lights, tail logo light, recognition lights).
- **Lighted switches/buttons:** Additional relief could be given on a case-by-case basis **for** a dedicated item.

**Aircraft applicability: Aeroplanes & Helicopters**

ATA CHAPTER: 34 Navigation		PAGE: 34-x	
(1) System & sequence numbers item	(2) Rectification interval	(3) Number installed	(4) Number required for dispatch
<b>34-10-1 Primary airspeed indication</b>  34-10-1A (CAT)	C	-	(5) Remarks or exceptions <u>Note:</u> Standby airspeed indication is not considered <b>as to be</b> a primary airspeed indication by this guidance.
			May be inoperative provided <b>that</b> : (a) a primary independent airspeed indication is available at each required pilot's station, <b>and</b> (b) a standby airspeed indication is available.
34-10-1B (NCO/SPO)	C	-	1
<b>34-10-2 Primary altitude indication</b>  34-10-2A (CAT)	B	-	<u>Note:</u> A secondary/standby altitude indication is not considered <b>as to be</b> a primary altitude indication.
			May be inoperative provided <b>that</b> : (a) <b>the</b> flight is conducted under VFR, (b) an independent altitude indication is available at each required pilot's station, <b>and</b> (c) an additional independent altitude indication is operative for single pilot operations.

ATA CHAPTER: 34 Navigation		PAGE: 34-x		
(1) System & sequence numbers item	(2) Rectification interval			
	(3) Number installed			
		(4) Number required for dispatch		
			(5) Remarks or exceptions	
34-10-2B (CAT)	B	–	–	<p>May be inoperative provided that:</p> <p>(a) the flight is conducted under VFR in sight of the surface, and</p> <p>(b) a primary altitude indication is available at each required pilot's station.</p>
34-10-2C (NCO/SPO)	C	–	–	<p>May be inoperative provided that:</p> <p>(a) the flight is conducted under VFR, and</p> <p>(b) an altitude indication is available at each required pilot's station.</p> <p><u>Note:</u> For single pilot operations, a secondary/standby or off-side indication may satisfy condition (b) if the visibility requirements are met.</p>
(continued)				

**Aircraft applicability: Aeroplanes**

ATA CHAPTER: 34 Navigation		PAGE: 34-x		
(1) System & sequence numbers item	(2) Rectification interval			
	(3) Number installed			
		(4) Number required for dispatch		
			(5) Remarks or exceptions	
<b>34-10-3 Turn and slip indicator</b>				
34-10-3-1 <b>Turn indication</b>				
34-10-3-1A (CAT)	B	–	0	May be inoperative for single pilot operations provided that operations are conducted under day VFR.
34-10-3-1B (ALL)	C	–	0	May be inoperative for single pilot operations provided that the standby attitude indication is operative.
34-10-3-1C (NCO/SPO)	C	–	0	May be inoperative for single pilot operations provided that operations are conducted under day VFR.

ATA CHAPTER: 34 Navigation				PAGE: 34-x
(1) System & sequence numbers item	(2) Rectification interval	(3) Number installed	(4) Number required for dispatch	(5) Remarks or exceptions
34-10-3-1D (ALL)	C	–	1	Any in excess of one may be inoperative provided that: (a) the operative turn indication is on the pilot flying side, and (b) the primary attitude indications are operative at each required pilot's station.
34-10-3-1E (ALL)	B	–	1	Any in excess of one may be inoperative provided that: (a) operations are conducted under day VMC, and (b) the primary attitude indications are operative at each required pilot's station.
<b>34-10-3-2 Slip indicator</b>				
34-10-3-2A (ALL)	C	–	1	Any in excess of one may be inoperative provided that the operative slip indicator is on the pilot flying side.
34-10-3-2B (NCO/SPO)	D	–	0	May be inoperative provided operations are conducted under day VFR.
<b>34-10-4 Vertical speed indicator</b>				
34-10-4A (CAT)	C	–	1	Any in excess of one may be inoperative provided the operative VSI is on the pilot flying side.
34-10-4B (NCO/SPO)	C	–	0	May be inoperative for day VFR operation.

**Aircraft applicability: Aeroplanes & Helicopters**

ATA CHAPTER: 34 Navigation				PAGE: 34-x
(1) System & sequence numbers item	(2) Rectification interval	(3) Number installed	(4) Number required for dispatch	(5) Remarks or exceptions
<b>34-10-3 Turn and slip indicator</b>				
<b>34-10-3-1 Turn indication</b>				
34-10-3-1A (ALL)	B	–	0	May be inoperative provided that at least one slip indicator is operative on the pilot flying side.
34-10-3-2 Slip indicator				
34-10-3-2A (ALL)	C	–	1	Any in excess of one may be inoperative provided that the operative slip indicator is on the pilot flying side.



ATA CHAPTER: 34 Navigation		PAGE: 34-x		
(1) System & sequence numbers item	(2) Rectification interval			
	(3) Number installed	(4) Number required for dispatch	(5) Remarks or exceptions	
34-10-3-2B (NCO/SPO aeroplanes)	D	– 0	May be inoperative provided that operations are conducted under day VFR.	
<b>34-10-4 Vertical speed</b>				
34-10-4A (CAT)	C	– 1	Any in excess of one may be inoperative provided that the operative VSI is on the pilot flying side.	
34-10-4B (NCO/SPO) (continued)	C	– 0	May be inoperative for day VFR operations.	

**Aircraft applicability: Aeroplanes & Helicopters**

ATA CHAPTER: 34 Navigation		PAGE: 34-x		
(1) System & sequence numbers item	(2) Rectification interval			
	(3) Number installed	(4) Number required for dispatch	(5) Remarks or exceptions	
—————(continued)				
<b>34-10-5 Outside Air Temperature (OAT) indicator</b>				
34-10-5A (ALL)	C	– 0	(O) May be inoperative provided that another air temperature indication is operative that is convertible into OAT. (O) Procedures must be established to provide guidance to the crew to convert the alternate temperature indication into OAT.	
34-10-5B (ALL)	C	– 0	May be inoperative provided that: <ul style="list-style-type: none"> <li>(a) operations are conducted under VFR,</li> <li>(b) operations are not conducted in known or forecasted icing conditions, and</li> <li>(c) weather reports indicate that at any point of the route that is intended to be flown, the OAT is within the aeroplane's aircraft's operating temperature limitations.</li> </ul>	
<b>34-15-1 Altitude alerting system</b>				

ATA CHAPTER: 34 Navigation		PAGE: 34-x		
(1) System & sequence numbers item	(2) Rectification interval	(3) Number installed	(4) Number required for dispatch	
			(5) Remarks or exceptions	
(continued)				
34-15-1A (ALL)	C	–	0	(O) May be inoperative provided that the altitude alerting system is not part of the equipment required for the intended operation. (O) Procedures must be established to specify any applicable restriction for operations that require a specific approval.
34-15-2 Radio altimeter				
34-15-2A (ALL)	C	–	0	May be inoperative provided that the approach minima or the operating procedures are not dependent upon its use.

**Aircraft applicability: Helicopters**

ATA Chapter: 34 Navigation				
(1) System & sequence numbers ITEM	(2) Rectification Interval	(3) Number installed	(4) Number required for dispatch	
			(5) Remarks or Exceptions	
34-15-3 Radio Altimeter with an Audio Voice Warning (or equivalent)				
34-15-3A (CAT)	A	–	0	(O) May be inoperative provided that: <ul style="list-style-type: none"> <li>(a) the helicopter is not operated for more than 6 hours over water since after the time when the radio altimeter was found to be inoperative,</li> <li>(b) a maximum of 24 hours have elapsed since the radio altimeter was found to be inoperative,</li> <li>(c) the helicopter is not operated over water at an altitude of less than 500 feet except during take-offs and landings, and</li> <li>(d) the helicopter does not descend below an altitude of 500 feet on approach to a landing over water unless the landing site is clearly visible to the pilot.</li> </ul>

				<b>Procedures</b> (O) To provide operational procedures to the flight crew to ensure that the applicable dispatch conditions are satisfied.
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**Aircraft applicability: Aeroplanes & Helicopters**

(1) System & sequence numbers item	(2) Rectification interval			
			(3) Number installed	(4) Number required for dispatch
				(5) Remarks or exceptions
<b>34-20-1 Stabilised direction indication</b> 34-20-1A (CAT)	C	–	1	Any in excess of one may be inoperative for single pilot operations provided that: <ul style="list-style-type: none"> <li>(a) a stabilised direction indication is operative on the pilot flying side, and</li> <li>(b) a magnetic/standby compass is operative.</li> </ul>
34-20-1B (CAT)	B	–	1	(O) Any in excess of one may be inoperative for single pilot operations provided that: <ul style="list-style-type: none"> <li>(a) operations are conducted under day VFR,</li> <li>(b) the stabilised direction indication is displayed at each required pilot's station, and</li> <li>(c) a magnetic/standby compass is operative.</li> </ul> <p>(O) Procedures must be established to ensure that there is an adequate configuration of the displays in accordance with the above condition (b).</p>
(continued)				

ATA CHAPTER: 34 Navigation			PAGE: 34-x		
(1) System & sequence numbers item	(2) Rectification interval		(3) Number installed	(4) Number required for dispatch	(5) Remarks or exceptions
(continued)					
34-20-1C (NCO/SPO)	C	–	1		Any in excess of one may be inoperative provided <b>that</b> a stabilised direction indication is operative on the pilot flying side.
34-20-1D (NCO/SPO)	C	–	0		May be inoperative on the pilot flying side for day VFR operations, in sight of the surface with <b>an</b> adequate external attitude reference.
<b>34-20-2 Primary attitude indication</b>					<b>Note:</b> <del>A</del> secondary/standby attitude indication is not considered <del>as to be</del> a primary indication.
34-20-2A (CAT)	C	–	1		Any in excess of one may be inoperative for single pilot operations provided <b>that</b> the primary attitude indication is operative on the pilot flying side.
34-20-2B (CAT)	B	–	1		(O) Any in excess of one may be inoperative provided <b>that</b> : (a) operations are conducted under VFR, (b) the primary attitude indication is displayed <del>at</del> on both pilots' stations, and (c) <b>a</b> standby attitude indication is <b>working operative</b> .  (O) Procedures must be established to ensure <b>that there is an</b> adequate configuration of the displays in accordance with the above condition (b).
34-20-2C (NCO/SPO)	C	–	1		Any in excess of one may be inoperative for single pilot operations provided <b>that</b> the primary attitude indication is operative on the pilot flying side.
(continued)					

ATA CHAPTER: 34 Navigation			PAGE: 34-x		
(1) System & sequence numbers item	(2) Rectification interval		(3) Number installed	(4) Number required for dispatch	(5) Remarks or exceptions
(continued)					
34-20-2D (NCO/SPO)	B	–	0		May be inoperative provided <b>that</b> : (a) operations are conducted under VFR, and (b) <b>a</b> standby attitude indication is operative.

ATA CHAPTER: 34 Navigation					PAGE: 34-x
(1) System & sequence numbers item		(2) Rectification interval			
		(3) Number installed			
		(4) Number required for dispatch			
		(5) Remarks or exceptions			
34-20-2E	(CAT)	B	—	0	May be inoperative for single pilot operations provided <b>that</b> : (a) operations are conducted under day VFR in sight of <b>the</b> surface with <b>an</b> adequate external attitude reference, and (b) a standby attitude indication is operative.
34-20-2F	(NCO/SPO)	C	—	0	May be inoperative for single pilot operations provided <b>that</b> operations are conducted under day VFR and in sight of the surface with <b>an</b> adequate external attitude reference.
<b>34-20-2G</b>	<b>(ALL Helicopters)</b>	<b>C</b>	<b>—</b>	<b>0</b>	<b>May be inoperative provided that:</b> <b>(a) operations are conducted under day VFR, and</b> <b>(b) operations are not conducted over water and out of sight of land, and</b> <b>(c) visibility is more than 1 500 m.</b>
34-20-3	<b>Standby attitude indication</b>				
34-20-3A	(ALL)	C	—	0	May be inoperative provided <b>that</b> the primary attitude indication is not provided through an electronic display indicator.
<b>34-20-3B</b>	<b>(ALL Helicopters)</b>	<b>C</b>	<b>—</b>	<b>0</b>	<b>May be inoperative for single pilot operations provided that operations are conducted under day VFR and in sight of the surface with an adequate external attitude reference.</b>
<b>34-22-1</b>	<b>Magnetic/Standby compass</b>				
34-22-1A	(ALL <b>aeroplanes and helicopters</b> )	B	—	0	May be inoperative for single pilot operations provided <b>that</b> : (a) a stabilised direction indication is operative on the pilot flying side, and (b) another source of magnetic heading is available and visible by the pilot flying.
34-22-1B	(ALL <b>aeroplanes</b> )	B	—	0	May be inoperative provided <b>that</b> : (a) operations are conducted under day VFR, and (b) two independent stabilised direction indications are operative.
34-22-1C	(ALL <b>aeroplanes</b> )	B	—	0	May be inoperative provided <b>that</b> : (a) two independent stabilised direction indications are operative, and (b) another source of magnetic heading is available and visible by the pilot flying.

ATA CHAPTER: 34 Navigation		PAGE: 34-x		
(1) System & sequence numbers item	(2) Rectification interval			
	(3) Number installed	(4) Number required for dispatch	(5) Remarks or exceptions	
34-22-1D (ALL helicopters)	B	—	0	May be inoperative provided that: (a) operations are conducted under day VFR, and (b) the flight is conducted over routes that are navigated by reference to visual landmarks.
34-22-1E (ALL helicopters)	B	—	0	May be inoperative provided that: (a) two independent stabilised direction indications are operative, and (b) the flight is conducted over routes that are navigated by reference to visual landmarks.
(continued)				

ATA CHAPTER: 34 Navigation		PAGE: 34-x		
(1) System & sequence numbers item	(2) Rectification interval			
	(3) Number installed	(4) Number required for dispatch	(5) Remarks or exceptions	
(continued)				
34-31-1 Marker beacon				
34-31-1A (ALL aeroplanes)	C	—	0	May be inoperative under IFR operations provided that the approach procedures do not require marker fixes.
34-31-1B (ALL aeroplanes and helicopters)	D	—	0	May be inoperative under VFR operations.
34-32-1 Approach aids (e.g. ILS, Satellite-Based Augmentation System (SBAS))				
34-32-1A (ALL aeroplanes)	B	—	0	May be inoperative under IFR operations provided that approaches where in which navigation is based on the affected item, are not included in the flight plan.
34-32-1B (ALL aeroplanes and helicopters)	D	—	0	May be inoperative under VFR operations.
34-40-1 Airborne collision avoidance system (ACAS)				

ATA CHAPTER: 34 Navigation				PAGE: 34-x
(1) System & sequence numbers item	(2) Rectification interval	(3) Number installed	(4) Number required for dispatch	(5) Remarks or exceptions
34-40-1A (CAT)	C	–	0	(O)(M) May be inoperative provided <b>that</b> : (a) <b>the</b> ACAS is deactivated, and (b) operating procedures do not require its use.  <i>(O) Procedures must be established to provide alternate crew procedures, as applicable. (M) Procedures must be established to deactivate <b>the</b> ACAS.</i>
34-40-1B (NCO/SPO)	D	–	0	(O)(M) May be inoperative provided <b>that</b> : (a) <b>the</b> ACAS is deactivated, and (b) operations are not conducted in an airspace where <b>the</b> ACAS is required.  <i>(M) Procedures must be established to deactivate <b>the</b> ACAS.</i>
(continued)				

ATA CHAPTER: 34 Navigation				PAGE: 34-x
(1) System & sequence numbers item	(2) Rectification interval	(3) Number installed	(4) Number required for dispatch	(5) Remarks or exceptions
(continued)				
<b>34-41-1 Weather detection system</b> (Antenna, transceiver, controllers, displays)				
34-41-1A (CAT unpressurised <del>aeroplanes</del> /SPO unpressurised <del>aeroplanes</del> /NCO <b>aeroplanes and helicopters</b> )	D	–	0	May be inoperative.
34-41-1B (CAT pressurised aeroplanes/SPO pressurised aeroplanes)	C	–	0	May be inoperative provided <b>that</b> operations are conducted in day VMC.
34-41-1C (CAT pressurised aeroplanes/SPO pressurised aeroplanes)	C	–	0	May be inoperative provided <b>that</b> no thunderstorm or other potentially hazardous weather conditions, regarded as detectable with the airborne weather detection system, are forecasted along the intended flight route.

ATA CHAPTER: 34 Navigation		PAGE: 34-x		
(1) System & sequence numbers item	(2) Rectification interval	(3) Number installed		
		(4) Number required for dispatch	(5) Remarks or exceptions	
34-41-1-1 Wind shear detection/Warning system predictive function				
34-41-1-1A (ALL)	C	–	0	May be inoperative.

**Aircraft applicability: Aeroplanes**

ATA CHAPTER: 34 Navigation		PAGE: 34-x		
(1) System & sequence numbers item	(2) Rectification interval	(3) Number installed		
		(4) Number required for dispatch	(5) Remarks or exceptions	
<b>34-43-1 Terrain awareness warning system (Class B TAWS)</b>				
34-43-1A (ALL)	D	–	0	May be inoperative.
34-43-1-1 Modes 1 and 3				
34-43-1-1A (ALL)	C	–	0	One or more modes may be inoperative provided that the forward looking terrain avoidance (FLTA) and premature descent alert (PDA) functions are operative.
34-43-1-2 Glideslope deviation (Mode 5)				
34-43-1-2A (ALL)	B	–	0	May be inoperative.
34-43-1-2B (ALL)	C	–	0	May be inoperative for day VMC only.
34-43-1-3 FLTA and PDA functions				
(continued)				



ATA CHAPTER: 34 Navigation		PAGE: 34-x		
(1) System & sequence numbers item	(2) Rectification interval			
	(3) Number installed	(4) Number required for dispatch	(5) Remarks or exceptions	
(continued) 34-43-1-3A (ALL)	B	–	0	May be inoperative provided that: (a) modes 1 and 3 are operative, and (b) the approach procedures do not require its use.
34-43-1-4 Advisory call-outs				
34-43-1-4A (ALL)	C	–	0	(O) May be inoperative provided that: (a) low-visibility approaches that require the use of affected call-outs are not performed, and (b) alternate procedures are established and used.  <u>Note:</u> Check flight manual limitations for approach minima.  (O) Procedures must be established to provide alternate crew procedures, as applicable.
(continued)				

**Aircraft applicability: Aeroplanes & Helicopters**

ATA CHAPTER: 34 Navigation		PAGE: 34-x		
(1) System & sequence numbers item	(2) Rectification interval			
	(3) Number installed	(4) Number required for dispatch	(5) Remarks or exceptions	
(continued) <b>34-51-1 Navigation systems (based on VOR, DME, ADF, Global Navigation Satellite System, Inertial Navigation System)</b>				

ATA CHAPTER: 34 Navigation				PAGE: 34-x
(1) System & sequence numbers item	(2) Rectification interval		(3) Number installed	(4) Number required for dispatch
34-51-1A (CAT)	C	–	–	(5) Remarks or exceptions (O) One or more may be inoperative provided that: (a) the navigation systems required for each segment of the intended flight route are operative, and (b) alternate procedures are established and used, where applicable.  <i>(O) Procedures must be established to give alternate procedures in case existing operational procedures are affected.</i>
34-51-1B (NCO/SPO)	D	–	–	(O) One or more may be inoperative provided that: (a) the navigation systems required for each segment of the intended flight route are operative, and (b) alternate procedures are established and used, where applicable.  (O) Procedures must be established to give alternate procedures in case the existing operational procedures are affected.
(continued)				

ATA CHAPTER: 34 Navigation				PAGE: 34-x
(1) System & sequence numbers item	(2) Rectification interval		(3) Number installed	(4) Number required for dispatch
(continued)				(5) Remarks or exceptions
<b>34-54-1</b> Secondary Surveillance Radar (SSR) transponder mode A/C				
34-54-1A (ALL)	D	–	–	Any in excess of those required to be operative by the airspace may be inoperative.
<b>34-54-2</b> SSR transponder mode S				
34-54-2A (ALL)	D	–	–	Any in excess of those required for the intended flight route may be inoperative.  <u>Note:</u> An SSR transponder with an operative Mode S function is defined as a transponder which can provide, at least, elementary surveillance capability.

ATA CHAPTER: 34 Navigation				PAGE: 34-x
(1) System & sequence numbers item	(2) Rectification interval			
	(3) Number installed	(4) Number required for dispatch		
		(5) Remarks or exceptions		
34-54-2B (ALL)	C	–	0	<p>One or more may be inoperative provided that permission is obtained from the Air Navigation Service Provider(s) when required for the intended flight route.</p> <p><u>Note 1:</u> An SSR transponder with an operative mode S function is defined as a transponder which can provide, at least, elementary surveillance capability.</p> <p><u>Note 2:</u> Elementary surveillance (ELS) capability (Mode S including aeroplane aircraft identification and pressure altitude reporting) is required in European Mode S designated airspace.</p> <p><u>Note 3:</u> Altitude reporting, provided by an SSR transponder Mode S function, is required for ACAS II operations. Refer to item 34-40-1 for flight with ACAS II inoperative.</p> <p><u>Note 4:</u> Altitude reporting, provided by an SSR transponder Mode S function, is required for flight into RVSM airspace.</p>
(continued)				

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(1) System & sequence numbers item	(2) Rectification interval			
	(3) Number installed	(4) Number required for dispatch		
		(5) Remarks or exceptions		
(continued)				
34-54-2-1 <b>Enhanced surveillance functions</b>	D	–	0	<p>One or more downlinked aircraft parameters (DAPs) which provide enhanced surveillance may be inoperative when they are not required for the intended flight route.</p>
34-54-2-1A (ALL)				

ATA CHAPTER: 34 Navigation				PAGE: 34-x
(1) System & sequence numbers item	(2) Rectification interval	(3) Number installed	(4) Number required for dispatch	(5) Remarks or exceptions
34-54-2-1B (ALL)	C	–	0	One or more downlinked aircraft parameters (DAPs) which provide enhanced surveillance may be inoperative when they are required for the intended flight route.  Note 1: Enhanced surveillance capability is required in mode S enhanced notified airspace. Note 2: For operations in the Single European Sky, enhanced surveillance capability cannot remain inoperative more than 3 consecutive days.
34-54-2-2 Extended squitter (ADS-B out) transmissions				
34-54-2-2A (ALL)	D	–	0	One or more extended squitter transmissions may be inoperative when they are not required for the intended flight route.
34-54-2-2B (ALL)	C	–	0	One or more extended squitter transmissions may be inoperative when they are required for the intended flight route.  Note: For operations in the Single European Sky, enhanced surveillance capability cannot remain inoperative more than 3 consecutive days.

**Additional considerations:**

- **34-10-5 OAT indicator:** This item applies to reciprocating engine-powered aeroplanes of more than 2 722 kg (6 000 lbs) maximum weight and turbine engine-powered aeroplanes.
- **34-15-03 Radio Altimeter with an Audio Voice Warning:** In addition to the equipment required by CAT.IDE.H.145 of Annex IV (Part-CAT) to Regulation (EU) No 965/2012, helicopters involved in NVIS operations shall be equipped with a radio altimeter and a low height warning system that gives visual and audio warnings that are selectable by the pilot and are discernible during NVIS operation.
- **34-20-2A Primary attitude indication:** For electronic cockpits, the standby horizon must be operative.
- **34-51-1 Navigation systems:** The listed items are applicable to simple avionics architectures. In cases of more complex or more integrated architectures, the dispatch conditions need to be adapted accordingly.

**Aircraft applicability: Aeroplanes & Helicopters**

ATA CHAPTER: 35 Oxygen				PAGE: 35-x	
(1) System & sequence numbers item		(2) Rectification interval			
				(3) Number installed	
				(4) Number required for dispatch	
				(5) Remarks or exceptions	
35-00-1	Supplemental oxygen system Non-pressurised aircraft aeroplanes				
35-00-1A	(ALL)	D	–	–	Any in excess of those required by regulations may be inoperative.

**Aircraft applicability: Aeroplanes**

ATA CHAPTER: 35 Oxygen				PAGE: 35-x	
(1) System & sequence numbers item		(2) Rectification interval			
				(3) Number installed	
				(4) Number required for dispatch	
				(5) Remarks or exceptions	
35-10-1	Flight crew fixed oxygen system (Supplemental)				
35-10-1-1	Flight deck pressure indications				
35-10-1-1A	(ALL)	C	–	–	(O)(M) One or more may be inoperative provided that a procedure is used to ensure that the oxygen supply is above the minimum for the intended flight.  <i>(O)/(M) Procedures must be established to provide an alternate means to compute the available oxygen quantity, e.g. using the pressure gauge located on the bottle.</i>
35-10-1-2	Bottle gauges				
35-10-1-2A	(ALL)	C	–	0	One or more may be inoperative provided that the associated flight deck pressure indication is operative.
35-10-1-3	Additional oxygen masks (e.g. supernumerary)				
35-10-1-3A	(ALL)	D	–	–	Any in excess of those required by regulations may be inoperative.

ATA CHAPTER: 35 Oxygen		PAGE: 35-x
(1) System & sequence numbers item	(2) Rectification interval	
(continued)	(3) Number installed	
	(4) Number required for dispatch	
	(5) Remarks or exceptions	

ATA CHAPTER: 35 Oxygen		PAGE: 35-x
(1) System & sequence numbers item	(2) Rectification interval	
(continued)	(3) Number installed	
	(4) Number required for dispatch	
	(5) Remarks or exceptions	
<b>35-20-1 Passenger oxygen system (Supplemental oxygen)</b>  35-20-1A (ALL)	C	– 0  (O)(M) May be inoperative provided <b>that</b> : (a) <b>the</b> maximum altitude is limited to 10 000 ft pressure altitude, (b) an adequate supply of fresh air is provided to the cabin, and (c) <b>the</b> passengers are appropriately briefed.  <i>(O)/(M) Procedures must be established to set the aeroplane in a configuration <b>that</b> provides <del>ing</del> an adequate supply of fresh air to the cabin.</i>  <i>(O) Procedures must be established to provide a passenger briefing in accordance with the dispatch configuration.</i>  May be inoperative provided <b>that</b> no cabin occupant is carried.
35-20-1B (ALL)	D	– 0

**Additional considerations:**

- **35-20-1 Passenger oxygen system:** Fresh air is non-recirculated air.

**Aircraft applicability: Aeroplanes**

ATA CHAPTER: 38 Water/Waste		PAGE: 38-x
(1) System & sequence numbers item	(2) Rectification interval	
	(3) Number installed	
	(4) Number required for dispatch	

<b>38-30-1</b>	<b>Lavatory waste system</b>				(5) Remarks or exceptions
38-30-1A	(ALL)	D	1	0	(M) May be inoperative provided that: (a) any waste is drained, and the system is inspected for leakage, (b) the system components are deactivated, and (c) lavatory access, if applicable, is closed and placarded 'INOPERATIVE — DO NOT USE' or the affected lavatory system is placarded 'INOP – DO NOT USE'. <i>(M) Procedures must be established to drain, inspect and deactivate the system.</i>
38-30-2	<b>Pilot relief tube</b>				
38-30-2A	(ALL)	D	-	0	May be missing or inoperative provided that it is not used.

**Aircraft applicability: Aeroplanes & Helicopters**

ATA CHAPTER: 46 Information systems				PAGE: 46-x	
(1) System & sequence numbers item	(2) Rectification interval	(3) Number installed	(4) Number required for dispatch	(5) Remarks or exceptions	
<b>46-20-1</b>	<b>Electronic flight bag (EFB) systems</b>				
46-20-1A	<del>(ALL)</del>	C	-	0	(M)(O) May be inoperative provided that alternate procedures are established and used where operating procedures require the use of the affected EFB.
<b>46-20-1B</b>		<b>C</b>	<b>-</b>	<b>1</b>	(O) Any in excess of one may be inoperative provided that alternate procedures are established and used to ensure that the required backup means are available to the crew.
<b>46-20-1C</b>		<b>D</b>	<b>-</b>	<b>0</b>	May be inoperative provided that procedures do not require the use of the affected EFB.
<b>46-20-2</b>	<b>Class 2 EFB Installed Resources</b>				
46-20-2-1	Mounting device				
46-20-2-1A	<del>(ALL)</del>	C	-	1	(M)(O) Any in excess of one may be inoperative provided that the affected EFB is secured by an alternative means.

ATA CHAPTER: 46 Information systems		PAGE: 46-x	
(1) System & sequence numbers item	(2) Rectification interval	(3) Number installed	(4) Number required for dispatch
46-20-2-1B <del>(ALL)</del>	C	—	0
46-20-2-1C	D	—	0
46-20-2-2 Data connectivity			
46-20-2-2A <del>(ALL)</del>	C	—	1
46-20-2-2B <del>(ALL)</del>	C	—	0
46-20-2-2C	D	—	0
<b>46-20-3 Power connection for class 1 and class 2 Portable EFB</b>			
46-20-3A <del>(ALL)</del>	C	—	1
46-20-3B <del>(ALL)</del>	C	—	0
46-20-3C	D	—	—
<p>(5) Remarks or exceptions</p> <p>(M)(O) May be inoperative provided that:</p> <p>(a) the associated EFB is used in accordance with the Portable class 1 EFB storage criteria, and</p> <p>(b) alternate procedures are established and used where operating procedures require the use of the affected EFB.</p> <p>(M) May be inoperative provided that:</p> <p>(a) the hardware and the associated EFB are properly stored or removed from the aircraft, and</p> <p>(b) the associated EFB is considered inoperative (Refer to 46-20-1C).</p> <p>(M)(O) Any in excess of one may be inoperative provided that an alternate means of data connectivity is used.</p> <p>(M)(O) May be inoperative provided that alternate procedures are established and used where operating procedures are dependent upon the use of the affected EFB.</p> <p>May be inoperative provided that procedures do not require the use of the affected data connectivity.</p> <p>(M)(O) Any in excess of one may be inoperative provided that an alternative power source is available and can be used for the planned duration of use of the affected EFB.</p> <p>(M)(O) May be inoperative provided that alternate procedures are established and used.</p> <p>May be inoperative provided that procedures do not require the use of the affected power connection.</p> <p><i>For all entries in ATA 46:</i></p> <p><i>(M) Procedures must be established to give guidance reference for the deactivation of the affected item, as appropriate, and to provide alternate means, as applicable.</i></p> <p><i>(O) Procedures must be established to provide instructions to the crew for alternate procedures to be used.</i></p>			



<b>ATA CHAPTER: 46 Information systems</b>		PAGE: 46-x	
(1) System & sequence numbers item	(2) Rectification interval		
	(3) Number installed		
	(4) Number required for dispatch		
	(5) Remarks or exceptions		

**Additional considerations:**

- The purpose of entry 46-20-1 is not to require the inclusion of **class 1 & 2 Portable** EFBs in an operator’s MEL, but it is a means of controlling inoperative EFB equipment. Other means may also be agreed with the National Aviation Authority (NAA).

Any EFB function which operates normally may be used.

**Aircraft applicability: Aeroplanes**

<b>ATA CHAPTER: 52 Doors</b>		PAGE: 52-x		
(1) System & sequence numbers item	(2) Rectification interval			
	(3) Number installed			
	(4) Number required for dispatch			
	(5) Remarks or exceptions			
<b>52-10-1 Door key locks</b> 52-10-1 (ALL)	D	–	–	(M) May be inoperative provided that the lock is secured in the UNLOCKED position.  <i>(M) Procedures must be established to secure the lock in the unlocked position.</i>
<b>52-70-1 Cabin door warning light</b> 52-70-1A (ALL)	C	1	0	(O) May be inoperative provided that: (a) a flight crew member confirms by visual inspection that all doors are properly closed and locked prior to each departure, (b) the doors are not reopened again prior to departure, (c) the ‘Fasten Seat Belt’ sign remains ON, and (d) the passengers are briefed prior to each departure to have their seat belts fastened during the entire flight.  <i>(O) Procedures must be established to brief the passengers prior to each departure.</i>

**Aircraft applicability: Aeroplanes**

<b>ATA CHAPTER: 61 Propellers</b>	PAGE: 61-x
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(1) System & sequence numbers item	(2) Rectification interval			
<b>61-20-1 Propeller synchrophasing system</b>  61-20-1A (ALL)	C	1	0	(3) Number installed
				(4) Number required for dispatch
				(5) Remarks or exceptions
				May be inoperative.

[...]