# Table of Content

**A GENERAL** : CHAPTER 18 - STANDARD OPERATING PROCEDURES FOR EACH PHASE OF FLIGHT ..............................3

18 STANDARD OPERATING PROCEDURES FOR EACH PHASE OF FLIGHT ................................................................................................................................................. 3
  18.1 General SOPs .......................................................................................................................................................... 3
  18.1.1 Non-Revenue Flights, Procedures and Limitations for ..........................................................3
  18.1.2 Simulated Flight ........................................................................................................................................... 6
  18.1.3 Instrument Approach Charts to be Used ................................................................................................. 6
  18.1.4 Flight Preparations and Checks .................................................................................................................. 6
  18.2 Normal Takeoff ............................................................................................................................................... 11
  18.3 Noise Abatement .............................................................................................................................................. 11
  18.3.1 Noise Abatement Climb Procedure ................................................................................................. 12
  18.4 Climb ............................................................................................................................................................ 12
  18.5 Critical Phase of Flight ................................................................................................................................. 12
  18.6 PBN After Take-Off........................................................................................................................................ 13
  18.7 No Smoking Sign and Fasten Seat Belt Signs .......................................................................................... 13
  18.8 RVSM OPERATIONS .................................................................................................................................. 13
  18.8.1 RVSM Operating Procedures ................................................................................................................. 14
  18.8.2 RVSM MAINTENANCE PROCEDURES ......................................................................................... 26
  18.9 En-Route Cruise Operations ....................................................................................................................... 39
  18.10 Maintaining Adequate Lookout during Cruise Flight ................................................................................ 39
  18.11 Operations in Areas with Specified Navigation Performance Requirements ......................................... 39
  18.12 PBN Cruise Operations ............................................................................................................................... 39
  18.13 MACH Restrictions .................................................................................................................................. 39
  18.14 Approach Planning ...................................................................................................................................... 39
  18.15 Aerodrome Weather )Meteorological (Data Requirements ........................................................................ 39
  18.16 Destination Aerodrome Planning ............................................................................................................ 40
  18.16.1 Cancellation of IFR Flight Plans ..................................................................................................... 40
  18.17 Published Instrument Approach Procedures .......................................................................................... 40
  18.18 Reported Weather ...................................................................................................................................... 40
  18.19 PBN Decent Operations ............................................................................................................................... 40
  18.20 Deteriorating Weather at Destination Aerodrome /Runway Condition While En-route ....................... 41
  18.21 Descent ......................................................................................................................................................... 41
  18.22 Initial Approach .......................................................................................................................................... 41
  18.23 Visual )VFR( Approach Minima .................................................................................................................... 42
  18.23.1 Minimum Visibilities for VFR Operations ....................................................................................... 42
  18.23.2 VFR Approaches Day Time ................................................................................................................. 42
  18.23.3 VFR Approaches, Night Time ........................................................................................................... 42
  18.24 Instrument Approach ............................................................................................................................... 43
  18.24.1 Aerodrome Operating Minima IFR .............................................................................................. 43
  18.24.2 Planning Minima En-Route and Destination Alternates ............................................................... 43
  18.24.3 Night IFR Operations ......................................................................................................................... 44
  18.24.4 Instrument Approach Procedures ..................................................................................................... 44
  18.25 Holding Practices )Policy( ............................................................................................................................ 44
  18.25.1 Chart Depicted Holding Patterns .................................................................................................... 44
  18.25.2 Uncharted Holding Fix ....................................................................................................................... 44
  18.26 Let Down and Entering the Terminal Area ............................................................................................. 44
  18.26.1 Conditions for an Instrument Let-Down ....................................................................................... 45
  18.27 Approach Aid Not Available or Unusable ............................................................................................. 45
  18.28 Approach and Landing )Company Policies( ............................................................................................ 45
  18.29 Precision Approach .................................................................................................................................. 45
  18.29.1 Decision Height ................................................................................................................................... 46
  18.29.2 Visual Reference .................................................................................................................................... 46
  18.30 Flight Profiles .............................................................................................................................................. 46
  18.30.1 ILS Approach ........................................................................................................................................... 46
<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>18.30.2</td>
<td>Non-Precision Approach</td>
<td>47</td>
</tr>
<tr>
<td>18.30.3</td>
<td>Go-Around /Missed Approach /Balked Landing</td>
<td>47</td>
</tr>
<tr>
<td>18.30.4</td>
<td>Circling Approach /Landing Pattern</td>
<td>48</td>
</tr>
<tr>
<td>18.30.5</td>
<td>Visual Approach and Landing</td>
<td>48</td>
</tr>
<tr>
<td>18.31</td>
<td>Landing</td>
<td>49</td>
</tr>
<tr>
<td>18.31.1</td>
<td>Calculation of Landing Length</td>
<td>49</td>
</tr>
<tr>
<td>18.31.2</td>
<td>Landing Roll Reverse Thrust</td>
<td>49</td>
</tr>
<tr>
<td>18.32</td>
<td>Landing on Contaminated Runways</td>
<td>49</td>
</tr>
<tr>
<td>18.33</td>
<td>Wake Turbulence Considerations</td>
<td>49</td>
</tr>
<tr>
<td>18.34</td>
<td>Parking</td>
<td>52</td>
</tr>
</tbody>
</table>
A GENERAL. CHAPTER 18. STANDARD OPERATING PROCEDURES FOR EACH PHASE OF FLIGHT


Note: This chapter has been written with the aid of the Hawker Beechcraft / Hawker 850 XP approved AFM, Section 4, Abnormal and Normal Procedures and Section 5, Performance.

Note: See the Approved AFM for expanded Normal Procedures.

18.1 General SOPs

The PIC and Flight Crew Members shall agree upon who will be PF and PM for the flight sector and determine the cockpit duties between PF, PM and the succession of command.

Both PF and PM are responsible for double checking altimeter settings and the selection and identification of radio aids during all phases of flight.

18.1.1 Non-Revenue Flights, Procedures and Limitations for:

(a) Definitions

Commercial Operations

Commercial Operations by an AOC Holder means an Entity engaging in an activity that involves, or makes possible, the offering for sale of an aviation service for the purpose of obtaining earnings, income, compensation, or profit.

Non-Commercial Operations

Non-Commercial Operations by an AOC Holder means an entity engaging in an activity, service or flight that has NOT been offered for sale or performed for the purpose of making a profit.

ACA understands that non-commercial operations of aircraft will be listed in ACA’s operations specifications issued by the competent authority.

ACA understands that we may conduct non-commercial operations with our aircraft that are primarily used for commercial air transport operations and that are listed in the operations specifications of our AOC.

ACA shall ensure the following before conducting non-commercial operations in ACA aircraft:

- Describe the operations in detail in this operations manual, including:
  - Identification of the applicable requirements;
  - A clear identification of any differences between operating procedures used when conducting commercial air transport and non-commercial operations;
  - A means of ensuring that all personnel involved in the operation are fully familiar with the associated procedures;
  - Submits the identified differences between the operating procedures referred to in (a)x1(ii) to the competent authority for prior approval.

ACA understands that we will not be required to submit a declaration in accordance with Part NCC.
ACA Non-Commercial Operations

The following flights will be considered as ACA noncommercial operation flights for all ACA aircraft:

- Training flights,
- Test flights,
- Delivery flights,
- Ferry flights,
- Demonstration flights,
- Positioning flights with or without passengers.

Note: At no time during any of the above listed non-revenue flight will an abnormal or emergency situation be simulated, nor will a Flight Crew Member restrict their visual sight by means of a view restricting device to simulate IMC conditions.

(b) Training Flight

Training Flight may be necessary for Flight Crew Members training in order for the Flight Crew Member to gain currency. All Training Flight will be scheduled with the approval of the Flight Operations Manager. No flight training will be conducted on a ACA revenue flight.

At no time will an abnormal or emergency situation be simulated on a revenue flight nor will a Flight Crew Member restrict their visual sight by means of a view restricting device to simulate IMC conditions.

Engine failures on Training Flight will be SIMULATED. At NO TIME will an engine be shut down.

Training Flights will be conducted by a qualified and nominated ACA Training Officer and will be kept to a minimum of hours to allow the Flight Crew Member to gain proficiency and currency.

(c) Test Flights / Technical Flights

Technical check flights are performed to ascertain the airworthiness of the aircraft and/or its systems.

The necessity for technical check flights is laid down in the manufacturer’s aircraft maintenance manual or may arise whenever the functionality of a system cannot be satisfactorily assessed during ground testing.

Technical check flights are divided in two categories:

- Acceptance check flights
  - Described as manufacturer’s flight test, it will be carried out for customer acceptance flights or according the maintenance manual following a major overhaul or whenever required by the airworthiness authorities.

- Engineering check flights
  - Constituted by defined and selected portions of the manufacturer’s flight test, it will be carried out whenever required according the maintenance manual or if necessary after maintenance, modification or repair work or whenever required by the airworthiness authorities.

Technical check flights shall only be performed by Flight Crew Members having completed adequate training and whom the Flight Operations Manager releases.

On technical check flights, only the Flight Crew, engineering, maintenance personnel and inspectors of the Reg and Country... all performing a specified duty... may be accepted on board.

Technical check flights are performed under the authority of the Head of Engineering.
The Head of Engineering is responsible for the Technical Check Flight Program based on the maintenance manual in coordination and in agreement with the contracted maintenance.

The responsible engineer shall give the Flight Crew a briefing on:

- The reason for the test flight,
- The test program,
- How the preceding work may influence the airworthiness of the aircraft.

As far as flight procedures are concerned, the ultimate responsibility rests with the Flight Operations Manager.

### (d) Delivery Flight

Delivery flights are flights where - after a purchasing or lease agreement - an aircraft is flown from the manufacturer's, seller's or lessor's facility to the operator or vice versa.

Provided all normal requirements - such as crew complement, equipment requirements - are met, non-revenue passengers may be carried if this is not excluded on the certificate of airworthiness and certificate of registration.

Full insurance coverage must be assured. For some delivery flights the Authority might only issue a "ferry permit" in lieu of the certificate of airworthiness and the certificate of registration. This ferry permit may exclude the carriage of persons other than Flight Crew and engineers. For those flights with minimum crew and the permitted persons other than Flight Crew and passengers, the Flight Operations Manager may specify acceptable deviations from the procedures required under regulation (EU)No 965/2012 and ACA operations manual(s), but never below the national and international regulations for non-commercial operations (ICAO Annex 2, Annex6).

Delivery flights may be combined with training flights provided the minimum crew as per the AFM is on board. On those delivery flights, where all requirements as per Reg (EU) No 965/2012 and ACA operations manual(s) are met (including all insurance coverage for commercial operations) passengers even commercial passengers may be carried, if the aircraft's registration is removed from the AOC only after the arrival at the final (delivery) destination.

### (e) Ferry Flights

Ferry flights may be dispatched with less than the equipment specified in this MEL provided all the equipment expected to be utilized in flight is operable and any relevant sections of the flight manual are applied. On a ferry flight no passenger are accepted.

ACA Head of Engineering however must request permission for such a flight from the /Reg and Country/.

### (f) Demonstration Flight

A demonstration flight may be for a sales/advertising purpose or to demonstrate flight characteristics to a potential buyer, or flights with journalists and customers to introduce a new type of aircraft.

In any case, all flights with passengers aboard require full and normal crew complement. Flights without passengers may be combined with training flights and either require normal crew composition or at least a type qualified instructor plus a Flight Crew Member with the basic pilot licenses required for that category of aircraft. On aircraft requiring an SPO, a qualified SPO is required. Other than for the normal flight operation
VFR-flights are also permitted in excess of a distance of 25 NM from the aerodrome provided the required VFR-minima apply.

The policies / procedures / limitations according to Operations Manual / AFM have to be followed but the Flight Operations Manager may specify additional minima increments for these flights.

(g) Positioning Flight, Including the kind of Persons who may be Carried on Such Flights

Positioning Flights will be scheduled by the Flight Operations Manager and may carry the following personnel:

- The required Flight Crew;
- Additional Flight Crew for connecting to another ACA revenue flight;
- Maintenance personnel that may be repositioning to a satellite base or being transported to perform unscheduled maintenance on a ACA aircraft.

No passengers will be allowed on a positioning flights.

18.1.2 Simulated Flight

At no time will simulated instrument flight, and the simulation of emergency situations which might affect the flight characteristics of the aircraft, are prohibited on all passenger or baggage carrying flights.

18.1.3 Instrument Approach Charts to be Used

ACA uses Jeppesen SIDs, STARs and Approach Charts. The Flight Crew shall ensure that two copies of the most current charts are available to the PF and PM.

18.1.4 Flight Preparations and Checks

General

The object of the flight preparation is to ensure that the flight meets all applicable regulations and can be completed safely. Dispatch personnel and Crew Members will ensure that all items listed in this section are covered and the Flight Release has been completed for the first flight of the day.

When scheduling a flight, the Dispatch or operational staff will confirm the following information:

- The customers name;
- The date of trip;
- The customers contact telephone number(s) and email address;
- Travel details (routing and number of stops);
- The number of passengers, baggage;
- Any electric mobility aid(s) (EMA) e.g. personal mobility devices / wheelchairs, etc. The Dispatch or operational staff will request the dimensions and the type of battery that powers the personnel mobility device to ensure that the EMA can be carried in accordance with ACA's Operation Specifications requirements or limitations;
- Scheduled arrival time prior to boarding time;
Alternate action(s) and or accommodations as required;

The Dispatch or operational staff will send the customer an email that confirms the flight and notifies the customer of ACA's polices for baggage limitations and dangerous goods that may be carried and that are not allowed.

The Dispatch or operational staff will schedule the flight on ACA's scheduling device and schedule the aircraft and crew. The scheduling device alerts maintenance and flight crews of a newly scheduled flight.

**18.1.4.1 Home Base or Detached Operations Flight Crew Flight Preparation, Planning and Briefings**

The Pilot-in-Command will check the following items to ensure that the aircraft is airworthy and brief the Flight Crew on each item before the flight is released:

- Checking of the aircraft technical status and ensure that no inspection will be over flown;
- The aircraft systems and equipment required for the flight are available and the provisions of the MEL are complied with;
- Crew member availability;
- Crew duty hours are not in question or daily, weekly or monthly limits FTL will not be over flown;
- The Security aspects of the destination have been considered and Security arrangements made at destination if required;
- Correct number of seats in the aircraft;
- Correct loading of baggage in the aircraft;
- A check, whether 'special loads' such as heavy baggage are to be carried and whether safety related handling instructions are being followed;
- Ensuring availability and currency of search and rescue information, charts, instruments approach, arrival and departure charts for the intended route of light (VFR or IFR);
- Crew accommodations at destination are available and booked (if applicable).
- The preparation of an Operational Flight Plan (OFP) considering all aspects such as minimum flight altitudes, routing, weather forecasts for en-route, destination and alternate aerodromes, fuel planning, etc;

The Pilot-in-Command and or Dispatch will use the AFM for the following calculations and brief the Flight Crew on the calculations before each flight:

- Performance has been calculated for the route of intend flight;
- Fuel planning has been calculated;
- Mass and balance has been calculated;
- Loading requirements can be met ad are not exceeded;
- Aircraft limitations will not be exceeded.

The Pilot-in-Command and or Dispatch will use an approved CAAT weather reporting source to check the following and brief the Flight Crew on the following before each flight:

- The forecast en-route weather forecast from a CAAT approved source;
The forecast destination weather forecast from a CAAT approved source;

• NOTAMS applicable for the entire flight.

The Pilot-in-Command will ensure that the most current Jeppesen navigation en-route charts, STARs, SIDs, approach charts are used for flight planning to check the following and brief the Flight Crew before each flight:

• Minimum flight altitudes for departure, the entire route of flight and the destination aerodrome;

• Minimum en-route altitudes;

• Aerodrome operating minima;

• Any remote aerodrome concerns;

The Pilot-in-Command or designated Flight Crew Member is responsible for the accomplishment of all aircraft pre-flight checks as per the AFM.

Note: If the aircraft remains on the ground for more than 3 hours, the Pilot-in-Command will perform a full preflight inspection.

18.1.4.2 Dispatch and Flight Crew Flight Preparation

The object of the Flight Crew flight preparation is to ensure that the Dispatch, the Pilot-in-Command and Flight Crew Members communicate with each other and are aware of and agree with the proposed operations and rout of the flight. Both Pilot-in-Command and Flight Crew Members must agree that the flight may be conducted safely with regards to the following:

• Aircraft performance along the route of intending flight;

• Fuel planning;

• VFR or IFR flight weather minimums;

• Minimum flight altitudes;

• En-route operating minima;

• The forecast en-route weather;

• The forecast departure, destination, and alternate aerodromes weather;

• Aerodrome(s) operating minima;

• Any remote or isolated aerodrome concerns and the calculated point of no return (if applicable);

• If a Category II approach is to be anticipated, the Flight Crew shall consider the possibility of equipment malfunction, and ensure that the weather at the alternate aerodrome is Category I or better;

• NOTAMS;

• The preparation and submission of an Operational Flight Plan (OFP) considering all aspects such as minimum flight altitudes, routing, weather forecasts for en-route, destination and alternate aerodromes, fuel planning, etc.

Dispatch or the PIC shall select and specify two destination alternate aerodromes in the operational and ATS flight plans when for the destination aerodrome.
Meteorological conditions at the estimated time of use will be below the operator’s established aerodrome operating minima for that operation; or

Meteorological information is not available.

The Pilot-in-Command is responsible for the accomplishment of pre-flight checks.

- Conducting a complete preflight inspection the first flight of the Pilot-in-Commands duty day using the approved AFM preflight checklist of ACA's approved preflight checklist.

Note: For all consecutive flights, an abbreviated pre-flight inspection may suffice. This will be at the discretion of the Pilot-in-Command.

Note: If the aircraft remains on the ground for more than 3 hours, the Pilot-in-Command will perform a full preflight inspection.

### 18.1.4.3 Documents to be Carried

The following documentation shall be carried on board, and shall, within a reasonable time of being requested to do so by a person authorized by an authority, be produced by the Pilot-in-Command of the aircraft to that person:

#### Aeroplanes Documentation

- Original of Certificate of Registration;
- Original of Certificate of Airworthiness;
- Original of Noise Certificate;
- Original of Aircraft Radio License;
- Copy of Air Operator Certificate and Specifications;
- Copy of the third party liability Insurance;
- If the aircraft is leased, the leasing agreement as specified in the ADCA aircraft leasing document.

#### Operational Documentation

- Operation Manual;
- A Certified Copy of ACA’s AOC;
- ACA Operations Specifications;
- Aircraft Flight Manual (AFM);
- Normal Checklists;
- Emergency and Abnormal Checklists;
- Journey Log and Logbook;
- Mass and Balance forms (electronic/printable form is acceptable);
- Conversion tables necessary to support operations where metric heights, altitudes and flight level must be used;
- Emergency Equipment Location Card (appendix 15 Hawker Emergency Equipment List)
All the above documents, including additional documentation as per aircraft Library Index, can be found in the airplane’s library. The flight operation management must ensure that the documents are in the airplane and valid, although, it is the Pilot-in-Command’s responsibility to check before each flight the presence and validity of the documents.

**Technical Documentation**
- Technical Log;
- Deferred Maintenance Items Log;
- Cabin Defect Log.

**Flight Crew Documents to be Carried**
- A valid pilot license;
- Medical certificate;
- CAAT Validation if required;
- A current passport for each Flight Crew Member;
- Any other document required by the license.

**Additional information to be Carried**
- Operational flight plan (OFP);
- Details of filed ATS flight plan;
- Appropriate NOTAMS / AIS Documentation;
- Appropriate Meteorological Documentation;
- Mass and Balance Documentation (electronic/printable form is acceptable);
- Current Jepessen Maps and Charts;
- Current Jepessen Airways Manual;
- Any other documentation required by the states concerned with this flight;
- Forms to comply with the reporting requirements of the Authority and ACA;
- Aerodrome takeoff and landing performance calculations (electronic/printable form is acceptable);
- Passengers Manifest (if requested);
- Cargo Manifest (if requested);
- General Declaration (if requested).

**Loss or Theft of Documents**
In case of loss or theft of documents specified above, the operation is allowed to continue until the flight reaches a place where a replacement can be provided.
18.1.4.4 Performance Based Navigation (PBN) Policies and Procedures

All ACA Flight Crews shall use Performance Based Navigation equipment as per the approved user manual. It will be the responsibility of the Pilot-in-Command to ensure that the most current data has been loaded into the database and shall check that all PBN equipment as part of the preflight check and ensure that it is operational.

The designated PM will enter all PBN selections and the PF will double check all entries.

Flight Crews will constantly monitor the accuracy and integrity of all PBM equipment being used the entire flight, to include the entered path of flight, in addition to altitude and speed limitations and constraints.

The Flight Crew shall disengage and abandon the use of the PBN if a deviation is detected, systems downgrade or a failure has been detected or if there is a question regarding the reliability of the PBN unit.

The Flight Crew will inform ATC as soon as practical of the failure and discontinuation of use of PBN.

The Pilot-in-Command shall submit a written report to the Chief Pilot for all PBN discovered errors.

*Note: See OM, Training 5, Part D, for specific PNB training modules and training times*.

18.2 Normal Takeoff

*Note: See OM, 1. General, Part A, Chapter 24, for takeoff and departure briefings.*

18.3 Noise Abatement

The published noise abatement profiles shall be flown and used with the manufacturer’s AFM noise abatement procedures. These procedures will be used provided that they can be accomplished with a high degree of safety. Departures and approaches at all aerodromes will be executed with consideration given towards minimizing noise impact.
Adherence to the noise abatement routing is not required in the event of a malfunction, which may affect aeroplane safety. If an engine fails during take-off, strict adherence to any published emergency turn procedure is essential. ATS will be notified of any deviation to the routing clearance as soon as the Flight Crew has the situation under control and the aeroplane is in a safe configuration.

At no time will Noise Abatement procedures be allowed to significantly increase the Flight Crew workload during a critical phase of flight.

### 18.3.1 Noise Abatement Climb Procedure

This procedure involves a power reduction at or above the prescribed minimum altitude and delaying flap retraction until the prescribed maximum altitude is attained.

At the prescribed maximum altitude, accelerate and retract flaps on schedule while maintaining a positive rate of climb and complete the transition to normal en-route climb speed.

The noise abatement procedure is not to be initiated at less than 800 feet AGL. The initial climbing speed to the noise abatement initiation point shall not be less than $V_2 + 10$ knots.

On reaching an altitude at or above 800 feet AGL, adjust and maintain engine thrust in accordance with the noise abatement thrust schedule provided in the aircraft operating manual.

Maintain a climb speed of $V_2 + 10$ to 20 knots with flaps in the take-off configuration.

At no more than an altitude equivalent to 3,000 feet AGL, while maintaining a positive rate of climb, accelerate and retract flaps on schedule.

At 3000 feet AGL, accelerate to normal en-route climb speed.

**Note:** Some airports have a more restrictive noise abatement procedure, to ensure compliance with local regulations refer to the Jeppesen Terminal Charts and current NOTAMS.

### 18.4 Climb

When clear of the ground and with a positive rate of climb indicated on their radar altimeter and VSI, the PM will call Positive Climb. The PF must confirm that a positive rate of climb has been established before calling "Gear Up".

The after take-off checks are "read and respond" by PM.

It is essential that a positive rate of climb is maintained, speeds are observed and bank limitations are not exceeded. Turns should not be initiated below 500 ft, 155 m AGL unless called for in engine out emergency procedures.

Standard flap retraction initiation height will be made in accordance with the AFM. Non-standard minimum flap retraction heights may be stipulated in the specific aerodrome take-off performance data or emergency turn procedures in order to comply with obstacle clearance requirements, in the event of an engine failure on take-off.

When passing 10,000 ft, 3050 m in the climb, the PF will read the 10,000 ft, 3050 m Checklist and the PM will confirm the PF calls.

### 18.5 Critical Phase of Flight

ACA shall not require a Crew Members to perform any activities during the critical phase of flight, below 10,000 ft, 3050 m AGL, other than those required for the safe operation of the aeroplane.
18.6 PBN After Take-Off

During the procedure and where feasible, flight progress should be monitored for navigational reasonableness, by cross-checks, with conventional navigation aids using the primary displays in conjunction with the Multifunctional Control Display Unit, (MCDU).

If PBN capability is not based on (GNSS) equipage, transition to the PBN structure shall only be made from the point where the aeroplane has entered DME/DME coverage.

Note: When a procedure is designed to be started conventionally, the first point of the PBN procedure will be identified and confirmed on the paper charts and checked against the PBN.

18.7 No Smoking Sign and Fasten Seat Belt Signs

The No Smoking sign will remain on the entire flight and the fasten Seat Belt sign will remain on until leveling off at the final assigned cruise altitude or Flight Level has been reached and in smooth air.

18.8 RVSM OPERATIONS

RVSM OPERATIONS AND MAINTENANCE PROCEDURES

RELATED READING MATERIAL


(b) FAA AC91-85 Authorization of Aircraft and Operators for Flight in Reduced Vertical Separation Minimum Airspace.

(c) ICAO Document 7030, Regional Supplementary Procedures.

(d) ICAO Document 9574, Manual on Implementation of a 300 m (1,000 ft) Vertical Separation Minimum Between FL 290 and FL 410 Inclusive.

(e) CAAT’s GUIDANCE MATERIAL FOR Reduced Vertical Separation Minimum (RVSM)
For the attention of the Chief of Maintenance/Chief Pilot

Hawker 800XP and 850XP RVSM Group Letter of Authorization

Hawker Beechcraft Corporation is issuing this letter to confirm that the Hawker 800XP and the 850XP Airplanes from Serial Number 258359 and subsequent have been manufactured and are configured for RVSM capability from the factory when delivered. This letter should be presented to your local regulatory authority as part of your submission for Reduced Vertical Separation Minimum (RVSM) Operational Approval, as confirmation that your airplane has met the Airworthiness Approval Requirements necessary for the application.

Please note that compliance with airworthiness approval requirements alone Does Not incur or imply that the operation of the airplane under RVSM conditions is validated, as this approval can only be given by your own regulatory authority.

If you have questions on the contents of this letter please contact Hawker Beechcraft Corporation Customer Support at 1-800-429-5372.

Hawker 850XP RVSM data Package from manufacture

18.8.1 RVSM Operating Procedures

18.8.1.1 CREWMEMBER TRAINING

all crewmembers listed in Appendix D have completed an initial RVSM training program. RVSM crewmembers will attend a refresher course every two year. Training records will be maintained with Crewmember who is the RVSM Representative. FlightSafety or any other ICAO Approved training facility will conduct flight crewmember RVSM training. Copies of all crewmember training certificates are kept in this manual as part of its records.

Crewmember training will meet the requirements as the following:

a. Flight Planning.
b. Preflight Procedures on the aircraft prior to each flight.
c. Procedures prior to RVSM airspace entry.
d. In-flight procedures.
e. Post Flight :Record Keeping;
f. Special Emphasis Items:
   - Area of Operation Specific Policy and Procedures.
   - RVSM Standard ATC Phraseology.
   - Importance of Altimeter Cross Checks.
   - Use of Limitations in terms of accuracy of standby altimeters in contingency.
   - Visual Perception of other aircraft at 1000 ft separation during night operation.
   - Characteristics of aircraft altitude capture system that may lead to occurrence of overshoots.
18.8.1.2 FLIGHT PLANNING

Prior to each flight planned for RVSM airspace, the Pilot in Command (PIC) must ensure the following, but not limited to:

a. Check and verify all NOTAMS and information pertinent to the RVSM airspace are reviewed and a copy is kept in the cockpit.

b. Review Tropopause charts for performance capability and wind charts for turbulent conditions, to determine if either could exceed altitude keeping equipment parameters.

c. Ensure the ICAO flight plan is correct and that the proper designations of "W" are included in the equipment designation box (Block 10) to denote RVSM approval. An example of flight plan Form is attached as Appendix E.

18.8.1.3 PREFLIGHT PROCEDURES

The preflight inspection of the aircraft shall include the following:

a. Aircraft Maintenance Log
   1) A review of deferred discrepancies with particular attention to height keeping equipment, altitude alerting and altitude reporting equipment.
   2) Any deferred discrepancies of equipment falling within the categories referred to in paragraph 4.a.1 shall be evaluated under the restrictions of the Master Minimum Equipment List to ensure compliance for flight within RVSM airspace.
   3) A cross check of the RVSM Status Log and the aircraft technical log to ensure that the aircraft remains RVSM compliant following any possible maintenance action and the authorizing signature column has been completed.

b. Altimeter Checks
   1) During cockpit preflight checks set both or the three altimeters to local altimeter setting. This must be carried out at a position of known elevation.
   2) The difference between altimeter readings, at airport elevation MUST NOT EXCEED 50 feet.

c. Static Sources
   1) During exterior inspection pay particular attention to the static sources and the condition of the skin in the vicinity of the source.
   2) This check shall be performed by a qualified crewmember that is in compliance with training requirements of this manual.
18.8.1.4 BEFORE ENTRY RVSM AIRSPACE

a. System Requirements
1) The following must be fully operational PRIOR to entering RVSM airspace:
   - Two Primary Altitude Measurement Systems
   - Two Altitude Encoders
   - One Altitude reporting System
   - One Automatic Altitude Control System
   - One Altitude Alerting System

2) If TAS is installed, select mode TA or Normal position.
3) Should any of the systems mentioned above fail prior to entering RVSM airspace, the pilot will request a new clearance to avoid flight in RVSM airspace.

b. Mandatory Reporting
The following mandatory records shall be kept during flight within RVSM airspace.

   - At an appropriate point prior to entering RVSM airspace, the readings of the primary and standby altimeters shall be recorded and made available for use in contingency situations. A minimum of two must agree within 200 feet.

   - At each reporting point, but not exceeding one-hour intervals, a crosscheck of altimeters shall be made and recorded. A minimum of two altimeters must agree within 200 feet. Failure to meet this condition mandates a report to ATC declaring the altimetry system is defective.

   - The information gathered from the two sub-paragraphs above, shall be recorded on the RVSM Altimeter Log Form as required for en route operations (See Appendix A for example).

   - The active transponder shall be selected to the altimetry system being used to control the aircraft.

c. Recommended Operating Practices

If TAS is installed, should be operated in the TA mode during all operations in the RVSM airspace and Transition Areas.

Climb and descent rates in the RVSM airspace and Transition Areas should be limited to 1000 fpm when operating within five (5) NM and ±2000 feet of other aircraft to minimize the generation of TAs.

18.8.1.5 IN-FLIGHT PROCEDURES

Altimeters / Cleared Flight Level
- Emphasis should be placed on promptly setting the sub-scale on all primary and standby altimeters to 29.92 in Hg 10132.2 HPA when passing the transition altitude and rechecking for proper altimeter setting when reaching the initial cleared flight level (CFL).
In level cruise, it is essential that the aircraft be flown at the CFL. This requires that particular care is taken to ensure that ATC clearances are fully understood and followed. Except in contingency or emergency situations, the aircraft should not intentionally depart from CFL without a positive clearance from ATC.

During the cleared transition between levels, the aircraft should not be allowed to overshoot or undershoot the cleared flight level by more than 150 ft (45 m).

Note: It is recommended that the level off be accomplished using the altitude capture feature of the automatic altitude-control system if installed.

An automatic altitude-control system should be operative and engaged during the level cruise, except when circumstances such as the need to re-trim the aircraft or turbulence require disengagement. In any event, adherence to cruise altitude should be done by reference to one of the two primary altimeters.

The altitude-alerting system should be operational.

Normally, the altimetry system being used to control the aircraft should be selected to provide the input to the altitude reporting transponder transmitting information to ATC.

If the pilot is notified by ATC of an AAD (Assigned Altitude Deviation error which exceeds 300 ft (90 m)), then the pilot should take action to return to CFL as quickly as possible.

Contingency procedures after entering RVSM airspace. The pilot should notify ATC of contingencies (aircraft system failures, weather conditions) which affect the ability to maintain the CFL and co-ordinate a plan of action.

At intervals of approximately one hour, make cross-checks between the primary altimeters and the standby altimeter. A minimum of two primary altimeters should agree within 200 ft (60 m) or a lesser value if specified in the aircraft operating manual. Failure to meet this condition will require that the altimetry system be reported as defective and notified to ATC. Note the difference between the primary and standby altimeters for use in contingency situations.

18.8.1.6 CONTINGENCY PROCEDURES

a. General
The pilot shall inform ATC as soon as possible if the vertical navigation performance requirements for RVSM cannot be maintained. In such cases, the pilot shall obtain a revised ATC clearance prior to initiating any deviation from the cleared route and/or flight level, whenever possible. Where a revised ATC clearance could not be obtained prior to such a deviation, the pilot shall obtain a revised ATC clearance as soon as possible thereafter.

b. Degradation of Aircraft Equipment
The following equipment failures must be reported to Air Traffic Control as soon as practical:

- Loss of engine thrust necessitating descent
• Loss of one or more Altimeter Systems
• Failure of all Automatic Altitude Control Systems
• Failure of Altitude Alerting System
• Failure of transponder
• Failure of any other equipment that could affect the ability of the aircraft to maintain the RVSM clearance.

In each case the pilot will establish contact with Air Traffic Control as soon as practical.

• When informed by the pilot that the aircraft’s equipment no longer meets the RVSM MASPS while operating within the MID ASIA RVSM Airspace, ATC shall consider the aircraft as non-RVSM approved.

• ATC shall take action immediately to provide a minimum vertical separation of 2000 feet or an appropriate horizontal separation from all other aircraft concerned operating in the MID ASIA RVSM Airspace.

• Aircraft rendered non-RVSM approved shall normally be cleared out of the MID ASIA RVSM Airspace by ATC, when possible to do so.

• Pilots shall inform ATC, as soon as practicable, of any restoration of the proper functioning of equipment required meeting the RVSM MASPS.

Note: The loss of engine thrust or power must be managed as an emergency and will therefore present a greater concern to safety. The pilot is required to declare an emergency and take the necessary action outlined in the aircraft POM as well as the instructions from ATC during the descent.

c. Equipment Related
Where an aircraft’s mode C readout differs from the Cleared Flight Level (CFL) by 300 feet or more, the controller shall inform the pilot as soon as practicable, and the pilot shall return to his CFL immediately.

d. Severe Turbulence, Not Forecast
• When an aircraft operating in the EUR RVSM Airspace encounters severe turbulence which the pilot believes will impact the aircraft’s capability to maintain its cleared flight level, the pilot shall inform ATC.

• ATC shall establish either an appropriate horizontal separation or an increased minimum vertical separation.

• ATC shall, to the extent possible, accommodate pilot requests, for flight level and/or route changes, and pass traffic information, as required.

• ATC shall solicit reports from other aircraft to determine whether RVSM should be suspended entirely or within a specific flight level band and/or area.

e. Severe Turbulence Forecast
Where a meteorological forecast is predicting severe turbulence within the EUR RVSM Airspace, ATC shall determine whether RVSM will be suspended, and if so, the period of time, and specific flight levels, and/or area.
f. Communication Failure
- Visual Meteorological Conditions:
  - Transponder code: 7600
  - Continue to fly in VMC
  - Land at the nearest suitable airport
  - Report arrival time by the most expeditious means to the appropriate ATS unit

- Instrument Meteorological Conditions:
  - Transponder code: 7600
  - Maintain for a period of 7 minutes the last assigned speed and level
  - Thereafter, follow level and speed specified in the flight plan.

g. Loss of Pilot Primary Altimeter
   If during any flight there is a loss of the pilot primary altimeter, and the co-pilot altimeter is functioning normally, proceed as follows:
   1. Cross Check stand-by altimeter with remaining Primary altimeter.
   3. Hand fly the aircraft to accurately maintain CFL based on co-pilot primary altimeter.
   4. If the aircraft is equipped with a second transponder, select it as the active one.
   5. Follow ATC instructions.

h. Loss of Co-pilot Primary Altimeter
   If during any flight there is a loss of the co-pilot primary altimeter, and the pilot altimeter is functioning normally, proceed as follows:
   1. Cross Check stand-by altimeter with remaining Primary altimeter.
   2. Notify ATC of the loss of redundancy.
   3. Verify and maintain CFL.
   4. If accuracy of the pilot primary altimeter cannot be confirmed, pilot must advise ATC "Unable RVSM due Equipment" and request departure from RVSM Airspace.
   5. Follow ATC instructions.

i. Loss of Automatic Altitude Control System
   If during any flight there is a loss of the Automatic Altitude Control System, proceed as follows:
   1. Notify ATC of the loss of Automatic Altitude Control System, declare "Unable RVSM due Equipment" and request departure from RVSM Airspace.
   2. Hand flies the aircraft to accurately maintain CFL based on co-pilot primary altimeter.
   3. Follow ATC instructions.

j. Loss of Altitude Alerting System
   If during any flight there is a loss of the Altitude Alerting System, proceed as follows:
   1. Notify ATC of the loss of Altitude Alerting System, declare "Unable RVSM due Equipment" and request departure from RVSM Airspace.
2) Maintain CFL.
3) Follow ATC instructions.

### k. Loss of Transponder

If during any flight there is a loss of the Transponder, proceed as follows:

1) If the aircraft is equipped with a second transponder:
   - Switch to the remaining active transponder and continue operations.

2) If the aircraft is not equipped with a second transponder:
   - Notify ATC of the loss of Transponder, declare "Unable RVSM due Equipment" and request departure from RVSM Airspace.
   - Maintain CFL
   - Follow ATC instructions

### 18.8.1.7 POST FLIGHT PROCEDURES

#### a. Incidents Reports

All incidents of height keeping error must be reported to CAAT within 72 hours of the occurrence. Errors, which must be reported, are as follows:

1) Total Vertical Error (TVE) equal to or greater than ± 300 feet.
   - Total Vertical Error is the vertical geometric difference between the actual pressure flown by aircraft and its assigned pressure altitude (Flight Level).

2) Altimetry System Error (ASE) equal to or greater than ± 245 feet.
   - Altimetry System Error is the difference between the pressure altitudes displayed to the flight crew when referenced to ISA standard ground pressure setting (29.92 in Hg / 1013.25 HPa) and free stream pressure altitude.

3) Assigned Altitude Deviation (AAD) equal to or greater than ± 300 feet.
   - Assigned Altitude Deviation is the difference between the transponder Mode C altitude and the assigned altitude/flight level.

#### b. Flight Log Write-ups

Upon arrival at the aircraft destination, the pilot shall make a clear, concise Log Book write-up of all defects in height keeping aircraft systems. The Height Keeping Error Report (See Appendix B) and the RVSM Status Report (See Appendix C) must be completed if errors are noted or as required for en-route operations. The following information should be noted when appropriate:

1) Primary and Standby Altimeter readings
2) Altitude selector setting
3) Sub-scale setting on altimeter
4) Transponder selected to provide altitude information to ATC and any differences in reported altitude if alternate transponder or altitude service is manually selected.
18.8.1.8 RVSM Controller/Pilot Phraseology

...to ascertain RVSM approval status of an aircraft
CONFIRM RVSM APPROVED

...to report RVSM approved status
AFFIRM RVSM

...to report RVSM non-approved status followed by supplementary information
NEGATIVE RVSM « (supplementary information, e.g. State Aircraft) » ...to deny ATC clearance into RVSM airspace
UNABLE ISSUE CLEARANCE INTO RVSM AIRSPACE, MAINTAIN « or DESCEND TO, or CLIMB TO » (level)

...to report when severe turbulence affects the capability of an aircraft to maintain height-keeping requirements for RVSM
UNABLE RVSM DUE TURBULENCE

...to request an aircraft to provide information as soon as RVSM-approved status has been regained or the pilot is ready to resume RVSM operations
REPORT WHEN ABLE TO RESUME RVSM

...to request confirmation that an aircraft has regained RVSM-approved status or a pilot is ready to resume RVSM operations
CONFIRM ABLE TO RESUME RVSM

...to report ability to resume RVSM operations after an equipment or weather-related contingency
READY TO RESUME RVSM
18.8.1.9 Mid/Asia RVSM Description Map

See more detail at ICAO Doc 7030 Regional Supplementary Procedures including Special contingency procedures on chapter 9 special procedures.
### 18.8.1.10 Appendices

**Appendix A**

**RVSM ALTIMETER LOG**

<table>
<thead>
<tr>
<th>DATE _____________________ FROM: ___________________________ TO: ___________________________</th>
</tr>
</thead>
<tbody>
<tr>
<td>REGISTRATION: ___________________ Page: ___________________________</td>
</tr>
<tr>
<td>CREW PIC: ___________________ SIC: ___________________________</td>
</tr>
</tbody>
</table>

Elevation: __________ QNH: __________ No. 1 ALT: _______ No. 2 ALT: _______ STDBY ALT: ________

<table>
<thead>
<tr>
<th>Time (UTC)</th>
<th>Position</th>
<th>Wind (T)</th>
<th>OAT (C)</th>
<th>TAS</th>
<th>GS</th>
<th>Fuel Used</th>
<th>Fuel Remaining</th>
<th>Total Fuel Flow</th>
<th>ITT</th>
</tr>
</thead>
<tbody>
<tr>
<td>FL:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. 1 Altimeter</td>
<td>No. 2 Altimeter</td>
<td>Standby Altimeter</td>
<td>Standby Alt setting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FL:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. 1 Altimeter</td>
<td>No. 2 Altimeter</td>
<td>Standby Altimeter</td>
<td>Standby Alt setting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FL:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. 1 Altimeter</td>
<td>No. 2 Altimeter</td>
<td>Standby Altimeter</td>
<td>Standby Alt setting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FL:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Prior to departure, record primary altimeter readings and known elevation. Altimeters must be within 50 ft of each other below 5000 feet and 75 ft above 5001 feet elevation.
2. Primary and Standby Altimeters are recorded in feet with QNE settings.
3. Standby Altimeter setting is the hectopascal / inches of Mercury setting required to bring the altitude in feet to same reading as the primary altimeters.
Note: In flight - Primary altimeters are to be within 200 ft of each other. The Standby Altimeter is noted and then set for zero difference from the primary altimeter for use in case of contingencies.

- Appendix B

Height Keeping Error Report

Appendix B

HEIGHT KEEPING ERROR REPORT

AIRCRAFT: ___________________ REGISTRATION: __________________________ SERIAL No: ___________________

DATE: ________________ TIME (UTC): ________________ LOCATION: __________________________

CREW (PIC) __________________________________________ (SIC) ____________________________

DISCREPANCY _________________________________ ERROR: ________________________________

<table>
<thead>
<tr>
<th>STATIC SOURCES</th>
<th>SUBSCALE SETTING</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NORMAL</td>
</tr>
<tr>
<td>PILOT ALTIMETER</td>
<td></td>
</tr>
<tr>
<td>CO-PILOT ALTIMETER</td>
<td></td>
</tr>
<tr>
<td>STANDBY STANB ALTIMETER</td>
<td></td>
</tr>
</tbody>
</table>

ALTITUDE SELECTOR SETTING: ______________________
AUTOPilot USED: YES / NO
ALTITUDE DIFFERENCE WITH AUTOPilot ALT SELECTED: _________________________________

TRANSPONDER #1 ON STB ALTITUDE: ______________ REPORTED ALTITUDE: ______________
TRANSPONDER #2 ON STB ALTITUDE: ______________ REPORTED ALTITUDE: ______________

REMARKS / FLIGHT SUMMARY: __________________________________________________________

CAPTAIN'S SIGNATURE: _______________________________________________________________
### Appendix C

**RVSM Status Report**

<table>
<thead>
<tr>
<th>DATE</th>
<th>COMPLIANT</th>
<th>NON-COMPLIANT</th>
<th>AUTHORIZING SIGN.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
18.8.2 RVSM MAINTENANCE PROCEDURES

18.8.2.1 Maintenance Program

This manual establishes the maintenance procedures to be accomplished by AC Aviation to ensure that the aircraft approved for Reduced Vertical Separation Minimum (RVSM) will be maintained in accordance with ICAO Doc 9574 current regulations and with the required specifications for RVSM operations.

ACA operates the Hawker 850XP, Serial Number 258830 in accordance with ICAO Doc 9574 RVSM Operations. ACA maintains this aircraft under a manufacturer’s inspection program in accordance with Part 43 and 91.409(f)(3). In so doing, ACA’s Hawker 850XP manufacturer’s inspection program which includes the additional instructions for continued airworthiness meets the necessary requirements sufficient to maintain the aircraft, its systems and equipment in accordance with the regulatory compliance needs of RVSM.

Responsibility for compliance with the requirements of this continuous airworthiness maintenance program lies with AC aviation through the head of Maintenance.

At such a time revision to this program is require the head of maintenance of AC aviation will submit the revision(s) in duplicate to the CAAT, Flight Standards District office for review and approval; approval being
identified on the List of Effective Pages. Upon Approval, the operator and CAAT copy of this document will be updated.

A copy of this manual is required to be carried aboard the aircraft and available to the flight crew along with the Letter of Authorization when RVSM operations are in effect. Information related to AC aviation’s maintenance and inspection procedures for RVSM specific equipment and systems are also contained in this chapter. AC aviation will use sub-contract with appropriately approved maintenance facilities for its Hawker 800 to ensure continued compliance with RVSM requirements on an as-needed basis.

AC aviation will from time to time utilize other CAAT approved Repair Stations to provide RVSM maintenance dependent on aircraft location. These facilities will be audited to ensure they are properly qualified to provide RVSM maintenance service on the Hawker 850XP. A RVSM audit form (Appendix B) will be used to audit these facilities. The audit form is included in this manual.

18.8.2.2 Maintenance Requirements

This approved inspection program identifies all aircraft equipment required for RVSM, together with scheduled maintenance requirements for that equipment. These components have been identified by the aircraft manufacturer and

Additionally, a list of RVSM Critical Equipment specific for this aircraft is provided in Appendix A.

To retain RVSM approval of the aircraft as a group, it is necessary to accomplish the following Instructions for Continued Airworthiness:

1. A repetitive skin-contour inspection each time panels have been removed and at 24-month intervals.
2. A functional test of the Air Data Computer's in accordance with maintenance Manual Chapter 34 Navigation. This test is scheduled at each altimeter 24-month interval.
3. An inspection of the automatic flight control system to include the altitude holds function per Maintenance Manual Honeywell A15-1146-45;SPZ-800; Digital Automatic Flight Control System; Table 301. This tests the Digital Flight Guidance Computer and the Digital Air Data Computers.
4. The altitude alert system has no scheduled maintenance requirements and is therefore an ‘On Condition’ item.
5. An inspection of the ATC/MODE S transponders will be conducted in accordance with FAR 91.413 at 24-month intervals.

18.8.2.3 Maintenance Procedures

To ensure the continued altitude keeping ability of RVSM approved aircraft, the RVSM Representative is responsible for ensuring the following practices are accomplished:

- Avionics components of identical part number may be interchanged during the service lifetime of this airframe. If alternate equipment part numbers are to be installed, the units must be analyzed on a system level to determine if the new components are acceptable for RVSM.
NOTE: The TC or STC holder will make this determination

- Checklist requires the pilot to inspect the Pitot-Static areas during the Preflight Inspection. It is imperative that prior to all flights in RVSM airspace, the pilot visually inspects the RVSM Critical Region for obvious damage or deformation to the skin surface.

- Airframe and static systems should be maintained in accordance with the airframe manufacturer’s inspection standards and procedures, and instructions for continued airworthiness as applicable.

- Any modification, repair, or design change, which in any way alters the initial RVSM approval, will require a design review by the Manufacturer and FAA engineering or existing Structural Repair Manuals. In the event of such major change to the airframe, a Validation Flight (Height Monitoring) will be performed to ensure the aircraft is RVSM capable to maintain assigned flight levels.

RVSM specific maintenance procedures are in accordance with the CAAT Approved RVSM Maintenance Program and Aircraft Maintenance Manuals as referenced.

Additionally, the following publications will be used for further information:

The following publications have been revised as a consequence of this Service Bulletin:
1. The appropriate Particular Amendment will be supplied with the Service Letter Authorization.
2. Hawker 800 Aircraft Flight Manual, HS1.16 Particular Amendment No. P.75 and P.78

The following publications will be revised during the next scheduled revision to include changes made by this Service Bulletin:
1. Aircraft Maintenance Manual, Chapter 34-10 and 34-11.
2. Illustrated Parts Catalog, Chapter 34.
3. Changes will be requested to the Master Minimum Equipment List,
4. Aircraft Maintenance Schedule.

Note: ACA Airplane’s SRM has been revised to identify the area around the pitot-static probes as RVSM-critical, and to require ACA to contact the manufacturer for specific repair instructions.

18.8.2.4 Removal From RVSM Service/Return to RVSM Service Procedures

When RVSM-critical equipment malfunctions occur, the pilot must record the discrepancy on the Height Keeping Error Report (See Attached Appendix C). Refer to the Aircraft Pilot’s Operating Manual (POM), for a listing of RVSM-critical equipment (See also Appendix A for details). Each time an RVSM related malfunction occurs, the aircraft will become non-compliant regarding RVSM operations and the following procedures will be adhered to:
- All flight plans in RVSM applicable airspace will make reference to RVSM noncompliance. Also indicate that until corrective action is accomplished, the aircraft will not be operated in RVSM airspace. (If defect is deferred through the use of an MEL if applicable)

- An entry will be made in the appropriate flight maintenance record to indicate the aircraft is not compliant with RVSM requirement until such time the discrepancy(ies) is (are) corrected. (If defect is deferred through the use of an MEL if applicable)

- A placard shall be placed on the aircraft instrument panel and/or pilots control yoke stating, "AIRCRAFT IS RVSM NON-COMPLIANT.

- For the aircraft to become RVSM compliant the failure and/or malfunction of the affected component must be confirmed and isolated by maintenance action. Subsequent to any corrective action procedure, the RVSM Representative or his designee must confirm that the affected equipment or system is operational.

- Upon completion of corrective maintenance and testing, the placard will be removed and an entry made in the aircraft maintenance record, which will return the aircraft to RVSM authorized status in accordance with ICAO doc 9574. The maintenance entry will include a statement that the aircraft is "RVSM Compliant."

18.8.2.5 Maintenance Training

AC Aviation will provide in house training for maintenance personnel. As such all initial and recurrent training is accomplished through factory approved schools or other CAAT approved training facilities. Specific to RVSM, ACA head of maintenance will attend factory program.

It is also the policy of AC Aviation to ensure recurrent maintenance training is completed as necessary based upon attendance at factory schools. At such time, recurrent training regarding RVSM issues becomes available ACA will have the appropriate maintenance personnel attend. A record of such training will also be included in this program.

18.8.2.6 RVSM Compliant Test Equipment

AC aviation does not presently own or control test equipment specific to the maintenance or inspection of RVSM equipment. As such as this company will use Hawker bee次craft maintenance Support Facilities operating as CAAT or FAA certified repair stations under FAR Part 145 who, by virtue of their approval from the manufacturer and FAA, are qualified and responsible for the utilization, calibration, and operation of RVSM test equipment.

AC aviation will utilize these facilities on an "as needed basis" for maintenance and/or inspections of RVSM equipment. The Head of Maintenance for AC aviation will ensure that at the time these services are required verification of the following requirements are met:

1. Calibration intervals of RVSM test equipment do no exceed 12 calendar months.
2. Traceability of calibrated test equipment to standards of the NIST.
3. Appropriate training of repair station personnel in the use of specialized RVSM test equipment.
4. Adherences too acceptable shop and line maintenance practices.

5. Specific test equipment as identified in the airframe or component maintenance manuals, or its equivalent is utilized during RVSM maintenance inspection procedures.

6. Obtain, upon completion of any RVSM specific maintenance procedure, a copy of the repair station work order or other suitable repair station document that includes and identifies the requirements of 1 through 5 above. This record shall be retained and made part of the permanent aircraft maintenance records.

NOTE: BUILT-IN TEST EQUIPMENT (BITE) TESTING IS NOT AN ACCEPTABLE BASIS FOR SYSTEM CALIBRATIONS UNLESS IT IS SHOWN TO BE ACCEPTABLE BY THE AIRFRAME MANUFACTURER WITH APPROVAL FROM THE PERTINENT AUTHORITY.

18.8.2.7 RVSM SPECIFIC COMPONENTS

In order for the airplane to operate in RVSM airspace, specific equipment and additional calibration of the airplane air data and automatic altitude control systems is required. Static ports and the surrounding RVSM critical area inspections are required.

The following equipment must be installed and operational to enter RVSM airspace:

<table>
<thead>
<tr>
<th>Qty</th>
<th>Type</th>
<th>Model</th>
<th>Part Number</th>
<th>Date installed</th>
<th>Inspect Freq MM</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Air Data Computer (ADC)</td>
<td>ADC-3000</td>
<td>822-1109-015</td>
<td>05/07/15</td>
<td>24 MO</td>
</tr>
<tr>
<td>2</td>
<td>PFDs</td>
<td>AFD-3010</td>
<td>822-1084-308</td>
<td>02/12/07</td>
<td>Preflight</td>
</tr>
<tr>
<td>1</td>
<td>Automatic flight control system</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Flight guidance computer</td>
<td>FGC-3000</td>
<td>822-1108-023</td>
<td>02/12/07</td>
<td>1600 Hr</td>
</tr>
<tr>
<td>1</td>
<td>Flight guidance panel</td>
<td>FGP-3000</td>
<td>822-1107-102</td>
<td>02/12/07</td>
<td>1600 Hr</td>
</tr>
<tr>
<td>1</td>
<td>Aileron servo mount</td>
<td>SV-3000</td>
<td>622-5735-004</td>
<td>02/12/07</td>
<td>1600 Hr</td>
</tr>
<tr>
<td>1</td>
<td>Rudder servo mount</td>
<td>SV-3000</td>
<td>622-5735-004</td>
<td>02/12/07</td>
<td>1600 Hr</td>
</tr>
<tr>
<td>1</td>
<td>Elevator servo mount</td>
<td>SV-3000</td>
<td>622-5735-004</td>
<td>02/12/07</td>
<td>1600 Hr</td>
</tr>
<tr>
<td>1</td>
<td>Autopilot rudder servo</td>
<td>SMT-65</td>
<td>822-1168-002</td>
<td>02/12/07</td>
<td>1600 Hr</td>
</tr>
<tr>
<td>1</td>
<td>Autopilot aileron servo</td>
<td>SMT-65</td>
<td>822-1168-002</td>
<td>02/12/07</td>
<td>1600 Hr</td>
</tr>
<tr>
<td>1</td>
<td>Autopilot elevator servo</td>
<td>SMT-65</td>
<td>822-1168-002</td>
<td>02/12/07</td>
<td>1600 Hr</td>
</tr>
<tr>
<td>2</td>
<td>Transponder</td>
<td>TDR-940</td>
<td>622-9210-008</td>
<td>03/12/13</td>
<td>24 MO</td>
</tr>
<tr>
<td>2</td>
<td>Pitot Prob</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

RVSM SKIN MAP
<table>
<thead>
<tr>
<th>DISC. WORK</th>
<th>PART #</th>
<th>INSP. FREQ MM</th>
</tr>
</thead>
<tbody>
<tr>
<td>LH ADC CALIB</td>
<td>7000700-668</td>
<td>24 MO</td>
</tr>
<tr>
<td>RH ADC CALIB</td>
<td>7000700-668</td>
<td>24 MO</td>
</tr>
<tr>
<td>LH ALT CALIB</td>
<td>4016341</td>
<td>24 MO</td>
</tr>
<tr>
<td>RH ALT CALIB</td>
<td>4016341</td>
<td>24 MO</td>
</tr>
<tr>
<td>LH PITOT PROBE</td>
<td>SD8533F</td>
<td>PREFLIGHT</td>
</tr>
<tr>
<td>RH PITOT PROBE</td>
<td>SD8533F</td>
<td>PREFLIGHT</td>
</tr>
<tr>
<td>RVSM SKIN MAP</td>
<td></td>
<td>24 MO</td>
</tr>
<tr>
<td>LH TXP CK</td>
<td></td>
<td>24 MO</td>
</tr>
<tr>
<td>RH TXP CK</td>
<td></td>
<td>24 MO</td>
</tr>
<tr>
<td>LH FLT COMP</td>
<td>7003974-713</td>
<td>24 MO</td>
</tr>
<tr>
<td>RH FLT COMP</td>
<td>7003974-713</td>
<td>24 MO</td>
</tr>
<tr>
<td>FLT GUID CONTROL</td>
<td>90070265-915</td>
<td>24 MO</td>
</tr>
<tr>
<td>ELEV. SERVO</td>
<td>25CF2203-81</td>
<td>24 MO</td>
</tr>
<tr>
<td>ALT ALERTER</td>
<td>7011345.912</td>
<td>ON COND</td>
</tr>
</tbody>
</table>

**NOTES:**

1. Only components with the above part Numbers and approved by the Head of Maintenance will be installed. These components will be in a serviceable condition and have traceability as required by current CAAT regulations.

2. Maintenance of RVSM specific equipment or systems will be performed only by AC aviation trained maintenance personnel or certified repair station identified in section 1.

---

**18.8.2.8 Functional Flight Testing**

At the time of RVSM approval verification/monitoring flight evaluation was accomplished and deemed satisfactory and part of the service bulletin compliance.

No further flight tests are required unless the integrity of the aircraft and/or RVSM required equipment, as defined in this program is compromised.

The verification/monitoring flight was accomplished on September 9, 1998, by use of the mobile GMU unit, provided and monitored by ARINC.

**18.8.2.9 Height Performance Error Reporting**

`AC aviation will inform the responsible authority about performance error within 72 hours, using the Height Keeping Error Report Form found in the RVSM Operations Manual procedures section. A copy of this form is provided in Appendix C as an example This notification must list the contributing factors and measures to prevent further event from occurring.`
18.8.2.10 Appendix

Appendix A  RVSM Compliance Audit Form

Name of Facility:
Address:
City, ST ZIP:
Phone #:
Fax #:
Years in Business:
Department Contact / Representative:

Is this facility the CAAT Certified Repair Station?    YES ☐    NO ☐

If YES, please list CRS # ____________________________

Personnel trained to perform RVSM maintenance

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Date of Training</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Calibration Record

<table>
<thead>
<tr>
<th>Test Unit</th>
<th>Date of Calibration</th>
<th>Next Due</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

RVSM Certification Status:
All RVSM repairs are performed by the RVSM trained technicians listed above. Training certificates for each technician are available for inspection.
All RVSM equipment and tools required are in working condition and meet the appropriate national standards. These items have been calibrated within the appropriate time period and those records are available for inspection. All RVSM calibrated equipment are traceable to national standard acceptable to the CAAT.

Required documents relating to Airworthiness of RVSM repairs or modifications will be reviewed to ensure conformity to the manufacturers Service Bulletin or Maintenance Manual.

The parts control program at this facility is adequate to meet the requirements of RVSM.

I certify that the above statements are true.

Name: ____________________ Signature: ____________________

Title: ____________________ Date: ____________________
- Appendix B  Height Performance Error Reporting

AIRCRAFT:___________________  REGISTRATION:_______________  SERIAL No.:_______________

DATE: ________________  TIME (UTC): ________________  LOCATION: ________________________________

CREW: (PIC)__________________  (SIC) ______________________________

DISCREPANCY / ERROR: ________________________________________________________

____________________________________________________________________________________

_______________________________________________________

ALTITUDE SELECTOR SETTING: _______________

AUTOPILOT USED: ___________________________

ALTITUDE DIFFERENCE WITH AUTOPILOT ALT SELECTED: ________________________________

TRANSPONDER/ADC: __________ / __________  REPORTED ALTITUDE: _______________________

TRANSPONDER/ADC: __________ / __________  REPORTED ALTITUDE: _______________________

REMARKS / FLIGHT SUMMARY: ________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

PILOT’S SIGNATURE: ____________________________________________
### 18.8.2.11 Hawker 850XP RVSM MEL

This ACA RVSM MEL, adopted from MMEL Revision 8d Date 12-12-2013 issued by Federal Aviation Authority.

<table>
<thead>
<tr>
<th>1. SYSTEM, SEQUENCE NUMBERS &amp; ITEM</th>
<th>REPAIR CATEGORY</th>
<th>2 NUMBER INSTALLED</th>
<th>3 NUMBER REQUIRED FOR DISPATCH</th>
<th>4. REMARKS AND EXCEPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>22-10-1 AUTO FLIGH</td>
<td></td>
<td>B 1 0</td>
<td></td>
<td>May be inoperative provide approach minimums do not require autopilot use.</td>
</tr>
<tr>
<td>22-7 Guidance Controller</td>
<td></td>
<td>B 1 0</td>
<td></td>
<td>Must be operative for RVSM Flight</td>
</tr>
</tbody>
</table>

NOTE: 1. Any mode functions which operate normally may be used.

NOTE: 2. May be inoperative provided:

a) Approach minimums do not require its use, and

b) AFM limitations are observed.

NOTE: Autopilot and Yaw damper will not be available. Must be Operative for RVSM Flight

(6) Flight Crew shall review the AFM, Weather Conditions and consider any factor as the autopilot and yaw damper are inoperative Safety of Flight and Compliance with applicable FAR’s are the main consideration.

After all considerations have been assessed will have ultimate responsibility.
### 1. SYSTEM, SEQUENCE NUMBERS & ITEM

<table>
<thead>
<tr>
<th>30</th>
<th>ICE AND RAIN PROTECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>30:1</td>
<td>Pitot Heaters</td>
</tr>
</tbody>
</table>

### 2. NUMBER INSTALLED

| 3. NUMBER REQUIRED FOR DISPATCH |
| 4. REMARKS AND EXCEPTIONS |

| 2 | 1 |

**Remark and Exceptions**:

One may be inoperative provided:

- Flight is conducted in day VMC flight conditions only, and
- Airplane is not operated in visible moisture, or in known or forecast icing conditions.
- Crew will make certain that Primary Flight instrumentation is on the operable side.
- Autopilot is available on the operable side.
- Both must be operative for RVSM Flight.
<table>
<thead>
<tr>
<th>1. SYSTEM, SEQUENCE NUMBERS &amp; ITEM</th>
<th>REPAIR CATEGORY</th>
<th>2. NUMBER INSTALLED</th>
<th>3. NUMBER REQUIRED FOR DISPATCH</th>
<th>4. REMARKS AND EXCEPTIONS</th>
</tr>
</thead>
</table>
| 34 NAVIGATION Altitude Alerting   | A              | 1                 |                               | (a) Except where enroute operations require its use, may be inoperative provided:  
                                                                                     a) Autopilot with altitude capture and altitude hold is operative,  
                                                                                     b) Repairs are made within three flight days  
                                                                                     (b) Flight crew will make standard altitude call outs.  
                                                                                     Confirm 1,000' from selected altitude and that the autopilot transitions to ASEL and then transitions to ALT and the airplane levels off.  
                                                                                     Must be operative for RVSM Flight |
| 20.1 Flight Director System(s)    | B              | 2                 |                               | (b) May be inoperative provided approach minimums do not require its use.  
                                                                                     Both must be operative for RVSM flight. |
| 20.3 Attitude Heading Reference System (AHRS) / Inertial Reference System (IRS) | B              | 2                 |                               | (b) One may be inoperative provided:  
                                                                                     a) Standby attitude reference system is selected and verified operate normally  
                                                                                     b) AFM limitations are observed, and  
                                                                                     c) Autopilot is not used. |
| 1) Primary AHRS/IRS              | B              | 2                 |                               | (b) Flight crew to consider reversionary use of the operable AHRS  
                                                                                     Both must be operative for RVSM Flight. |
| 2) Standby AHRS/IRS              | B              | 1                 |                               | (b) May be inoperative provide:  
                                                                                     Both Primary AHRS/IRS systems are verified to operate normally.  
                                                                                     (b) Flight crew shall make certain that Normal AHRS are in Primary Displays and not reversioned.  
                                                                                     Must be operative for RVSM flight. |
<table>
<thead>
<tr>
<th>1. SYSTEM, SEQUENCE NUMBERS &amp; ITEM</th>
<th>REPAIR CATEGORY</th>
<th>2. NUMBER INSTALLED</th>
<th>3. NUMBER REQUIRED FOR DISPATCH</th>
<th>4. REMARKS AND EXCEPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>34 NAVIGATION</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20.3 Attitude Heading Reference System (AHRS) / Inertial Reference System (IRS)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1) Primary AHRS/IRS</td>
<td>B</td>
<td>2</td>
<td>1</td>
<td>O: One may be inoperative provided:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>a) Standby attitude reference system is selected and verified operative,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>b) AFM limitations are observed, and</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>c) Autopilot is not used.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>O: Flight crew to consider reversionary use of the operable AHRS.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Both must be operative for RVSM flight.</td>
</tr>
<tr>
<td>2) Standby AHRS/IRS</td>
<td>C</td>
<td>1</td>
<td>0</td>
<td>O: May be inoperative provided:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Both Primary AHRS/IRS systems are verified to operate normally.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>O: Flight crew shall make certain that Normal AHRS are in Primary displays and not reversioned.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Must be Operative for RVSM Flight.</td>
</tr>
<tr>
<td>SYSTEM, SEQUENCE NUMBERS &amp; ITEM</td>
<td>REPAIR CATEGORY</td>
<td>2. NUMBER INSTALLED</td>
<td>3. NUMBER REQUIRED FOR DISPATCH</td>
<td>4. REMARKS AND EXCEPTIONS</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>----------------</td>
<td>--------------------</td>
<td>-------------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>NAVIGATION</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50-2 Flight Management Systems (FMS)</td>
<td>C</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAY BE INOPERATIVE PROVIDED:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Required navigation and communication systems are verified to operate normally, b) Approach minimums an operating procedures do not require their use, and c) An alternate means for initializing the IRS is Available for IRS equipped aircraft.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOTE: Flight crew must assure that no flights are planned or executed that require long range Nav.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caution: One FMS is required to be operable for initialization. Both systems must be operative for RVSM flight.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ATC Transponders and Automatic Altitude Reporting Systems</td>
<td>B</td>
<td>2</td>
<td>0</td>
<td>As required by CAAT any in excess of those required by CAAT may be inoperative.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>NOTE: flight director, autopilot and transponder must use the same ADC DATA for RVSM operations.</td>
</tr>
</tbody>
</table>
18.9 En-Route Cruise Operations

After leveling off at a cruising altitude, the level-off and cruise checklist will be called by the PM and a complete scan of all the instruments and system panels should be carried out. En-route flight position tracking is required and normally is best achieved by using the managed navigations systems; however, occasional cross-checks of the aeroplane's actual position should be made with reference to ground NAVAIDs and GPS. The flight should not be more than 3 nm, \( \pm 5 \) km either side of the en-route track.

18.10 Maintaining Adequate Lookout during Cruise Flight

The PF shall ensure that cockpit duties permit a proper lookout to be maintained at all times. Any cockpit duties assigned by the PF to the PM while in-flight should not prevent the Flight Crew from maintaining a proper lookout during the climb to cruise segment of the flight.

18.11 Operations in Areas with Specified Navigation Performance Requirements

Before each flight the PF shall ensure that the proper equipment is available and functioning for flights into RVSM, MNPS and all other airspace with specified navigation performance requirements. The aeroplane’s equipment meets all navigation performance requirements.

18.12 PBN Cruise Operations

When using autopilot and/or flight director, particular attention should be paid to the selected armed mode as the resultant track keeping accuracy may vary. Track keeping monitoring of a PBN procedure below MSA will also require particular attention in degraded conditions such as engine failure, as both the vertical and the lateral obstacle clearance are more critical.

18.13 MACH Restrictions

If MACH following is required by ATS for station tracking the Flight Crew will be required to maintain assigned MACH number for cruise and any subsequent climb. If conditions do not permit MACH assigned, advise ATS that you are unable to comply with the request.

18.14 Approach Planning

It is always important that the Flight Crew take advantage of all instrument and navigational aids to ensure that the landing is made on the runway the aeroplane has been cleared to land on. When planning the approach, the PF and PM use all available instruments and navigational aids, regardless to whether the approach will be made in IMC or VFR conditions.

18.15 Aerodrome Weather (Meteorological) Data Requirements

The PF will review the current aerodrome conditions and terminal weather forecast for both the destination and alternate aerodrome at least once while en-route.
The weather forecast (TAF) data shall cover a time period from 1 hour prior to 1 hour after the planned time of arrival. The weather data that is to be reviewed must indicate conditions forecast to be at or above listed instrument approach minimums for the destination.

**18.16 Destination Aerodrome Planning**

All available approach and navigation aids shall be tuned and identified for both visual and instrument approaches.

**18.16.1 Cancelation of IFR Flight Plans**

ACA Flight Crew shall not cancel IFR flight plans at night or in congested terminal areas.

**18.17 Published Instrument Approach Procedures**

Both the PF and PM must adhere to published instrument approach procedures and weather minima as depicted on the approach plates.

**18.18 Reported Weather**

The reported weather must indicate the visibility is at or above published minima for the approach prior to initiating the final segment of the approach, crossing the final approach fix or intercepting the glideslope. It will be assumed that fog conditions exist at all aerodromes reporting low visibilities when there is little or no wind.

The DH, MDA will be increased by 30% to permit a safe operation when a low ceiling is reported when accompanied with rain, a strong crosswind, or a partially unserviceable aeroplane system, that affects the aeroplanes normal operation.

**18.19 PBN Decent Operations**

For RNAV systems without Global Navigation Satellite System, (GNSS) updating of the system and check of the system is required before the descent is begun and before reaching the Initial Approach Waypoint (IAWP). For example, where feasible, display bearing/range to a VOR/DME on the RNAV system and compare it to the actual RMI reading of that particular navaid.

It should be noted that:

- In some systems the accuracy may be derived from the navigation mode or accuracy mode;
- Where the Multi Functional Control Display Unit (MCDU) is not capable of displaying accuracy in decimal units, then an approved alternative means of checking will have to be followed.

Global Navigation Satellite System specific for (GNSS) based systems, absence of a triggered alarm is considered sufficient if the check fails a conventional procedure must then be flown. When the contingency plan is to revert to a conventional arrival procedure, the Flight Crew will make the necessary preparation and briefing for the contingency approach.
18.20 Deteriorating Weather at Destination Aerodrome / Runway Condition While En-route

If the destination aerodrome runway conditions have deteriorated while en-route, the PM shall re-calculate the landing mass of the aeroplane and stopping distance. The re-calculation shall be completed just before the initial approach is started. The Flight Crew may request to enter a holding pattern from ATS if the runway conditions are deteriorating rapidly. It is imperative that the calculation be made prior to beginning the initial approach.

18.21 Descent

The following items will be covered before the Decent Checklist is called for by the PF:

- System checks;
- Anti-icing requirements, if applicable;
- Terrain clearance, en-route and 25 nm MSAs;
- Routing, altitude and speed restriction;
- Horizontal and vertical approach pattern;
- NAVAID selections;
- Aerodrome Operating Minima;
- Airfield restrictions, obstructions and any abnormalities;
- Runway surface conditions and crosswinds;
- Runway touchdown elevation;
- Missed approach procedure;
- Use of auto-flight systems and auto-brakes, if applicable;
- Diversion requirements.

At the top of descent point both PF and PM will be aware of the surrounding terrain and the altitude to be lost in the decent to the aerodrome, the effect of wind, the aeroplane’s landing mass and any anti-icing requirement. The Minimum Safe Altitudes (MSA) during descent must be established and frequent checks made that the desired profile is being maintained.

18.22 Initial Approach

It is ACA’s policy that the auto-flight system will be used for all CAT I approaches. NAVAIDs for the approach should be tuned and identified as early as possible. The PF will call for the Approach check-list. The PM will call out the approach check-list.
18.23 Visual (VFR) Approach Minima

18.23.1 Minimum Visibilities for VFR Operations

<table>
<thead>
<tr>
<th>Airspace Class</th>
<th>A,B,J,C,D,E (Note 1),</th>
<th>F and G</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Above 3000 ft, (915 m) AMLS or Above 1000 ft, (305 m) Above Terrain,</td>
<td>At and Below 3000 ft, 915 m AMLS or 1000 ft, 305 m Above Terrain, Whichever is Higher</td>
</tr>
<tr>
<td>Distance from Cloud</td>
<td>1500 ft, (460 m) horizontally 1000 ft, (305 m) vertically</td>
<td>Clear of Cloud and in Sight of the Surface</td>
</tr>
<tr>
<td>Flight visibility</td>
<td>4.5 nm, (.8 km) at and Above 10000 ft, (3050 m) AMLS (Note 2) 3 nm, (.5 km) Below 10000 ft, (3050 m) AMLS</td>
<td>3 nm, (.5 km) (Note 3)</td>
</tr>
</tbody>
</table>

Note 1: VMC Minima for Class A airspace are included for guidance but do not imply acceptance of VFR Flights in Class A airspace.

Note 2: When the height of the transition altitude is lower than 10000 ft, (3,050 m) AMLS, FL 100 should be used. In lieu of 10000 ft, (3,050 m).

Note 3: Cat A and B aeroplanes may be operated in flight visibilities down to 9842 ft, (3000 m), provided the appropriate ATS authority permits use of a flight visibility less than 3 nm, (.5 km), and the circumstances are such, that the probability of encounters with other traffic is low, and the IAS is 140 kts or less.

18.23.2 VFR Approaches Day Time

The following conditions must exist to start a visual approach:

- The aerodrome and surrounding terrain can be seen from a distance.
- The aerodrome becomes visible following commencement of an instrument approach procedure.

In all cases, the approach shall be converted to an instrument approach missed approach if visual references are lost.

18.23.3 VFR Approaches, Night Time

Extreme caution must be used when executing a visual approach to an aerodrome at night. The aerodrome may be visible from many miles away but the surrounding terrain may be rising and may not be seen as the flight proceeds to the aerodrome.
If there is a published ILS approach for the runway and the flight is under ATS, the Flight Crew shall request the ILS and fly the ILS approach to the runway.

If there is a published ILS approach for the aerodrome but the flight is not under ATS, the ILS shall be tuned in, identified and the ILS and glideslope followed to the aerodrome runway. If the wind conditions do not allow for a landing on the ILS runway, the ILS and glideslope will be followed to the aerodrome to the defined circling area and a safe landing can be executed on a crosswind runway.

If there is not ILS approach to the runway or the flight is not under ATS control, all ACA Flight Crews shall meet the recency of experience requirements and study the most current charts.

No LOC, VOR or NDB approaches will be attempted to an aerodrome at night, under VFR without flying an ATS flight plan not without ATS flight surveillance.

The accepted ACA visual approach procedure at night without ATS is to maintain the MSA within the 25 nm ring until within the defined circling area when a descent may be made to a safe circling altitude. Further descent from circling altitude may be made on the visual profile for landing maintaining a 3˚ approach path from the aeroplane position to the touchdown point.

The aeroplane must not be flown on a low profile at any time, or be flown outside the defined circling area.

The aerodrome must be visible and when within the defined area descent may be made to Circling Minima.

Before the flight, the Flight Crew shall ensure that weather conditions along the route and at the destination aerodrome will be such that the flight is able to be conducted clear of all clouds and that visual contact can be maintained throughout the approach and landing prior to declaration to ATS that the approach may be continued visually. Continuous sight must be maintained of ground features or obstacles sufficient to enable the flight to land safely.

The PF will request ATS to attempt an instrument approach to the aerodrome or execute a missed approach if visual references are lost.

### 18.24 Instrument Approach

#### 18.24.1 Aerodrome Operating Minima IFR

Irrespective of any minima published on the Company’s authorized documents, minima will never be less than that stated on the current approach plate minimum values and as specified for each type of runway or approach aid available, or State published minima, whichever is the more restrictive.

#### 18.24.2 Planning Minima En-Route and Destination Alternates

The PF shall not select an aerodrome as a take-off alternate aerodrome on an IFR flight unless the appropriate weather reports or forecasts or any combination thereof indicate that, during a period commencing 1 hour before and ending 1 hour after the estimated time of arrival at the aerodrome, the weather conditions will be at or above the applicable landing minima specified in accordance with minima specified in the following Table.
### Type of Approach

<table>
<thead>
<tr>
<th>Type of Approach</th>
<th>Planning Minima</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAT II and CAT III</td>
<td>Cat I (\text{Note 1})</td>
</tr>
<tr>
<td>CAT I</td>
<td>Non-Precision (\text{Notes 1 and 2})</td>
</tr>
<tr>
<td>Non-Precision</td>
<td>Non-Precision (\text{Notes 1 and 2}; \text{Plus 200ft, }60 \text{ m})</td>
</tr>
<tr>
<td>Circling</td>
<td>Circling</td>
</tr>
</tbody>
</table>

\(\text{Note 1: RVR.}\)
\(\text{Note 2: The ceiling must be at or above the MDH.}\)

#### 18.24.3 Night IFR Operations

For night operations at least runway edge threshold and runway end lights must be operational and on.

#### 18.24.4 Instrument Approach Procedures

The PF shall ensure that instrument approach procedure which have been established by the State for specific aerodromes are able to be complied with before filing a flight plan.

A PF may accept an ATS clearance to deviate from a published arrival route, provided obstacle clearance criteria are observed and full account is taken of the operating conditions.

The final instrument approach at the alternate may be flown visually or in accordance with the published instrument approach procedure.

Any deviations from the guidelines above must be approved by the State and State Authority in which the aerodrome is located and if required, accepted by ACA’s overseeing Authority.

#### 18.25 Holding Practices / Policy

Standard holding procedures are to be used that are applicable to the country in which flight operations are being conducted using maximum IACO holding speeds and timings regulated by the relevant national Authority.

#### 18.25.1 Chart Depicted Holding Patterns

The pilot is expected to hold in the pattern depicted unless otherwise advised by ATS.

#### 18.25.2 Uncharted Holding Fix

If required to hold at a fix where the pattern is not charted, holding instructions should be given by ATS at least 5 minutes before the estimated arrival at the clearance limit. If unable to contact ATS, enter a standard holding pattern on the inbound radial.

#### 18.26 Let Down and Entering the Terminal Area

ATS clearance is necessary for a procedural descent but descent will \textbf{NOT} be made below MORA.
18.26.1 Conditions for an Instrument Let-Down

Before commencing an instrument approach the following conditions must be fulfilled:

- A valid IAP plate must be available to each pilot either in a printed form or if approved by the Authority in an electronic format. This does not apply to radar approaches;
- All navigational aid(s) must be identified and the aeroplane navigational system equipment to be used must be operative and tested prior to beginning the instrument let down.

18.27 Approach Aid Not Available or Unusable

The regulations requires that all destination and alternate aerodromes, let-down aids that are available are used for the purpose of assisting the Flight Crew in making the approach to the landing at the aerodrome. When the ground navigation aids are unserviceable, unusable, or the aeroplane receivers are unserviceable, the approach may only be continued if the weather is at or above circling minima and the aeroplane can be positioned by circling to final by visual means.

18.28 Approach and Landing - Company Policies

1. When making a descent to an aerodrome, the Flight Crew SHALL NOT commence an approach if conditions at the airport are reported below minimums or severe conditions exist.
2. Flight Crew SHALL terminate an approach prior to the DH/MDA, when severe conditions are being reported i.e. thunderstorm over or near aerodrome, actual moderate to severe windshear, or any other condition exists that would exceed the aircraft or crew limitations.
3. Approaches MAY BE continued to the DH/MDA if conditions at the destination deteriorate below minimums after the leaving the initial approach fix.
4. Wake Turbulence Pilot Waivers are not to be sought or accepted under any circumstance.

The PIC and Flight Crew shall not to continue an approach below 300m (1000ft) above the aerodrome elevation or into the final approach segment unless the reported or controlling RVR is at or above the specified value:

1. If, after entering the final approach segment or after descending below 300m (1000ft) above the aerodrome elevation the reported visibility or controlling RVR falls below the specified minimum, the approach may be continued to DAH or MDAH;
2. Shall initiate a missed approach if the approach and landing from DH/DA or MDA/DH cannot be completed entirely by visual reference to the ground; and
3. Will ensure that the aircraft crosses the threshold by a safe margin in a landing configuration and attitude when conducting an instrument approach.

Note: See OM, 1 General, part A, chapter 24, for approach briefings.

18.29 Precision Approach

During a manual approach the PF will remain on instruments until positive visual contact has been established and called by the PM.
18.29.1 Decision Height

ACA shall ensure that the decision height to be used for a CAT I precision approach is not lower than:

- The minimum decision height of 200 ft, 65 m, or any minimum decision height specified by the approach chart or in the AFM if stated;
- The minimum height to which a precision approach aid can be used without visual reference to the runway environment or runway.

18.29.2 Visual Reference

A pilot shall not continue an approach below the CAT I decision height unless at least 1 of the following visual references for the intended runway is distinctly visible and identifiable to the pilot:

- Elements of the approach light system;
- The runway threshold;
- The runway threshold markings;
- The runway threshold lights;
- The runway threshold identification lights;
- The visual glide slope indicator;
- The runway touchdown zone or touchdown zone markings;
- The runway touchdown zone lights;
- The runway edge lights.

18.30 Flight Profiles

18.30.1 ILS Approach

![ILS Approach Diagram]
18.30.2 Non-Precision Approach

Non-Precision Approach

18.30.3 Go-Around / Missed Approach / Balked Landing

Go-Around/Missed Approach/Balked Landing
18.30.4 Circling Approach / Landing Pattern

18.30.5 Visual Approach and Landing
18.31 Landing

18.31.1 Calculation of Landing Length
Available Landing Field Length for aircraft configuration and landing field conditions shall be assessed.

18.31.2 Landing Roll Reverse Thrust
At time and locations as specified in company manuals, reverse thrust may be left at the reverse idle position after touchdown. Sufficient runway must be available to provide the required Performance Manual landing field length increment. The PIC shall also consider runway surface conditions and be satisfied that a safe operation is assured.

18.32 Landing on Contaminated Runways
If breaking action is reported to be poor and the crosswind exceeds the recommended limit as specified in the Aircraft Operation Manual, Limitations Section, an alternate runway should be considered. Landing on reported very slippery runways with any crosswind should not be attempted except in an emergency. Landing when the runway breaking conditions are reported as NILL or POOR should not be attempted except in an emergency.

18.33 Wake Turbulence Considerations

A. Landing behind a Large Aeroplane on the Same Runway.

Stay at or above the large aircraft’s final approach path. Note its touchdown point and land beyond it.

B. Landing behind a Large Aeroplane on a Parallel Runway when the Parallel Runway is closer than 760 Meters.
Consider possible drift to the runway. Stay at or above the large aircraft’s final approach path and observe its touchdown point.

C. Landing behind a Large Aeroplane - Crossing Runway

Cross above the large aircraft’s flight path

D. Landing behind a Large Aeroplane - same Runway

Note the large aircraft's rotation point and land well before it.

E. Departing behind a Large Aeroplane - same Runway

Note the large aircraft's rotation point and rotate before it. Climb above and stay upwind of the large aircraft's climb path until turning clear of its wake.
F. Departing Behind a Large Aeroplane - Different Runway

When departing from a crossing runway, note the large aircraft’s rotation point. If it is before the intersection, give sufficient time for the disturbance to dissipate before commencing take-off. Avoid headings that will cross behind and below a large aircraft after take-off.

G. Take-off from an Intersection Along the Same Runway

Be alert to adjacent large aircraft operations, particularly upwind of the runway.

H. Departing or Landing after a Large Aeroplane Executing a Low Missed Approach or a Touch-and-go Landing.

A vortex hazard may exist for about 2 minutes along a runway after a large aircraft has executed a low missed approach or a touch-and-go landing, particularly in light quartering wind conditions.
Wake Turbulence Encounter Reporting
Any wake turbulence encounter should be reported to the company via an Accident/Incident Report (see OM-A Handling Occurrence Reporting, Chapter 11).

18.34 Parking
The aeroplane shall not be taxied/manoeuvred into parking position without at least 1 of the ground guidance aids listed below:

- A marshaller;
- Significant clearance.

The minimum mandatory requirements for clearance from obstacles are as follows if no marshaller is available:

- 25 ft, (10 m) of an obstacle, allowed 1 side only, a wing-walker with cockpit visual/radio contact is required;
- Clearance both sides is less than 25 ft, (10 m) no taxiing will be attempted.

When the visibility or clearance is questionable:

- STOP THE AEROPLANE;
- Radio to the ground service to request assistance to assure clearance.