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**Subject: NPA OPS-37**

The proposals in the above NPA have been received by the Central JAA, and are sponsored by the Medical Subcommittee in conjunction with the Operations Sectorial Team.

### **NPA Content**

NPA OPS-37 introduces requirements for Child Restraint Devices to be used in an aeroplane. The NPA also proposes to align the requirements for Emergency Locator Transmitters (ELT) with JAR-11 and to align the definitions with ICAO Annex 6, Part I.

These ELT text changes will not initiate further, nor correct, the current deviation from the ICAO standards.

### **General**

The NPA is the standard JAA procedure for consultation with the aviation community. In addition to this JAA process the National Authorities may also perform their own consultation.

The objective of the NPA consultation is to inform interested parties of the current position and to receive comments on the draft. This means that the draft text is not necessarily the final text.

**The JAA Committee expects that within the above perspective your organisation will participate efficiently in the NPA consultation. Your organisation is now invited to consider the NPA and submit comments by 1 July 2004. If no comments from your organisation by that date your agreement will be assumed.**

Y Morier  
Regulation Director

Copy: Mr. G. Rebender, JAA Operations Director

## **JOINT AVIATION AUTHORITIES**

### **NOTICE OF PROPOSED AMENDMENT (NPA) COMMENT FORM**

**1. NPA NUMBER: **NPA OPS-37****

Affected Requirement paragraph:  
Affected ACJ/AMJ or AMC/IEM paragraph:

**2. POSITION: (cross out the parts that are not applicable)**

Agree / Accept / No comment  
Propose different text / General comment  
Propose to delete paragraph

**3. PROPOSED TEXT/COMMENT:**

**Reason(s) for proposed text/comment:**

**4. ORGANISATION :**

**Address :**

**Phone :**

**Fax :**

**5. SIGNATURE** .....

**Name :**

**Date:**

## GUIDELINES TO COMMENT ON AN NPA

- 1.. For a better handling of comments we strongly recommend commentors to use this form.
- 2.. Please use **one form per comment**.
- 3.. If there is insufficient space on the form, use attachments and summarise your comments on the form.
- 4.. In case of disagreement, commentors should be aware that failure to explain the reason(s) for disagreeing may well result in the comments being laid aside for lack of understanding. For the same reason, the commentor should explain his/her position for deleting a paragraph.
- 5.. All comments must be sent to the NPA Administrator at Central JAA unless otherwise indicated in the NPA.
- 6.. Please note that, unless an extension period is granted, comments received after the stated comment date (see letter) will only be taken into account if practical.

# **NPA OPS 37: Child Restraint Devices and Emergency Locator Transmitter**

## **Explanatory note**

### **Part I : Child Restraint Devices (CRD)**

Affected paragraphs: JAR-OPS 1.630(c)  
JAR-OPS 1.730(a)  
ACJ OPS 1.730(a)(3)]

During Operations Sectorial Team (OST) meeting 2/02, EQSC presented OST WP 49/02 (later on OST WP 54-02), proposing some revised text for JAR-OPS 1.730 (a)(3) to allow the current use of certain automotive child seats and for establishing a legal basis for CRD, especially developed for use in aircraft.

To legally allow the use of a car seat in an aeroplane it is also necessary to alleviate the CRD seat from the JAR-OPS 1.630 requirement, by adding it to the list of items which are not required to comply with JAR-OPS 1.630 (a) and (b).

CSSG having now finished their work on the Temporary Guidance Material, aimed to giving guidance on the acceptable kinds of devices, it was then proposed that this TGM should be attached to JAR-OPS 1.730 as ACJ OPS 1.730(a)(3), rather than being included in AMC- 20.

It is to be noted that the entry in the list of items for which an equipment approval is not required is of an interim nature, because the work on the development for a TSO for CRD is in progress. Hence an equipment approval will be required, consequently the 'loop belt ' will be removed from the requirement and replaced with a CRD, complying with a TSO/JTSO or equivalent, as required by JAR-OPS 1.630.

### **Part II : Emergency Locator Transmitter**

Affected paragraphs: JAR-OPS 1.820  
JAR-OPS 1.830(c)  
JAR-OPS 1.835(b)  
IEM OPS 1.820  
AMC OPS 1.830(c)

With the application of JAR-11, EQSC was tasked to evaluate the Section 2 material of JAR-OPS 1 with the view of possibly move those parts to Section 1 which were supposed to be more rule text. OST then agreed to merge those AMC and IEM to one single ACJ

OPS 1.820 dealing with all kinds of ELTs. Hence, it is necessary to amend the corresponding rule texts by adding a reference to the new ACJ OPS 1.820.

In this proposal, EQSC proposed to delete the current text in Sub-paragraph 2 of the old IEM-OPS 1.820, dealing with the installation of an A-ELT. As the text has been copied from the corresponding ED-material it was suggested to be superfluous. In order to ensure clarification when interpreting the means of compliance, it is proposed to replace IEM OPS 1.820 with ACJ OPS 1.820 listing the 4 types of ELTs. When reviewing the text contained in the existing IEM OPS 1.820 and AMC OPS 1.830 it was considered to contain detail that was not required and did not add to the clarity of the description of the types of ELTs. Therefore, when drafting the proposal, the text of ICAO Annex 6 Part 1 Chapter 1, "Definitions" (sub-paragraph 1) was used. Text from sub-paragraphs 2 & 3 of the original IEM OPS 1.820 and AMC OPS 1.830(c) were retained as important explanatory material. Having included the 4 types of ELT in the proposed ACJ OPS 1.820, the EQSC felt that there was no reason to retain a separate acceptable means of compliance (1.830(c)) to describe a ELT(S) for amplifying the requirements of JAR-OPS 1.830(c) and 1835(b). It is therefore proposed to amend the references in JAR-OPS 1.830(c) and 1.835(b) to refer to ACJ OPS 1.820.

# NPA OPS 37: Child Restraint Devices and Emergency Locator Transmitter

## Part 1 : Child Restraint Devices

1. Amend JAR-OPS 1.630(c) as follows:

### JAR-OPS 1.630 General introduction

- (a) ...
- (b) ...
- (c) The following items shall not be required to have an equipment approval:
  - (1) to (9) *unchanged*
  - (10) Child restraint devices referred to in JAR-OPS 1.730(a)(3)**

*remaining text unchanged*

2. Amend JAR-OPS 1.730(a) as follows

### JAR-OPS 1.730 Seats, seat safety belts harnesses and child restraint devices

- (a) An operator shall not operate an aeroplane unless it is equipped with:
  - (1)...
  - (2)...
  - (3) A ~~supplementary loop belt or other~~ ***child*** restraint device, **acceptable to the Authority**, for each infant **(See ACJ OPS 1.730(a)(3))**;

*Remaining text unchanged*

3. Introduce a new ACJ OPS 1.730(a)(3) as follows:

### **“ACJ OPS 1.730(a)(3) Seats, seat safety belts harnesses and child restraint devices (see JAR-OPS 1.730(a)(3))**

1. General

A child restraint device (CRD) is considered to be acceptable if:

- a) It is a ‘supplementary loop belt’ manufactured with the same techniques and the same materials of the approved safety belts; or

b) It complies with paragraph 2 until specific aviation approval standards for CRDs are available and adopted by JAA.

## 2. Acceptable CRDs

Provided the CRD can be installed properly on the respective aircraft seat, the following CRDs are considered "acceptable":

### 2.1 Types of CRDs

a) CRDs approved for use in aircraft only by any JAA authority, the FAA or Transport Canada (on the basis of a national technical standard) and marked accordingly.

b) CRDs approved for use in motor vehicles according to the UN standard ECE R 44, -03 or later series of Amendments; or

c) CRDs approved for use in motor vehicles and aircraft according to Canadian CMVSS 213/213.1; or

d) CRDs approved for use in motor vehicles and aircraft according to US FMVSS No 213 and are manufactured to these standards on or after February 26, 1985. US approved CRDs manufactured after this date must bear the following labels in red lettering:

- 1) "THIS CHILD RESTRAINT SYSTEM CONFORMS TO ALL APPLICABLE FEDERAL MOTOR VEHICLE SAFETY STANDARDS" and
- 2) „THIS RESTRAINT IS CERTIFIED FOR USE IN MOTOR VEHICLES AND AIRCRAFT“.

2.2 CRDs qualified for use in aircraft according to the German „Qualification Procedure for Child Restraint Systems for Use in Aircraft“ (TÜV Doc.: TÜV/958-01/2001). These CRDs are restraint devices that conform to ECE-Regulation 44, - 03 or later series of Amendments, or equivalent aviation standards, and are moreover qualified in conjunction with specific seats/seating configurations of aeroplanes that are operated by a specific AOC holder in order to avoid installation problems and severe (head) injuries of the child occupant during turbulences and /or emergency landing conditions. These CRDs are additionally marked with a qualification sign, which shows the name of the qualifying organization and a specific identification number, which is related to the specific qualification project.

Note: The qualifying organization shall be a competent and independent organization that is acceptable to the national JAA authority.

## 3. Location

Only forward facing passenger seats shall be used for the installation of rearward facing CRDs. Forward facing CRDs may also be installed on rearward facing seats.

A CRD may not be installed within the radius of action of an airbag, unless it is obvious that the airbag is de-activated.

A child in a restraint device should be located as near to a floor level exit as feasible.

A child in a restraint device should be seated in accordance with JAR OPS 1.280 and IEM OPS 1.280, „Passenger seating“ so as to not hinder evacuation for any passenger.

A child in a restraint device should neither be located in the row leading to an emergency exit nor located in a row immediately forward or aft of an emergency exit. A window passenger seat is the preferred location. An aisle passenger seat or a cross aisle passenger seat is not recommended.

Other locations may be acceptable provided the access of neighbour passengers to the nearest aisle is not obstructed by the CRD.

In general, only one CRD per row segment is recommended. More than one CRD per row segment is allowed if the children are from the same family or travelling group provided the children are accompanied by a responsible person sitting next to them.

Note: A Row Segment is the fraction of a row separated by two aisles or by one aisle and the aircraft fuselage.

#### 4. Installation:

CRDs shall only be installed on a suitable aircraft seat with the type of connecting device they are approved or qualified for. E.g., CRDs to be connected by a three point harness only (most rearward facing baby CRDs currently available) shall not be attached to an aircraft seat with a lap belt only, a CRD designed to be attached to a vehicle seat by means of rigid bar lower anchorages (ISO-FIX or US equivalent) only, shall only be used on aircraft seats that are equipped with such connecting devices and shall not be attached by the aircraft seat lap belt. The method of connecting must be clearly shown in the manufacturer's instructions to be provided with each CRD.

All safety and installation instructions must be followed carefully.

If a forward facing CRD with a rigid backrest is to be fastened by a lap belt, the restraint device should be fastened when the backrest of the passenger seat on which it rests is in a reclined position. Thereafter, the backrest is to be positioned upright. This procedure ensures better tightening of the CRD on the aircraft seat.

The buckle of the adult safety belt must be easily accessible for both, opening and closing, and must be in line with the seat belt halves (not canted) after tightening.

Forward facing restraint devices with an integral harness must not be installed such that the adult safety belt is secured over the child.

#### 5. Operation

Each CRD shall remain secured to a passenger seat during all phases of flight, unless it is properly stowed when not in use.

Where a CRD is adjustable in recline it must be in an upright position for all occasions when passenger restraint devices are required to be used."



## Part II : Emergency Locator Transmitter (ELT)

4. Amend JAR-OPS 1.820 as follows:

**JAR-OPS 1.820 Emergency Locator Transmitter**  
(See IEM ~~ACJ~~ ACJ OPS 1.820)

*Remaining text unchanged*

5. Amend JAR-OPS 1.830 as follows:

**JAR-OPS 1.830 Life-rafts and survival ELTs for extended overwater flights**

- (a) ...  
(b) ...

(c) At least two survival Emergency Locator Transmitters (ELT(S)) capable of transmitting on the distress frequencies prescribed in ICAO Annex 10, Volume V, Chapter 2 (See ~~AMC OPS 1.830(e)~~ ACJ OPS 1.820).

6. Amend JAR-OPS 1.835 as follows:

**JAR-OPS 1.835 Survival equipment**  
(See IEM OPS 1.835)

...

- (a) ...

(b) At least one ELT(S) capable of transmitting on the distress frequencies prescribed in ICAO Annex 10, Volume V, Chapter 2 (See ~~AMC OPS 1.830(e)~~ ACJ OPS 1.820); and

*Remaining text unchanged*

7. Replace existing IEM OPS 1.820, by the following new ACJ OPS 1.820:

**ACJ OPS 1.820**  
**Emergency Locator Transmitter (ELT)**  
**See JAR-OPS 1.820, JAR-OPS 1.830(c) and JAR-OPS 1.835(b)**

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

- a. Automatic Fixed (ELT(AF)). An automatically activated ELT which is permanently attached to an aircraft;
  - b. Automatic Portable (ELT AP)). An automatically activated ELT which is rigidly attached to an aircraft but readily removable from the aircraft;
  - c. Automatic Deployable (ELT(AD)). An ELT which is rigidly attached to the aircraft and which is automatically deployed and activated by impact, and, in some cases, also by hydrostatic sensors. Manual deployment is also provided;
  - d. Survival ELT (ELT(S)). An ELT which is removable from an aircraft, stowed so as to facilitate its ready use in an emergency, and manually activated by survivors.
2. An automatic portable ELT, (ELT(AP)), as installed in accordance with JAR-OPS 1.820, may be used to replace one ELT(S) provided that it meets the ELT(S) requirements. A water activated ELT (S) as described above is not an ELT(AP).

8. Delete AMC OPS 1.830(c).