
INFORMATION CIRCULAR

FOREIGN AIRCRAFT RAMP INSPECTIONS – INFORMATION TO AIRCRAFT OPERATORS

Introduction

- 1 The responsibility for safety oversight of an aircraft operator lies primarily with the State of the Operator. The International Civil Aviation Organisation (ICAO) Annex 6 Part I paragraph 4.2.2.2 and Part III, Section II paragraph 2.2.2.2 require Contracting States to establish a programme with procedures for the approval and surveillance of operations in its territory by foreign air operators and for taking appropriate action when necessary to preserve safety. In Singapore, Para 87A of the Air Navigation Order requires foreign operators to seek CAAS's approval when conducting operations to and from Singapore under the programme termed as Foreign Operator Surveillance Programme (FOSP).
- 2 Under the FOSP, aircraft of foreign operators conducting public transport or aerial work operations are also subjected to ramp inspections. If necessary, privately owned foreign aircraft may also be inspected. The frequency of ramp inspections is dependent on CAAS' level of confidence in the operator and is based on risk assessment. Refer to the Advisory Circular FOS-1, Foreign Operator Surveillance Programme – Operations Permit for information on the assessment.
- 3 The ramp inspections are by nature on-the-spot assessments which serve as proxies but are not intended to, and they cannot, substitute proper regulatory oversight nor guarantee the airworthiness of a particular aircraft or the capability of the operator's flight operations. The regulatory oversight of the operator or owner of an aircraft is the responsibility of the State of Operator or State of Registry.

Inspection Arrangement

- 4 An operator may be informed of a ramp inspection which may be on short notice.
- 5 It is the responsibility of the operator to facilitate CAAS' inspectors in the conduct of ramp inspection. This may include, but not limited to, administrative arrangements such as providing ground transportation within the airport to the aircraft if needed. For the purpose of identification and authorisation, CAAS inspectors will carry the Authority Card with them during the inspections.

During Inspection

- 6 Some inconveniences may be encountered by flight and cabin crews, handling agents and other personnel involved in ground handling activities during the inspection. CAAS inspectors adopt the principle of minimizing inconveniences and disruptions to operations and will endeavor to complete the inspection before the scheduled departure time. If it is a transit flight, the inspection will be conducted within the turn-around time.

- 7 The ramp inspections may cover areas of flight operations, airworthiness, cabin safety and cargo handling, including dangerous goods. A checklist of 53 inspection items is used during the inspection (See **Annex A**). The inspectors will also brief the flight crew on the scope of inspections. To ensure expeditious completion of the inspection, it would be advisable for the operator to assign one crew member to assist the inspector.
- 8 For transit flight, the minimum items that the inspection will cover are:
- licences of the pilots;
 - procedures and manuals that should be carried in the cockpit;
 - compliance with these procedures by flight and cabin crew;
 - safety equipment in cockpit and cabin;
 - cargo carried in the aircraft (including the transport of dangerous goods); and
 - the technical condition of the aircraft.

Findings

- 9 A finding is defined as non-compliance with one of the following:
- a) Applicable international Standards (i.e. Chicago convention, its Annexes and ICAO regional Standards) which are the minimum Standards to be observed by any aircraft engaged in international navigation.
 - b) Singapore regulations and requirements that are (e.g. Air Navigation Act or Air Navigation Order or Conditions in Operations Permit or Aeronautical Information Publication (AIP)) applicable to foreign operator flying into and out of Singapore.
 - c) Aircraft certification specifications and manufacturer's standards¹. Deviations from these standards may be acceptable if the State of Registry has issued a formal approval or waiver/concession detailing conditions and/or limitations to allow the aircraft to continue to operate for a specific period of time. In circumstances where deviation from the certification standards leads to a temporary invalidation of the Certificate of Airworthiness, the operator is required to apply for a Permit to Fly from CAAS before flying into or out of Singapore.
- 10 Findings are categorised according to the magnitude of the deviation from the requirements and its impact to safety. This means that a category 1 finding is considered to have a minor influence on safety. A category 2 finding may have a significant influence and a category 3 finding may have a major influence on safety. Cat 3 findings may require flight crew to correct the non-compliance/s before the aircraft is allowed to depart.
- 11 For findings where there are reasonable ground to believe that the aircraft is unsafe or illegal to conduct or continue its flight, CAAS inspectors may delay or ground the aircraft. Under such circumstances, the operator or the owner is required to rectify or provide justification or evidence that would allow CAAS inspectors to release the aircraft.

¹ Contained in a set of documents issued by the aircraft Type Certificate holder which detail the conditions for the serviceability of the systems and components installed on an aircraft, e.g. AMM, SRM, CMM, SWPM/WDM.

Post Inspection

- 12 After the inspection, CAAS inspectors will conduct debrief on the outcome of the inspection to the Pilot in Command or airlines representatives. The inspector may also hand over the Proof of Inspection to the Pilot in Command for his / her acknowledgement.
- 13 For category 1 finding/s, a written e-mail communication will be sent to the operator.
- 14 For category 2 (significant) and/or category 3 (major) findings, a written e-mail or letter will be sent to the operator. In addition, the detail of the findings will also be sent to the State of Operator or the State of Registry (if different from the State of Operator) for their information or follow-up action if they deem fit. In cases such as repetitive or serious findings, CAAS may request the State of Operator or State of Registry to confirm that they are satisfied by the corrective actions taken and/or planned by the operator.
- 15 For all findings, it is the responsibility of the operator to ensure they provide information on the corrective actions taken to CAAS within 1 month of notification of the findings. These actions should include a root cause analysis and may consist of any actions taken and/or planned to correct the deficiencies, and any actions to prevent/limit re-occurrence in the future. Failure to provide timely closure to the findings to CAAS may affect the status of the operator's Operations Permit.
- 16 For the purpose of enhancing safety, data from ramp inspection may be shared with civil aviation authorities. These data will also be used for subsequent risk assessment on an operator. Therefore, operators are encouraged to proactively address any findings in an effective and timely manner.
- 17 If you have any enquiries, please write in to caas_afo_infocenter@caas.gov.sg

Annex A – Foreign Aircraft Inspection Checklist

FLIGHT OPERATIONS

A. Flight deck — General
<p>A 1. General condition Instructions: Check cleanliness, tidiness and general condition.</p> <p>References: Nil.</p>
<p>A 2. Emergency exit Instructions: Check whether in compliance with ICAO SARPs.</p> <p>References: Annex 8, Part IIIA, or Part IVA, 4.1.7 — Emergency landing provisions.</p>
<p>A 3. Equipment Instructions: Check for the presence of the following equipment where required: Two sensitive pressure altimeters with counter drumpointer or equivalent presentation (IFR operations); Airborne collision avoidance system (ACAS); Cockpit voice recorder (CVR) and flight data recorder (FDR); ELT; Ground proximity warning system (GPWS); and Where a flight management computer (FMC) is provided — valid database.</p> <p>References: Altimeters — Annex 6, Part I, 6.9.1 c). ACAS II — Annex 6, Part I, 6.18. CVR and FDR — Annex 6, Part I, 6.3; and Part III, Section II, 4.3. GPWS — Annex 6, Part I, 6.15. ELT — Annex 6, Part I, 6.17; and Part III, Section II, 4.7. Database — Annex 6, Part I, 7.4.2.</p>
A. Flight deck — Documentation
<p>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.</p> <p>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.</p>
<p>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.</p> <p>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.</p>
<p>A 6. Radio Navigation Charts Instructions: Check whether a route guide, including charts, is available, suitable and up to date.</p> <p>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.</p>
<p>A 7. Minimum Equipment List (MEL) Instructions: Check whether the MEL is available, up to date and approved.</p> <p>References: Annex 6, Part I, 6.1.3, Appendix 2, 2.2.9, and Attachment G; and Part III, Section II, 4.1.3,</p>

Attachment E, and Attachment H, 2.2.7.
<p>A 8. Documents required to be carried on board - Certificate of registration Instructions: Check for presence and accuracy and format.</p> <p>References: <i>Convention on International Civil Aviation</i> (Doc 7300), Article 29; and Annex 7, Section 7.</p> <p>Identification plate - Instructions: Check presence and location.</p> <p>Reference: Annex 7, Section 8.</p>
<p>A 9. Documents required to be carried on board - Noise certification document or statement, where applicable Instructions: Check whether available and valid.</p> <p>References: Annex 6, Part I, 6.13; Part III, Section II, 4.11; and Annex 16, Volume I, Parts I and II.</p>
<p>A 10. Documents required to be carried on board - AOC (certified true copy) and operations specifications (copy) Instructions: Check whether available, applicable and valid.</p> <p>References: 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.</p>
<p>A 11. Documents required to be carried on board - Radio station licence Instructions: Check whether available and up to date.</p> <p>References: <i>Convention on International Civil Aviation</i> (Doc 7300), Articles 29 and 30; Annex 6, Part I, 7.1; and Part III, Section II, 5.1.</p>
<p>A 12. Documents required to be carried on board - Certificate of airworthiness Instructions: Check that the certificate of airworthiness of the aircraft is on board and valid.</p> <p>References: <i>Convention on International Civil Aviation</i> (Doc 7300), Articles 29 and 31; Annex 8, Part II, Chapter 3.</p>
A. Flight deck — Flight Data
<p>A 13. Flight Preparation</p> <p>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.</p> <p>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.</p> <p>Weather reports and forecasts Instructions: Check for availability of weather reports and forecasts adequate for the flight.</p> <p>References: Annex 6, Part I, 4.3.5.2; and Part III, Section II, 2.3.5.2.</p> <p>NOTAM Instructions: Check for availability of NOTAMs for the route of flight.</p> <p>References: Annex 15, Chapter 2 — Definitions; and Chapter 5.</p> <p>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.</p> <p>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.</p> <p>Cargo manifest and , if applicable, passenger manifest Instructions: Check for availability of completed cargo manifest and, if required, passenger manifest.</p> <p>References: Annex 9, 2.12, 2.13, 4.12, and Appendices 2 and 3.</p>
<p>A 14. Mass and balance sheet Instructions: Check for presence of load sheet and accuracy.</p> <p>References: Annex 6, Part I, 4.3.1, and Appendix 2, 2.1.14; and Part III, Section II, 2.3.1, and Attachment</p>

H, 2.1.13.
A. Flight deck — safety equipment
<p>A 15. Portable fire extinguishers Instructions: Check for presence, number, condition and expiry date.</p> <p>References: Annex 6, Part I, 6.2.2 b); and Part III, Section II, 4.2.2 b).</p>
<p>A 16. Life jackets/flotation devices Instructions: Check for presence, condition and, where applicable, expiry date.</p> <p>References: Annex 6, Part I, 6.5; and Part III, Section II, 4.3.</p>
<p>A 17. Safety harness Instructions: Check for presence, condition and quantity.</p> <p>References: Annex 6, Part I, 6.2.2; and Part III, Section II, 4.2.2.</p>
<p>A 18. Oxygen equipment Instructions: Check for presence, quantity and condition.</p> <p>References: Annex 6, Part I, 4.3.8; and Part III, Section II, 2.3.8.</p>
<p>A 19. Emergency flashlight Instructions: Check for appropriate quantities of emergency flashlight. Check their condition if possible.</p> <p>References: Annex 6, Part I, 6.10; and Part III, Section II, 4.4.2.</p>
A. Flight deck — Flight Crew
<p>A 20. 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).</p> <p>References: <i>Convention on International Civil Aviation</i> (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.</p>
A. Flight deck — Journey log book / Technical log or equivalent
<p>A 21. 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 deferrals include time limits and comply with the stated time limits. Where applicable, check compliance with the aircraft MEL.</p> <p>References: <i>Convention on International Civil Aviation</i> (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.</p>
<p>A 22. Maintenance Release Aeroplane maintenance (maintenance record)</p> <ul style="list-style-type: none"> - Maintenance release, general (checkmark, signed, validity of maintenance release) - Relevant release for service - Technical Log aircraft release of aircraft at departing station - CRS-SMI, Checks Release etc. <p>References: Annex 6, Part 1 - 8.8</p>
<p>A 23. Defect notification and rectification A document which contains a certification confirming that the maintenance work to which it relates has been completed in a satisfactory manner, either in accordance with the approved data and the procedures described in the maintenance organisation's procedures manual or under an equivalent system. A maintenance release shall contain a certification including:</p> <ol style="list-style-type: none"> 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. <p>References: Annex 6, Part 1 - 8.8</p>
<p>A 24. Preflight inspection Instructions: Check for presence of preflight inspection or preparation forms.</p> <p>References: Annex 6, Part I, 4.3.1; and Part III, Section II, 2.3.1.</p>

CABIN SAFETY

B. Cabin/Safety
<p>B 1. General condition Instructions: Check for cleanliness, tidiness and general condition.</p> <p>References: Annex 8, Part III, 8.3.</p>
<p>B 2. Cabin attendant's station and safety harness Instructions: Check for presence and compliance with the requirement.</p> <p>References: Annex 6, Part I, 6.16; and Part III, Section II, 4.12.</p>
<p>B 3. First aid kit/emergency medical kit Instructions: Check for presence, condition, location and expiry date if available.</p> <p>References: Annex 6, Part I, 6.2.2; and Part III, Section II, 4.2.2.</p>
<p>B 4. Portable fire extinguishers Instructions: Check for presence, number, condition and expiry date if available.</p> <p>References: Annex 6, Part I, 6.2.2; and Part III, Section II, 4.2.2.</p>
<p>B 5. Life jackets/flotation devices Instructions: Check for presence, condition and expiry date as applicable.</p> <p>References: Annex 6, Part I, 6.5; and Part III, Section II, 4.5.</p>
<p>B 6. Seat belts and seat condition Instructions: Check for presence and condition.</p> <p>References: Annex 6, Part I, 6.2.2; and Part III, Section II, 4.2.2.</p>
<p>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.</p> <p>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.</p>
<p>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.</p> <p>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).</p>
<p>B 9. Oxygen supply — cabin crew and passengers Instructions: Check for presence and condition where applicable.</p> <p>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.</p>
<p>B 10. Safety Instructions - Emergency briefing cards Instructions: Check for presence and accuracy.</p> <p>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.</p>
<p>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.</p> <p>References: Annex 6, Part I, 12.1; and Part III, Section II, 10.1.</p>
<p>B 12. Access to emergency exits Instructions: Check that appropriate access to emergency exits is provided and that it is not impeded.</p> <p>References: Annex 8, Part III A, 4.1.7; and Part III B, D.6.2 and D.6.3.</p>
<p>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.</p> <p>References: Annex 6, Part I, 4.8; and Part III, Section II, 2.7.</p>
<p>B 14. Seating capacity Instructions: Check that the number of persons boarding does not exceed the number permitted (number</p>

of seats normally, except specific circumstances).

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

AIRWORTHINESS

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.

C 2. Doors and hatches

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

References: Annex 8, Part II 3.6

C 3. Wings 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: Annex 8, Part II 3.6

C 4. Wheels, brakes and tires

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

References: Annex 8, Part II 3.6

C 5. Undercarriage

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

References: Annex 8, Part II 3.6

C 6. Wheel well

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

References: Annex 8, Part II 3.6

C 7. Powerplant and Pylon

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: Annex 8, Part II 3.6

C 8. Fan blades / Propellers

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

References: Annex 8, Part II 3.6

C 9. Obvious Repair - Previous repairs

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

References: Annex 8, Part II 3.6

C 10. Obvious unrepaired damage

Instructions: Visual inspection. Note unassessed and unrecorded damage including corrosion, lightning strike damage, and bird strikes, etc.

References: Annex 8, Part II, 3.6.

C 11. Leakage

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

References: References: Annex 8, Part II 3.6

CARGO

D. Cargo
<p>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.</p> <p>References: Nil.</p>
<p>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.</p> <p>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.</p>
<p>D 3. Safety of cargo on board Instructions: Check that loads are properly distributed and safely secured.</p> <p>References: Annex 6, Part I, 4.3.1, and Part III, Section II, 2.3.1.</p>

General

E. General / Others
<p>E 1. 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.</p> <p>References: Annex 6, Part I, 13.2.</p>