FOREWORD

The Ramp Inspection Manual has been prepared for use and guidance of DGCA inspectors for the performance of Ramp Inspection on the Aircraft operated by domestic and foreign operators. It is designed to provide foundation for promoting safety through proactive safety oversight system. The provision of this manual shall apply to the ramp inspection activities on both, domestic and foreign aircraft operators.

All subject matters pertaining to Ramp inspection activities, procedures, functions and responsibilities of DGCA offices / officers are covered in this manual.

Officers / Inspectors are expected to use good judgment while dealing with the matters where specific guidance is not available.

Date: 09 February 2016

Approved vide File No AV/22024/04/2016-FSD
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Chapter – 1

Introduction

1. 1 Ramp Inspection:-

Ramp Inspections are planned inspections carried out at ramp during schedule operation to verify the compliance of laid down standards and regulations during operation of commercial air operators. This inspections are carried out by a team of inspectors from Operations, Airworthiness, and dangerous goods covering respective area as per standard checklist.

Under Article 16 of the Convention on International Civil Aviation, States are entitled to search aircraft from other States on landing and departure and to inspect the certificates and other documents prescribed by the Convention and its Annexes, provided there is no unreasonable delay to the operation. The requirements for Inspection of foreign aircraft are covered in AIC 5/2009.

Further, paragraph 4.2.2.2 of ICAO Annex 6 (Operation of Aircraft, Part I — International Commercial Air Transport — Aeroplanes) also requires that States shall establish a programme with procedures for the surveillance of operations in their territory by a foreign operator and for taking appropriate action when necessary to preserve safety.

This Manual has been prepared for use and guidance of DGCA inspectors for the performance ramp inspection on the aircraft operated by domestic and foreign operators.

1.2 Purpose of the Ramp Inspections

The purpose of the ramp inspections is to inspect the aircraft at ramp to ascertain the organisational approach and associated procedures employed by the operator to resolve factors contributing to overall safety standards. The inspection is mainly concerned with the aircraft documents and manuals, the apparent conditions of aircraft and the presence and condition of mandatory cabin safety equipment and airworthiness standards. The applicable requirements for these inspections are:
i. The Aircraft Rules and Regulations for aircraft used by domestic operators
ii. The ICAO international standards for aircraft used by foreign operators;
iii. Manufacturers’ standards when checking the technical condition of the aircraft; and
iii. Published national standards (e.g. Aeronautical Information Publications, CARs that are declared applicable to all operators flying in the Indian Airspace.

The Annual Ramp Inspection Program of domestic and foreign carriers should be laid down and published on the DGCA website. However, unplanned / surprised ramp inspections may also be carried out by the designated teams.

Ramp inspection shall be carried out by a team comprising of trained inspectors (Operations, Airworthiness and Dangerous Goods) using Checklists as per Annexure to this Manual and holding appropriate credentials issued by DGCA.
Chapter 2

Ramp Inspection Policy

2.1 General

India being one of the contractual signatories to the convention on International Civil Aviation and a member of the International Civil Aviation Organisation (ICAO), has an obligation to promote safe, orderly and efficient operation of aviation activities. To meet state obligations, DGCA has developed Annual Surveillance Plan (ASP) to ensure effective monitoring of the safety oversight activities.

2.2 Role of DGCA with respect to Ramp Inspections:-

DGCA HQ shall ensure that Ramp inspections for domestic air carriers and foreign air carriers are conducted in a harmonized and transparent manner as per the laid down guidelines as documented in this manual. All the inspectors involved in conducting the ramp inspection must be appropriately qualified, have all appropriate knowledge, experience and initial training and recurrent training to perform their allocated tasks. The availability of qualified inspectors in the area of Operations, Airworthiness and Dangerous goods meeting the standards should be ensured by the CFOI, DDG HQ and Region/ DRI for respective inspectors. The qualification, initial and the recurrent training requirements for the inspectors are detailed in Appendix-1 of this manual.

FSD shall be the coordinating office for Ramp Inspections.

2.3 Function of FSD for Ramp Inspections

HQ coordination for Ramp Inspection is performed by FSD at HQ for day-to-day coordination of the program. To facilitate the implementation of ramp inspection activities a coordinated approach is needed at HQ level. The plan for Ramp checks should be published on DGCA website. The monitoring of the Ramp Checks shall be done similarly as other surveillance activities. The records should be stored in the eGCA data base system as and when available. A Ramp Inspection Cell within the FSD consisting of two FOIs, two AWIs and one Dy CFOI/SFOI will work under the CFOI for accomplishment of the ramp inspection programme,
The functional process flow of ramp inspection will be as depicted in the figure below;

<table>
<thead>
<tr>
<th>DDG REGION</th>
<th>Ramp inspection activity at regional location</th>
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<tr>
<td>Team of FOI, AWI, DGI</td>
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<tr>
<th>Dy CFOI/SFOI</th>
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<tr>
<td>2 FOI, 2 AWI</td>
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<thead>
<tr>
<th>CFOI</th>
<th>SRRT, SED database at FSD (data sent to SED)</th>
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</thead>
<tbody>
<tr>
<td>1 SFOI, 1 FOI</td>
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DGCA HQ will ensure that all Ramp Inspectors are trained in the Region. FSD will ensure monitoring of all SOFA findings and co-ordination with other authorities with respect to SOFA findings. Records of SOFA should be maintained in the FSD database. The Ramp Inspection Cell at HQ will ensure quality control of inspections carried out in the Regions.

FSD shall be responsible for periodic review of this manual and propose amendments for approval.

### 2.4 Function of DGCA Regional Office :-

DDG, Regions and in his absence DAW, Regions shall function as regional coordinator.
The DDG, Region shall have following function to ensure compliance of the Ramp inspection programme

- to designate teams consisting of Airworthiness, Operations and Dangerous goods inspectors for this purpose meeting the training and experience requirements as per Appendix 1 of this manual. This shall be done in coordination with the Dy CFOI/SFOI where available in the respective region.
- to plan at least three ramp inspections per week for domestic operator and one for foreign operator. Surprise checks will be planned for visiting chartered foreign operator.
- to co-ordinate with ATC to get information about visiting chartered foreign flight.
- to prioritize the ramp inspection as per the safety related information related to a specific foreign / domestic operator as required.
- to carry out a training need analysis for inspectors and request FSD DGCA, HQ to organize training if required.
- to ensure follow up actions in the case of domestic operators.
- to ensure that root cause analysis is carried out by the operators to prevent repeat findings.
- to organize regular meetings with all Inspectors to maintain a high standard of quality relating to:
  - any changes/updates to the Ramp procedures,
  - feedback on quality issues with regard to Ramp Inspection reports e.g. incorrect entry’s, mistakes, omissions, etc.,
- to carry out analysis of findings operator wise and finding wise and initiate action for improvement if required.
- to initiate investigation depending upon seriousness of findings reported and initiate enforcement action as per enforcement policy and procedures manual on the basis of investigation report if required.

Annual Ramp Program for domestic operators and foreign operator shall be prepared by DDG Region and forward to FSD for inclusion in ASP. CFOI will ensure monitor the ramp inspection plan through DDG HQ and Regions and ensure that findings are closed with root cause analysis. DDG, Region of the main base of the operator will also ensure that repeat findings are taken up with the operators to prevent recurrence of repeat findings.
DDG Region shall ensure that ramp inspection records of the operators based in their Regions are maintained fleet wise and aircraft wise. The ramp inspection data shall be forwarded to FSD for records.

2.5 Function of Ramp Inspectors:

Ramp inspectors deputed for the activities shall ensure that the planned / surprise ramp inspections are carried out efficiently following this manual as per dedicated check list and report generated and submitted to DDG, Region for onward submission to FSD. For this purpose, detailed guidelines are documented in the following chapters.
CHAPTER -3

Ramp Inspection Procedures

3.1 Ramp Inspection and related processes - Overview

a) The inspection process consists of different elements like the preparation of the inspection, the determination of which items need to be inspected and which standards to use (for domestic and foreign operators). General guidance on the ICAO references and DGCA regulation references are placed at Appendix 3 and Appendix 4 respectively.

b) If during the Ramp Inspection a deviation from the applicable Standards is established, it is considered a finding. Guidance on findings can be found in Appendix 2.

c) There are three different categories of findings, depending on the impact the finding has on the safety of the aircraft and/or its occupants. Chapter 4 provides guidance on the categorisation of findings.
3.2. General Instructions: Ramp Inspection

a) The Ramp Inspection should preferably be performed by at least 2 inspectors. The main elements of the inspection, the visual inspection of the aircraft exterior, the inspection on the flight deck and the inspection of the passenger cabin and/or cargo compartments can be divided among the inspectors.

b) Before the commencement of the inspection, the Inspectors shall identify themselves with credentials to the pilot-in-command or, in his absence, to a member of the flight crew or to the most senior representative of the operator prior to commencing the onboard part of their ramp inspection. When it is not possible to inform any representative of the operator or when there is no such representative present in or near the aircraft, the general principle will be not to perform a ramp inspection. In special circumstances, if it is decided to perform a ramp inspection, it shall be limited to a visual check of the aircraft exterior only.

c) The inspection shall be as comprehensive as possible within the time and resources available. In case of availability of only limited amount of time, the number of inspection items shall be reduced. The checklist to be used for carrying out the ramp inspection is given at the Annexure.

d) The general principle shall be that the ramp inspection shall not cause an unreasonable delay in the departure of the inspected aircraft. Possible causes for delay may be, but are not limited to, doubts regarding the correctness of the flight preparation, the airworthiness of the aircraft or any matters directly related to the safety of the aircraft and its occupants.

e) Inspectors must show tact and diplomacy when performing a Ramp Inspection. Any unnecessary contact with passengers should be avoided; however, this may be justified so as to be able to inspect certain elements in the cabin, such as:

   I. proper stowage of cabin baggage under the seat,
   II. overweight in overhead luggage bins,
   III. baggage in front of emergency exit,
   IV. infants/children over the minimum age should have their own seat,
   V. sufficient number of seats,
VI. observing the boarding process during normal operations, during refueling in progress.

f) Departure delay of an aircraft should be avoided. However, when an inspector discovers an issue which may have a major effect on flight safety or requires further investigation to be clarified, a delay may be justified, for example:

g) A certain amount of inconvenience to flight and cabin crews, handling agents and other personnel involved in ground handling activities may arise, but inspectors must do everything possible to reduce hindrance to the minimum, for example:

I. they should try to be as precise and complete as possible when asking for aeroplane documents from flight crew. This should result in a minimum of discussion time allowing the flight crew to deal with their primary task of flight preparation;

II. they should ask the senior cabin crew member to dedicate one crew member to assist them with the inspection tasks;

III. they should debrief the commander of the aircraft after the inspection task is completed;

IV. they should inform cargo loading staff of possible hindrance due to inspection task in cargo compartment;

V. when carrying out inspections on the flight deck, the flight crew should be allowed to give priority to staff directly involved in the flight preparation (e.g. fuel master, load-planning agent, handling agent pax. info, etc.).

h) Whenever possible, it is advised to contact the operator’s representative at the airport so that he/she can be present during the Ramp Inspection. Experience shows that the operator’s representative may be helpful in providing support especially in facilitating communication with the crew or operator home base.

3.3. Selection criteria

Generally Ramp Inspection activities is planned establishing a schedule for the performance of Ramp inspections in the ASP. This schedule is the
responsibility of the FSD and DDG Regions / Inspectors who have been assigned for the inspections.

The schedule may consist of:

3.3.1. Long term planning

Operators performing scheduled operations could be selected on a long-term basis for inspections, since their schedule is known to the DGCA.

3.3.2 Short term planning

Short term planning should be used for planning ramp inspection of non scheduled / chartered operators. Short term planning may be done for scheduled operators depending upon safety related information received from SED/Air Safety or any other sources.

3.3.3 Planning Criteria

As a general guideline, the number of ramp inspections to be planned are as follows:

As a general guideline, one ramp inspection per month will be carried out for every 20 aircraft with an operator.

Note 1: For subsequent increase in number of aircraft with a scheduled operator: Additional One (1) ramp inspection per 20 aircraft increase in strength.

Note 2: The number of inspections may be increased subject to nature and number of findings.

3.4 Data collection

Using the information sources, FSD DGCA should build a data base on the operator. Such a file would enable the inspector to:

- Verify the rectification of previously found non-compliances
- Select the items to be inspected if the time available does not permit a full inspection
3.5. Ramp inspection items

The Ramp Inspection checklist contains a total of 54 items. Of these checklist items, 24 relate to operational requirements (A-items) to be checked on the flight deck, 15 items address safety and cabin items (B-items), 12 items are concerning the aircraft condition (C-items) and 3 items (D-items) are related to the inspection of cargo and the cargo compartment. In case of any findings not related to the other items of the checklist, they may be administered by the E-item (General) of the checklist. Appendix 2 details the list of these items along with sample of findings as per its impact on safety.

The inspection findings and subsequent categorisation have to be reported on the SOFA/Ramp Inspection Report after completion of the inspection, even if there are no findings raised.

Depending on the items to be inspected, a SOFA/Ramp Inspection may be performed on landing or on departure of the aircraft.

3.6 Standards:-

The purpose of a Ramp inspection is to check the compliance with international standard in case of foreign operators and national standards used for ramp inspection of Aircraft of Indian operators.

The Ramp inspection on the foreign operator is carried out to check the compliance with international standards (i.e. Chicago convention, its Annexes) which are the minimum standards to be complied with by any aircraft engaged in international navigation. In addition, when inspecting the technical condition of an aircraft, it should be checked against the aircraft certification specifications and manufacturer’s standards. ICAO Reference for checking the international operator is detailed in Appendix 3

Similarly, ramp inspection on the domestic operator is carried out to check the compliance with DGCA standards (i.e. Aircraft Rules, regulations and ICAO Annexes for items which are not separately covered in DGCA regulations.). In addition, when inspecting the technical condition of an aircraft, it should be checked against the aircraft certification specifications and manufacturer’s standards. DGCA Reference along with relevant ICAO Reference for checking the national operator is detailed in Appendix 4

The applicable standard required to be reported on the ramp inspection form when ever a finding is raised.
Chapter-4

Ramp Inspection Findings

4.1 General

A SOFA/Ramp inspection aims at assessing the compliance with the applicable standards of an aircraft used in operations. A non-compliance found during an inspection is called a finding. When a deviation from a standard has been determined, the inspector should be certain that the finding is applicable to the specifics of the inbound and/or outbound flight, such findings are categorised according to the magnitude of the deviation of the requirements and to the influence on safety of the non-compliance.

When inspectors are raising issues on the ramp that may lead to the identification of findings, they should, as much as possible, document and keep records of the non-compliances detected. This could be done, for instance, by taking photographs of the deficiency itself, as well as photographs/images of the manufacturer references used to assess the technical defects, pictures or copy of the TLB entries performed. These elements could be very useful in the follow-up phases of the ramp inspection either to explain in details and illustrate the finding detected, or to be able to exchange appropriate documented evidence when findings are challenged.

Note 1: In exceptional cases, a single fault may give rise to more than one finding under different inspection items, for example: a tyre worn beyond limits whilst the PIC refuses to enter the defect in the Technical Log (or equivalent) would give rise to findings under C04 and A23.

Note 2: On manufacturer standards, a finding to these standards should always be demonstrated in relation with aircraft technical documentation (AMM, SRM, CDL, SWPM, etc.) and MEL references. If significant defects are suspected, the operator should be asked to demonstrate compliance with the standards. Deviations from these standards can only be acceptable if the State of oversight / DGCA in case of Domestic operator, has issued a formal waiver/concession detailing conditions and/or limitations to allow the aircraft to continue to operate for a specific period of time before final repair, unless the aircraft will perform a ferry flight and the validity of the C of A is not affected. In
case the deviation leads to a temporary invalidation of the Certificate of Airworthiness, the operator will be required to obtain a permit to fly from the State of Registry, and the relevant permission from the affected States (departure, arrival and every over flown State).

4.2 Detection/reporting/assessment of significant technical defects

A technical defect is considered to be any material fault pertaining to the aircraft, its systems or components. Minor defects are typically without influence on safety. Although minor defects are not considered to be findings, they should be brought to the attention of the operator using general remarks (cat G). Those defects which are potentially out of limits are considered to be significant defects. Further assessment is required to determine if the significant defect is within or outside the applicable limits. Such defects should be known to the operator since they should have been detected during regular maintenance, aircraft acceptance procedure or pre-flight inspections.

Care should be taken when dealing with technical defects which did not necessarily had to be detected by the operator since the approved maintenance programme (AMP) does not require the operator to detect such issues during turn-around inspections; examples are missing fasteners, bonding wires and the cabin emergency lighting which are normally not part of the pre-flight inspection. Therefore, no finding should be raised under A23/A24 that such defect was not detected/reported/assessed. However, inspectors should not ignore cases where those defects led to an out of limits situation; apparently the AMP failed to ensure that the aircraft is in a dispatchable condition and therefore such non-compliance should be raised as a cat. 3 finding.

Since significant defects might have appeared during the inbound flight, the inspector must give the operator the opportunity to identify and assess a significant defect during the preflight inspection before he raises a finding. However, this does not mean that the inspector should wait with his inspection of the aircraft condition until the operator performed/completed the preflight inspection.

A “defect within limits but not recorded” should not be raised as a technical finding. If the significant defect appeared to be within limits, the safety focus changes from the defect itself to the concern that the defect was not detected/assessed by the operator.
The following procedure should be used in particular when inspecting the Aircraft Condition. In addition, the same procedure may also be applied when inspecting items A, B or D:

a) If time allows, the inspector should inspect the aircraft condition after the operator has completed the preflight inspection.

b) The inspector may perform the aircraft condition inspection (C-Items) in advance of the operator’s inspection in order to make best use of the time available for the whole inspection. In that case the inspector should wait with reporting the defects identified until the operator has completed the pre-flight inspection.

c) The inspector should subsequently check if the operator detected the significant defects found by the inspector. Examples of significant defects are, but not limited to, multiple screws missing in the corner area or in the leading edge of panels, running/dropping leaks, dents in pressurised areas of the fuselage. A single screw missing in the middle of a fairing, traces of old leaks and non-structural damages to e.g. fairings can, in many cases, considered to be “minor defects”. Such defects should be brought to the attention of the operator as general remarks (cat. G).

d) If the operator detected the significant defect, but did not properly report and/or assess it, the operator should assess the defect. If the defect appears to be within limits, a finding should be raised under A23 (Defect notification and rectification) mentioning “Known defect not reported/assessed”. The inspector should however, when collecting the evidence for this finding, take into account the reporting system used by the operator. For instance, if the operator uses a Technical Logbook and/or a damage chart, a finding could be raised if the defect was not entered. Additionally, a category “G” (general) remark should be created for the defect. If the defect is outside limits, a category 3 finding should be raised under the respective inspection item. In order not to penalise the operator twice, no supplementary finding, related to this defect, should be raised in that case under A23.

e) If the operator did not detect the significant defect, the inspector should inform the crew on the non-identified defects. Subsequently, the operator should assess the defect in order to determine if the defect is within or outside dispatch limits. If the defect is within limits, a category 2 finding mentioning “Pre-flight inspection performed but without noticing significant
defects” should be raised under A24 (pre-flight inspection) addressing the deficiency that the defect was not detected. Additionally, a category “G” (general) remark should be created for the defect. If the defect is outside limits, a category 3 finding should be raised under the respective inspection item. In order not to report the finding twice, no supplementary finding, related to this defect, should be raised in that case under A24.

f) Multiple (Cat 2) findings on the same system (e.g. hydraulic leakage, fuel leakage, dents) and “root cause” (not identified, not reported or not assessed) raised under A23 or A24 should be grouped. E.g. dents on the LH wing and the #2 engine intake which were not identified should be grouped, as well as hydraulic leakages which were identified but not assessed. On the other hand, a fuel leakage on the left wing which was not identified and a fuel leak on Engine #2 which was reported but not assessed should be noted as two findings.

g) An unnecessary delay of the aircraft should be avoided. However, if the aircraft suffers a delay caused by the assessment of not properly assessed/not identified findings, such a delay is justified because the possible causes for delay could be “(…) doubts regarding the (…) airworthiness of the aircraft (…)”.

Even when operators are carrying out their pre-flight inspection (aircraft acceptance) procedures only briefly before the departure of the aircraft, the inspector should wait until these procedures have been completed before reporting to the operator the identified defects.

4.3. Deficiencies under the control of the operator

Non-compliances which are under control of the operator (in accordance with the applicable requirements) are not to be raised as findings. If e.g. an aircraft diverted because of technical defects and the aircraft is inspected upon arrival, such defects should not be raised during a ramp inspection following the diversion as long as the defect is properly reported (e.g. through the TLB) and subsequently assessed.

4.4. Findings - Categorisation

If during the inspection it is established that a certain situation is not in compliance with the relevant standards, this is then considered a finding.
For each inspection item, 3 categories of possible deviations from the standards have been defined. The findings are categorised as below according to the seriousness and perceived influence on flight safety.

**Minor**: Category 1 finding is considered to have a minor influence on safety.

**Significant**: Category 2 finding may have a significant influence on safety.

**Major**: Category 3 finding may have a major influence on safety.

*Note*: Any other safety relevant issues identified during a SOFA/Ramp inspection, although not constituting a finding, can be reported as a General Remark (Cat G) under each inspection item, for example: an electrical torch missing or unserviceable during a flight conducted entirely in daylight.

Findings on arrival flights being identical to the findings raised for departure flights should lead to the same categorisation, although the corrective action might not be possible when the flight has been completed. For example, an incorrect mass and balance sheet (outside operational limits) found on arrival should be categorised as a cat. 3. Obviously this cannot be corrected; however the appropriate class 3 action could be to confirm that the mass and balance calculations are within operational limits for the outbound flight.
Follow up Actions

5.1. SOFA/Ramp Inspection – Follow-up actions

Follow up actions will be taken after the SOFA/Ramp inspection. The follow-up actions may be distinguished in two stages. The first stage is the follow-up action directly resulting from the findings, the second stage is the monitoring and follow-up of any correspondence, sent out to the operator and the State responsible for oversight in case of foreign operator, which should result in closure of the findings.

The checklist used for the inspection shall be completed and a copy handed over to the pilot-in-command, or in his absence, to a member of the flight crew or to the most senior representative of the operator present in or near the aircraft upon completion of the inspection. A signed acknowledgment of receipt of the proof of inspection shall be requested from the recipient and be retained by the inspector. Refusal by the recipient to sign shall be recorded in the document.

In case of disagreements concerning inspection findings, the deficiencies shall be communicated to the foreign operator’s regulatory authority. Serious safety deficiencies would require DGCA to initiate a dialogue with the regulatory authority of the State of the Operator including the operator. Failure to take positive action to rectify the deficiencies may result in cancellation/revocation of foreign operator’s authorization.

In case of Foreign operator, Inspection team will provide a copy of the inspection report to Surveillance and Enforcement Division for taking follow up action with the regulatory authority of the airline concerned. SOFA findings should be communicated by FSD to the regulatory authority of the foreign operator.

Where action is expected to be taken by the airline, the regulatory authority will be requested to intimate the action taken to DGCA.

5.2. Actions resulting from an inspection

Based on the results of the inspection and on how the findings have been
categorised, following common follow-up actions may be used in order of the seriousness of the findings.

- Aircraft grounded by inspecting DGCA inspector
- Corrective actions before flight
- Restrictions on the aircraft operation
- Information to the operator and authority
- Information to the Captain
- No remarks

5.3 Class 1 action: Information to the captain

**Minor:** Category 1 finding is considered to have a minor influence on safety. Such findings along with proof of inspection shall be provided to the aircraft commander (or, in his/her absence, to another member of the flight crew or the most senior representative of the operator). When completing the POI (proof of inspection), the following should be taken into account:

When handing over the POI to the PIC/operator representative, the inspector should ask him/her to sign the POI whilst explaining that the signature does not mean that he/she agrees with the findings. The signature only confirms that the POI has been received by the PIC/operator representative.

5.4 Class 2 action: Information to the authority and the operator

**Significant and major findings** (Category 2 and 3 findings) are considered to have a significant and major influence on safety. Therefore, when such findings have been raised, written communications must be made to the operator and the state of oversight in case of foreign operator, in the following manner:

The operator:

The communication should request that corrective actions are taken (or alternatively the provision of a corrective action plan) and evidence supporting the corrective actions taken; in case of no focal point is known for the inspected operator, its Quality department might be the most suitable point of contact. The operator is requested to reply to the written communication with an action plan which addresses the deficiencies.
The state of oversight:

The communication shall contain, where appropriate, a request for confirmation that they are satisfied with the corrective actions taken by the operator. This might be appropriate, for example, but not limited to:

i. a high number of findings,
ii. repetitive findings,
iii. lack of appropriate response from the operator,
iv. where there is evidence of consistently poor standards demonstrated by operators from that State,
v. where action by the State of oversight may be required given the seriousness of the findings.

The state of oversight should also be informed when certain findings indicate possible shortcomings at state level (e.g. medical certificate does not indicate the medical class).

The primary source of information to enable an operator to take swift action to address safety deficiencies is the POI. In order to inform the states of oversight in sufficient time to permit appropriate action to be taken and to confirm to the operator the findings made, these communications should be made not later than 30 working days after the inspection. In the case where the operator has already replied, to the satisfaction of the competent inspecting authority, based on the information contained in the POI, the written communication to the operator might not be required to be sent.

**5.5 Class 3 action: Restrictions on operation or corrective actions before flight**

**Major findings** (Category 3 findings) which are considered to have a potential major effect on the safe operation of the aircraft, requires that action(s) need to be taken before the departure of the aircraft. A corrective action is required from the operator before the flight is commenced, therefore it should be possible to verify the corrective actions taken (e.g. if the tyre has been changed, if the recalculation of mass and balance has been done [correctly], etc.);

The inspector(s) performing the ramp inspection have concluded that, as a result of some deficiencies identified during the inspection, the aircraft may depart only under certain restrictions. Some examples of these actions are:
I. restrictions on flight altitudes if oxygen system deficiencies have been found,
II. a non-revenue flight to the home base if allowed for by the MEL,
III. some seats that may not be used by passengers,
IV. a cargo area that may not be used.

5.6 Aircraft grounded by DGCA inspection team

If the category 3 (major) findings that have been established during the Ramp Check concern damage of a nature such that the aircraft is no longer airworthy, this has to be communicated immediately to the operator / State responsible for overseeing the airworthiness of the aircraft in case of foreign operator. Although the first contact may be, as a matter of urgency, accomplished by telephone, it is advisable to use written communication procedures. For ICAO guidance on this matter, refer to ICAO Annex 8 Part II Chapter 3.5 – Temporary Loss of Airworthiness

An aircraft is grounded in a situation where the category 3 (major) findings are not corrected by the operator before flight. Because the safety of the aircraft and its occupants is at stake, the aircraft has to be prevented from resuming its flight and has to be 'grounded' until the safety hazard is removed.

5.7 Generation and distribution of Ramp Inspection Findings

The inspection report shall be generated after finalization of findings. The reports along with the findings shall be uploaded on eGCA website (as and when available). The Ramp Inspection report along with findings shall be distributed as follows:-

i. Nominated nodal officials of the operator
ii. FSD DGCA for foreign operator for further follow up actions.

The DDG Region should ensure the proper distribution of Ramp Inspection Reports on Operators, which are under the supervision of the office with a copy to DDG, Region of main base of the operator

5.8 Further Follow up
Any follow-up communication from the operators and the authorities should be acknowledged and they should be informed about the closure of findings. Any request for clarification should equally be responded by the inspecting authority. The feedback or clarifications from the Inspecting authority should be performed within 30 working days.

If communications are taking place with the operator only, the State of oversight should, as much as possible, be copied with the associated replies.

Findings should remain “open” as long as no satisfactory response of the operator and/or the competent authorities in the State of Oversight was received; alternatively, findings could be closed if a re-inspection confirms that the appropriate corrective action was taken.

5.9 Contacts with Foreign Operators

The FSD should ensure that, in accordance with AIC 5/2009 for all category 2 and 3 finding(s) a written communication will be sent to the operator to request evidence of corrective actions taken.

5.10 Contacts with Authorities

The FSD should ensure that, in accordance with AIC 5/2009, a written communication will be sent to the responsible State of oversight, addressing the results of the inspections and, were appropriate, request for a confirmation that they are satisfied with the corrective actions performed by the operators under their supervision.
Chapter -6

Monitoring of Ramp Inspection Deficiencies

6.1 Monitoring Deficiencies by FSD:

All deficiencies observed during ramp inspection carried out by the various regional offices are required to be forwarded in a prescribed Performa to the FSD Ramp Inspection Cell latest by 05th of the following month.

6.2 Review at Headquarters

The review meeting for the compliance of annual surveillance programme is held at DGCA, Hqrs periodically under the chairmanship of the Director General of Civil Aviation. The review of the ramp inspection programme will be also carried out in the surveillance meeting. In the meeting, the FSD shall present analysis of the ramp inspection reports. All major findings shall be discussed in the meeting to take a view on the action to be taken against the concerned organization/personnel.

Regional offices are responsible to present a monthly report on the status of follow-up actions to FSD Ramp Inspection Cell taken pursuant to ramp inspections at review meeting.

6.3 Assessment of surveillance activities

In order to ensure that ramp inspections are carried out as per ASP and proper procedures are followed for categorisation of findings as Minor / Significant / Major, surveillance records are maintained properly and closure actions of deficiency reporting form are taken after due completion of all actions, it is necessary that assessment of ramp inspection activity of various teams are carried out by DDG, regions and take appropriate actions to improve the quality of inspections.

6.4 Safety Related Issues

All regional offices shall report potential safety related issues reported during ramp inspections and propose coordinated actions to the FSD DGCA when necessary to address the problem. Utilization of safety related information, necessary corrective actions and appropriate effective preventive measures
shall be initiated by Hqrs to promote safety. Safety related information shall be also forwarded to Directorate of Air Safety (DAS) as a part of State Safety programme.

6.5 Records

All records related to Ramp Inspection and follow up actions shall be maintained at Regional office. Soft copy of data shall be also maintained in FSD Ramp Inspection Cell which will in turn forward the consolidated data to SED at DGCA HQ.
Qualification, Training and experience of Inspectors

1. Competencies of the inspector

To carry out the Ramp Inspection in the most effective and efficient manner, appropriate qualified and competent inspectors should be deputed to carry out Ramp inspections. This Chapter describes the training requirements to reach the established level of competencies of inspectors for this purpose. The CFOI/DDG region/DRI should ensure that inspectors are competent to carry out the tasks assigned to them and that they are aware of the consequence of their actions for aviation safety.

2. Qualifications and experience of the ramp inspector

The DGCA Inspectors involved in Airworthiness, Operation, Dangerous goods and Cabin Safety activities and also possess appropriate experience in their activities may be deputed to carry out the functions of Ramp Inspectors.

Ramp inspectors (Airworthiness and Operation) should meet the following qualification and experience requirements:-

   a) Should have received initial and recurrent training as per DGCA Training Policy and should be familiar with ICAO Annexes, DGCA Rules and Regulations.
   b) Should have five years or more experience in their respective field.;
   c) Should be familiar with the problems of operating or maintaining transport aircraft;
   d) Should be familiar with meteorological and climatological knowledge;
   e) Should have experience in auditing techniques.

Note.— The experience in auditing techniques, while required, can be provided by using a suitable training course and subsequent supervised practical auditing experience.

3. Ramp Inspectors Initial and Practical Training Course

3.1 Introduction:-
The Ramp Inspection Course consists of Initial and Recurrent Training Course. The Initial Course includes a 2 day Theoretical training and a 1 day practical training. The duration of recurrent training shall be of 1 day. The main standards used, as a reference for the training are Aircraft Rule, CAR and, following ICAO Annexes

a) Annex 1 deals with personnel licensing including flight crew.
b) Annex 6 deals with the operation of aircraft.
c) Annex 8 deals with airworthiness.

3.1.1 Course Content:- The following topics will be covered during Initial and continuation Training Course:

- General aspects of the Ramp Inspection programme (overview, structure, ramp check process, database, future developments, learning points and conclusions)
- The legal framework – DGCA regulation,
- The ICAO legal framework (ICAO overview, Chicago convention, ICAO annexes)
- Process of inspection (Criteria, procedures, subjects, elements, preparation, planning, code of conduct, human factors, findings, etc.)
- Inspection items A/B/C/D (Detailed guidance & instructions on the checklist items)
- Database management.
- Conclusions & finalizing (Evaluation, closing remarks and certificate)
- The 1-day practical training will take place at the operator technical facilities. A wide body aircraft will be available for the purpose of the mandatory practical training. As much as possible check- items, discussed during the theoretical part of the training, will be demonstrated at the aircraft.

3.2 Recurrent Training:-

Only through periodic practical and specialized theoretical training, manpower be used effectively and the personnel maintain a high level of expertise. The net result of such training is better job performance and greater respect from the operator. For this purpose the recurrent training to Ramp Inspectors shall be provided once in two years and covers the topics as mentioned above with
focus on changes in regulations and procedures and shall be of 1 day duration.
1. Ramp Inspection Items:

The Ramp Inspection checklist contains a total of 55 items. Of these checklist items, 25 relate to operational requirements (A-items) to be checked on the flight deck, 15 items address safety and cabin items (B-items), 12 items are concerning the aircraft condition (C-items) and 3 items (D-items) are related to the inspection of cargo and the cargo compartment. In case of any findings not related to the other items of the checklist, they may be administered by the E-item (General) of the checklist.

2. General

The items to be checked by the inspector during a ramp check are summarized as:

A. Flight deck
B. /Safety / Cabin items
C. Aircraft external condition
D. Cargo and the cargo compartment
E. General

3. Detailed list

The detailed list contains information on the items to be checked. For each item, guidance is provided on how to perform the check. Each item is also provided with the applicable reference in ICAO Annexes/ DGCA CAR where available. However, the specific references in the checklist should be checked for the complete requirements. A Common Findings Template based on international standards gives further details on each checklist item and is published as Annexure 1 to CAP 8500 and placed on the DGCA web site.

4. Scope

If it is not possible to cover all items on the list at every ramp inspection. Inspections should be planned to cover high-risk items and to cover all other
items over a series of inspections. It is essential that adequate records be kept and that there is complete coordination between all inspectors involved in ramp inspections for any one operator.

5. **Items to be checked**

<table>
<thead>
<tr>
<th>A. Flight deck — general</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A 1. General condition</strong></td>
</tr>
<tr>
<td><strong>Instructions:</strong> Check cleanliness, tidiness and general condition.</td>
</tr>
<tr>
<td>References: Nil.</td>
</tr>
<tr>
<td><strong>Seriousness:</strong></td>
</tr>
<tr>
<td>Minor – Dirty and untidy</td>
</tr>
<tr>
<td>Major – Large unsecured objects (e.g. cargo or baggage) / Unserviceable flight crew seats</td>
</tr>
<tr>
<td><strong>A 2. Emergency exit</strong></td>
</tr>
<tr>
<td><strong>Instructions:</strong> Check whether in compliance with ICAO SARPs.</td>
</tr>
<tr>
<td>References: Annex 8, Part IIIA, or Part IVA, 4.1.7 — Emergency landing provisions.</td>
</tr>
<tr>
<td><strong>Seriousness:</strong></td>
</tr>
<tr>
<td>Minor – Not all exits are serviceable, but properly deferred in accordance with MEL provisions</td>
</tr>
<tr>
<td>Significant – Not all exits are serviceable and MEL provisions not applied.</td>
</tr>
<tr>
<td>Major – No emergency exits serviceable / no provisions in MEL for continued operation.</td>
</tr>
<tr>
<td><strong>A 3. Equipment</strong></td>
</tr>
<tr>
<td><strong>Instructions:</strong> Check for the presence of the following equipment where required: Two sensitive pressure altimeters with counter drum pointer or equivalent presentation (IFR operations);</td>
</tr>
</tbody>
</table>
Airborne collision avoidance system (ACAS); Cockpit voice recorder (CVR) and flight data recorder (FDR); Emergency Locator Transmitter (ELT); Ground proximity warning system (GPWS); and Where a flight management computer (FMC) is provided — valid database.

References:


Seriousness:

GPWS:
Minor – Inoperative and in accordance with MEL provisions
Significant – Inoperative and MEL provisions not applied
Major – Forward looking GPWS required and not installed

FMC:
Significant – FMS database recently outdated (<28 days).
Major – FMS database more than 28 days outdated

ACAS/CVR/FDR/ELT:
Minor – Inoperative and in accordance with MEL provisions

Significant – Inoperative and MEL provisions not applied
Major – Required and not installed

A. Flight deck — documentation

A 4. Manuals

All required manuals

Instructions: Check for presence. Check whether manuals are up to date and accepted or approved as required. Aircraft flight manual data may be included in the operations manual which may itself
be in several parts, some of which are dealt with in A 5, 6 and 7 below.

References:
Flight Manual — Annex 6, Part I, 6.2.3, 11.1; and Part III, Section II, 4.2.3, 9.1.
Operations Manual — Annex 6, Part I, 4.2.3, 6.2.3, and Appendix 2; and Part III, Section II, 2.2.3, 4.2.3 and Attachment H.
Aircraft operating manual — Annex 6, Part I, 6.1.4, and Appendix 2, 2.2; and Part III, Section II, 4.1.4 and Attachment H, 2.2.

Seriousness :-
Flight manual:
Significant – No evidence of State of Registry approval / Incomplete but performance calculations possible
Major – Not on board and performance calculations not possible

Operations manual:
Significant – Incomplete (see Appendix 2 of ICAO Annex 6) or not approved by State of the Operator or not the current version
Major – Not on board

A 5. Checklists

Instructions: Confirm checklists are available and up to date. Check whether their content is in compliance with the requirement. Normal, non-normal and emergency checklists are sometimes combined in a Quick Reference Handbook; Check the availability of an aircraft search procedure checklist; and Confirm availability of the checklist of emergency and safety equipment.

References:
Flight crew checklists — Annex 6, Part I, 4.2.6, 6.1.4, and Appendix 2, 2.2.2; and Part III, Section II, 2.2.6, 4.1.4 and Attachment H, 2.2.10.
Aircraft search procedure checklist — Annex 6, Part I, 13.3; and Part III, Section II, 11.1.
Checklist of emergency and safety equipment — Annex 6, Part I, Appendix 2, 2.2.10; and Part III, Attachment H, 2.2.8.

Seriousness :
Minor – Not within reach
Significant – Not readily available and used or not the current version
Major – Not on board
### A 6. Route Guide / Radio navigation charts

**Instructions:** Check whether a route guide, including charts, is available, suitable and up to date.

**References:** Annex 6, Part I, 6.2.3, and Appendix 2, 2.3.1; and Part III, Section II, 4.2.3, and Attachment H, 2.3.1.

**Seriousness:**

- **Minor** – Not within reach
- **Significant** – Recently out of date (<=28 days) / Photocopies of current charts
- **Major** – Significantly out of date (> 28 days) / Not on board

### A 7. Minimum equipment list (MEL)

**Instructions:** Check whether the MEL is available, up to date and approved.

**References:** Annex 6, Part I, 6.1.3, Appendix 2, 2.2.9, and Attachment G; and Part III, Section II, 4.1.3, Attachment E, and Attachment H, 2.2.7.

**Seriousness:**

- **Significant** – Not on board or MMEL used, but no deferred defects / MEL content does not reflect aircraft equipment fitted / MEL not approved
- **Major** – Not on board or MMEL used, with deferred defects

### A 8. Certificate of registration

**Instructions:** Check for presence and accuracy and format.

**References:** *Convention on International Civil Aviation* (Doc 7300), Article 29; and Annex 7, Section 7.

**Seriousness:**

- **Minor** – Non-certified copy
- **Significant** – Not on board / No English translation

#### b) Identification plate

**Instructions:** Check presence and location.

**Reference:** Annex 7, Section 8.

**Seriousness:**
<table>
<thead>
<tr>
<th>Minor – Not installed or not able to read</th>
</tr>
</thead>
<tbody>
<tr>
<td>A9 Noise certification document or statement, where applicable</td>
</tr>
<tr>
<td><strong>Instructions:</strong> Check whether available and valid.</td>
</tr>
<tr>
<td><strong>References:</strong> Annex 6, Part I, 6.13; Part III, Section II, 4.11; and Annex 16, Volume I, Parts I and II.</td>
</tr>
<tr>
<td><strong>Seriousness:</strong></td>
</tr>
<tr>
<td>Minor – Not on board / No English translation</td>
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<table>
<thead>
<tr>
<th>Minor – Not on board / No English translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>A10, AOC or Equivalent (certified true copy) and operations specifications (copy)</td>
</tr>
<tr>
<td><strong>Instructions:</strong> Check whether available, applicable and valid.</td>
</tr>
<tr>
<td><strong>References:</strong> Annex 6, Part I, 4.2.1, 6.1.2, Appendices 5 and 6 and Attachment F; and Part III, Section II, 2.2.1, 4.1.2, Appendices 1 and 3 and Attachment F.</td>
</tr>
<tr>
<td><strong>Seriousness:</strong></td>
</tr>
<tr>
<td>Minor – Non-certified copy</td>
</tr>
<tr>
<td><strong>Significant</strong> – Not accurate (out of date, incorrect operation type/route, incorrect aircraft or operator, etc…) or no English translation</td>
</tr>
<tr>
<td><strong>Major</strong> – Not on board</td>
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</table>

<table>
<thead>
<tr>
<th>A11. Radio station licence</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Instructions:</strong> Check whether available and up to date.</td>
</tr>
<tr>
<td><strong>References:</strong> <em>Convention on International Civil Aviation</em> (Doc 7300), Articles 29 and 30; Annex 6, Part I, 7.1; and Part III, Section II, 5.1.</td>
</tr>
<tr>
<td><strong>Seriousness:</strong></td>
</tr>
</tbody>
</table>
Minor – Non-certified copy
Significant – Not on board

A12. Certificate of airworthiness

Instructions: Check that the certificate of airworthiness of the aircraft is on board and valid.
References: Convention on International Civil Aviation (Doc 7300), Articles 29 and 31; Annex 8, Part II, Chapter 3.

Seriousness:

Significant – Not an original or certified true copy / No English translation
Major – Not on board / Out of date

A. Flight deck — Flight Data

A 13. Flight Preparation

a) Operational flight plan

Instructions: Check for presence, accuracy and signature(s), and for adequate fuel and oil reserve planning and supply on board. Check for presence of ATS flight plan.

References: Annex 6, Part I, 4.3.3, and Appendix 2, 2.1.16; and Part III, Section II, 2.3.3, and Attachment H, 2.1.15.

Seriousness:

Minor – Copy not retained on ground
Significant – Actual flight calculations but no actual documents / Lack of fuel monitoring data (arrival flight) / Fuel calculation unsatisfactory (departing flight)
Major – No or incomplete flight preparation / Required fuel calculation not available or not up dated for actual conditions

b) Aircraft performance limitations using current route, airport obstacles and runway analysis data

Instructions: Check for availability of aircraft performance information including limitations and runway performance analysis based on current airport data.
References: Annex 6, Part I, 5.1, 5.2, 5.3, and Attachment C; and Part III, Section II, 3.1, 3.2, 3.3, and Attachment A.

Seriousness:

Minor – Incomplete but not affecting the operation on that date (e.g. no contaminated or wet runway data but these conditions are not present)
Significant – Not current data or data validity date not available
Major – Not available

C) Weather reports and forecasts

Instructions: Check for availability of weather reports and forecasts adequate for the flight.

References: Annex 6, Part I, 4.3.5.2; and Part III, Section II, 2.3.5.2.

Seriousness:

Minor – Not the latest available data but valid
Significant – Not printed but handwritten
Major – Not valid or not available

d) NOTAM

Instructions: Check for availability of NOTAMs for the route of flight.

References: Annex 15, Chapter 2 — Definitions; and Chapter 5. Annex 6, Part I, 4.3.3.1, 4.6.1

Seriousness:

Significant – Some en-route relevant data missing
Major – Not available

e) Cargo manifest and, if applicable, passenger manifest

Instructions: Check for availability of completed cargo manifest and, if required, passenger manifest.

References: Annex 9, 2.12, 2.13, 4.12, and Appendices 2 and 3.
<table>
<thead>
<tr>
<th>Seriousness:</th>
<th></th>
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<tbody>
<tr>
<td><strong>Significant</strong> – Some limited inaccuracy or missing data not affecting safety</td>
<td><strong>Major</strong> – Not available or grossly inaccurate/incomplete</td>
</tr>
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</table>

### A 14. Mass and balance sheet

**Instructions:** Check for presence of load sheet and accuracy.

**References:** Annex 6, Part I, 4.3.1, and Appendix 2, 2.1.14; and Part III, Section II, 2.3.1, and Attachment H, 2.1.13.

**Seriousness:**

**Significant** – Incorrect but within a/c limits  
**Major** – Incorrect and outside operational limits or missing / Weight and balance data not available

### A. Flight deck — safety equipment

#### A 15. Portable fire extinguishers

**Instructions:** Check for presence, number, condition and expiry date.  
**References:** Annex 6, Part I, 6.2.2 b); and Part III, Section II, 4.2.2 b).

**Seriousness:**

**Minor** - Not easily accessible  
**Significant** – Expired / Not properly secured  
**Major** – Empty or insufficient number or missing / Significantly low pressure / Not accessible

#### A 16. Life jackets/flotation devices

**Instructions:** Check for presence, condition and, where applicable, expiry date.

**References:** Annex 6, Part I, 6.5; and Part III, Section II, 4.3.

**Seriousness:**
<table>
<thead>
<tr>
<th>A 17. Safety harness</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Minor</strong> – Not directly accessible</td>
</tr>
<tr>
<td><strong>Significant</strong> – Expired, as applicable</td>
</tr>
<tr>
<td><strong>Major</strong> – Not available for each cockpit crew member on board</td>
</tr>
</tbody>
</table>

**Instructions**: Check for presence, condition and quantity.

**References**: Annex 6, Part I, 6.2.2; and Part III, Section II, 4.2.2

**Seriousness**:

**Significant** – Seat belt instead of harness

**Major** – Not available or serviceable for all flight crew members

<table>
<thead>
<tr>
<th>A 18. Oxygen equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Minor</strong> – Not available or serviceable for all flight crew members / Oxygen quantity not sufficient</td>
</tr>
</tbody>
</table>

**Instructions**: Check for presence, quantity and condition.

**References**: Annex 6, Part I, 4.3.8; and Part III, Section II, 2.3.8.

**Seriousness**:

**Significant** – No direct access

**Major** – Not available or serviceable for all flight crew members / Oxygen quantity not sufficient

<table>
<thead>
<tr>
<th>A 19. Emergency flashlight</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Minor</strong> – Only one available</td>
</tr>
<tr>
<td><strong>Significant</strong> – Weak battery</td>
</tr>
<tr>
<td><strong>Major</strong> – Not in cockpit or unserviceable</td>
</tr>
</tbody>
</table>

**Instructions**: Check for appropriate quantities of emergency flashlight. Check their condition if possible.

**References**: Annex 6, Part I, 6.10; and Part III, Section II, 4.4.2.

**Seriousness**:
### A20. Flight Crew member licences

**Instructions**: Check validity of: date; type rating; instrument rating; competency check; language proficiency endorsement; medical assessment; and format (see also item E 3 below).

**References**: *Convention on International Civil Aviation* (Doc 7300), Article 29; Annex 1, 1.2.1, 1.2.5.1, 1.2.9, 2.1.3, 2.1.7 and Chapter 5; Annex 6, Part I, 9.4.4; and Part III, Section II, 7.4.4.

**Seriousness**:

- **Minor** – Form or content not in compliance with ICAO standard
- **Significant** – No English translation
- **Major** – Not valid for the type of aircraft / Not on board or no proper validation from the registration authority / Expired or no class 1 medical assessment

### A. Flight deck — Journey log book / Technical log or Equivalent

#### A21. Journey log book or technical log and voyage report

**Instructions**: Check whether entries are up to date, validity of maintenance release. Check number of deferred defects (specify in the report where necessary). Check that defect deferments include time limits and comply with the stated time limits. Where applicable, check compliance with the aircraft MEL.

**References**: *Convention on International Civil Aviation* (Doc 7300), Article 29; Annex 6, Part I, 4.3.1 and 11.4; and Part III, Section II, 2.3.1 and 9.4.

**Seriousness**:

- **Minor** – Minor defects not documented
- **Significant** – On board but not properly filled in
- **Major** – Not on board or no equivalent document / Maintenance release expired or not valid / Defects MEL deadline expired

#### A22. Maintenance release

**Instructions**: Check that performed maintenance has been signed off. Check for evidence that any maintenance required in the tech log has been complied with
### A23 Defect notification and rectification (incl. Tech Log)

**Instructions:** Check for any deferred defects, all defects (minor, major, dents, damages etc.) have been properly reported and assessed, associated maintenance actions have been properly reported, e.g. description of the action, AMM/SRM references  

**References:** ICAO Annex 6, I-4.3.1, 4.5.4, 6.1.3

**Seriousness:**

- **Major**- Evidence required maintenance release not available

### A 24. Preflight inspection

**Instructions:** Check for presence of preflight inspection or preparation forms.

**References:** Annex 6, Part I, 4.3.1; and Part III, Section II, 2.3.1.

**Seriousness:**

- **Minor** – Form on board but incomplete  
- **Significant** – Not performed for inbound flight  
- **Major** – Not performed for outbound flight

### A25. ETOPS/EDTO requirements

**Instructions:** Check that the operator's maintenance procedures regarding ETOPS/EDTO requirements are available and have been followed by qualified technical personnel.

**References:** Annex 6, 4.7.1., 4.7.2. and Attachment E, Chapter 5 and 6

**Significant**:- Required maintenance action not performed
**Major:** Procedures not established for EDTO operation

## B. Cabin/Safety

### B 1. General condition

**Instructions:** Check for cleanliness, tidiness and general condition.

**References:** Annex 8, Part III, 8.3.

**Seriousness:**

- **Minor** – Dirty, untidy and in bad condition
- **Significant** – Loose carpet / Loose or damaged floor panel / Unserviceable seats (and not identified as such)

### B 2. Cabin crew seats and safety harness

**Instructions:** Check for presence and compliance with the requirement.

**References:** Annex 6, Part I, 6.16; and Part III, Section II, 4.12.

**Seriousness:**

- **Minor** – Harness/belt is difficult to operate
- **Significant** – Strap or buckle worn out or damaged-item is not serviceable
- **Major** – For any member of the minimum required cabin crew a seat is not available; or proper harness and seat belt not available or not serviceable

### B 3. First aid kit/emergency medical kit

**Instructions:** Check for presence, condition, location and expiry date if available.

**References:** Annex 6, Part I, 6.2.2; and Part III, Section II, 4.2.2.

**Seriousness:**

- **Minor** – Expired / Incomplete / Not at the indicated location
- **Major** – Not available
<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
</table>
| B 4. | Portable fire extinguishers  
**Instructions**: Check for presence, number, condition and expiry date if available.  
**References**: Annex 6, Part I, 6.2.2; and Part III, Section II, 4.2.2.  
**Seriousness**:  
*Minor* – Not directly accessible  
*Significant* – Expired / Not correctly secured  
*Major* – Empty, Significantly low pressure or missing or not serviceable |
| B 5. | Life jackets/flotation devices  
**Instructions**: Check for presence, condition and expiry date as applicable.  
**References**: Annex 6, Part I, 6.5; and Part III, Section II, 4.5.  
**Seriousness**:  
*Minor* – Not directly accessible  
*Significant* – Expired, as applicable  
*Major* – Not available for each person to be carried |
| B 6. | Seat belts and Seat Conditions  
**Instructions**: Check for presence and condition.  
**References**: Annex 6, Part I, 6.2.2; and Part III, Section II, 4.2.2.  
**Seriousness**:  
*Minor* – Strap worn or buckle worn out or damaged / Not available or serviceable for all passenger seats and aircraft dispatched in accordance with MEL  
*Significant* – Not available or serviceable for all passenger seats and aircraft not dispatched in accordance with MEL  
*Major* – Not available or not serviceable for any passenger |
| B 7. | Emergency exit lighting and marking, emergency flashlights  
**Instructions**: Check for presence of emergency exit signs, lighting and marking, and
emergency flashlights (one per cabin crew member). Where possible, check condition of floor path lighting/marking and of flashlights.

**References:** Annex 6, Part I, 6.10; Part III, Section II, 4.4.2; and Annex 8, Part IIIA, 4.1.7.3, and Part IIIB, D.6.3.

**Seriousness:**

**Significant** – Some emergency exit signs out of order / Insufficient number of emergency flashlights / Emergency flashlights not correctly located / Emergency flashlight batteries weak or flat.

**Major** – Emergency facilities defects not acceptable according to MEL provisions

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### B 8. Slides/life rafts and pyrotechnical distress signalling devices (as required)

**Instructions:** Check bottle gauge, slide bar and slide expiry date. Check presence of life raft, when required.

**References:** Annex 6, Part I, 6.5 and 6.6; Part III, Section II, 4.5 and 4.6; Annex 8, Part IIIA, 4.1.7 (and Part IIIB, D.6.2 to D.6.4).

**Seriousness:**

**Minor** – Not in specified location, as established by the State of the Operator

**Significant** – Incorrectly installed

**Major** – Insufficient number / Not serviceable

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### B 9. Oxygen supply — Cabin Crew and Passengers

**Instructions:** Check for presence and condition where applicable.

**References:** Annex 6, Part I, 4.3.8 and 6.7; and Part III, Section II, 2.3.8 and 4.8, and Section III, 2.9 and 4.5.

**Seriousness:**

**Minor** – Insufficient quantity of oxygen or insufficient quantity of masks for passengers and crew members
Significant—Insufficient quantity of oxygen or in sufficient quantity of masks for passengers and crew members, and flight performed above level 250

B 10. Safety Instructions / Emergency briefing cards

Instructions: Check for presence and accuracy.

References: Annex 6, Part I, 4.2.12.1 and 6.2.2 d); and Part III, Section II, 2.2.11, 4.2.2, and Section III, 2.3.

Seriousness:

Minor—Not enough emergency briefing cards for all passengers
Significant—Briefing cards from another aircraft or from obviously different versions / Some information missing or incorrect
Major—No emergency briefing cards on board

B 11. Cabin crew members

Instructions: Check that the number of cabin crew is appropriate. Check whenever possible that the location of cabin crew members allows to effect a safe and expeditious evacuation of the aircraft.

References: Annex 6, Part I, 12.1; and Part III, Section II, 10.1.

Seriousness:

Significant—Cabin crew members not in specified location
Major—Insufficient number of cabin crew members

B 12. Access to emergency exits

Instructions: Check that appropriate access to emergency exits is provided and that it is not impeded.

References: Annex 8, Part III A, 4.1.7; and Part III B, D.6.2 and D.6.3.

Seriousness:

Major—Impeded by luggage or cargo, etc / Impeded by seats

B 13. Safety of cabin baggage
### Instructions:
Check that the crew and the passengers do not carry oversized hand baggage for the stowage capacity of the aircraft. Check proper stowage of cabin baggage.

**References:** Annex 6, Part I, 4.8; and Part III, Section II, 2.7.

**Seriousness:**

**Major—**Not securely stowed

#### B 14. Seating capacity

**Instructions:** Check that the number of persons boarding does not exceed the number permitted (number of seats normally, except specific circumstances).

**References:** Annex 6, Part I, 6.2.2; and Part III, Section II, 4.2.2.

**Seriousness:**

**Major—**More seats than certified capacity / Insufficient serviceable seats for all passengers on board

#### B 15. Security of the flight crew compartment door (if applicable)

**Instructions:** Check that the flight crew compartment door, if provided, is lockable. Where applicable, check that the flight crew compartment door is penetration resistant.

**References:** Annex 6, Part I, 13.2.

**Seriousness:**

**Minor—**Door not installed or unserviceable (ref. Annex 6, 13.2)

#### C. Aircraft external condition

##### C 1. General external condition
**Instructions**: Check general condition of the airframe: apparent corrosion; cleanliness; presence of ice, snow, frost; legibility of markings, etc.

**References**: For markings: Annex 7, sections 3, 4 and 5.

**Seriousness**:

**Minor**—Minor defects
**Significant**—The defects need not necessarily be corrected before flight (visible corrosion, marking not legible, etc.)
**Major**—Safety related defect (correction required before departure) / Inadequate de-icing

### C 2. Doors and hatches

**Instructions**: Check for passenger and cargo door condition, external markings, seals, operating instructions and condition of hatches.

**References**: Nil.

**Seriousness**:

**Minor**—Minor defects but serviceable
**Significant**—Door operation instructions missing or unclear / Seal slightly damaged
**Major**—Unserviceable and not compatible with passenger number / Seal missing or badly damaged

### C 3. Wings, Flight Controls and tail

**Instructions**: Check wings, vertical and horizontal stabilizers, including all flight control surfaces. Check for obvious damage, corrosion, disbonding, evidence of lightning strikes, dents, looseness of fittings, missing static discharges, etc.

**References**: Nil.

**Seriousness**:

**Minor**—Minor defects
**Significant**—Poor condition (damage, missing bonding strips or static discharges, play, lack of lubrication, disbanding)
**Major**—Damage, corrosion, leaks or wear outside limits of MEL, SRM, etc.
C 4. Wheels, brakes and tires

Instructions: Inspect for damage, wear and signs of underinflated tires.

References: Nil.

Seriousness:

Minor—Minor defects
Significant—Signs of under inflation / Incorrect tire pressure / Unusual wear and tear
Major—Tires worn out or damaged beyond limits / Brakes worn out, leaking or damaged beyond limits / Damaged components or missing parts (i.e., tie bolts, heat sensors…)

C 5. Undercarriage, Skids /Floats

Instructions: Visual inspection. Focus on lubrication, leakage and corrosion, and wear on door fittings and hinges.

References: Nil.

Seriousness:

Minor—Minor defects
Significant—Significant signs of leakage, strut under-pressure, corrosion and obvious lack of lubrication
Major—Damage, corrosion, missing parts and/or leakage outside limits

C 6. Wheel well

Instructions: Visual inspection. Focus on cleanliness, leakage and corrosion.

References: Nil.

Seriousness:

Minor—Minor defects or dirty
Significant—Signs of leakage, corrosion and obvious lack of lubrication
Major—Damage, wide spread corrosion, leakage outside limits

C 7. Intake and exhaust nozzle
**Instructions**: Visual inspection. Focus on damage, cracking, dents and loose/missing fasteners (intake) and low pressure turbine blades (where visible), obvious damage to sensors, jet pipe nozzle, exhaust, thrust reversers, etc.

**References**: Nil.

**Seriousness:**

- **Minor**—Minor defects
- **Significant**—Damage to casing or lining / Dents and cracks in exhaust area all within limits, but not recorded in Technical Log or equivalent / Minor leak of oil and fuel
- **Major**—Damage, wide spread corrosion, leakage outside limits

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**C 8. Fan blades (if applicable)**

**Instructions**: Visual inspection. Check for foreign object damage, cracks, cuts, corrosion, erosion, etc.

**References**: Nil.

**Seriousness:**

- **Minor**—Minor defects
- **Significant**—Damage to fan blades within limits but not recorded in Technical Log or equivalent
- **Major**—Damage (nicks, dents, cracks, etc) outside the MEL, AMM, SRM, etc limits

---

**C 9. Propellers (if applicable)**

**Instructions**: Visual inspection. Check for corrosion, looseness of blades in hub, erosion, stone damage, anti/de-icing system, etc.

**References**: Nil.

**Seriousness:**

- **Minor**—Minor defects
- **Significant**—Damage to propellers within limits but not recorded in Technical Log or equivalent
### C 10. Previous structural repairs

**Instructions:** Visual inspection. Note any previous repairs, check condition and verify compliance to standard practices.

**References:** Nil.

**Seriousness:**

**Minor**—Minor defects  
**Significant**—No information about temporary repairs, doubts about old repairs, and repairs acceptable for continuation of flight  
**Major**—Improperly performed repairs or apparent unsatisfactory design / Damage to old repair

### C 11. Obvious un repaired damage

**Instructions:** Visual inspection. Note un-assessed and unrecorded damage including corrosion, lightning strike damage, and bird strikes, etc.

**References:** Annex 8, Part II, 3.6.

**Seriousness:**

**Minor**—Within limits  
**Significant**—Within limits but not recorded  
**Major**—Un-assessed and not recorded damage affecting airworthiness

### C 12. Leakage

**Instructions:** Visual inspection: fuel, oil, hydraulic leaks. Inspect for toilet leaks at service locations.

**References:** Nil.

**Seriousness:**

**Minor**—Within limits  
**Significant**—Long standing water and lavatory leaks (blue ice)
### Major–Leakage (oil, fuel, hydraulic, water) outside limits

#### D. Cargo

**D 1. General condition of cargo compartment and containers**

**Instructions:** Check for cleanliness and general condition of cargo compartment and containers. Check damage to compartment liners and condition of fire protection, detection and extinguishing system, if appropriate. Check condition of container locking devices.

**References:** Nil.

**Seriousness:**

- **Minor**—Partly defective lights / Minor defects but safe condition
- **Significant**—Partly damaged paneling / Partly damaged containers / Defective lights / Floor locks (partly) u/s / Limited access to cargo (for combi) / Dividing net or door protection net damaged
- **Major**—Damaged paneling out-of-limits / Damaged containers / Structural damage out of limits / Defective or missing fire extinguishing system (where applicable) / Cargo area not used in accordance with classification / No access to cargo area (for combi) / No barrier net (combi and cargo aircraft) / No smoke barrier/curtain / Floor locks unserviceable and outside MEL limits

**D 2. Dangerous goods**

**Instructions:** If dangerous goods are on board, check that the pilot has received appropriate notification, Check that the operations manual includes relevant information as required by Annex 18.

**References:** Annex 6, Part I, Appendix 2, 2.1.35; Part III, Attachment H, 2.1.28; and Annex 18, 9.1 and 9.2.

**Seriousness:**

- **Minor**—Unable to recognize dangerous goods presented to operator for shipment
- **Significant**—No dangerous goods regulations or references
- **Major**—No or incomplete information to the captain of dangerous goods carried, in contradiction to Doc. 9284 provisions / Deficiencies: leakage, wrong packaging,
D 3. Safety of cargo on board

Instructions: Check that loads are properly distributed and safely secured.

References: Annex 6, Part I, 4.3.1, and Part III, Section II, 2.3.1.

Seriousness:

Minor—Minor damage to: lashing, tie down equipment, pallet/container and/or locks
Significant—Damaged pallet/container or net
Major—Cargo not correctly secured and/or safety distributed: lashing, tie down equipment, pallets and containers, locks / Load distribution/floor load limit exceeded

E. General

E 1. Additional remarks

Instructions: Record and report any items of significant nature that may be observed which are not covered by this guidance.

References: Nil.

Seriousness:

Minor—General findings with minor safety impact
Significant—General findings with significant safety impact
Major—General findings with major safety impact

E 2. Refuelling

Instructions: Check that the procedures relating to refuelling with passengers on board are complied with.
References: Annex 6, Part I, 4.3.7; and Part III, Section II, 2.3.7.

Seriousness:

Minor–Cabin crew not aware of refuelling with passengers on board

Significant–No procedures in place for refuelling with passengers on board

Major–Procedures in place but not carried out

E 3. Language for communication

Instructions: Check that all pilots, and those flight navigators required to use the radio telephone, are fluent in the language used for radiotelephony communications or in the English language.

References: Annex 1, 1.2.9; and Annex 10, Volume II, 5.2.1.2.

Seriousness:

Significant–Pilot licences with no language proficiency endorsement, in the English language used in radiotelephony (except if implementation plan made available by State of issuance –until 5 March 2011)

Major–Pilots not fluent in the English language or the language used in radiotelephony
ICAO Annex References for Ramp Inspections Guidance

(International Operators)

Note: The references below are for only turbine powered aeroplanes and are provided as an aid to assist the inspector when conducting the inspection. Prior to finalizing any inspection report the inspector should verify the ICAO requirement/wording as contained in the appropriate current Annex. The references to ICAO Annexes are valid as of the Amendment number indicated below:

Annex 1 to Amendment Number 172
Annex 6 to Amendment Number 38
Annex 7 to Amendment Number 6
Annex 8 to Amendment Number 104
Annex 9 to Amendment Number 23
Annex 15 to Amendment Number 37
Annex 18 to Amendment Number 11
A- Flight Deck

A1- General Condition
Reference:- NIL

A2 – Emergency Exit
References: Annex 8, Part III-A, 4.1.7 – Emergency landing provisions – with similar provisions in other Parts of Annex 8

4.1.7.1 Provisions shall be made in the design of the aeroplane to protect the occupants, in the event of an emergency landing, from fire and from the direct effects of deceleration forces as well as from injuries arising from the effect of deceleration forces on the aeroplane's interior equipment.

4.1.7.2 Facilities shall be provided for the rapid evacuation of the aeroplane in conditions likely to occur following an emergency landing. Such facilities shall be related to the passenger and crew capacity of the aeroplane.

4.1.7.3 The interior layout of the cabin and the position and number of emergency exits, including the means of locating and illuminating the escape paths and exits, shall be such as to facilitate rapid evacuation of the aeroplane in conditions likely to occur following an emergency landing.

4.1.7.4 On aeroplane certificated for ditching conditions provisions shall be made in the design to give maximum practicable assurance that safe evacuation from the aeroplane of passengers and crew can be executed in the case of ditching.

A3 – Equipment

A3 -a) Altimeters:
References: Annex 6, Part I 6.9.1.c)

6.9 All aeroplanes operated in accordance with instrument flight rules

6.9.1 All aeroplanes when operated in accordance with the instrument flight rules, or when the aeroplane cannot be maintained in a desired attitude without reference to one or more flight instruments, shall be equipped with:
a) a magnetic compass;
b) an accurate timepiece indicating the time in hours, minutes and seconds;

c) two sensitive pressure altimeters with counter drum-pointer or equivalent presentation;

*Note — Neither three-pointer nor drum-pointer altimeters satisfy the requirement in 6.9.1 c).*
d) an airspeed indicating system with means of preventing malfunctioning due to either condensation or icing;

e) a turn and slip indicator;

f) an attitude indicator (artificial horizon);

g) a heading indicator (directional gyroscope);

*Note— The requirements of 6.9.1 e), f) and g) may be met by combinations of instruments or by integrated flight director systems provided that the safeguards against total failure, inherent in the three separate instruments, are retained.*

h) a means of indicating whether the power supply to the gyroscopic instrument is adequate;

i) a means of indicating in the flight crew compartment the outside air temperature;

j) a rate-of-climb and descent indicator; and

k) such additional instruments or equipment as may be prescribed by the appropriate authority.

**A3-b) ACAS II:**

Reference :Annex 6, Part I 6.18

6.18. Aeroplanes required to be equipped with an airborne collision avoidance system (ACAS II)

6.18.1 all turbine-engined aeroplanes of a maximum certificated take-off mass in excess of 5 700 kg or authorized to carry more than 19 passengers shall be equipped with an airborne collision avoidance system (ACAS II).
A3-c) CVR & FDR
References: Annex 6, Part I, 6.3

6.3 Flight recorders

Note 1—Flight recorders comprise two systems, a flight data recorder (FDR) and a cockpit voice recorder (CVR).

Note 2—Combination recorders (FDR/CVR) can only be used to meet the flight recorder equipage requirements as specifically indicated in this Annex.

Note 3—Detailed guidance on flight recorders is contained in Attachment D.

6.3.1 Flight data recorders — types

6.3.1.1 A Type I FDR shall record the parameters required to determine accurately the aeroplane flight path, speed, attitude, engine power, configuration and operation.

6.3.1.2 Types II and IIA FDRs shall record the parameters required to determine accurately the aeroplane flight path, speed, attitude, engine power and configuration of lift and drag devices.

6.3.1.3 The use of engraving metal foil FDRs shall be discontinued.

6.3.1.4.1 The use of photographic film FDRs shall be discontinued.

6.3.2 Flight data recorders — duration All FDRs shall be capable of retaining the information recorded during at least the last 25 hours of their operation, except for the Type IIA FDR which shall be capable of retaining the information recorded during at least the last 30 minutes of its operation.

6.3.3 Flight data recorders — aeroplanes for which the individual certificate of airworthiness is first issued on or after 1 January 1989.

6.3.3.1 All aeroplanes of a maximum certificated take-off mass of over 27 000 kg shall be equipped with a Type I FDR.

6.3.3.2 All aeroplanes of a maximum certificated take-off mass of over 5 700 kg, up to and including 27 000 kg, shall be equipped with a Type II FDR.
6.3.4 Flight data recorders — aeroplanes for which the individual certificate of airworthiness was first issued on or after 1 January 1987 but before 1 January 1989.

6.3.4.1 All turbine-engined aeroplanes of a maximum certificated take-off mass of over 5 700 kg, except those in 6.3.4.3, shall be equipped with an FDR which shall record time, altitude, airspeed, normal acceleration and heading.

6.3.4.3 All turbine-engined aeroplanes of a maximum certificated take-off mass of over 27 000 kg that are of types of which the prototype was certificated by the appropriate national authority after 30 September 1969 shall be equipped with a Type II FDR.

6.3.5 Flight data recorders — aeroplanes for which the individual certificate of airworthiness was first issued before 1 January 1987.

6.3.5.1 All turbine-engined aeroplanes of a maximum certificated take-off mass of over 5 700 kg shall be equipped with an FDR which shall record time, altitude, airspeed, normal acceleration and heading.

6.3.7.1 All aeroplanes of a maximum certificated take-off mass of over 5 700 kg shall be equipped with a CVR, the objective of which is the recording of the aural environment on the flight deck during flight time.

6.3.9 Cockpit voice recorders — duration

6.3.9.1 A CVR shall be capable of retaining the information recorded during at least the last 30 minutes of its operation.

6.3.9.3 A CVR, installed in aeroplanes of a maximum certificated take-off mass of over 5 700 kg for which the individual certificate of airworthiness is first issued after 1 January 2003, shall be capable of retaining the information recorded during at least the last two hours of its operation.

A3-d) GPWS

References: Annex 6 Part I, 6.15

6.15 Aeroplanes required to be equipped with ground proximity warning systems (GPWS)

6.15.4 all turbine-engined aeroplanes of a maximum certificated take-off mass in excess of 5 700 kg or authorized to carry more than nine passengers, shall be
equipped with a ground proximity warning system which has a forward looking terrain avoidance function.

6.15.7 A ground proximity warning system shall provide automatically a timely and distinctive warning to the flight crew when the aeroplane is in potentially hazardous proximity to the earth’s surface.

6.15.8 A ground proximity warning system shall provide, unless otherwise specified herein, warnings of the following circumstances:

a) excessive descent rate;

b) excessive terrain closure rate;

c) excessive altitude loss after take-off or go-around;

d) unsafe terrain clearance while not in landing configuration;
   1) gear not locked down;
   2) flaps not in a landing position; and

e) excessive descent below the instrument glide path.

A3-e) ELT
References: Annex 6 Part I, 6.17

6.17 Emergency locator transmitter (ELT)

6.17.2 Except as provided for in 6.17.3, all aeroplanes authorized to carry more than 19 passengers shall be equipped with at least one automatic ELT or two ELTs of any type.

6.17.3 All aeroplanes authorized to carry more than 19 passengers for which the individual certificate of airworthiness is first issued after 1 July 2008 shall be equipped with at least two ELTs, one of which shall be automatic.

6.17.4 Except as provided for in 6.17.5, all aeroplanes authorized to carry 19 passengers or less shall be equipped with at least one ELT of any type.

6.17.5 All aeroplanes authorized to carry 19 passengers or less for which the individual certificate of airworthiness is first issued after 1 July 2008 shall be equipped with at least one automatic ELT.
A3-f) Database
References: Annex 6, Part I, 7.4.2

7.4 Electronic navigation data management

7.4.1 An operator shall not employ electronic navigation data products ………unless the State of the Operator has approved the operator’s procedures for ensuring that the process applied and the products delivered have met acceptable standards of integrity and that the products are compatible with the intended function of the equipment that will use them. The State of the Operator shall ensure that the operator continues to monitor both process and products.

7.4.2 An operator shall implement procedures that ensure the timely distribution and insertion of current and unaltered electronic navigation data to all aircraft that require it.

A4. Manual – All requirement manuals

Note: Manuals may be in an electronic format if authorized by the States of the Operator
References: Flight Manual: Annex 6, Part I, 4.2.3,6.2.3, 11.1

A4-a) Operational Manual:
Reference: Annex 6, Part I, 4.2.3,6.2.3

4.2.3.1 An operator shall provide, for the use and guidance of operations personnel concerned, an operations manual in accordance with Appendix 2. The operations manual shall be amended or revised as is necessary to ensure that the information contained therein is kept up to date. All such amendments or revisions shall be issued to all personnel that are required to use this manual.

6.2.3 An aeroplane shall carry:

a) the operations manual prescribed in 4.2.3, or those parts of it that pertain to flight operations;

b) the flight manual for the aeroplane, or other documents containing performance data required for the application of Chapter 5 and any other information necessary for the operation of the aeroplane within the terms of its certificate of airworthiness, unless these data are available in the operations manual; and
c) current and suitable charts to cover the route of the proposed flight and any route along which it is reasonable to expect that the flight may be diverted.

A4-b) Flight manual
Reference: Annex 6, 11.1

11.1 Flight manual
Note— The flight manual contains the information specified in Annex 8.

The flight manual shall be updated by implementing changes made mandatory by the State of Registry.

A4-c) Aircraft Operating Manual:
Reference: Annex 6, Part I, 6.1.4

6.1.4 The operator shall provide operations staff and flight crew with an aircraft operating manual, for each aircraft type operated, containing the normal, abnormal and emergency procedures relating to the operation of the aircraft. The manual shall include details of the aircraft systems and of the checklists to be used.

A5. Checklists

A5- a) Flight crew checklists:
References: Flight crew checklists: Annex 6, Part I, 6.1.4

6.1.4 The operator shall provide operations staff and flight crew with an aircraft operating manual, for each aircraft type operated, containing the normal, abnormal and emergency procedures relating to the operation of the aircraft. The manual shall include details of the aircraft systems and of the checklists to be used.

A5-b) Aircraft search procedure checklist: Annex 6, Part I, 13.3
13.3 Aeroplane search procedure checklist

An operator shall ensure that there is on board a checklist of the procedures to be followed in searching for a bomb in case of suspected sabotage and for inspecting aeroplanes for concealed weapons, explosives or other dangerous devices when a well-founded suspicion exists that the aeroplane may be the object of an act of unlawful interference. The checklist shall be supported by guidance on the appropriate course of action to be taken should a bomb or suspicious object be found and information on the least-risk bomb location specific to the aeroplane.
A5-Checklist of emergency and safety equipment: Annex 6, Part I, Appendix 2, 2.2.10

A6. Route Guide
References: Annex 6, Part I, 6.2.3

6.2.3 An aeroplane shall carry: ……

c) current and suitable charts to cover the route of the proposed flight and any route along which it is reasonable to expect that the flight may be diverted.

A7. Minimum Equipment List (MEL) and deferred defect rectification
References: Annex 6, Part I, 6.1.3

6.1.3 The operator shall include in the operations manual a minimum equipment list (MEL), approved by the State of the Operator which will enable the pilot-in-command to determine whether a flight may be commenced or continued from any intermediate stop should any instrument, equipment or systems become inoperative. Where the State of the Operator is not the State of Registry, the State of the Operator shall ensure that the MEL does not affect the aeroplane’s compliance with the airworthiness requirements applicable in the State of Registry.

A8. a) Certificate of registration
References: Annex 7, Para 8.1, 8.2

8.1 The certificate of registration, in wording and arrangement, shall be a replica of the certificate shown in Figure 1 of Annex 7.

*Note— The size of the form is at the discretion of the State of Registry or common mark registering authority.*

8.2 When certificates of registration are issued in a language other than English, they shall include an English translation.

*Note— Article 29 of the Convention on International Civil Aviation requires that the certificate of registration be carried on board every aircraft engaged in international air navigation.*
**Figure 1. Certificate of Registration**

<table>
<thead>
<tr>
<th>*</th>
<th>*</th>
<th>State or Common mark registering authority</th>
<th>Ministry Department or Service</th>
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<tbody>
<tr>
<td>1. Nationality or common mark and registration mark</td>
<td>2. Manufacturer and manufacturer’s designation of aircraft</td>
<td>3. Aircraft serial no.</td>
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<td>4. Name of owner</td>
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<td>5. Address of owner</td>
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<tr>
<td>6. It is hereby certified that the above described aircraft has been duly entered on the</td>
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<td>(name of register)</td>
<td>International Civil Aviation dated 7 December 1944</td>
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<td></td>
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<tr>
<td>(†) Insert reference to applicable regulations.</td>
<td>Signature) .................................................................</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date of issue ............................................</td>
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</tbody>
</table>

* For use by the State of Registry or common mark registering authority.

**A8. b) Identification Plate**
References: Annex 7, 9.

9. Identification Plate
9.1 An aircraft shall carry an identification plate inscribed with at least its nationality or common mark and registration mark. The plate shall be made of fireproof metal or other fireproof material of suitable physical properties.

9.2 Identification plate shall be secured to the aircraft in a prominent position near the main entrance or,

a) in the case of an unmanned free balloon, affixed conspicuously to the exterior of the payload;

b) in case of remotely piloted aircraft........

A9. Noise certification document of statement, where applicable :

6.13 All aeroplanes complying with the noise certification Standards in Annex 16, Volume I

An aeroplane shall carry a document attesting noise certification. When the document, or a suitable statement attesting noise certification as contained in another document approved by the State of Registry, is issued in a language other than English, it shall include an English translation.

Note— The attestation may be contained in any document, carried on board, approved by the State of Registry

Annex 16 Part II. Aircraft Noise Certification

Chapter 1. Administration

1.1 The provisions of 1.2 to 1.6 shall apply to all aircraft included in the classifications defined for noise certification purposes in Chapters 2, 3, 4, 5, 6, 8, 10, 11,12,13 and 14 of this part where such aircraft are engaged in international air navigation.

1.2 Noise certification shall be granted or validated by the State of Registry of an aircraft on the basis of satisfactory evidence that the aircraft complies with
requirements that are at least equal to the applicable Standards specified in this Annex.

1.3 If noise recertification is requested, it shall be granted or validated by the State of Registry of an aircraft on the basis of satisfactory evidence that the aircraft complies with requirements that are at least equal to the applicable Standards specified in this Annex. The date used by a certificating authority to determine the recertification basis shall be the date of acceptance of the first application for recertification.

1.4 The documents attesting noise certification shall be approved by the State of Registry and shall be required by that State to be carried on the aircraft.

Note— See Annex 6, Part I, 6.13, concerning the translation into English of documents attesting noise certification.

1.5 The documents attesting noise certification for an aircraft shall provide at least the following information:

Item 1. Name of State.
Item 4. Nationality or common mark and registration marks.
Item 5. Manufacturer and manufacturer’s designation of aircraft.
Item 6. Aircraft serial number.
Item 7. Engine manufacturer, type and model.
Item 8. Propeller type and model for propeller-driven aeroplanes.
Item 10. Maximum landing mass, in kilograms, for certificates issued under Chapters 2, 3, 4, 5, 12 and 14 of this Annex.
Item 11. The chapter and section of this Annex according to which the aircraft was certificated.
Item 12. Additional modifications incorporated for the purpose of compliance with the applicable noise certification Standards.

Item 13. The lateral/full-power noise level in the corresponding unit for documents issued under Chapters 2, 3, 4, 5, 12 and 14 of this Annex.

Item 14. The approach noise level in the corresponding unit for documents issued under Chapters 2, 3, 4, 5, 8, 12, 13 and 14 of this Annex.

Item 15. The flyover noise level in the corresponding unit for documents issued under Chapters 2, 3, 4, 5, 12 and 14 of this Annex.

Item 16. The overflight noise level in the corresponding unit for documents issued under Chapters 6, 8, 11 and 13 of this Annex.

Item 17. The take-off noise level in the corresponding unit for documents issued under Chapters 8, 10 and 13 of this Annex.

Item 18. Statement of compliance, including a reference to Annex 16, Volume I.

Item 19. Date of issuance of the noise certification document.

Item 20. Signature of the officer issuing it.

1.6 Item headings on the noise certification documents shall be uniformly numbered in Arabic numerals, as indicated in 1.5, so that on any noise certification document the number will, under any arrangement, refer to the same item heading, except where the information in Items 1 through 6 and Items 18 through 20 is given in the certificate of airworthiness, in which case the numbering system of the certificate of airworthiness according to Annex 8 shall prevail.

1.7 An administrative system for implementation of noise certification documentation shall be developed by the State of Registry.

1.8 Contracting States shall recognize as valid a noise certification granted by another Contracting State provided that the requirements under which such certification was granted are at least equal to the applicable Standards specified in this Annex.

1.9 A Contracting State shall suspend or revoke the noise certification of an aircraft on its register if the aircraft ceases to comply with the applicable noise Standards.
The State of Registry shall not remove the suspension of a noise certification or grant a new noise certification unless the aircraft is found, on reassessment, to comply with the applicable noise Standards.

A10. Air Operator Certificate (certified true copy) and Operations Specifications (copy)
References: Annex 6, Part I, 4.2.1, 6.1.2

4.2.1 The air operator certificate

4.2.1.1 An operator shall not engage in commercial air transport operations unless in possession of a valid air operator certificate issued by the State of the Operator.

4.2.1.2 The air operator certificate shall authorize the operator to conduct commercial air transport operations in accordance with the operations specifications.

4.2.1.3 The issue of an air operator certificate by the State of the Operator shall be dependent upon the operator demonstrating an adequate organization, method of control and supervision of flight operations, training programme as well as ground handling and maintenance arrangements consistent with the nature and extent of the operations specified.

4.2.1.4 The continued validity of an air operator certificate shall depend upon the operator maintaining the requirements of 4.2.1.3 under the supervision of the State of the Operator.

4.2.1.5 The air operator certificate shall contain at least the following information and, from 1 January 2010, shall follow the layout of Appendix 6, paragraph 2:

a) the State of the Operator and the issuing authority;

b) the air operator certificate number and its expiration date;

c) the operator name, trading name (if different) and address of the principal place of business;

and
d) the date of issue and the name, signature and title of the authority representative;

e) the location, in a controlled document carried on board, where the contact details of operational management can be found.
4.2.1.6 The operations specifications associated with the air operator certificate shall contain at least the information listed in Appendix 6, paragraph 3, and, shall follow the layout of Appendix 6, paragraph 3.

4.2.1.7 Air operator certificates and their associated operations specifications first issued from 20 November 2008 shall follow the layouts of Appendix 6, paragraphs 2 and 3.

6.1.2 An aeroplane shall carry a certified true copy of the air operator certificate specified in 4.2.1, and a copy of the operations specifications relevant to the aeroplane type, issued in conjunction with the certificate. When the certificate and the associated operations specifications are issued by the State of the Operator in a language other than English, an English translation shall be included.

A11. Radio Station licenses;
References: Annex 6, Part I, 7.1

7.1 Communication equipment

7.1.1 An aeroplane shall be provided with radio communication equipment capable of:

a) conducting two-way communication for aerodrome control purposes;

b) receiving meteorological information at any time during flight; and

c) conducting two-way communication at any time during flight with at least one aeronautical station and with such other aeronautical stations and on such frequencies as may be prescribed by the appropriate authority.

7.1.2 The radio communication equipment required in accordance with 7.1.1 shall provide for communications on the aeronautical emergency frequency 121.5 MHz.

7.1.3 For flights in defined portions of airspace or on routes where an RCP type has been prescribed, an aeroplane shall, in addition to the requirements specified in 7.1.1:

a) be provided with communication equipment which will enable it to operate in accordance with the prescribed RCP type(s); and
b) be authorized by the State of the Operator for operations in such airspace.

A12. Certificate of Airworthiness
References: Annex 8 Part II, Chapter 3

*Note— The Certificate of Airworthiness as used in these Standards is the Certificate of Airworthiness referred to in Article 31 of the Convention*

3.1 Applicability

The Standards of this chapter are applicable in respect of all aircraft, except 3.3 and 3.4 which are not applicable in respect of all aircraft that are of a type of which the prototype was submitted to appropriate national authorities for certification before 13 June 1960.

3.2 Issuance and continued validity of a Certificate of Airworthiness

3.2.1 A Certificate of Airworthiness shall be issued by a Contracting State on the basis of satisfactory evidence that the aircraft complies with the design aspects of the appropriate airworthiness requirements.

3.2.2 A Contracting State shall not issue or render valid a Certificate of Airworthiness for which it intends to claim recognition pursuant to Article 33 of the Convention on International Civil Aviation unless it has satisfactory evidence that the aircraft complies with the applicable Standards of this Annex through compliance with appropriate airworthiness requirements.

3.2.3 A Certificate of Airworthiness shall be renewed or shall remain valid, subject to the laws of the State of Registry, provided that the State of Registry shall require that the continuing airworthiness of the aircraft shall be determined by a periodical inspection at appropriate intervals having regard to lapse of time and type of service or, alternatively, by means of a system of inspection, approved by the State, that will produce at least an equivalent result.

3.2.4 When an aircraft possessing a valid Certificate of Airworthiness issued by a Contracting State is entered on the register of another Contracting State, the new State of Registry, when issuing its Certificate of Airworthiness may consider the previous Certificate of Airworthiness as satisfactory evidence, in whole or in part, that the aircraft complies with the applicable Standards of this Annex through compliance with the appropriate airworthiness requirements.
Note. — Some Contracting States facilitate the transfer of aircraft onto the register of another State by the issue of an “Export Certificate of Airworthiness” or similarly titled document. While not valid for the purpose of flight, such a document provides confirmation by the exporting State of a recent satisfactory review of the airworthiness status of the aircraft. Guidance on the issue of an “Export Certificate of Airworthiness” is contained in the Airworthiness Manual (Doc 9760).

3.2.5 When a State of Registry renders valid a Certificate of Airworthiness issued by another Contracting State, as an alternative to issuance of its own Certificate of Airworthiness, it shall establish validity by suitable authorization to be carried with the former Certificate of Airworthiness accepting it as the equivalent of the latter. The validity of the authorization shall not extend beyond the period of validity of the Certificate of Airworthiness being rendered valid. The State of Registry shall ensure that the continuing airworthiness of the aircraft is determined in accordance with 3.2.3.

3.3 Standard form of Certificate of Airworthiness

3.3.1 The Certificate of Airworthiness shall contain the information shown in Figure 1 and shall be generally similar to it.

3.3.2 When Certificates of Airworthiness are issued in a language other than English, they shall include an English translation.

Note—Article 29 of the Convention on International Civil Aviation requires that the Certificate of Airworthiness be carried on board every aircraft engaged in international air navigation.

3.4 Aircraft limitations and information

Each aircraft shall be provided with a flight manual, placards or other documents stating the approved limitations within which the aircraft is considered airworthy as defined by the appropriate airworthiness requirements and additional instructions and information necessary for the safe operation of the aircraft.

3.5 Temporary loss of airworthiness

Any failure to maintain an aircraft in an airworthy condition as defined by the appropriate airworthiness requirements shall restored to an airworthy condition.

3.6 Damage to aircraft
3.6.1 When an aircraft has sustained damage, the State of Registry shall judge whether the damage is of a nature such that the aircraft is no longer airworthy as defined by the appropriate airworthiness requirements.

3.6.2 If the damage is sustained or ascertained when the aircraft is in the territory of another Contracting State, the authorities of the other Contracting State shall be entitled to prevent the aircraft from resuming its flight on the condition that they shall advise the State of Registry immediately, communicating to it all details necessary to formulate the judgement referred to in 3.6.1.

3.6.3 When the State of Registry considers that the damage sustained is of a nature such that the aircraft is no longer airworthy, it shall prohibit the aircraft from resuming flight until it is restored to an airworthy condition. The State of Registry may, however, in exceptional circumstances, prescribe particular limiting conditions to permit the aircraft to fly a non-commercial air transport operation to an aerodrome at which it will be restored to an airworthy condition. In prescribing particular limiting conditions the State of Registry shall consider all limitations proposed by the Contracting State that had originally, in accordance with 3.6.2, prevented the aircraft from resuming its flight. That Contracting State shall permit such flight or flights within the prescribed limitations.

3.6.4 When the State of Registry considers that the damage sustained is of a nature such that the aircraft is still airworthy, the aircraft shall be allowed to resume its flight
### Figure 2

**State of Registry**

**Issuing Authority**

**CERTIFICATE OF AIRWORTHINESS**

<table>
<thead>
<tr>
<th>1. Nationality and registration marks</th>
<th>2. Manufacturer and manufacturer’s designation of aircraft**</th>
<th>3. Aircraft serial number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>4. Categories and/or operation***</th>
</tr>
</thead>
</table>

5. This Certificate of Airworthiness is issued pursuant to the Convention on International Civil Aviation dated 7 December 1944 and † ........................................ in respect of the above-mentioned aircraft which is considered to be airworthy when maintained and operated in accordance with the foregoing and the pertinent operating limitations.

Date of issue ............................................... Signature

........................................................................................................................

† Insert reference to appropriate Airworthiness Code

6. ****

*For use of the State of Registry.

**Manufacturer’s designation of aircraft should contain the aircraft type and model.

***This space is normally used to indicate the certification basis, i.e. certification code, with which the particular aircraft complies and/or its permitted operational category, e.g. commercial air transportation, aerial work or private.

****This space shall be used either for periodic endorsement (giving date of expiry) or for a statement that the aircraft is being maintained under a system of continuous inspection.

### A13. Flight Preparation

A13-a) Operational flight plan

References: Annex 6, Part I, 4.4.1, 4.3.3, 4.3.4
4.3.1 A flight shall not be commenced until flight preparation forms have been completed certifying that the pilot-in-command is satisfied that:

f) a check has been completed indicating that the operating limitations of Chapter 5 can be complied with for the flight to be undertaken; and

g) the Standards of 4.3.3 relating to operational flight planning have been complied with.

4.3.3 Operational flight planning

4.3.3.1 An operational flight plan shall be completed for every intended flight. The operational flight plan shall be approved and signed by the pilot-in-command and, where applicable, signed by the flight operations officer/flight dispatcher, and a copy shall be filed with the operator or a designated agent, or, if these procedures are not possible, it shall be left with the aerodrome authority or on record in a suitable place at the point of departure.

4.3.3.2 The operations manual must describe the content and use of the operational flight plan

4.3.4.1 Take-off alternate aerodrome

4.3.4.1.1 A take-off alternate aerodrome shall be selected and specified in the operational flight plan if the weather conditions at the aerodrome of departure are at or below the applicable aerodrome operating minima or it would not be possible to return to the aerodrome of departure for other reasons.

4.3.4.1.2 The take-off alternate aerodrome shall be located within the following distance from the aerodrome of departure:

a) aeroplanes having two power-units. Not more than a distance equivalent to a flight time of one hour at the single-engine cruise speed; and

b) aeroplanes having three or more power-units. Not more than a distance equivalent to a flight time of two hours at the one-engine inoperative cruise speed.

4.3.4.1.3. For an aerodrome to be selected as a take-off alternate the available information shall indicate that, at the estimated time of use, the conditions will be at or above the aerodrome operating minima for that operation.
4.3.6 Fuel and oil supply

4.3.6.1 *All aeroplanes.* A flight shall not be commenced unless, taking into account both the meteorological conditions and any delays that are expected in flight, the aeroplane carries sufficient fuel and oil to ensure that it can safely complete the flight. In addition, a reserve shall be carried to provide for contingencies.

4.3.6.4. In computing the fuel and oil required in 4.3.6.1 at least the following shall be considered:

a) meteorological conditions forecast;
b) expected air traffic control routings and traffic delays;
c) for IFR flight, one instrument approach at the destination aerodrome, including a missed approach;
d) the procedures prescribed in the operations manual for loss of pressurization, where applicable, or failure of one power-unit while en route; and
e) any other conditions that may delay the landing of the aeroplane or increase fuel and/or oil consumption

4.5 Duties of pilot-in-command

4.5.4 The pilot-in-command shall be responsible for reporting all known or suspected defects in the aeroplane, to the operator, at the termination of the flight.
4.5.5 The pilot-in-command shall be responsible for the journey log book or the general declaration containing the information listed in 11.4.1.

*Note— By virtue of Resolution A10-36 of the Tenth Session of the Assembly (Caracas, June–July 1956) “the General Declaration, [described in Annex 9] when prepared so as to contain all the information required by Article 34 [of the Convention on International Civil Aviation] with respect to the journey log book, may be considered by Contracting States to be an acceptable form of journey log book”.

4.6 Duties of flight operations officer/ flight dispatcher

4.6.1 A flight operations officer/flight dispatcher in conjunction with a method of control and supervision of flight operations in accordance with 4.2.1.3 shall:

a) assist the pilot-in-command in flight preparation and provide the relevant information;
b) assist the pilot-in-command in preparing the operational and ATS flight plans, sign when applicable and file the ATS flight plan with the appropriate ATS unit; and

c) furnish the pilot-in-command while in flight, by appropriate means, with information which may be necessary for the safe conduct of the flight

A13- b) Aircraft performance limitations using current route, airport obstacles and runway analysis data: References: Annex 6, Part I, 5.1, 5.2 and 5.3

5.1 General

5.1.1 Aeroplanes shall be operated in accordance with a comprehensive and detailed code of performance established by the State of Registry in compliance with the applicable Standards of this chapter.

5.1.2 Except as provided in 5.4, single-engine aeroplanes shall only be operated in conditions of weather and light, and over such routes and diversions therefrom, that permit a safe forced landing to be executed in the event of engine failure.

5.2 Applicable to aeroplanes certificated in accordance with Parts IIIA and IIIB of Annex 8

5.2.1 The Standards contained in 5.2.2 to 5.2.11 inclusive are applicable to the aeroplanes to which Parts IIIA and IIIB of Annex 8 are applicable.

5.2.2 The level of performance defined by the appropriate parts of the comprehensive and detailed national code referred to in 5.1.1 for the aeroplanes designated in 5.2.1 shall be at least substantially equivalent to the overall level embodied in the Standards of this chapter.

5.2.3 An aeroplane shall be operated in compliance with the terms of its certificate of airworthiness and within the approved operating limitations contained in its flight manual.

5.2.4 The State of Registry shall take such precautions as are reasonably possible to ensure that the general level of safety contemplated by these provisions is maintained under all expected operating conditions, including those not covered specifically by the provisions of this chapter.
5.2.5 A flight shall not be commenced unless the performance information provided in the flight manual indicates that the Standards of 5.2.6 to 5.2.11 can be complied with for the flight to be undertaken.

5.2.6 In applying the Standards of this chapter, account shall be taken of all factors that significantly affect the performance of the aeroplane (such as: mass, operating procedures, the pressure-altitude appropriate to the elevation of the aerodrome, temperature, wind, runway gradient and condition of runway, i.e. presence of slush, water and/or ice, for landplanes, water surface condition for seaplanes). Such factors shall be taken into account directly as operational parameters or indirectly by means of allowances or margins, which may be provided in the scheduling of performance data or in the comprehensive and detailed code of performance in accordance with which the aeroplane is being operated.

5.2.7 Mass limitations

a) The mass of the aeroplane at the start of take-off shall not exceed the mass at which 5.2.8 is complied with, nor the mass at which 5.2.9, 5.2.10 and 5.2.11 are complied with, allowing for expected reductions in mass as the flight proceeds, and for such fuel jettisoning as is envisaged in applying 5.2.9 and 5.2.10 and, in respect of alternate aerodromes, 5.2.7 c) and 5.2.11.

b) In no case shall the mass at the start of take-off exceed the maximum take-off mass specified in the flight manual for the pressure-altitude appropriate to the elevation of the aerodrome, and, if used as a parameter to determine the maximum take-off mass, any other local atmospheric condition.

c) In no case shall the estimated mass for the expected time of landing at the aerodrome of intended landing and at any destination alternate aerodrome, exceed the maximum landing mass specified in the flight manual for the pressure-altitude appropriate to the elevation of those aerodromes, and if used as a parameter to determine the maximum landing mass, any other local atmospheric condition.

d) In no case shall the mass at the start of take-off, or at the expected time of landing at the aerodrome of intended landing and at any destination alternate aerodrome, exceed the relevant maximum masses at which compliance has been demonstrated with the applicable noise certification Standards in Annex 16, Volume I, unless otherwise authorized in exceptional circumstances for a certain aerodrome or a runway where there is no noise disturbance problem, by the competent authority of the State in which the aerodrome is situated.
5.2.8 **Take-off.** The aeroplane shall be able, in the event of a critical power-unit failing at any point in the take-off, either to discontinue the take-off and stop within the accelerate-stop distance available, or to continue the take-off and clear all obstacles along the flight path by an adequate margin until the aeroplane is in a position to comply with 5.2.9.

5.2.8.1 In determining the length of the runway available, account shall be taken of the loss, if any, of runway length due to alignment of the aeroplane prior to take-off.

5.2.9 **En route — one power-unit inoperative.** The aeroplane shall be able, in the event of the critical power-unit becoming inoperative at any point along the route or planned diversions there from, to continue the flight to an aerodrome at which the Standard of 5.2.11 can be met, without flying below the minimum flight altitude at any point.

5.2.10 **En route — two power-units inoperative.** In the case of aeroplanes having three or more power-units, on any part of a route where the location of en-route alternate aerodromes and the total duration of the flight are such that the probability of a second power-unit becoming inoperative must be allowed for if the general level of safety implied by the Standards of this chapter is to be maintained, the aeroplane shall be able, in the event of any two power-units becoming inoperative, to continue the flight to an en-route alternate aerodrome and land.

5.2.11 **Landing.** The aeroplane shall, at the aerodrome of intended landing and at any alternate aerodrome, after clearing all obstacles in the approach path by a safe margin, be able to land, with assurance that it can come to a stop or, for a seaplane, to a satisfactorily low speed, within the landing distance available. Allowance shall be made for expected variations in the approach and landing techniques, if such allowance has not been made in the scheduling of performance data.

5.3 Obstacle data

5.3.1 The operator shall obtain details of all obstacle data to develop procedures to comply with 5.2.8.

5.3.2 The operator shall take account of charting accuracy when assessing compliance with

**A13-c) Weather reports and forecasts**

References: Annex 6, Part I, 4.3.5.2
4.3.5 Meteorological conditions

4.3.5.2 A flight to be conducted in accordance with the instrument flight rules;

a) shall not take off from the departure aerodrome unless the meteorological conditions, at the time of use, are at or above the operator’s established aerodrome operating minima for that operation; and

b) shall not take off or continue beyond the point of in-flight re-planning unless at the aerodrome of intended landing or at each alternate aerodrome to be selected in compliance with 4.3.4, current meteorological reports or a combination of current reports and forecasts indicate that the meteorological conditions will be, at the estimated time of use, at or above the operator’s established aerodrome operating minima for that operation.

A13-d) NOTAMs (Notice to Airman)

References: Annex 15, Chapter 5 and Annex 6, Part I, 4.3.3.1, 4.6.1 c)

4.3.3 Operational flight planning

4.3.3.1 An operational flight plan shall be completed for every intended flight. The operational flight plan shall be approved and signed by the pilot-in-command and, where applicable, signed by the flight operations officer/flight dispatcher, and a copy shall be filed with the operator or a designated agent, or, if these procedures are not possible, it shall be left with the aerodrome authority or on record in a suitable place at the point of departure.

Definition: Operational flight plan. The operator’s plan for the safe conduct of the flight based on considerations of aeroplane performance, other operating limitations and relevant expected conditions on the route to be followed and at the aerodromes concerned.

4.6.1 (c) furnish the pilot-in-command while in flight, by appropriate means, with information which may be necessary for the safe conduct of the flight.

A13-e) Cargo and manifest and, if applicable, passenger manifest

References: Annex 9, 2.13, 2.14 and 4.14
2.13 Contracting States shall not normally require the presentation of a Passenger Manifest. On those occasions when a Passenger Manifest is required, the information requirements shall be limited to the elements indicated in Appendix 2 of Annex 9. The information shall be accepted in either electronic or paper form.

2.14 When a Contracting State requires the presentation of the Cargo Manifest in paper form, it shall accept either:

a) the form shown in Annex 9, Appendix 3, completed according to the instructions; or

b) the form shown in Annex 9, Appendix 3, partially completed, with a copy of each air waybill representing the cargo on board the aircraft.

4.14 The production and presentation of the Cargo Manifest and the air waybill(s) shall be the responsibility of the aircraft operator or his authorized agent. The production and presentation of the other documents required for the clearance of the goods shall be the responsibility of the declarant.

A14. Mass and balance sheet
References: Annex 6, Part I, 4.3.1, 5.2.7

4.3.1 A flight shall not be commenced until flight preparation forms have been completed certifying that the pilot-in-command is satisfied that:

d) the mass of the aeroplane and centre of gravity location are such that the flight can be conducted safely, taking into account the flight conditions expected;

e) any load carried is properly distributed and safely secured;

5.2.7 Mass limitations

a) The mass of the aeroplane at the start of take-off shall not exceed the mass at which 5.2.8 is complied with, nor the mass at which 5.2.9, 5.2.10 and 5.2.11 are complied with, allowing for expected reductions in mass as the flight proceeds, and for such fuel jettisoning as is envisaged in applying 5.2.9 and 5.2.10 and, in respect of alternate aerodromes, 5.2.7 c) and 5.2.11.

b) In no case shall the mass at the start of take-off exceed the maximum take-off mass specified in the flight manual for the pressure-altitude appropriate to the
elevation of the aerodrome, and, if used as a parameter to determine the maximum take-off mass, any other local atmospheric condition.

c) In no case shall the estimated mass for the expected time of landing at the aerodrome of intended landing and at any destination alternate aerodrome, exceed the maximum landing mass specified in the flight manual for the pressure-altitude appropriate to the elevation of those aerodromes, and if used as a parameter to determine the maximum landing mass, any other local atmospheric condition.

d) In no case shall the mass at the start of take-off, or at the expected time of landing at the aerodrome of intended landing and at any destination alternate aerodrome, exceed the relevant maximum masses at which compliance has been demonstrated with the applicable noise certification Standards in Annex 16, Volume I, unless otherwise authorized in exceptional circumstances for a certain aerodrome or a runway where there is no noise disturbance problem, by the competent authority of the State in which the aerodrome is situated.

A15. Portable Fire Extinguishers
References: Annex 6, Part I, 6.2.2 b)

6.2.2 An aeroplane shall be equipped with:

b) portable fire extinguishers of a type which, when discharged, will not cause dangerous contamination of the air within the aeroplane. At least one shall be located in:

1) the pilot’s compartment; and
2) each passenger compartment that is separate from the pilot’s compartment and that is not readily accessible to the flight crew;

Note— Any portable fire extinguisher so fitted in accordance with the certificate of airworthiness of the aeroplane may count as one prescribed.

A16. Life jackets/Flotation devices
References: Annex 6, Part I, 6.5

6.5.2 Landplanes

6.5.2.1 Landplanes shall carry the equipment prescribed in 6.5.2.2:

a) when flying over water and at a distance of more than 93 km (50 NM) away from the shore, in the case of landplanes operated in accordance with 5.2.9 or 5.2.10;
b) when flying en route over water beyond gliding distance from the shore, in the case of all other landplanes; and

c) when taking off or landing at an aerodrome where, in the opinion of the State of the Operator, the take-off or approach path is so disposed over water that in the event of a mishap there would be a likelihood of a ditching.

6.5.2.2 The equipment referred to in 6.5.2.1 shall comprise one life jacket or equivalent individual flotation device for each person on board, stowed in a position easily accessible from the seat or berth of the person for whose use it is provided.

6.5.3 All aeroplanes on long range over water flights

6.5.3.1 In addition to the equipment prescribed in 6.5.1 or 6.5.2 whichever is applicable, the following equipment shall be installed in all aeroplanes when used over routes on which the aeroplane may be over water and at more than a distance corresponding to 120 minutes at cruising speed or 400 NM (740 km), whichever is the lesser, away from land suitable for making an emergency landing in the case of aircraft operated with 5.2.9 or 5.2.10 and 30 minutes or 185 km (100 NM), whichever is the lesser, for all other aeroplanes:

   a) lifesaving rafts in sufficient numbers to carry all persons on board, stowed so as to facilitate their ready use in emergency, provided with such life-saving equipment including means of sustaining life as is appropriate to the flight to be undertaken; and

   b) equipment for making the pyrotechnical distress signals described in CAR Section 4 Series ‘E’ Part I.

6.5.3.2 Each life jacket when carried in accordance with 6.5.1 a), 6.5.2.1 and 6.5.2.2, shall be equipped with a means of electric illumination for the purpose of facilitating the location of persons.

A17. Safety Harness
References: Annex 6, Part I, 6.2.2 (c)

3) a safety harness for each flight crew seat. The safety harness for each pilot seat shall incorporate a device which will automatically restrain the occupant’s torso in the event of rapid deceleration;

A18. Oxygen equipment
4.3.9 Oxygen supply

Note.— Approximate altitudes in the Standard Atmosphere corresponding to the values of absolute pressure used in the text are as follows:

<table>
<thead>
<tr>
<th>Absolute pressure</th>
<th>Metres</th>
<th>Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>700 hPa</td>
<td>3 000</td>
<td>10 000</td>
</tr>
<tr>
<td>620 hPa</td>
<td>4 000</td>
<td>13 000</td>
</tr>
<tr>
<td>376 hPa</td>
<td>7 600</td>
<td>25 000</td>
</tr>
</tbody>
</table>

4.3.9.1 A flight to be operated at flight altitudes at which the atmospheric pressure in personnel compartments will be less than 700 hPa shall not be commenced unless sufficient stored breathing oxygen is carried to supply:

a) all crew members and 10 per cent of the passengers for any period in excess of 30 minutes that the pressure in compartments occupied by them will be between 700 hPa and 620 hPa; and

b) the crew and passengers for any period that the atmospheric pressure in compartments occupied by them will be less than 620 hPa.

4.3.9.2 A flight to be operated with a pressurized aeroplane shall not be commenced unless a sufficient quantity of stored breathing oxygen is carried to supply all the crew members and passengers, as is appropriate to the circumstances of the flight being undertaken, in the event of loss of pressurization, for any period that the atmospheric pressure in any compartment occupied by them would be less than 700 hPa. In addition, when an aeroplane is operated at flight altitudes at which the atmospheric pressure is less than 376 hPa, or which, if operated at flight altitudes at which the atmospheric pressure is more than 376 hPa and cannot descend safely within four minutes to a flight altitude at which the atmospheric pressure is equal to 620 hPa, there shall be no less than a 10-minute supply for the occupants of the passenger compartment.

4.4.5 Use of oxygen

4.4.5.2 All flight crew members of pressurized aeroplanes operating above an altitude where the atmospheric pressure is less than 376 hPa (25,000 feet) shall have available at the flight duty station a quick-donning type of oxygen mask which will readily supply oxygen upon demand.
6.7.1 An aeroplane intended to be operated at flight altitudes at which the atmospheric pressure is less than 700 hPa in personnel compartments shall be equipped with oxygen storage and dispensing apparatus capable of storing and dispensing the oxygen supplies required in 4.3.9.1.

6.7.2 An aeroplane intended to be operated at flight altitudes at which the atmospheric pressure is less than 700 hPa but which is provided with means of maintaining pressures greater than 700 hPa in personnel compartments shall be provided with oxygen storage and dispensing apparatus capable of storing and dispensing the oxygen supplies required in 4.3.9.2.

A19. Emergency Flashlight
References: Annex 6, Part I, 6.10(g)

6.10 All aeroplanes when operated at night
\(g\) an independent portable light for each crew member station.

A20. Crew Member Licences – References: Annex 1, 1.2.1, 1.2.5.1, 1.2.9, 2.1.3, 2.1.7 and Chapter 5; Annex 6 Part I, 9.4.4

1.2.1 Authority to act as a flight crew member. A person shall not act as a flight crew member of an aircraft unless a valid licence is held showing compliance with the specifications of this Annex and appropriate to the duties to be performed by that person. The licence shall have been issued by the State of Registry of that aircraft or by any other Contracting State and rendered valid by the State of Registry of that aircraft.

Note—Article 29 of the Convention on International Civil Aviation requires that the flight crew members carry their appropriate licences on board every aircraft engaged in international navigation.

1.2.5.1 A Contracting State, having issued a licence, shall ensure that the privileges granted by that licence, or by related ratings, are not exercised unless the holder maintains competency and meets the requirements for recent experience established by that State.

1.2.9 Language proficiency.

1.2.9.4 Aeroplane, airship, helicopter and powered-lift pilots, air traffic controllers and aeronautical station operators shall demonstrate the ability to speak and understand
the language used for radiotelephony communications to the level specified in the language proficiency requirements in Appendix 1 of Annex 1.

2.1.3 Class and type ratings

2.1.3.1 Class ratings shall be established for aeroplanes certificated for single-pilot operation and shall comprise:

a) single-engine, land;

b) single-engine, sea;

c) multi-engine, land;

d) multi-engine, sea.

Note— The provisions of this paragraph do not preclude the establishment of other class ratings within this basic structure.

2.1.3.2 Type ratings shall be established for:

a) aircraft certificated for operation with a minimum crew of at least two pilots;

b) helicopters and powered-lifts certificated for single-pilot operation except where a class rating has been issued under 2.1.3.1.1; and

c) any aircraft whenever considered necessary by the Licensing Authority.

2.1.3.3 When an applicant demonstrates skill and knowledge for the initial issue of a pilot licence, the category and the ratings appropriate to the class or type of aircraft used in the demonstration shall be entered on the licence.

2.1.7 Circumstances in which an instrument rating is required. A Contracting State, having issued a pilot licence, shall not permit the holder thereof to act either as pilot-in-command or as co-pilot of an aircraft under instrument flight rules (IFR) unless such holder has received proper authorization from such Contracting State. Proper authorization shall comprise an instrument rating appropriate to the aircraft category.

Chapter 5. Specifications for Personnel Licences
5.1 Personnel licences issued by a Contracting State in accordance with the relevant provisions of this Annex shall conform to the following specifications:

5.1.1 Detail

5.1.1.1 A Contracting State having issued a licence shall ensure that other States are able to easily determine the licence privileges and validity of ratings.

*Note*— *Operator records or a flight crew member’s personal log book, in which maintenance of competency and recent experience may be satisfactorily recorded, are not normally carried on international flights.*

5.1.1.2 The following details shall appear on the licence:

I) Name of State (in bold type);

II) Title of licence (in very bold type);

III) Serial number of the licence, in Arabic numerals, given by the authority issuing the licence;

IV) Name of holder in full (in Roman alphabet also if script of national language is other than Roman); IV a) Date of birth;

V) Address of holder if desired by the State;

VI) Nationality of holder;

VII) Signature of holder;

VIII) Authority and, where necessary, conditions under which the licence is issued;

IX) Certification concerning validity and authorization for holder to exercise privileges appropriate to licence;

X) Signature of officer issuing the licence and the date of such issue;

XI) Seal or stamp of authority issuing the licence;
XII) Ratings, e.g. category, class, type of aircraft, airframe, aerodrome control, etc.;

XIII) Remarks, i.e. special endorsements relating to limitations and endorsements for privileges, including an endorsement of language proficiency, and other information required in pursuance to Article 39 of the Chicago Convention;

XIV) Any other details desired by the State issuing the licence.

5.1.2 Material

First quality paper or other suitable material, including plastic cards, shall be used and the items mentioned in 5.1.1.2 shown clearly thereon.

5.1.3 Language

When licences are issued in a language other than English, the licence shall include an English translation of at least items I), II), VI), IX), XII), XIII) and XIV). When provided in a language other than English, authorizations issued in accordance with 1.2.2.1 shall include an English translation of the name of the State issuing the authorization, the limit of validity of the authorization and any restriction or limitation that may be established.

5.1.4 Arrangement of items

Item headings on the licence shall be uniformly numbered in roman numerals as indicated in 5.1.1, so that on any licence the number will, under any arrangement, refer to the same item heading.

Annex 6 Part I, 9.4.4

9.4.4 Pilot proficiency checks

9.4.4.1 An operator shall ensure that piloting technique and the ability to execute emergency procedures is checked in such a way as to demonstrate the pilot’s competence on each type or variant of a type of aeroplane. Where the operation may be conducted under instrument flight rules, an operator shall ensure that the pilot’s competence to comply with such rules is demonstrated to either a check pilot of the operator or to a representative of the State of the Operator. Such checks shall be performed twice within any period of one year. Any two such checks which are similar and which occur within a period of four consecutive months shall not alone satisfy this requirement.
9.4.4.2 When an operator schedules flight crew on several variants of the same type of aeroplane or different types of aeroplanes with similar characteristics in terms of operating procedures, systems and handling, the State shall decide under which conditions the requirements of 9.4.4.1 for each variant or each type of aeroplane can be combined.

9.4.5 Single pilot operations under the instrument flight rules (IFR) or at night

9.4.5.1 The State of the Operator shall prescribe requirements of experience, recency and training applicable to single pilot operations intended to be carried out under the IFR or at night.

9.4.5.3 The initial and recurrent flight training and proficiency checks indicated in 9.3.1 and 9.4.4 shall be performed by the pilot-in-command in the single pilot role on the class of aeroplane in an environment representative of the operation.

A 21. Journey log book or technical log and voyage report

References: Annex 6, Part I, 4.3.1 and 11.4

4.3.1 A flight shall not be commenced until flight preparation forms have been completed certifying that the pilot-in-command is satisfied that:

a) the aeroplane is airworthy;

b) a maintenance release as prescribed in 8.8 has been issued in respect of the aeroplane;

c) the aeroplane is airworthy;

d) a maintenance release as prescribed in 8.8 has been issued in respect of the aeroplane;

4.5.5 The pilot-in-command shall be responsible for the journey log book or the general declaration containing the information listed in 11.4.1.

Note.— By virtue of Resolution A10-36 of the Tenth Session of the Assembly (Caracas, June–July 1956) “the General Declaration, [described in Annex 9] when prepared so as to contain all the information required by Article 34 [of the Convention on International Civil Aviation] with respect to the journey log book, may be considered by Contracting States to be an acceptable form of journey log book.

11.4 Journey log book

11.4.1 Recommendation.— The aeroplane journey log book should contain the following items and the corresponding roman numerals:
I — Aeroplane nationality and registration.
II — Date.
III — Names of crew members.
IV — Duty assignments of crew members.
V — Place of departure.
VI — Place of arrival.
VII — Time of departure.
VIII — Time of arrival.
IX — Hours of flight.
X — Nature of flight (private, aerial work, scheduled or non-scheduled).
XI — Incidents, observations, if any.
XII — Signature of person in charge.

11.4.2 Recommendation.— Entries in the journey log book should be made currently and in ink or indelible pencil.

11.4.3 Recommendation.— Completed journey log book should be retained to provide a continuous record of the last six months’ operations.

A22. Maintenance release
References: Annex 6, Part I, 8.8

8.8 Maintenance release

8.8.1 A maintenance release shall be completed and signed to certify that the maintenance work performed has been completed satisfactorily and in accordance with approved data and the procedures described in the maintenance organization’s procedures manual.

8.8.2 A maintenance release shall contain a certification including:

a) basic details of the maintenance carried out including detailed reference of the approved data used;
b) the date such maintenance was completed;
c) when applicable, the identity of the approved maintenance organization; and
d) the identity of the person or persons signing the release.

A23. Defect notification and rectification (incl. Tech Log)
References: Annex 6, Part I, 4.3.1, 4.5.4, 6.1.3
4.3.1 A flight shall not be commenced until flight preparation forms have been completed certifying that the pilot-in-command is satisfied that:

   a) the aeroplane is airworthy and the appropriate certificates (i.e. airworthiness, registration) are on board the aeroplane;
   b) the instruments and equipment prescribed in Chapter 6, for the particular type of operation to be undertaken, are installed and are sufficient for the flight;
   c) a maintenance release as prescribed in 8.8 has been issued in respect of the aeroplane

4.5.4 The pilot-in-command shall be responsible for reporting all known or suspected defects in the aeroplane, to the operator, at the termination of the flight.

6.1.3 The operator shall include in the operations manual a minimum equipment list (MEL), approved by the State of the Operator which will enable the pilot-in-command to determine whether a flight may be commenced or continued from any intermediate stop should any instrument, equipment or systems become inoperative. Where the State of the Operator is not the State of Registry, the State of the Operator shall ensure that the MEL does not affect the aeroplane’s compliance with the airworthiness requirements applicable in the State of Registry.

A 24. Pre-flight inspection
References: Annex 6, Part I, 4.3.1

4.3.1 A flight shall not be commenced until flight preparation forms have been completed certifying that the pilot-in-command is satisfied that:

   a) the aeroplane is airworthy;
   c) a maintenance release as prescribed in 8.8 has been issued in respect of the aeroplane;

4.5 Duties of pilot-in-command

4.5.4 The pilot-in-command shall be responsible for reporting all known or suspected defects in the aeroplane, to the operator, at the termination of the flight.
4.5.5 The pilot-in-command shall be responsible for the journey log book or the general declaration containing the information listed in 11.4.1.

Note—By virtue of Resolution A10-36 of the Tenth Session of the Assembly (Caracas, June–July 1956) “the General Declaration, [described in Annex 9] when prepared so as to contain all the information required by Article 34 [of the Convention on International Civil Aviation] with respect to the journey log book, may be considered by Contracting States to be an acceptable form of journey log book”.

4.6 Duties of flight operations officer/flight dispatcher

4.6.1 A flight operations officer/flight dispatcher in conjunction with a method of control and supervision of flight operations in accordance with 4.2.1.3 shall:

4.6.2 In the event of an emergency, a flight operations officer/flight dispatcher shall:

a) initiate such procedures as outlined in the operations manual while avoiding taking any action that would conflict with ATC procedures; and

b) convey safety-related information to the pilot-in-command that may be necessary for the safe conduct of the flight, including information related to any amendments to the flight plan that become necessary in the course of the flight.

A 25 Additional requirements for operations by aeroplanes with turbine engines beyond 60 minutes to an en-route alternate aerodrome including extended diversion time operations (EDTO)
Reference: Annex 6 m 4.7

4.7.1 Requirements for operations beyond 60 minutes to an en-route alternate aerodrome

4.7.1.1 Operators conducting operations beyond 60 minutes from a point on a route to an enroute alternate aerodrome shall ensure that:

a) for all aeroplanes:
1) en-route alternate aerodromes are identified; and
2) the most up-to-date information is provided to the flight crew on identified en-route alternate aerodromes, including operational status and meteorological conditions;
b) for aeroplanes with two turbine engines, the most up-to-date information provided to the flight crew indicates that conditions at identified en-route alternate aerodromes will be at or above the operator’s established aerodrome operating minima for the operation at the estimated time of use.

*Note— Guidance on compliance with the requirements of these provisions is contained in Attachment D to Annex 6 Part I.*

4.7.1.2 In addition to the requirements in 4.7.1.1, all operators shall ensure that the following are taken into account and provide the overall level of safety intended by the provisions of Annex 6, Part I:

a) operational control and flight dispatch procedures;
b) operating procedures; and
c) training programmes.

4.7.2 Requirements for extended diversion time operations (EDTO)

4.7.2.1 Unless the operation has been specifically approved by State of the Operator, an aeroplane with two or more turbine engines shall not be operated on a route where the diversion time to an en-route alternate aerodrome from any point on the route, calculated in ISA and still-air conditions at the one-engine-inoperative cruise speed for aeroplanes with two turbine engines and at the all engines operating cruise speed for aeroplanes with more than two turbine engines, exceeds a threshold time established for such operations by the state.

*Note 1— When the diversion time exceeds the threshold time, the operation is considered to be an extended diversion time operation (EDTO).*

*Note 2— Guidance on the establishment of an appropriate threshold time and on approval of extended diversion time operations is contained in Attachment D to Annex 6 Part I.*

*Note 3— For the purpose of EDTO, the take-off and/or destination aerodromes may be considered en-route alternate aerodromes.*

4.7.2.2 The maximum diversion time for an operator of a particular aeroplane type engaged in extended diversion time operations shall be approved by State of the Operator.

*Note— Guidance on the conditions to be used when converting diversion times to distances is contained in Attachment D to Annex 6 Part I.*
Note— Guidance on the specific safety risk assessment is contained in Attachment D to Annex 6 Part I.

4.7.2.4 For aeroplanes engaged in EDTO, the additional fuel required by 4.3.6.3 f) 2) shall include the fuel necessary to comply with the EDTO critical fuel scenario as established by State of the Operator.

Note— Guidance on compliance with the requirements of this provision is in Attachment D to Annex 6 Part I.

4.7.2.5 A flight shall not proceed beyond the threshold time in accordance with 4.7.2.1 unless the identified en-route alternate aerodromes have been re-evaluated for availability and the most up-to-date information indicates that, during the estimated time of use, conditions at those aerodromes will be at or above the operator’s established aerodrome operating minima for the operation. If any conditions are identified that would preclude a safe approach and landing at that aerodrome during the estimated time of use, an alternative course of action shall be determined.

B. Cabin/Safety

B1. General Condition
References: Annex 8, Part III, 8.3

8.3 Safety and survival equipment

Prescribed safety and survival equipment that the crew or passengers are expected to use or operate at the time of an emergency shall be reliable, readily accessible and easily identified, and its method of operation shall be plainly marked.

B2. Cabin crew seats and safety harness
References: Annex 6, Part I, 6.16

6.16 Aeroplanes carrying passengers — cabin crew seats

6.16.1 Aeroplanes for which the individual certificate of airworthiness is first issued on or after 1 January 1981 - All aeroplanes shall be equipped with a forward or rearward facing (within 15 degrees of the longitudinal axis of the aeroplane) seat,
fitted with a safety harness for the use of each cabin crew member required to satisfy the intent of 12.1 in respect of emergency evacuation.

6.16.3 Cabin crew seats provided .... shall be located near floor level and other emergency exits as required by the State of Registry for emergency evacuation

B3. First Aid kit/Emergency Medical kit
References: Annex 6, Part I, 6.2.2

6.2.2 An aeroplane shall be equipped with:

a) accessible and adequate medical supplies appropriate to the number of passengers the aeroplane is authorized to carry;

B4 Portable Fire Extinguishers

References Annex 6, Part I, 6.2.2

6.2.2 An aeroplane shall be equipped with:

b) portable fire extinguishers of a type which, when discharged, will not cause dangerous contamination of the air within the aeroplane. At least one shall be located in:

1) the pilot’s compartment; and

2) each passenger compartment that is separate from the pilot’s compartment and that is not readily accessible to the flight crew;

B5. Lift jackets/Flotation device
References: Annex 6, Part I, 6.5

6.5.2.1: Landplanes shall carry the equipment prescribed in 6.5.2.2:

a) when flying over water and at a distance of more than 93 km (50 NM) away from the shore, in the case of landplanes operated in accordance with 5.2.9 or 5.2.10;

b) when flying en route over water beyond gliding distance from the shore, in the case of all other landplanes; and

c) when taking off or landing at an aerodrome where, in the opinion of the State of the Operator, the take-off or approach path is so disposed over water that in the event of a mishap there would be a likelihood of a ditching.
6.5.2.2 The equipment referred to in 6.5.2.1 shall comprise one life jacket or equivalent individual flotation device for each person on board, stowed in a position easily accessible from the seat or berth of the person for whose use it is provided.

B6. Seat belts

References: Annex 6, Part I, 6.2.2

6.2.2 An aeroplane shall be equipped with:

c) a seat or berth for each person over an age to be determined by the State of the Operator; 1) a seat belt for each seat and restraining belts for each berth; and …

d) means of ensuring that the following information and instructions are conveyed to passengers:

1) when seat belts are to be fastened;
2) when and how oxygen equipment is to be used if the carriage of oxygen is required;
3) restrictions on smoking;
4) location and use of life jackets or equivalent individual flotation devices where their carriage is required; and
5) location and method of opening emergency exits; and

B7. Emergency exit lighting and marking, emergency flashlights
References: Annex 6, Part I, 6.10 and Annex 8, Part IIIA, 4.1.7.3 and Part IIIB, D 6.3

6.10 All aeroplanes when operated at night

............f) an electric torch for each crew member station.

4.1.7 (or D.6) Emergency landing provisions

4.1.7.3 (or D.6.3) The interior layout of the cabin and the position and number of emergency exits, including the means of locating and illuminating the escape paths and exits, shall be such as to facilitate rapid evacuation of the aeroplane in conditions likely to occur following an emergency landing.

B8. Slides/Life Rafts and pyrotechnical distress signaling devices References:
Annex 6, Part I, 6.5, 6.6 and Annex 8, Part IIIA, 4.1.7 (and Part IIID, D6)

6.5 All aeroplanes on flights over water

6.5.2.1 Landplanes shall carry the equipment prescribed in 6.5.2.2:

a) when flying over water and at a distance of more than 93 km (50 NM) away from the shore, in the case of landplanes operated in accordance with 5.2.9 or 5.2.10;

b) when flying en route over water beyond gliding distance from the shore, in the case of all other landplanes; and

c) when taking off or landing at an aerodrome where, in the opinion of the State of the Operator, the take-off or approach path is so disposed over water that in the event of a mishap there would be a likelihood of a ditching.

6.5.2.2 The equipment referred to in 6.5.2.1 shall comprise one life jacket or equivalent individual flotation device for each person on board, stowed in a position easily accessible from the seat or berth of the person for whose use it is provided.

6.5.3 All aeroplanes on long-range over-water flights

6.5.3.1 In addition to the equipment prescribed in 6.5.1 or 6.5.2 whichever is applicable, the following equipment shall be installed in all aeroplanes when used over routes on which the aeroplane may be over water and at more than a distance corresponding to 120 minutes at cruising speed or 740 km (400 NM), whichever is the lesser, away from land suitable for making an emergency landing in the case of aircraft operated in accordance with 5.2.9 or 5.2.10, and 30 minutes or 185 km (100 NM), whichever is the lesser, for all other aeroplanes:

a) life-saving rafts in sufficient numbers to carry all persons on board, stowed so as to facilitate their ready use in emergency, provided with such life-saving equipment including means of sustaining life as is appropriate to the flight to be undertaken; and

b) equipment for making the pyrotechnical distress signals described in Annex 2.

6.5.3.2 Each life jacket and equivalent individual flotation device, shall be equipped with a means of electric illumination for the purpose of facilitating the location of persons, except where the requirement of 6.5.2.1 c) is met by the provision of individual flotation devices other than life jackets.
6.6 All aeroplanes on flights over designated land areas

Aeroplanes, when operated across land areas which have been designated by the State concerned as areas in which search and rescue would be especially difficult, shall be equipped with such signalling devices and life-saving equipment (including means of sustaining life) as may be appropriate to the area over flown.

4.1.7 Emergency landing provisions

4.1.7.1 Provisions shall be made in the design of the aeroplane to protect the occupants, in the event of an emergency landing, from fire and from the direct effects of deceleration forces as well as from injuries arising from the effect of deceleration forces on the aeroplane’s interior equipment.

4.1.7.2 Facilities shall be provided for the rapid evacuation of the aeroplane in conditions likely to occur following an emergency landing. Such facilities shall be related to the passenger and crew capacity of the aeroplane.

4.1.7.3 The interior layout of the cabin and the position and number of emergency exits, including the means of locating and illuminating the escape paths and exits, shall be such as to facilitate rapid evacuation of the aeroplane in conditions likely to occur following an emergency landing.

4.1.7.4 On aeroplanes certificated for ditching conditions, provisions shall be made in the design to give maximum practicable assurance that safe evacuation from the aeroplane of passengers and crew can be executed in case of ditching.

D.6 Emergency landing provisions

D.6.1 Same as 4.1.7.1 above.

D.6.2 Facilities shall be provided for the rapid evacuation of the aeroplane in conditions likely to occur following an emergency landing. Such facilities shall be related to the passenger and crew capacity of the aeroplane and shall be shown to be suitable for their intended purpose.

D.6.3 Same as 4.1.7.3 above.

D.6.4 Same as 4.1.7.4 above.

B9. Oxygen Supply (Cabin crew & Passengers)
4.3.8 Oxygen supply

Note—Approximate altitudes in the Standard Atmosphere corresponding to the values of absolute pressure used in the text are as follows:

<table>
<thead>
<tr>
<th>Absolute pressure</th>
<th>Metres</th>
<th>Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>700 hPa</td>
<td>3 000</td>
<td>10 000</td>
</tr>
<tr>
<td>620 hPa</td>
<td>4 000</td>
<td>13 000</td>
</tr>
<tr>
<td>376 hPa</td>
<td>7 600</td>
<td>25 000</td>
</tr>
</tbody>
</table>

4.3.8.1 A flight to be operated at flight altitudes at which the atmospheric pressure in personnel compartments will be less than 700 hPa shall not be commenced unless sufficient stored breathing oxygen is carried to supply:

a) all crew members and 10 per cent of the passengers for any period in excess of 30 minutes that the pressure in compartments occupied by them will be between 700 hPa and 620 hPa; and

b) the crew and passengers for any period that the atmospheric pressure in compartments occupied by them will be less than 620 hPa.

4.3.8.2 A flight to be operated with a pressurized aeroplane shall not be commenced unless a sufficient quantity of stored breathing oxygen is carried to supply all the crew members and passengers, as is appropriate to the circumstances of the flight being undertaken, in the event of loss of pressurization, for any period that the atmospheric pressure in any compartment occupied by them would be less than 700 hPa. In addition, when an aeroplane is operated at flight altitudes at which the atmospheric pressure is less than 376 hPa, or which, if operated at flight altitudes at which the atmospheric pressure is more than 376 hPa and cannot descend safely within four minutes to a flight altitude at which the atmospheric pressure is equal to 620 hPa, there shall be no less than a 10-minute supply for the occupants of the passenger compartment .......... (6.7.5) and for which the individual certificate of airworthiness is first issued on or after 9 November 1998, shall be provided with automatically deployable oxygen equipment to satisfy the requirements of 4.3.8.2. The total number of oxygen dispensing units shall exceed the number of passenger and cabin crew seats by at least 10 per cent.

B10. Emergency Briefing Cards
References: Annex 6, Part I, 6.2.2

……

d) means of ensuring that the following information and instructions are conveyed to passengers:

1) when seat belts are to be fastened;

2) when and how oxygen equipment is to be used if the carriage of oxygen is required;

3) restrictions on smoking;

4) location and use of life jackets or equivalent individual flotation devices where their carriage is required; and

5) location and method of opening emergency exits;

4.2.12.1 An operator shall ensure that passengers are made familiar with the location and use of:

a) seat belts;

b) emergency exits;

c) life jackets, if the carriage of life jackets is prescribed;

d) oxygen dispensing equipment, if the provision of oxygen for the use of passengers is prescribed; and

e) other emergency equipment provided for individual use, including passenger emergency briefing cards

B11. Cabin crew members

References: Annex 6, Part I, 12.1

12.1 Assignment of emergency duties

An operator shall establish, to the satisfaction of the State of the Operator, the minimum number of cabin crew required for each type of aeroplane, based on seating capacity or the number of passengers carried, in order to effect a safe and expeditious evacuation of the aeroplane, and the necessary functions to be performed in an emergency or a situation requiring emergency evacuation. The operator shall assign these functions for each type of aeroplane.

4.3.7.1 An aeroplane shall not be refuelled when passengers are embarking, on board or disembarking unless it is properly attended by qualified personnel ready
to initiate and direct an evacuation of the aeroplane by most practical and expeditious means available.

4.3.7.2 When refuelling with passengers embarking, on board or disembarking, two-way communication shall be maintained by the aeroplane's inter-communication system or other suitable means between the ground crew supervising the refuelling and the qualified personnel on board the aeroplane.

**B12. Access to Emergency Exits**

**References:** Annex 8, Part IIIA, 4.1.7 (and Part III D.6.2 and D.6.3)

4.1.7.2 Facilities shall be provided for the rapid evacuation of the aeroplane in conditions likely to occur following an emergency landing. Such facilities shall be related to the passenger and crew capacity of the aeroplane.

4.1.7.3 The interior layout of the cabin and the position and number of emergency exits, including the means of locating and illuminating the escape paths and exits, shall be such as to facilitate rapid evacuation of the aeroplane in conditions likely to occur following an emergency landing.

4.1.7.4 On aeroplanes certificated for ditching conditions, provisions shall be made in the design to give maximum practicable assurance that safe evacuation from the aeroplane of passengers and crew can be executed in case of ditching.

**B13. Safety of cabin baggage**

**References:** Annex 6, Part I, 4.8

**4.8 Carry-on baggage**

The operator shall ensure that all baggage carried onto an aeroplane and taken into the passenger cabin is adequately and securely stowed.

**B14. Seat Capacity**

**References:** Annex 6, Part I, 6.2.2

6.2.2 An aeroplane shall be equipped with:

c) a seat or berth for each person over an age to be determined by the State of the Operator; 1) a seat belt for each seat and restraining belts for each berth; and

**B15. Security of the flight crew compartment door** (if applicable)
References: Annex 6, Part I, 13.2

13.2 Security of the flight crew compartment

13.2.1 In all aeroplanes which are equipped with a flight crew compartment door, this door shall be capable of being locked, and means shall be provided by which cabin crew can discreetly notify the flight crew in the event of suspicious activity or security breaches in the cabin.

13.2.2 From 1 November 2003, all passenger-carrying aeroplanes of a maximum certificated take-off mass in excess of 45 500 kg or with a passenger seating capacity greater than 60 shall be equipped with an approved flight crew compartment door that is designed to resist penetration by small arms fire and grenade shrapnel, and to resist forcible intrusions by unauthorized persons. This door shall be capable of being locked and unlocked from either pilot's station.

13.2.3 In all aeroplanes which are equipped with a flight crew compartment door in accordance with 13.2.2:

a) this door shall be closed and locked from the time all external doors are closed following embarkation until any such door is opened for disembarkation, except when necessary to permit access and egress by authorized persons; and

b) means shall be provided for monitoring from either pilot’s station the entire door area outside the flight crew compartment to identify persons requesting entry and to detect suspicious behaviour or potential threat.

C. Aircraft External Condition

C.11. Obvious un-repaired damage

References: Annex 8, Part II, 3.6

3.6 Damage to aircraft
3.6.1 When an aircraft has sustained damage, the State of Registry shall judge whether the damage is of a nature such that the aircraft is no longer airworthy as defined by the appropriate airworthiness requirements.

3.6.2 If the damage is sustained or ascertained when the aircraft is in the territory of another Contracting State, the authorities of the other Contracting State shall be entitled to prevent the aircraft from resuming its flight on the condition that they shall advise the State of Registry immediately, communicating to it all details necessary to formulate the judgment referred to in 3.6.1.

3.6.3 When the State of Registry considers that the damage sustained is of a nature such that the aircraft is no longer airworthy, it shall prohibit the aircraft from resuming flight until it is restored to an airworthy condition. The State of Registry may, however, in exceptional circumstances, prescribe particular limiting conditions to permit the aircraft to fly a non-commercial air transport operation to an aerodrome at which it will be restored to an airworthy condition. In prescribing particular limiting conditions the State of Registry shall consider all limitations proposed by the Contracting State that had originally, in accordance with 3.6.2, prevented the aircraft from resuming its flight. That Contracting State shall permit such flight or flights within the prescribed limitations.

3.6.4 When the State of Registry considers that the damage sustained is of a nature such that the aircraft is still airworthy, the aircraft shall be allowed to resume its flight.

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D. Cargo

D.2. Dangerous Goods
References: Annex 18, 9.1 and 9.2

9.1 Information to pilot-in-command

The operator of an aircraft in which dangerous goods are to be carried shall provide the pilot-in-command as early as practicable before departure of the aircraft with written information as specified in the Technical Instructions.

9.2 Information and instructions to flight crew members
The operator shall provide such information in the Operations Manual as will enable the flight crew to carry out its responsibilities with regard to the transport of dangerous goods and shall provide instructions as to the action to be taken in the event of emergencies arising involving dangerous goods.

D.3. Safety of cargo on board
References: Annex 6, Part I, 4.3.1

4.3 Flight preparation

4.3.1 A flight shall not be commenced until flight preparation forms have been completed certifying that the pilot-in-command is satisfied that: …..

d) the mass of the aeroplane and centre of gravity location are such that the flight can be conducted safely, taking into account the flight conditions expected;

e) any load carried is properly distributed and safely secured;

E. General

E1. Additional Remark
Reference: Nil

E-2 Refuelling
References: Annex 6, Part I, 4.3.7

4.3.7 Refuelling with passengers on board

4.3.7.1 An aeroplane shall not be refuelled when passengers are embarking, on board or disembarking unless it is properly attended by qualified personnel ready to initiate and direct an evacuation of the aeroplane by the most practical and expeditious means available.

4.3.7.2 When refuelling with passengers embarking, on board or disembarking, two-way communication shall be maintained by the aeroplane’s inter-communication system or other suitable means between the ground crew supervising the refuelling and the qualified personnel on board the aeroplane.
Note 1—The provisions of 4.3.7.1 do not necessarily require the deployment of integral aeroplane stairs or the opening of emergency exits as a prerequisite to refuelling.

E3. Language for communication
References: Annex I. 1.2.9

1.2.9 Language proficiency.

1.2.9.1 Aeroplane, airship, helicopter and powered-lift pilots, air traffic controllers and aeronautical station operators shall demonstrate the ability to speak and understand the language used for radiotelephony communications to the level specified in the language proficiency requirements in Appendix 1 of Annex 1.
DGCA References for Ramp Inspections Guidance

(Indian Operators)

*Note:* The references below are for only turbine powered aeroplanes and are provided as an aid to assist the inspector when conducting the inspection. Prior to finalizing any inspection report the inspector should verify the DGCA requirement/wording as contained in the appropriate current regulations.

*Aircraft Rule 1937*

*Civil Aviation Requirements – Section 2, Series I part III, IV, V, VI and VII*

*Civil Aviation Requirements – Section 8, Series F part I, O part II*

*Annex 1 to Amendment Number 172*

*Annex 8 to Amendment Number 104*

*Annex 9 to Amendment Number 23*

*Annex 15 to Amendment Number 37*

*Annex 16 to Amendment Number 11B*

*Annex 18 to Amendment Number 11*
A- Flight Deck

A1- General Condition:
Reference:- NIL

A2 – Emergency Exit

References: Annex 8, Part III-A, 4.1.7 – Emergency landing provisions – with similar provisions in other Parts of Annex 8

4.1.7.1 Provisions shall be made in the design of the aeroplane to protect the occupants, in the event of an emergency landing, from fire and from the direct effects of deceleration forces as well as from injuries arising from the effect of deceleration forces on the aeroplane’s interior equipment.

4.1.7.2 Facilities shall be provided for the rapid evacuation of the aeroplane in conditions likely to occur following an emergency landing. Such facilities shall be related to the passenger and crew capacity of the aeroplane.

4.1.7.3 The interior layout of the cabin and the position and number of emergency exits, including the means of locating and illuminating the escape paths and exits, shall be such as to facilitate rapid evacuation of the aeroplane in conditions likely to occur following an emergency landing.

4.1.7.4 On aeroplane certificated for ditching conditions provisions shall be made in the design to give maximum practicable assurance that safe evacuation from the aeroplane of passengers and crew can be executed in the case of ditching.

A3 – Equipment

A3-a) Altimeters:
References: CAR Section-8, Series-O, Part-II, Para 6.9.1 (c)

6.9 All aeroplanes operated in accordance with instrument flight rules

6.9.1 All aeroplanes when operated in accordance with the instrument flight rules, or when the aeroplane cannot be maintained in a desired attitude without reference to one or more flight instruments, shall be equipped with:
a) a magnetic compass;
b) an accurate timepiece indicating the time in hours, minutes and seconds;
c) **two sensitive pressure altimeters with counter drum-pointer or equivalent presentation**;

*Note — Neither three-pointer nor drum-pointer altimeters satisfy the requirement in 6.9.1 c).*

d) an airspeed indicating system with means of preventing malfunctioning due to either condensation or icing;

e) a turn and slip indicator;

f) an attitude indicator (artificial horizon);

g) a heading indicator (directional gyroscope);

*Note— The requirements of 6.9.1 e), f) and g) may be met by combinations of instruments or by integrated flight director systems provided that the safeguards against total failure, inherent in the three separate instruments, are retained.*

h) a means of indicating whether the power supply to the gyroscopic instrument is adequate;

i) a means of indicating in the flight crew compartment the outside air temperature;

j) a rate-of-climb and descent indicator; and

k) such additional instruments or equipment as may be prescribed by the appropriate authority.

**A3-b) ACAS II:**

References: CAR Section-2, Series-I, Part-VIII, Para 5 & CAR Section-8, Series-O, Part-II, Para 6.9.1 (c)

5. Aeroplanes required to be equipped with an airborne collision avoidance system (ACAS II)
5.2 all turbine-engined aeroplanes of a maximum certificated take-off mass in excess of 5 700 kg or authorized to carry more than 19 passengers shall be equipped with an airborne collision avoidance system (ACAS II).

A3-c) CVR & FDR

References: CAR Section-2, Series-I, Part-V & VI and CAR Section-8, Series-O, Part-II, Para 6.3 Flight recorders

Note 1— Flight recorders comprise two systems, a flight data recorder (FDR) and a cockpit voice recorder (CVR).

Note 2— Combination recorders (FDR/CVR) can only be used to meet the flight recorder equipage requirements as specifically indicated in this regulation.

Note 3— Detailed guidance on flight recorders is contained in Attachment D.

4. Flight data recorders — types

4.1.2 A Type I FDR shall record the parameters required to determine accurately the aeroplane flight path, speed, attitude, engine power, configuration and operation.

4.1.3 Types II and IIA FDRs shall record the parameters required to determine accurately the aeroplane flight path, speed, attitude, engine power and configuration of lift and drag devices.

4.1.1 A Type IA FDR shall record the parameters required to determine accurately the aeroplane flight path, speed, attitude, engine power, configuration and operation.

4.3.3 The use of photographic film FDRs shall be discontinued from 1 January 2003.

4.4.1 Flight data recorders — duration All FDRs shall be capable of retaining the information recorded during at least the last 25 hours of their operation.

4.2.1.5 Flight data recorders — aeroplanes for which the individual certificate of airworthiness is first issued on or after 1 January 1989. All aeroplanes of a maximum certificated take-off mass of over 27 000 kg shall be equipped with a Type I FDR.

4.2.1.6 All aeroplanes of a maximum certificated take-off mass of over 5 700 kg, up to and including 27 000 kg, shall be equipped with a Type II FDR.
4.2.1.3 All turbine-engined aeroplanes of a maximum certificated take-off mass of over 27 000 kg that are of types of which the prototype was certificated by the appropriate national authority after 30 September 1969 shall be equipped with a Type II FDR.

4.2.1.7 All turbine-engined aeroplanes of a maximum certificated take-off mass of over 5 700 kg for which the individual certificate of airworthiness was first issued after 01 January 2005 shall be equipped with Type IA FDR.

3.1.4 Cockpit voice recorders — aeroplanes for which the individual certificate of airworthiness is first issued on or after 1 January 1987. All aeroplanes of a maximum certificated take-off mass of over 5 700 kg shall be equipped with a CVR, the objective of which is the recording of the aural environment on the flight deck during flight time.

3.3 Cockpit voice recorders — duration

3.3.1 A CVR shall be capable of retaining the information recorded during at least the last 30 minutes of its operation.

3.1.3 A CVR, installed in aeroplanes of a maximum certificated take-off mass of over 5 700 kg for which the individual certificate of airworthiness is first issued after 1 January 2003, shall be capable of retaining the information recorded during at least the last two hours of its operation.

A3-d) GPWS
References: CAR Section-2, Series-I, Part-VII, Para 3

3. Aeroplanes required to be equipped with ground proximity warning systems (GPWS)

3.7 From 1 January 2007, all turbine-engined aeroplanes of a maximum certificated take-off mass in excess of 5 700 kg or authorized to carry more than nine passengers, shall be equipped with a ground proximity warning system which has a forward looking terrain avoidance function.

2. A ground proximity warning system shall provide automatically a timely and distinctive warning to the flight crew when the aeroplane is in potentially hazardous proximity to the earth’s surface.
4.1 A ground proximity warning system shall provide, unless otherwise specified herein, warnings of the following circumstances:

a) excessive descent rate;

b) excessive terrain closure rate;

c) excessive altitude loss after take-off or go-around;

d) unsafe terrain clearance while not in landing configuration;
   1) gear not locked down;
   2) flaps not in a landing position; and

e) excessive descent below the instrument glide path.

A3-e) ELT
References: CAR Section-8, Series-O, Part-II, Para 6.17

6.17 Emergency locator transmitter (ELT)

6.17.2 Except as provided in 6.7.3, all aeroplanes authorized to carry more than 19 passengers shall be equipped with at least one automatic ELT or two ELTs of any type.

6.17.3 All aeroplanes authorized to carry more than 19 passengers for which the individual certificate of airworthiness is first issued after 1 July 2008 shall be equipped with at least two ELTs, one of which shall be automatic.

6.17.4 Except as provided for in 6.17.5, from 1 July 2008, all aeroplanes authorized to carry 19 passengers or less shall be equipped with at least one ELT of any type.

6.17.5 All aeroplanes authorized to carry 19 passengers or less for which the individual certificate of airworthiness is first issued after 1 July 2008 shall be equipped with at least one automatic ELT.

A4-f) Database
References: CAR Section-8, Series-O, Part-II, Para 7.4.2

7.4 Electronic navigation data management
7.4.1 An operator shall not employ electronic navigation data products unless the State of the Operator has approved the operator’s procedures for ensuring that the process applied and the products delivered have met acceptable standards of integrity and that the products are compatible with the intended function of the equipment that will use them. The State of the Operator shall ensure that the operator continues to monitor both process and products.

7.4.2 An operator shall implement procedures that ensure the timely distribution and insertion of current and unaltered electronic navigation data to all aircraft that require it.

A4. Manual – All requirement manuals

Note: Manuals may be in an electronic format if authorized by the States of the Operator

References: Flight Manual: CAR Section-8, Series-O, Part-II, Para 6.2.3, 4.2.3, 11.1

A4-a) Operational Manual
Reference: CAR Section-8, Series-O, Part-II, Para 4.2.3, 6.2.3, 4.2.3

4.2.3 Operations Manual:

4.2.3.1 The operations manual shall be amended or revised as is necessary to ensure that the information contained therein is kept up to date. All such amendments or revisions shall be issued to all personnel that are required to use this manual, in accordance with CAR Section 8, Series ‘O’ Part VII.

4.2.3.2 Requirements for the organization and content of an operations manual are provided in CAR Section 8, Series ‘O’ Part VII. Guidance for the organization and content of an operations manual are provided in CAP 8100.

6.2.3 An aeroplane shall carry:

a) the operations manual prescribed in 4.2.3, or those parts of it that pertain to flight operations;

b) the flight manual for the aeroplane, or other documents containing performance data required for the application of Chapter 5 and any other information necessary for the operation of the aeroplane within the terms of its certificate of airworthiness, unless these data are available in the operations manual; and
c) current and suitable charts to cover the route of the proposed flight and any route along which it is reasonable to expect that the flight may be diverted.

A4-b) Flight manual
Reference: CAR Section-8, Series-O, Part-II, Para 6.2.3, 4.2.3, 11.1

Note— The flight manual contains the information specified in Annex 8. The flight manual shall be updated by implementing changes made mandatory by the State of Registry.

A4-c) Aircraft Operating Manual:
References: CAR Section-8, Series-O, Part-II, Para 6.1.4

6.1.4 The operator shall provide operations staff and flight crew with an aircraft operating manual, for each aircraft type operated, containing the normal, abnormal and emergency procedures relating to the operation of the aircraft. The manual shall include details of the aircraft systems and of the checklists to be used.

A5. Checklists

A5-a) Flight crew checklists:
References: CAR Section-8, Series-O, Part-II, Para 6.1.4

6.1.4 The operator shall provide operations staff and flight crew with an aircraft operating manual, for each aircraft type operated, containing the normal, abnormal and emergency procedures relating to the operation of the aircraft. The manual shall include details of the aircraft systems and of the checklists to be used.

A5-b) Aircraft search procedure checklist:
References: CAR Section-8, Series-O, Part-II, Para 13.3

13.3 Aeroplane search procedure checklist

An operator shall ensure that there is on board a checklist of the procedures to be followed in searching for a bomb in case of suspected sabotage and for inspecting aeroplanes for concealed weapons, explosives or other dangerous devices when a well-founded suspicion exists that the aeroplane may be the object of an act of unlawful interference. The checklist shall be supported by guidance on the
appropriate course of action to be taken should a bomb or suspicious object be found and information on the least-risk bomb location specific to the aeroplane.

A5-c) Checklist of emergency and safety equipment:
References: CAP-8100, Section-7, Para 10

A6. Route Guide
References: CAR Section-8, Series-O, Part-II, Para, 6.2.3 c)

6.2.3 An aeroplane shall carry: …...

c) current and suitable charts to cover the route of the proposed flight and any route along which it is reasonable to expect that the flight may be diverted.

A7. Minimum Equipment List (MEL) and deferred defect rectification
References: CAR Section-8, Series-O, Part-II, Para, 6.1.3

6.1.3 The operator shall include in the operations manual a minimum equipment list (MEL), approved by the State of the Operator which will enable the pilot-in-command to determine whether a flight may be commenced or continued from any intermediate stop should any instrument, equipment or systems become inoperative. Where the State of the Operator is not the State of Registry, the State of the Operator shall ensure that the MEL does not affect the aeroplane’s compliance with the airworthiness requirements applicable in the State of Registry.

A8. Certificate of Registration:

A8-a) Certificate of Registration
References: CAR Section-2, Series-X, Part-VII, Para 2.1

2.1 No person in charge of any aircraft shall allow such aircraft to be flown unless the following valid documents, as applicable (in original or attested copies), are carried on board the aircraft:

i) Certificate of Registration;

Note— Article 29 of the Convention on International Civil Aviation requires that the certificate of registration be carried on board every aircraft engaged in international air navigation.
A8-b) Identification Plate  
References: CAR Section-2, Series-F, Part-I, Para 13

13. Identification Plate
An aircraft shall carry an identification plate inscribed with at least its nationality or common mark and registration mark. The plate shall be made of fireproof metal or other fireproof material of suitable physical properties and shall be secured to the aircraft in a prominent position near the main entrance or, in the case of an unmanned free balloon, affixed conspicuously to the exterior of the payload.

A9. Noise certification document of statement, where applicable:


6.13 All aeroplanes complying with the noise certification Standards in Annex 16, Volume I

An aeroplane shall carry a document attesting noise certification in English language.

Note— The attestation may be contained in any document, carried on board, approved by DGCA

Annex 16

Part II. Aircraft Noise Certification

Chapter 1. Administration

1.1 The provisions of this part shall apply to all aircraft included in the classifications defined for noise certification purposes in Chapters 2, 3, 4, 5, 6, 8, 10, 11, 12, 13 and 14 of this part where such aircraft are engaged in international air navigation.

1.2 Noise certification shall be granted or validated by the State of Registry of an aircraft on the basis of satisfactory evidence that the aircraft complies with requirements that are at least equal to the applicable Standards specified in this Annex.
1.3 If noise recertification is requested, it shall be granted or validated by the State of Registry of an aircraft on the basis of satisfactory evidence that the aircraft complies with requirements that are at least equal to the applicable Standards specified in this Annex. The date used by a certificating authority to determine the recertification basis shall be the date of acceptance of the first application for recertification.

1.4 The documents attesting noise certification shall be approved by the State of Registry and shall be required by that State to be carried on the aircraft.

*Note— See CAR Section-8, Series-O, Part-II, Para 6.13, concerning the translation into English of documents attesting noise certification.*

1.5 The documents attesting noise certification for an aircraft shall provide at least the following information:

Item 1. Name of State.

Item 2. Title of the noise document.

Item 3. Number of the document.

Item 4. Nationality or common mark and registration marks.

Item 5. Manufacturer and manufacturer’s designation of aircraft.

Item 6. Aircraft serial number.

Item 7. Engine manufacturer, type and model.

Item 8. Propeller type and model for propeller-driven aeroplanes.


Item 10. Maximum landing mass, in kilograms, for certificates issued under Chapters 2, 3, 4, 5, 12 and 14 of this Annex.

Item 11. The chapter and section of this regulation according to which the aircraft was certificated.

Item 12. Additional modifications incorporated for the purpose of compliance with the applicable noise certification Standards.
Item 13. The lateral/full-power noise level in the corresponding unit for documents issued under Chapters 2, 3, 4, 5, 12 and 14 of this Annex.

Item 14. The approach noise level in the corresponding unit for documents issued under Chapters 2, 3, 4, 5, 8, 12 and 14, 13 of this Annex.

Item 15. The flyover noise level in the corresponding unit for documents issued under Chapters 2, 3, 4, 5, 12 and 14 of this Annex.

Item 16. The overflight noise level in the corresponding unit for documents issued under Chapters 6, 8, 11 and 13 of this Annex.

Item 17. The take-off noise level in the corresponding unit for documents issued under Chapters 8, 10 and 13 of this Annex.

Item 18. Statement of compliance, including a reference to Annex 16, Volume I.

Item 19. Date of issuance of the noise certification document.

Item 20. Signature of the officer issuing it.

1.6 Item headings on the noise certification documents shall be uniformly numbered in Arabic numerals, as indicated in 1.5, so that on any noise certification document the number will, under any arrangement, refer to the same item heading, except where the information in Items 1 through 6 and Items 18 through 20 is given in the certificate of airworthiness, in which case the numbering system of the certificate of airworthiness according to Annex 8 shall prevail.

1.7 An administrative system for implementation of noise certification documentation shall be developed by the State of Registry.

1.8 Contracting States shall recognize as valid a noise certification granted by another Contracting State provided that the requirements under which such certification was granted are at least equal to the applicable Standards specified in Annex 16.

1.9 A Contracting State shall suspend or revoke the noise certification of an aircraft on its register if the aircraft ceases to comply with the applicable noise Standards. The State of Registry shall not remove the suspension of a noise certification or
grant a new noise certification unless the aircraft is found, on reassessment, to comply with the applicable noise Standards.

A8. Air Operator Certificate (certified true copy) and Operations Specifications (copy)

References: CAR Section-8, Series-O, Part-II, Para 4.2.1, 6.1.2

4.2.1 The air operator certificate.

4.2.1.1 An operator shall not engage in commercial air transport operations unless in possession of a valid air operator certificate issued by the DGCA.

4.2.1.2 The air operator certificate shall authorize the operator to conduct commercial air transport operations in accordance with the operations specifications.

4.2.1.3 The issue of an air operator permit shall be dependent upon the operator demonstrating an adequate organization, method of control and supervision of flight operations, training programme as well as ground handling and maintenance arrangements consistent with the nature and extent of the operations specified.

4.2.1.4 The continued validity of an air operator certificate shall depend upon the operator maintaining the requirements of 4.2.1.3 under the supervision of the DGCA.

4.2.1.5 The air operator certificate shall contain at least the following information and, shall follow the layout of Appendix C:

a) the State of the Operator and the issuing authority;

b) the air operator certificate number and its expiration date;

c) the operator name, trading name (if different) and address of the principal place of business;

d) the date of issue and the name, signature and title of the authority representative; and

e) the location, in a controlled document carried on board, where the contact details of operational management can be found.
4.2.1.6 The operations specifications associated with the air operator certificate shall contain at least the information listed in Appendix D and shall follow the layout of Appendix D.

4.2.1.7 Air operator certificates and their associated operations specifications first issued from 20 November 2008 shall follow the layouts of Appendix C and D.

6.1.2 An aeroplane shall carry a certified true copy of the air operator permit specified in 4.2.1, and a copy of the operations specifications relevant to the aeroplane type, issued in conjunction with the permit.

A11. Radio Station licenses
References: CAR Section-8, Series-O, Part-II, Para, 7.1

7.1 Communication equipment

7.1.1 An aeroplane shall be provided with radio communication equipment capable of:

a) conducting two-way communication for aerodrome control purposes;

b) receiving meteorological information at any time during flight; and

c) conducting two-way communication at any time during flight with at least one aeronautical station and with such other aeronautical stations and on such frequencies as may be prescribed by the appropriate authority.

7.1.2 The radio communication equipment required in accordance with 7.1.1 shall provide for communications on the aeronautical emergency frequency 121.5 MHz.

7.1.3 For flights in defined portions of airspace or on routes where an RCP type has been prescribed, an aeroplane shall, in addition to the requirements specified in 7.1.1:

a) be provided with communication equipment which will enable it to operate in accordance with the prescribed RCP type(s); and

b) be authorized by the State of the Operator for operations in such airspace.
A12. Certificate of Airworthiness
References: CAR Section-2, Series-X, Part-VII, Para 2

2. Requirement

2.1 No person in charge of any aircraft shall allow such aircraft to be flown unless the following valid documents, as applicable (in original or attested copies), are carried on board the aircraft:

i) Certificate of Registration;

ii) Certificate of Airworthiness;

iii) Airworthiness Review Certificate (ARC);

iv) A document attesting Noise Certification of the aeroplane / helicopter;

v) Air Operator’s Permit;

vi) Appropriate Licences for each member of the flight crew;

vii) Aeromobile Radio operation Licence for Radio Communication apparatus;

viii) Journey Log Book or equivalent documents approved by the DGCA;

ix) Operations Manual;

x) Minimum Equipment List;

xi) Flight Manual;

xii) Cabin Crew Manual;

xiii) Cockpit and Emergency Check List unless these form part of Flight Manual, carried on board; Note: Checklists for take-off, cruise and landing phases shall be displayed in the cockpit unless the lists form a part of the Flight Manual, carried on board.

xiv) Aeroplane/ Helicopter search procedure checklist;

xv) Maintenance Release/Certificate to release to service;
xvi) LOPA (Layout of Passenger Arrangement);
xvii) Emergency and Safety Equipment Layout;
xviii) Route guides
xix) Current and suitable navigation charts/maps for the planned flight route and all other routes along which it is reasonable to expect that the flight may be diverted;
xx) Weight Schedule ;
xxi) Load and Trim Sheet;
xxii) If carrying passengers, a list of their names and places of embarkation and destination;
xxiii) If carrying cargo, a manifest and detailed declarations of the cargo; and
xxiv) If carrying dangerous goods, a list of such goods. This list must be specifically brought to the notice of Pilot-in-Command, before the flight.

Note— The Certificate of Airworthiness as used in these Standards is the Certificate of Airworthiness referred to in Article 31 of the Convention.

A 13. Flight Preparation

A13-a) Operational flight plan

References: CAR Section-8, Series-O, Part-II, 4.3.1, Para 4.3.3,4.3.4

4.3.1 A flight shall not be commenced until flight preparation forms have been completed certifying that the pilot-in-command is satisfied that:
f) a check has been completed indicating that the operating limitations of Para 5 of this CAR can be complied with for the flight to be undertaken; and

g) the Standards of 4.3.3 relating to operational flight planning have been complied with.

4.3.3 Operational flight planning
4.3.3.1 An operational flight plan shall be completed for every intended flight. The operational flight plan shall be approved and signed by the pilot-in-command and, where applicable, signed by the flight operations officer/flight dispatcher, and a copy shall be filed with the operator or a designated agent, or, if these procedures are not possible, it shall be left with the aerodrome authority or on record in a suitable place at the point of departure.

4.3.3.2 The operations manual must describe the content and use of the operational flight plan

4.3.4 Alternate aerodromes

4.3.4.1.1 A take-off alternate aerodrome shall be selected and specified in the operational flight plan if the weather conditions at the aerodrome of departure are at or below the applicable aerodrome operating minima or it would not be possible to return to the aerodrome of departure for other reasons.

4.3.4.1.2 The take-off alternate aerodrome shall be located within the following distance from the aerodrome of departure:

a) aeroplanes having two power-units. Not more than a distance equivalent to a flight time of one hour at the single-engine cruise speed; and

b) aeroplanes having three or more power-units. Not more than a distance equivalent to a flight time of two hours at the one-engine inoperative cruise speed.

4.3.4.1.3. For an aerodrome to be selected as a take-off alternate the available information shall indicate that, at the estimated time of use, the conditions will be at or above the aerodrome operating minima for that operation.

4.3.4.2 En-route alternate aerodromes En-route alternate aerodromes, required by 4.7 for extended range operations by aeroplanes with two turbine power-units, shall be selected and specified in the operational and air traffic services (ATS) flight plans.

4.3.4.3 Destination alternate aerodromes. For a flight to be conducted in accordance with the instrument flight rules, at least one destination alternate aerodrome shall be selected and specified in the operational and ATS flight plans, unless:

a) the duration of the flight and the meteorological conditions prevailing are such that there is reasonable certainty that, at the estimated time of arrival at the aerodrome of
intended landing, and for a reasonable period before and after such time, the approach and landing may be made under visual meteorological conditions; or

b) the aerodrome of intended landing is isolated and there is no suitable destination alternate aerodrome

4.3.6 Fuel and oil supply

4.3.6.1 *All aeroplanes.* A flight shall not be commenced unless, taking into account both the meteorological conditions and any delays that are expected in flight, the aeroplane carries sufficient fuel and oil to ensure that it can safely complete the flight. In addition, a reserve shall be carried to provide for contingencies.

4.3.6.4. In computing the fuel and oil required in 4.3.6.1 at least the following shall be considered:

a) meteorological conditions forecast;

b) expected air traffic control routings and traffic delays;

c) for IFR flight, one instrument approach at the destination aerodrome, including a missed approach;

d) the procedures prescribed in the operations manual for loss of pressurization, where applicable, or failure of one power-unit while en route; and

e) any other conditions that may delay the landing of the aeroplane or increase fuel and/or oil consumption

4.5 Duties of pilot-in-command

4.5.4 The pilot-in-command shall be responsible for reporting all known or suspected defects in the aeroplane, to the operator, at the termination of the flight.

4.5.5 The pilot-in-command shall be responsible for the journey log book or the general declaration containing the information listed in 11.4.1.

*Note— By virtue of Resolution A10-36 of the Tenth Session of the Assembly (Caracas, June–July 1956) “the General Declaration, [described in Annex 9] when prepared so as to contain all the information required by Article 34 [of the Convention on International Civil Aviation] with respect to the journey log book, may be considered by Contracting States to be an acceptable form of journey log book”.

4.6 Duties of flight operations officer/ flight dispatcher
4.6.1 A flight operations officer/flight dispatcher in conjunction with a method of control and supervision of flight operations in accordance with 4.2.1.3 shall:

a) assist the pilot-in-command in flight preparation and provide the relevant information;

b) assist the pilot-in-command in preparing the operational and ATS flight plans, sign when applicable and file the ATS flight plan with the appropriate ATS unit; and

c) furnish the pilot-in-command while in flight, by appropriate means, with information which may be necessary for the safe conduct of the flight.

A13-b) Aircraft performance limitations using current route, airport obstacles and runway analysis data
References: CAR Section-8, Series-O, Part-II, Para 5.1, 5.2 and 5.3

5.1 General

5.1.1 Aeroplanes shall be operated in accordance with provisions of the flight manual approved by the state of design.

5.1.2 Except as provided in 5.4, single-engine aeroplanes shall only be operated in conditions of weather and light, and over such routes and diversions there from, that permit a safe forced landing to be executed in the event of engine failure.

5.2 Applicable to aeroplanes certificated in accordance with Parts IIIA and IIIB of Annex 8

5.2.1 The Standards contained in 5.2.2 to 5.2.11 inclusive are applicable to the aeroplanes to which Parts IIIA and IIIB of Annex 8 are applicable.

5.2.2 The level of performance defined by the appropriate parts of the comprehensive and detailed as mentioned in 5.1.1 for the aeroplanes designated in 5.2.1 shall be at least substantially equivalent to the overall level embodied in the Standards of this CAR.

5.2.3 An aeroplane shall be operated in compliance with the terms of its certificate of airworthiness and within the approved operating limitations contained in its flight manual.
5.2.4 The operator shall take such precautions as are reasonably possible to ensure that the general level of safety contemplated by these provisions is maintained under all expected operating conditions, including those not covered specifically by the provisions of this CAR.

5.2.5 A flight shall not be commenced unless the performance information provided in the flight manual indicates that the Standards of 5.2.6 to 5.2.11 can be complied with for the flight to be undertaken.

5.2.6 In applying the Standards of this CAR, account shall be taken of all factors that significantly affect the performance of the aeroplane (such as: mass, operating procedures, the pressure-altitude appropriate to the elevation of the aerodrome, temperature, wind, runway gradient and condition of runway, i.e. presence of slush, water and/or ice, for landplanes, water surface condition for seaplanes). Such factors shall be taken into account directly as operational parameters or indirectly by means of allowances or margins, which may be provided in the scheduling of performance data or in the comprehensive and detailed code of performance in accordance with which the aeroplane is being operated.

5.2.7 Mass limitations

a) The mass of the aeroplane at the start of take-off shall not exceed the mass at which 5.2.8 is complied with, nor the mass at which 5.2.9, 5.2.10 and 5.2.11 are complied with, allowing for expected reductions in mass as the flight proceeds, and for such fuel jettisoning as is envisaged in applying 5.2.9 and 5.2.10 and, in respect of alternate aerodromes, 5.2.7 c) and 5.2.11.

b) In no case shall the mass at the start of take-off exceed the maximum take-off mass specified in the flight manual for the pressure-altitude appropriate to the elevation of the aerodrome, and, if used as a parameter to determine the maximum take-off mass, any other local atmospheric condition.

c) In no case shall the estimated mass for the expected time of landing at the aerodrome of intended landing and at any destination alternate aerodrome, exceed the maximum landing mass specified in the flight manual for the pressure-altitude appropriate to the elevation of those aerodromes, and if used as a parameter to determine the maximum landing mass, any other local atmospheric condition.

d) In no case shall the mass at the start of take-off, or at the expected time of landing at the aerodrome of intended landing and at any destination alternate aerodrome, exceed the relevant maximum masses at which compliance has been demonstrated with the applicable noise certification Standards in Annex 16, Volume I, unless
otherwise authorized in exceptional circumstances for a certain aerodrome or a runway where there is no noise disturbance problem, by the competent authority of the State in which the aerodrome is situated.

5.2.8 Take-off. The aeroplane shall be able, in the event of a critical power-unit failing at any point in the take-off, either to discontinue the take-off and stop within the accelerate-stop distance available, or to continue the take-off and clear all obstacles along the flight path by an adequate margin until the aeroplane is in a position to comply with 5.2.9.

5.2.8.1 In determining the length of the runway available, account shall be taken of the loss, if any, of runway length due to alignment of the aeroplane prior to take-off.

5.2.9 En route — one engine inoperative. The aeroplane shall be able, in the event of the critical power-unit becoming inoperative at any point along the route or planned diversions there from, to continue the flight to an aerodrome at which the Standard of 5.2.11 can be met, without flying below the minimum flight altitude at any point.

5.2.10 En route — two engines inoperative. In the case of aeroplanes having three or more power-units, on any part of a route where the location of en-route alternate aerodromes and the total duration of the flight are such that the probability of a second power-unit becoming inoperative must be allowed for if the general level of safety implied by the Standards of this CAR is to be maintained, the aeroplane shall be able, in the event of any two power-units becoming inoperative, to continue the flight to an en-route alternate aerodrome and land.

5.2.11 Landing. The aeroplane shall, at the aerodrome of intended landing and at any alternate aerodrome, after clearing all obstacles in the approach path by a safe margin, be able to land, with assurance that it can come to a stop or, for a seaplane, to a satisfactorily low speed, within the landing distance available. Allowance shall be made for expected variations in the approach and landing techniques, if such allowance has not been made in the scheduling of performance data.

5.3 Obstacle data

5.3.1 The operator shall obtain details of all obstacle data to develop procedures to comply with 5.2.8.

5.3.2 The operator shall take account of charting accuracy when assessing compliance with
A13-c) Weather Reports and forecast  
References: Annex 6, Part I, 4.3.5.2; and Part III, Section II, 2.3.5.2.

4.3.5 Metrological conditions

4.3.5.1 A flight to be conducted in accordance with the visual flight rules shall not be commenced unless current meteorological reports or a combination of current reports and forecasts indicate that the meteorological conditions along the route or that part of the route to be flown under the visual flight rules will, at the appropriate time, be such as to render compliance with these rules possible.

4.3.5.2 A flight to be conducted in accordance with the instrument flight rules;

a) shall not take off from the departure aerodrome unless the meteorological conditions, at the time of use, are at or above the operator’s established aerodrome operating minima for that operation; and

b) shall not take off or continue beyond the point of in-flight re-planning unless at the aerodrome of intended landing or at each alternate aerodrome to be selected in compliance with 4.3.4, current meteorological reports or a combination of current reports and forecasts indicate that the meteorological conditions will be, at the estimated time of use, at or above the operator’s established aerodrome operating minima for that operation.

4.3.5.3 A flight to be operated in known or expected icing conditions shall not be commenced unless the aeroplane is certificated and equipped to cope with such conditions.

A13-d) NOTAMs (Notice to Airman)
References: Annex 15, Chapter 5 and CAR Section-8, Series-O, Part-II, Para 4.3.3.1, 4.6.1 c)

4.3.3 Operational flight planning

4.3.3.1 An operational flight plan shall be completed for every intended flight. The operational flight plan shall be approved and signed by the pilot-in-command and, where applicable, signed by the flight operations officer/flight dispatcher, and a copy shall be filed with the operator or a designated agent, or, if these procedures are not possible, it shall be left with the aerodrome authority or on record in a suitable place at the point of departure.
Definition: **Operational flight plan.** The operator’s plan for the safe conduct of the flight based on considerations of aeroplane performance, other operating limitations and relevant expected conditions on the route to be followed and at the aerodromes concerned.

4.6. 1 (c) furnish the pilot-in-command while in flight, by appropriate means, with information which may be necessary for the safe conduct of the flight.

A13-e) Cargo and manifest and, if applicable, passenger manifest
References: Annex 9, 2.12, 2.13 and 4.12 [CAR Section-2, Series-X, Part-VII, Para 2 (xxii), (xxiii)]

xxii) If carrying passengers, a list of their names and places of embarkation and destination;

xxiii) If carrying cargo, a manifest and detailed declarations of the cargo; and

xxiv) If carrying dangerous goods, a list of such goods. This list must be specifically brought to the notice of Pilot-in-Command, before the flight.

A14. Mass and balance sheet
References: CAR Section-8, Series-O, Part-II, Para 4.3.1 d), rule 2 of rule 58 of the Aircraft Rule 1937

(2) (a) An aircraft shall not attempt to take off, fly or land at a weight in excess of the maximum permissible weight as specified in the certificate of airworthiness or as authorised by the Director-General.

(b) The load of an aircraft throughout a flight including take-off and landing shall be so distributed that the centre of gravity position of the aircraft falls within the limitations specified or approved by the Director-General:

4.3.1 A flight shall not be commenced until flight preparation forms have been completed certifying that the pilot-in-command is satisfied that:

d) the mass of the aeroplane and centre of gravity location are such that the flight can be conducted safely, taking into account the flight conditions expected;

e) any load carried is properly distributed and safely secured;
A 15. Portable Fire Extinguishers
References: Section-8, Series-O, Part-II, Para 6.2.2 b)

6.2.2 An aeroplane shall be equipped with:

b) portable fire extinguishers of a type which, when discharged, will not cause dangerous contamination of the air within the aeroplane. At least one shall be located in:

1) the pilot’s compartment; and
2) each passenger compartment that is separate from the pilot’s compartment and that is not readily accessible to the flight crew;

*Note— Any portable fire extinguisher so fitted in accordance with the certificate of airworthiness of the aeroplane may count as one prescribed.*

A 16. Life jackets/Flotation devices
References: Section-8, Series-O, Part-II, Para 6.5
See also B8.

6.5 All aeroplanes on flights over water

6.5.1 Seaplanes: All seaplanes for all flights shall be equipped with

a) one life jacket or equivalent individual flotation device, for each person on board, stowed in a position easily accessible from the seat or berth of a person for whose use it is provided.

b) equipment for making the sound signal prescribed in the international regulations for preventing collisions at Sea, where applicable, and;

c) one sea anchor (drogue)

*Note: "Seaplanes" include amphibians operated as seaplanes.*

6.5.2 Landplanes:

6.5.2.1 Landplanes shall carry the equipment prescribed in para 6.5.2.2:

a) when flying over water and at a distance of more than 50 NM (93 km) away from the shore, in the case of landplanes operated in accordance with 5.2.9 or 5.2.10;
b) when flying en route over water beyond gliding distance from the shore, in the case of all other landplanes; and

c) when taking off or landing at an aerodrome where, in the opinion of DGCA, the takeoff or approach path is so disposed over water that in the event of a mishap there would be a likelihood of a ditching.

6.5.2.2 The equipment referred to in 6.5.2.1 shall comprise one life jacket for each person on board, stowed in a position easily accessible from the seat or berth of the person for whose use it is provided.

Note:- "Landplanes" includes amphibians operated as landplanes.

6.5.3 All aeroplanes on long range over water flights

6.5.3.1 In addition to the equipment prescribed in 6.5.1 or 6.5.2 whichever is applicable, the following equipment shall be installed in all aeroplanes when used over routes on which the aeroplane may be over water and at more than a distance corresponding to 120 minutes at cruising speed or 400 NM (740 km), whichever is the lesser, away from land suitable for making an emergency landing in the case of aircraft operated with 5.2.9 or 5.2.10 and 30 minutes or 185 km (100 NM), whichever is the lesser, for all other aeroplanes:

a) lifesaving rafts in sufficient numbers to carry all persons on board, stowed so as to facilitate their ready use in emergency, provided with such life-saving equipment including means of sustaining life as is appropriate to the flight to be undertaken; and

b) equipment for making the pyrotechnical distress signals described in CAR Section 4 Series ‘E’ Part I.

6.5.3.2 Each life jacket when carried in accordance with 6.5.1 a), 6.5.2.1 and 6.5.2.2, shall be equipped with a means of electric illumination for the purpose of facilitating the location of persons.

A 17. Safety Harness
References: Section-8, Series-O, Part-II, Para 6.2.2 (c)

6.2.2 (c) An aeroplane shall be equipped with:
3) a safety harness for each flight crew seat. The safety harness for each pilot seat shall incorporate a device which will automatically restrain the occupant’s torso in the event of rapid deceleration;

It is recommended that the safety harness for each pilot seat should incorporate a device to prevent a suddenly incapacitated pilot from interfering with the flight controls.

Note: Safety harness includes shoulder straps and a seat belt which may be used independently.

A 18. Oxygen equipment
References: Section-8, Series-O, Part-II, Para 4.4.5
See also B9.

4.4.5 Use of oxygen

4.4.5.2 All flight crew members of pressurized aeroplanes operating above an altitude where the atmospheric pressure is less than 376 hPa (25,000 feet) shall have available at the flight duty station a quick-donning type of oxygen mask which will readily supply oxygen upon demand.

6.7.1 An aeroplane intended to be operated at flight altitudes at which the atmospheric pressure is less than 700 hPa in personnel compartments shall be equipped with oxygen storage and dispensing apparatus capable of storing and dispensing the oxygen supplies required in 4.3.9.1.

6.7.2 An aeroplane intended to be operated at flight altitudes at which the atmospheric pressure is less than 700 hPa but which is provided with means of maintaining pressures greater than 700 hPa in personnel compartments shall be provided with oxygen storage and dispensing apparatus capable of storing and dispensing the oxygen supplies required in 4.3.9.2.

A 19. Emergency Flashlight
References: Section-8, Series-O, Part-II, Para 6.10 (g)

6.10 All aeroplanes when operated at night
…….an electric torch for each crew member station

A 20. Flight Crew Member Licences
References: CAR Section-2, Series-X, Part-VII, Para 2

2. Requirement

2.1 No person in charge of any aircraft shall allow such aircraft to be flown unless the following valid documents, as applicable (in original or attested copies), are carried on board the aircraft:

vi) Appropriate Licences for each member of the flight crew;

Language proficiency.
Ref: Schedule-II, Section-A, Para 6(A), CAR Section-7, Series G Part III

Schedule-II, 6A Language Proficiency.— (a) An applicant for the following licences shall have the ability to speak and understand the English language used for radiotelephony communications to the level of proficiency specified by the Director General:—

(i) Private Pilot’s Licence (Aeroplanes);
(ii) Private Pilot’s Licence (Helicopters);
(iii) Commercial Pilot’s Licence (Aeroplanes);
(iv) Commercial Pilot’s Licence (Helicopters);
(v) Airline Transport Pilot’s Licence (Aeroplanes);
(vi) Airline Transport Pilot’s Licence (Helicopters);
(vii) Flight Engineer’s Licence, and
(viii) Flight Navigator’s Licence.

(b) The level of proficiency shall be evaluated in accordance with the procedures laid down by Director General.

(c) The licencing authority shall indicate the level of proficiency in the licence.

CAR Section-7, Series G Part III

2.1 Holders/ applicants of Private Pilot's Licence (Aeroplanes/ Helicopters); Commercial Pilot's Licence (Aeroplanes/ Helicopters); Airline Transport Pilot's Licence (Aeroplanes/ Helicopters); holders/ applicants of Flight Engineer's Licence; or holders/ applicants of Flight Navigator’s Licence who shall demonstrate the ability to speak and understand the English language used for radiotelephony communications to the level specified in Appendix I.
Annex-1, Chapter 5. Specifications for Personnel Licences

5.1 Personnel licences issued by a Contracting State in accordance with the relevant provisions of this regulation shall conform to the following specifications:

5.1.1 Detail

5.1.1.1 A Contracting State having issued a licence shall ensure that other States are able to easily determine the licence privileges and validity of ratings.

Note—Operator records or a flight crew member’s personal log book, in which maintenance of competency and recent experience may be satisfactorily recorded, are not normally carried on international flights.

5.1.1.2 The following details shall appear on the licence:

I) Name of State (in bold type);

II) Title of licence (in very bold type);

III) Serial number of the licence, in Arabic numerals, given by the authority issuing the licence;

IV) Name of holder in full (in Roman alphabet also if script of national language is other than Roman); IV) Date of birth;

V) Address of holder if desired by the State; VI) Nationality of holder;

VII) Signature of holder;

VIII) Authority and, where necessary, conditions under which the licence is issued;

IX) Certification concerning validity and authorization for holder to exercise privileges appropriate to licence;

X) Signature of officer issuing the licence and the date of such issue; XI) Seal or stamp of authority issuing the licence;

XII) Ratings, e.g. category, class, type of aircraft, airframe, aerodrome control, etc.;
XIII) Remarks, i.e. special endorsements relating to limitations and endorsements for privileges, including from 5 March 2008 an endorsement of language proficiency, and other information required in pursuance to Article 39 of the Chicago Convention;

XIV) Any other details desired by the State issuing the licence.

5.1.2 Material

First quality paper or other suitable material, including plastic cards, shall be used and the items mentioned in 5.1.1.2 shown clearly thereon.

5.1.3 Language

When licences are issued in a language other than English, the licence shall include an English translation of at least items I), II), VI), IX), XII), XIII) and XIV). When provided in a language other than English, authorizations issued in accordance with 1.2.2.1 shall include an English translation of the name of the State issuing the authorization, the limit of validity of the authorization and any restriction or limitation that may be established.

5.1.4 Arrangement of items

Item headings on the licence shall be uniformly numbered in roman numerals as indicated in 1.1, so that on any licence the number will, under any arrangement, refer to the same item heading.

Annex 6 Part I, CAR Section-8, Series-O, Part-II, 9.4.4

9.4.4 Pilot proficiency checks

9.4.4.1 Refer CAR Section 8 Series F Part II (para 9.2.3 -The period of validity of a PPC shall be six months. A PPC may be carried out on an aeroplane or a Level C/CG/D/DG simulator, however at least once a year, it must be carried out in a Level C/CG/D/DG simulator. PPC shall be performed twice within any period of one year. Any two such checks which are similar and which occur within a period of four consecutive months shall not alone satisfy this requirement. Note: For aeroplanes with less than 3 qualified simulators globally, the operator may obtain approval from DGCA to carry out PPC once in two years in the simulator.

9.4.4.2 Refer CAR Section 8 Series F Part II (para 9.2.1 -Each flight crew member undergoes PPC to demonstrate his/her competence in carrying out normal,
abnormal and emergency procedures on each type or variant of a type of aeroplane. When an operator schedules flight crew on several variants of the same type of aeroplane, the PPC for each variant can be combined. When an operator schedules flight crew on different types of aeroplanes with similar characteristics in terms of operating procedures, systems and handling, the PPC for each type shall be carried out separately without any credits for the other rated type; The check is conducted without external visual reference when the flight crew member will be required to operate under IFR and

9.4.5 Single pilot operations under the instrument flight rules (IFR) or at night

9.4.5.1 The prescribed requirements of experience, recency and training applicable to single pilot operations intended to be carried out under the IFR or at night shall be followed.

9.4.5.3 The initial and recurrent flight training and proficiency checks indicated in 9.3.1 and 9.4.4 shall be performed by the pilot-in-command in the single pilot role on the class of aeroplane in an environment representative of the operation.

A 21. Journey log book or technical log and voyage report
References: CAR Section-8, Series-O, Part-II, Para 4.3.1 and 11.4

4.3.1 A flight shall not be commenced until flight preparation forms have been completed certifying that the pilot-in-command is satisfied that:

a) the aeroplane is airworthy;
c) a maintenance release as prescribed in 8.8 has been issued in respect of the aeroplane;

4.5.5 The pilot-in-command shall be responsible for the journey log book or the general declaration containing the information listed in 11.4.1

11.4 Journey log book

11.4.1 The aeroplane journey log book should contain the following items and the corresponding roman numerals:

I -- Aeroplane nationality and registration
II -- Date
III -- Names of crew members
IV -- Duty assignments of crew members
V -- Place of departure
VI -- Place of arrival
VII -- Time of departure
VIII -- Time of arrival
IX -- Hours of flight
X -- Nature of flight (private, aerial work, scheduled or non-scheduled).
XI -- Incidents, observations, if any
XII -- Signature of person in charge

11.4.2 Entries in the journey log book should be made currently and in ink or indelible pencil.

11.4.3 Completed journey log book should be retained to provide a continuous record of the last two years operations.

Note- The details of contents of journey log book are given in CAR Section 2, Series ‘X’ Part VI.

A22. Maintenance release
References: CAR Section-8, Series-O, Part-II, Para 8.8

8.8 Maintenance release

8.8.1 A maintenance release shall be completed and signed to certify that the maintenance work performed has been completed satisfactorily and in accordance with approved data and the procedures described in the maintenance organization’s procedures manual.

8.8.2 A maintenance release shall contain a certification including:

a) basic details of the maintenance carried out including detailed reference of the approved data used;
b) the date such maintenance was completed;
c) when applicable, the identity of the approved maintenance organization; and
d) the identity of the person or persons signing the release.

A23. Defect notification and rectification (incl. Tech Log)
References: CAR Section-8, Series-O, Part-II, Para 4.3.1, 4.5.4, 6.1.3

4.3.1 A flight shall not be commenced until flight preparation forms have been completed certifying that the pilot in command is satisfied that:
a) The aeroplane is airworthy and the appropriate certificates (i.e. airworthiness, registration) are on board the aeroplane;

b) The instruments and equipment prescribed in Para 6 of this CAR for the particular type of operation are to be undertaken are installed and are sufficient for the flight.

c) A maintenance release as prescribed in 8.7 has been issued in respect of the aeroplane;

4.5.4 The pilot-in-command shall be responsible for reporting all known or suspected defects in the aeroplane, to the operator, at the termination of the flight.

6.1.3 The operator shall include in the Operations Manual a minimum equipment list (MEL), approved by the DGCA which will enable the pilot-in-command to determine whether a flight may be commenced or continued from any intermediate stop should any instrument, equipment or system become inoperative. Where the State of the operator is not the State of Registry, the State of the operator shall ensure that the MEL does not affect the aeroplane’s compliance with the airworthiness requirements applicable in the State of Registry.

A24. Pre-flight inspection
References: CAR Section-8, Series-O, Part-II, Para 4.3.1

4.3.1 A flight shall not be commenced until flight preparation forms have been completed certifying that the pilot-in-command is satisfied that:

a) the aeroplane is airworthy;

b) the instruments and equipment prescribed in Chapter 6, for the particular type of operation to be undertaken, are installed and are sufficient for the flight;

c) a maintenance release as prescribed in 8.8 has been issued in respect of the aeroplane;

4.5 Duties of pilot-in-command

4.5.4 The pilot-in-command shall be responsible for reporting all known or suspected defects in the aeroplane, to the operator, at the termination of the flight.

4.5.5 The pilot-in-command shall be responsible for the journey log book or the general declaration containing the information listed in 11.4.1.
A25. ETOPS Requirements
CAR Section-8, Series-O, Part-II, Para 4.7.1, 4.7.2

4.7.1 Requirements for operations beyond 60 minutes to an en-route alternate aerodrome

4.7.1.1 Operators conducting operations beyond 60 minutes from a point on a route to an enroute alternate aerodrome shall ensure that:

a) for all aeroplanes:
   1) en-route alternate aerodromes are identified; and
   2) the most up-to-date information is provided to the flight crew on identified en-route alternate aerodromes, including operational status and meteorological conditions;

b) for aeroplanes with two turbine engines, the most up-to-date information provided to the flight crew indicates that conditions at identified en-route alternate aerodromes will be at or above the operator’s established aerodrome operating minima for the operation at the estimated time of use.

Note— Guidance on compliance with the requirements of these provisions is contained in Attachment D to Annex 6 Part I.

4.7.1.2 In addition to the requirements in 4.7.1.1, all operators shall ensure that the following are taken into account and provide the overall level of safety intended by the provisions of Annex 6, Part I:

a) operational control and flight dispatch procedures;
   b) operating procedures; and
   c) training programmes.

4.7.2 Requirements for extended diversion time operations (EDTO)

4.7.2.1 Unless the operation has been specifically approved by DGCA, an aeroplane with two or more turbine engines shall not be operated on a route where the diversion time to an en-route alternate aerodrome from any point on the route, calculated in ISA and still-air conditions at the one-engine-inoperative cruise speed for aeroplanes with two turbine engines and at the all engines operating cruise speed for aeroplanes with more than two turbine engines, exceeds a threshold time established for such operations by DGCA
Note 1—When the diversion time exceeds the threshold time, the operation is considered to be an extended diversion time operation (EDTO).

Note 2—Guidance on the establishment of an appropriate threshold time and on approval of extended diversion time operations is contained in Attachment D to Annex 6 Part I.

Note 3—For the purpose of EDTO, the take-off and/or destination aerodromes may be considered en-route alternate aerodromes.

Note 4—Requirements for EDTO are given in CAR Section 8, Series ‘S’ Part III.

4.7.2.4 For aeroplanes engaged in EDTO, the additional fuel required by 4.3.6.3 f) 2) shall include the fuel necessary to comply with the EDTO critical fuel scenario as established by DGCA.

Note—Guidance on compliance with the requirements of this provision is in Attachment D to Annex 6 Part I.

4.7.2.5 A flight shall not proceed beyond the threshold time in accordance with 4.7.2.1 unless the identified en-route alternate aerodromes have been re-evaluated for availability and the most up-to-date information indicates that, during the estimated time of use, conditions at those aerodromes will be at or above the operator’s established aerodrome operating minima for the operation. If any conditions are identified that would preclude a safe approach and landing at that aerodrome during the estimated time of use, an alternative course of action shall be determined.

B. Cabin/Safety

B1. General Condition
References: Annex 8, Part III, 8.3

8.3 Safety and survival equipment

Prescribed safety and survival equipment that the crew or passengers are expected to use or operate at the time of an emergency shall be reliable, readily accessible and easily identified, and its method of operation shall be plainly marked.

B2. Cabin crew seats and safety harness
References: Section-8, Series-O, Part-II, Para 6.16

6.16 Aeroplanes carrying passengers — cabin crew seats

6.16.1 All aeroplanes shall be equipped with a forward or rearward facing (within 15 degrees of the longitudinal axis of the aeroplane) seat, fitted with a safety harness for the use of each cabin crew member required to satisfy the intent of 12.1 in respect of emergency evacuation.

6.16.3 Cabin crew seats provided .... shall be located near floor level and other emergency exits as required by DGCA for emergency evacuation

B3. First Aid kit/Emergency Medical kit
References: Section-8, Series-O, Part-II, Para 6.2.2

6.2.2 An aeroplane shall be equipped with:

a) accessible and adequate medical supplies appropriate to the number of passengers the aeroplane is authorized to carry;

B4 Portable Fire Extinguishers
References Section-8, Series-O, Part-II, Para 6.2.2

6.2.2 An aeroplane shall be equipped with:

b) portable fire extinguishers of a type which, when discharged, will not cause dangerous contamination of the air within the aeroplane. At least one shall be located in:

1) the pilot’s compartment; and

2) each passenger compartment that is separate from the pilot’s compartment and that is not readily accessible to the flight crew;

B5. Lift jackets/Flotation device
References: Section-8, Series-O, Part-II, Para 6.5
See B8

B6. Seat belts
References: Section-8, Series-O, Part-II, Para 6.2.2
6.2.2 An aeroplane shall be equipped with:

c) a seat or berth for each person over an age to be determined by the State of the Operator; 1) a seat belt for each seat and restraining belts for each berth; and …

d) means of ensuring that the following information and instructions are conveyed to passengers:

1) when seat belts are to be fastened;
2) when and how oxygen equipment is to be used if the carriage of oxygen is required;
3) restrictions on smoking;
4) location and use of life jackets or equivalent individual flotation devices where their carriage is required; and
5) location and method of opening emergency exits; and

e) spare electrical fuses of appropriate ratings for replacement of those accessible in flight.

B7. Emergency exit lighting and marking, emergency flashlights
References: Section-8, Series-O, Part-II, Para 6.10 and Annex 8, Part IIIA, 4.1.7.3 and Part IIIB, D 6.3

6.10 All aeroplanes when operated at night

f) an electric torch for each crew member station.

4.1.7 (or D.6) Emergency landing provisions

4.1.7.3 (or D.6.3) The interior layout of the cabin and the position and number of emergency exits, including the means of locating and illuminating the escape paths and exits, shall be such as to facilitate rapid evacuation of the aeroplane in conditions likely to occur following an emergency landing.

B8. Slides/Life Rafts and pyrotechnical distress signaling devices References: Section-8, Series-O, Part-II, Para 6.5, 6.6 and Annex 8, Part IIIA, 4.1.7 (and Part IIID, D6)

6.5 All aeroplanes on flights over water
6.5.2.1 Landplanes shall carry the equipment prescribed in 6.5.2.2:

a) when flying over water and at a distance of more than 93 km (50 NM) away from the shore, in the case of landplanes operated in accordance with 5.2.9 or 5.2.10;

b) when flying en route over water beyond gliding distance from the shore, in the case of all other landplanes; and

c) when taking off or landing at an aerodrome where, in the opinion of the State of the Operator, the take-off or approach path is so disposed over water that in the event of a mishap there would be a likelihood of a ditching.

6.5.2.2 The equipment referred to in 6.5.2.1 shall comprise one life jacket or equivalent individual flotation device for each person on board, stowed in a position easily accessible from the seat or berth of the person for whose use it is provided.

6.5.3 All aeroplanes on long-range over-water flights

6.5.3.1 In addition to the equipment prescribed in 6.5.1 or 6.5.2 whichever is applicable, the following equipment shall be installed in all aeroplanes when used over routes on which the aeroplane may be over water and at more than a distance corresponding to 120 minutes at cruising speed or 740 km (400 NM), whichever is the lesser, away from land suitable for making an emergency landing in the case of aircraft operated in accordance with 5.2.9 or 5.2.10, and 30 minutes or 185 km (100 NM), whichever is the lesser, for all other aeroplanes:

a) life-saving rafts in sufficient numbers to carry all persons on board, stowed so as to facilitate their ready use in emergency, provided with such life-saving equipment including means of sustaining life as is appropriate to the flight to be undertaken; and

b) equipment for making the pyrotechnical distress signals described in CAR Section-4, Series-E, Part-I.

6.5.3.2 Each life jacket and equivalent individual flotation device, shall be equipped with a means of electric illumination for the purpose of facilitating the location of persons, except where the requirement of 6.5.2.1 c) is met by the provision of individual flotation devices other than life jackets.

6.6 All aeroplanes on flights over designated land areas
Aeroplane when operated across land areas which may be designated by AAI as areas in which search and rescues would be especially difficult, shall be equipped with at least one survival radio equipment, stowed so as to facilitate its ready use in an emergency which operates on VHF. The equipment shall be portable, not dependent for operation upon the aircraft power supply and capable of being operated away from the aircraft by unskilled persons. Aeroplane shall also be equipped with such signaling devices and life-saving equipment (including means of sustaining life), as may be appropriate to the area overflown.

Annex-8
4.1.7 Emergency landing provisions

4.1.7.1 Provisions shall be made in the design of the aeroplane to protect the occupants, in the event of an emergency landing, from fire and from the direct effects of deceleration forces as well as from injuries arising from the effect of deceleration forces on the aeroplane’s interior equipment.

4.1.7.2 Facilities shall be provided for the rapid evacuation of the aeroplane in conditions likely to occur following an emergency landing. Such facilities shall be related to the passenger and crew capacity of the aeroplane.

4.1.7.3 The interior layout of the cabin and the position and number of emergency exits, including the means of locating and illuminating the escape paths and exits, shall be such as to facilitate rapid evacuation of the aeroplane in conditions likely to occur following an emergency landing.

4.1.7.4 On aeroplanes certificated for ditching conditions, provisions shall be made in the design to give maximum practicable assurance that safe evacuation from the aeroplane of passengers and crew can be executed in case of ditching.

D.6 Emergency landing provisions

D.6.1 Same as 4.1.7.1 above.

D.6.2 Facilities shall be provided for the rapid evacuation of the aeroplane in conditions likely to occur following an emergency landing. Such facilities shall be related to the passenger and crew capacity of the aeroplane and shall be shown to be suitable for their intended purpose.

D.6.3 Same as 4.1.7.3 above.
D.6.4 Same as 4.1.7.4 above.

B9. Oxygen Supply (Cabin crew & Passengers)
References: Section-8, Series-O, Part-II, Para 4.3.9 and 6.7

6.7 Oxygen supply

Note— Approximate altitudes in the Standard Atmosphere corresponding to the values of absolute pressure used in the text are as follows:

<table>
<thead>
<tr>
<th>Absolute pressure (hPa)</th>
<th>Metres</th>
<th>Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>700</td>
<td>3 000</td>
<td>10 000</td>
</tr>
<tr>
<td>620</td>
<td>4 000</td>
<td>13 000</td>
</tr>
<tr>
<td>376</td>
<td>7 600</td>
<td>25 000</td>
</tr>
</tbody>
</table>

4.3.9.1 A flight to be operated at flight altitudes at which the atmospheric pressure in personnel compartments will be less than 700 hPa shall not be commenced unless sufficient stored breathing oxygen is carried to supply:

a) all crew members and 10 per cent of the passengers for any period in excess of 30 minutes that the pressure in compartments occupied by them will be between 700 hPa and 620 hPa; and

b) the crew and passengers for any period that the atmospheric pressure in compartments occupied by them will be less than 620 hPa.

4.3.9.2 A flight to be operated with a pressurized aeroplane shall not be commenced unless a sufficient quantity of stored breathing oxygen is carried to supply all the crew members and passengers, as is appropriate to the circumstances of the flight being undertaken, in the event of loss of pressurization, for any period that the atmospheric pressure in any compartment occupied by them would be less than 700 hPa. In addition, when an aeroplane is operated at flight altitudes at which the atmospheric pressure is less than 376 hPa, or which, if operated at flight altitudes at which the atmospheric pressure is more than 376 hPa and cannot descend safely within four minutes to a flight altitude at which the atmospheric pressure is equal to 620 hPa, there shall be no less than a 10-minute supply for the occupants of the passenger compartment .......... (6.7.5) and for which the individual certificate of airworthiness is first issued on or after 9 November 1998, shall be provided with automatically deployable oxygen equipment to satisfy the requirements of 4.3.8.2. The total number of oxygen dispensing units shall exceed the number of passenger and cabin crew seats by at least 10 per cent.
B10. Emergency Briefing Cards
References: Section-8, Series-O, Part-II, Para 6.2.2

   d) means of ensuring that the following information and instructions are conveyed to passengers:

   1) when seat belts are to be fastened;
   2) when and how oxygen equipment is to be used if the carriage of oxygen is required;
   3) restrictions on smoking;
   4) location and use of life jackets or equivalent individual flotation devices where their carriage is required; and
   5) location and method of opening emergency exits;

B11. Cabin crew members
References: Section-8, Series-O, Part-II, Para 12.1

12.1 Assignment of emergency duties

   An operator shall provide adequate number of cabin crew in accordance with Rule 38B of the Aircraft Rules 1937, in order to effect a safe and expeditious evacuation of the aeroplane, and the necessary functions to be performed in an emergency or a situation requiring emergency evacuation. The operator shall assign these functions for each type of aeroplane.

B12. Access to Emergency Exits
References: Annex 8, Part IIIA, 4.1.7 (and Part III D.6.2 and D.6.3)

4.1.7.2 Facilities shall be provided for the rapid evacuation of the aeroplane in conditions likely to occur following an emergency landing. Such facilities shall be related to the passenger and crew capacity of the aeroplane.

4.1.7.3 The interior layout of the cabin and the position and number of emergency exits, including the means of locating and illuminating the escape paths and exits, shall be such as to facilitate rapid evacuation of the aeroplane in conditions likely to occur following an emergency landing.

4.1.7.4 On aeroplanes certificated for ditching conditions, provisions shall be made in the design to give maximum practicable assurance that safe evacuation from the aeroplane of passengers and crew can be executed in case of ditching.
B13. Safety of cabin baggage
References: Section-8, Series-O, Part-II, Para 4.8

4.8 Carry-on baggage
The operator shall ensure that all baggage carried onto an aeroplane and taken into
the passenger cabin is adequately and securely stowed.

B14. Seat Capacity
References: Section-8, Series-O, Part-II, Para 6.2.2

6.2.2 An aeroplane shall be equipped with:

c) a seat or berth for each person over an age to be determined by the State of the 
Operator; 1) a seat belt for each seat and restraining belts for each berth; and

B15. Security of the flight crew compartment door (if applicable)
References: Section-8, Series-O, Part-II, Para 13.2

13.2 Security of the flight crew compartment

13.2.1 In all aeroplanes which are equipped with a flight crew compartment door, this
door shall be capable of being locked, and means shall be provided by which cabin 
crew can discreetly notify the flight crew in the event of suspicious activity or security 
breaches in the cabin.

13.2.2 All passenger-carrying aeroplanes of a maximum certificated take-off mass in 
excess of 45,500 kg or with a passenger seating capacity greater than 60 shall be 
equipped with an approved flight crew compartment door that is designed to resist 
penetration by small arms fire and grenade shrapnel, and to resist forcible intrusions 
by unauthorized persons. This door shall be capable of being locked and unlocked 
from either pilot's station.

13.2.3 In all aeroplanes which are equipped with a flight crew compartment door in 
accordance with 13.2.2:

a) this door shall be closed and locked from the time all external doors are closed 
following embarkation until any such door is opened for disembarkation, except 
when necessary to permit access and egress by authorized persons; and
b) means shall be provided for monitoring from either pilot’s station the entire door area outside the flight crew compartment to identify persons requesting entry and to detect suspicious behaviour or potential threat. All new aircraft to be imported after 1st of Jan, 2008 should have cockpit door surveillance system (CDSS) installed at the time of import. Aircraft already importing should comply with this requirement during their next ‘C’ check falling after 1st Jan, 2008

C. Aircraft External Condition

C.11. Obvious un-repaired damage
References: Annex 8, Part II, 3.6

3.6 Damage to aircraft

3.6.1 When an aircraft has sustained damage, the State of Registry shall judge whether the damage is of a nature such that the aircraft is no longer airworthy as defined by the appropriate airworthiness requirements.

3.6.2 If the damage is sustained or ascertained when the aircraft is in the territory of another Contracting State, the authorities of the other Contracting State shall be entitled to prevent the aircraft from resuming its flight on the condition that they shall advise the State of Registry immediately, communicating to it all details necessary to formulate the judgment referred to in 3.6.1.

3.6.3 When the State of Registry considers that the damage sustained is of a nature such that the aircraft is no longer airworthy, it shall prohibit the aircraft from resuming flight until it is restored to an airworthy condition. The State of Registry may, however, in exceptional circumstances, prescribe particular limiting conditions to permit the aircraft to fly a non-commercial air transport operation to an aerodrome at which it will be restored to an airworthy condition. In prescribing particular limiting conditions the State of Registry shall consider all limitations proposed by the Contracting State that had originally, in accordance with 3.6.2, prevented the aircraft from resuming its flight. That Contracting State shall permit such flight or flights within the prescribed limitations.

3.6.4 When the State of Registry considers that the damage sustained is of a nature such that the aircraft is still airworthy, the aircraft shall be allowed to resume its flight.
D. Cargo

D.2. Dangerous Goods
References: Annex 18, 9.1 and 9.2

9.1 Information to pilot-in-command

The operator of an aircraft in which dangerous goods are to be carried shall provide the pilot-in-command as early as practicable before departure of the aircraft with written information as specified in the Technical Instructions.

9.2 Information and instructions to flight crew members

The operator shall provide such information in the Operations Manual as will enable the flight crew to carry out its responsibilities with regard to the transport of dangerous goods and shall provide instructions as to the action to be taken in the event of emergencies arising involving dangerous goods.

D.3. Safety of cargo on board
References: Section-8, Series-O, Part-II, Para 4.3.1

4.3 Flight preparation

4.3.1 A flight shall not be commenced until flight preparation forms have been completed certifying that the pilot-in-command is satisfied that: …..

d) the mass of the aeroplane and centre of gravity location are such that the flight can be conducted safely, taking into account the flight conditions expected;

e) any load carried is properly distributed and safely secured;

E. General

E1. Additional Remark

Reference : NIL

E2. Refuelling
References: Section-8, Series-O, Part-II, Para 4.3.8
4.3.8 Refuelling with passengers on board

4.3.8.1 An aeroplane shall not be refuelled when passengers are embarking, on board or disembarking unless it is properly attended by qualified personnel ready to initiate and direct an evacuation of the aeroplane by the most practical and expeditious means available.

4.3.8.2 When refuelling with passengers embarking, on board or disembarking, two-way communication shall be maintained by the aeroplane’s inter-communication system or other suitable means between the ground crew supervising the refuelling and the qualified personnel on board the aeroplane.

*Note 1— The provisions of 4.3.8.1 do not necessarily require the deployment of integral aeroplane stairs or the opening of emergency exits as a prerequisite to refuelling.*

**E3. English Language for communication**

**References: CAR Section-7, Series G Part III**

2.1 Holders/ applicants of Private Pilot’s Licence (Aeroplanes/ Helicopters); Commercial Pilot’s Licence (Aeroplanes/ Helicopters); Airline Transport Pilot’s Licence (Aeroplanes/ Helicopters); holders/ applicants of Flight Engineer’s Licence; or holders/ applicants of Flight Navigator’s Licence who shall demonstrate the ability to speak and understand the English language used for radiotelephony communications to the level specified in Appendix I.
## RAMP INSPECTION CHECKLIST

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<th>PLACE:</th>
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<td>STATE:</td>
<td>AOC NO:</td>
</tr>
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<td>FLIGHT NO:</td>
<td>ROUTE TO:</td>
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<td>CONSTRUCTION NO:</td>
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**FLIGHT CREW STATE OF LICENSING:**

<table>
<thead>
<tr>
<th>NAME:</th>
<th>SIGNATURE:</th>
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(*)

### A. FLIGHT DECK

<table>
<thead>
<tr>
<th>Check remark</th>
<th>Check remark</th>
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</table>

#### 1. General Condition
- 1. Journey log book/Technical log or equivalent
- 2. Maintenance release
- 3. Defect notification and rectification (incl. Tech Log)
- 4. Pre-flight inspection

#### 2. Emergency exit

#### 3. Equipment Documentation
- 4. Manuals
- 5. Checklists
- 6. Radio navigation charts
- 7. Minimum equipment list
- 8. Certificate of registration
- 9. Noise certificate (where applicable)
- 10. AOC or equivalent
- 11. Radio licence
- 12. Certificate of airworthiness

### B. Safety/ Cabin

<table>
<thead>
<tr>
<th>Check remark</th>
<th>Check remark</th>
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</table>

#### 1. General internal condition
- 1. General external condition
- 2. Doors and hatches
- 3. Flight controls
- 4. Wheels, tyres and brakes
- 5. Undercarriage, skids/floats
- 6. Wheel well
- 7. Powerplant and pylon
- 8. Fan blades
- 9. Propellers, rotors (main/tail)
- 10. Obvious repairs
- 11. Obvious unrepaired damage
- 12. Leakage

#### 2. First aid kit/emergency medical kit

#### 3. Hand fire extinguisher

#### 4. Life jackets/ flotation devices

#### 5. Seat belt and seat condition

#### 6. Emergency exit, lighting and marking, Torches

#### 7. Slides/ Life-Rafts (as required), ELT

#### 8. Oxygen supply (cabin crew and passengers)

#### 9. Safety instruction

#### 10. Cabin crew members

#### 11. Access to emergency exits

#### 12. Safety or passenger baggage

#### 13. Seat capacity

### C. Aircraft condition

<table>
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<tr>
<th>Check remark</th>
<th>Check remark</th>
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</table>

#### 1. General condition
- 1. Doors and hatches
- 2. Flight controls
- 3. Wheels, tyres and brakes
- 4. Undercarriage, skids/floats
- 5. Wheel well
- 6. Powerplant and pylon
- 7. Fan blades
- 8. Propellers, rotors (main/tail)
- 9. Obvious repairs
- 10. Obvious unrepaired damage
- 11. Leakage

### D. Cargo

<table>
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<tr>
<th>Check remark</th>
<th>Check remark</th>
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#### 1. General condition of cargo compartment
- 2. Dangerous goods
- 3. Safety of cargo on board

### E. General

<table>
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<tr>
<th>Check remark</th>
<th>Check remark</th>
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#### 1. Additional Remark
- 2. Refueling
- 3. Language for Com
<table>
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<th>Remarks</th>
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<tbody>
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<tr>
<td>Corrective actions before flight</td>
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<tr>
<td>Restrictions on the aircraft</td>
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<tr>
<td>Information to the operator and authority</td>
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<tr>
<td>Information to the captain</td>
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<td></td>
</tr>
<tr>
<td>No remarks</td>
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</tr>
</tbody>
</table>

**Inspector(s) signature**

(*) Signature by any member of the crew or other representative of the inspected operator does in no way imply acceptance of the listed findings but simply a confirmation that the aircraft has been inspected on the date and at the place indicated on this document.

This report represents an indication of what was found on this occasion and must not be construed as a determination that the aircraft is fit for the intended flight.