

## ENR 1.8 REGIONAL SUPPLEMENTARY PROCEDURES (DOC 7030)

The supplementary procedures in force are given in their entirety. Differences are shown in quotation marks.

### 1 **Visual flight rules (VFR)** (ICAO Annex 2, 4-1)

VFR flights to be operated within a control zone established at an aerodrome serving international flights and in specified portions of the associated terminal control area shall

1. have two-way radio communications;
2. obtain clearance from the appropriate air traffic control unit; and
3. report positions, as required.

*Note. The phrase "specified portions of the associated terminal control area" is intended to signify at least those portions of the TMA used by international IFR flights in association with approach, holding departure and noise abatement procedures.*

### 2 **Instrument flight rules (IFR)** (ICAO Annex 2, 2.2 and Chapter 5)

*Note. Annex 2, 2.2 permits a choice for a flight to comply with either the instrument flight rules or the visual flight rules when operated in visual meteorological conditions subject to certain limitations in Chapter 4 of the Annex. The following indicates certain further restrictions to that choice.*

### 3 **Special application of instrument flight rules**

Flights shall be conducted in accordance with the Instrument Flight Rules (even when not operating in instrument meteorological conditions) when operated:

1. more than 100 NM seaward from the shoreline within controlled airspace; or
2. above flight level 150

### 4 **Air traffic advisory service** (PANS-ATM, 9.1.4)

All IFR flights shall comply with the procedures for air traffic advisory service when operating in advisory airspace.

### 5 **Transmission of position reports** (PANS-ATM, 4.11)

The last position report before passing from one flight information region to an adjacent flight information region shall also be made to the ATS unit serving the airspace about to be entered.

### 6 **Special procedures for in-flight contingencies**

If an aircraft is unable to continue flight in accordance with its air traffic control clearance a revised clearance shall, whenever possible, be obtained prior to initiating any action, using the radiotelephony distress or urgency signal as appropriate.

If prior clearance cannot be obtained, an air traffic control clearance shall be obtained at the earliest possible time and, in the meantime, the aircraft shall broadcast its position (including the ATS Route Designator or the Track Code, as appropriate) and intentions, on frequency 121.5 MHz at suitable intervals until air traffic control clearance is received.

**7 Adherence to ATC approved route**  
(Annex 2, 3.6.2)

If an aircraft on a long over-water flight has inadvertently deviated from the route specified in its ATC clearance, it shall forthwith take action to regain such route within 200 NM from the position at which the deviation was observed.

**8 Information on runway conditions**  
(All - 4.2.1; PANS-ATM, 6.6)

Unless otherwise provided, area control centres shall have available for transmission to aircraft on request, immediately prior to descent, information on the prevailing runway conditions at the aerodrome of intended landing.

**9 Transmission of SIGMET information**  
(PANS-ATM, 9.1.3.2)

SIGMET information shall be transmitted to aircraft with the least delay on the initiative of the appropriate ATS unit, by the preferred method of directed transmission followed by acknowledgement, or by a general call when the number of aircraft would render the preferred method impracticable.

SIGMET information passed to aircraft shall cover a portion of the route up to two hours flying time ahead of the aircraft.

**10 Transmission of amended aerodrome forecast**  
(PANS-ATM, 9.1.3.5)

Amended aerodrome forecasts shall be passed to aircraft within 60 minutes from the aerodrome of destination, unless the information would have been made available through other means.

**11 Co-ordination between units providing area control service**  
(PANS-ATM, 10.3)

If a flight should enter an adjacent area, information concerning any revision of estimate of three minutes or more shall be forwarded to the adjacent area control centre normally by telephone.

**12 Routes and equipment of private aircraft**  
(Annex 6, Part II, 6.3 and 6.4)

General aviation aircraft operating over designated areas, land or sea, where search and rescue operations would be difficult, should:

1. carry appropriate survival equipment;
2. follow the routes or specified procedures if not equipped with two-way radio, except that under special circumstances, the appropriate authority may grant specific exemptions from this requirement.

**13 Alerting services**  
(PANS-ATM, 9.3)

The procedures for "Alerting Service" detailed in the PANS-ATM, Part VI, 2 are applicable to all flights except those conducted wholly in the vicinity of an aerodrome when exempted by the appropriate air traffic control unit.

**14 Priority of MOTNE message on AFTN**

"Motne Bulletins" for circulation on the MOTNE system which are handled on the AFTN shall be given FF priority.

**15 Technical aspects of AFTN rationalization**

To support data communication requirements and to provide needed data integrity and minimal transit time the CCITT X.25 protocol should be used between AFTN COM Centres in the ASIA region.

**16 Air-to-air channel**  
(Annex 10, Vol I, Part II - 4.1.3.2)

The frequency 128.950 MHz has been approved for use as the air-to-air channel in the MID and ASIA Regions, to enable aircraft engaged in flights over remote and oceanic areas out of range of VHF ground stations to exchange necessary operational information and to facilitate the resolution of operational problem.

**17 Strategic Lateral Offset Procedure in Male' FIR**

**17.1 *The following requirements are applicable for the use of lateral offset within Male' FIR***

- 1) Offset may be applied outside Male' TMA
- 2) The offset shall be established at a distance of one or two nautical miles to the right of the centre line relative to the direction of flight. Offsets are not to two nautical miles right of centre line;
- 3) Position reports are to be based on the current ATC clearance and not the exact coordinates of the offset from track is "Male" Control, Maldives 249, position BAXOS 0532 flight level 280, estimate.....ect".

**17.2 *Lateral offset procedures to be applied by pilots***

In the application of strategic lateral offset, pilots should take the following points into consideration:

- 1) Offset shall only be applied in airspace where this has been approved.
- 2) Offset shall be applied only by aircraft with automatic offset tracking capability.
- 3) The decision to apply a strategic offset is the responsibility of the flightcrew.
- 4) The airspace where the use of lateral offset has been authorized, there is no ATC clearance required for this procedure and pilots are not required to inform ATC that an offset is being applied.
- 5) The strategic lateral offset procedures have been designed to include offsets to mitigate the effects of wake turbulence of preceding aircraft. If wake turbulence needs to be avoided, one of the three available options (centreline, 1 NM or 2NM right offset) shall be used.
- 6) If the necessity arises pilots may contact other aircraft on the air-to-air frequency 123.45 to coordinate offsets.

**18 RVSM Policy and procedures in the male' FIR**

**18.1 *Identification of RVSM airspace***

18.2 RVSM airspace is prescribed within the Male' FIR within all airspace between FL 290 and FL 410 ( inclusive). Aircraft that are not RVSM compliant ( e.g. ferry and maintenance flights) will only be cleared to operate in the Male' FIR between FL 290 and FL 410 ( inclusive after prior coordination with Male' Area Approach Control Centre. 2000ft vertical separation will be applied to such aircraft.

18.3 ***Airworthiness and operational approval and monitoring***

18.3.1 Operators must obtain airworthiness and operational approval from state of registry or state of the operator, as appropriate to conduct RVSM operations. On behalf of the pacific ATS providers, the FAA is maintaining a website containing documents and policy for RVSM approval. The internet address is: [www.tc.faa.gov/acb300/PARMO/](http://www.tc.faa.gov/acb300/PARMO/).

18.4 ***ACAS // and transponder equipage***

18.4.1 The ICAO Asia/Pacific RVSM implementation Task Force recommends that those aircraft equipped with ACAS and operated in RVSM airspace be equipped with ACAS //. (TCAS // system within version 7.0 incorporated meet ICAO ACAS // standards)

18.5 ***In-Flight procedures within RVSM Airspace***

18.5.1 Before entering RVSM airspace, the pilot should review the status of required equipment. The following equipment should be operating normally.

- a) two primary altimetry systems;
- b) one automatic altitude-keeping device; and
- c) one altitude altering device.

18.5.2 The Pilot shall notify ATC whenever the aircraft;

- a) is no longer RVSM compliant due to equipment failure; or
- b) experience loss of redundancy of altimetry systems; or
- c) encounters turbulence that affects the capability to maintain flight level.

18.5.3 During climb or descent, the aircraft should not overshoot or undershoot the assigned FL by more than 150ft (45).

18.5.4 Except in radar environment, pilots shall report reaching any altitude assigned within RVSM airspace.

18.6 ***Pilot level call.***

Pilots shall report reaching any altitude assigned within RVSM airspace.

18.6.1 ***Contingency procedures.***

Paragraphs 6.0, 7.0, 8.0 AND 9.0 below contain procedures for in-flight contingencies that have been updated for RVSM operations. The contingency procedures in paragraphs 6.0-7.0 and the off-set procedure in paragraph 9.0 should be applied in oceanic operations. The weather deviation procedures in paragraph 8.0 may be applied in all airspace in the region.

18.7 ***SPECIAL PROCEDURES FOR IN-FLIGHT CONTINGENCIES IN THE OCEANIC AIRSPACE OF MALE' FIR***

**General procedures**

- 18.7.1 The following general procedures apply to both subsonic and supersonic aircraft and are intended as guidance only. Although all possible contingencies cannot be covered, they provide for cases of inability to maintain assigned level due to:
- (a) weather,
  - (b) aircraft performance;
  - (c) pressurization failure; and
  - (d) problems associated with high-level supersonic flight.
- 18.7.2 The procedures are applicable primary when rapid descent and/ or turn-back or diversion to an alternate airport is required. The pilot's judgement shall determine the sequence of actions to be taken, taking into account specific circumstances.
- 18.7.3 If an aircraft is unable to continue in accordance with its air traffic control clearance, a revised clearance shall, whenever possible, be obtained prior to initiating any action, using a distress or urgency signal as appropriate.
- 18.7.4 If prior clearance cannot be obtained, an ATC clearance shall be obtained at the earliest possible time and , until a revised clearance is recieved, the pilot shall:
- a) if possible , deviate away from an organized track or route system;
  - b) establish communications with and alert nearby aircraft by broadcasting, at suitable intervals: flight identification, flight level, aircraft position, ( including the ATS route designator or the track code) and intentions on the frequency 121.5 MHz( or, as back- up, the VHF inter-pilot air-to-air frequency 123.45 MHz);
  - c) watch for conflicting traffic both visually and by referance to ACAS ( if equipped ); and
  - d) turn on all airrcfat exterior lights (commensurate with appropriate operating limitations).
- 18.8 ***In-Flight contingency procedures for subsonic aircraft requiring rapid descent,turn-back or diversion in the oceanic airspace of Male' FIR.***

**Initial action**

- 18.8.1 If unable to comply with the provisions of paragraph 6.3 to obtain a revised ATC clearance, the aircraft should leave its assigned route or track by turning 90 degrees right or left where ever this is possible.The direction of the turn shoul be determined by the position of the aircraft relative to organized route or track system ( for example, where ever the aircraft is outside, at the edge of .or within the system). Other factors to consider are terrain clearance and the levels allocated to adjacent or tracks.
- 18.8.2 ***Aircraft able to maintain level-***
- An aircraft able to maintain its assignend levels should acquire and maintain in either direction a track laterally separated by 25 NM from its assigned route or track and once established on the offset track, climb or descend 500ft (150m).
- 18.8.3 ***Aircraft un able to maintain level-***
- An aircraft NOT able to maintain its assigned level should, whenever possible, minimize its rate of descent while turning to acquire and maintain in either direction a track laterally sepeated by 25 NM from its assigned route or track. For subsequent level flight, a level should be selected which differs by 500ft ( 50 m ) from those normally used.

18.8.4 ***DIVERSION ACROSS THE FLOW OF ADJACENT TRAFFIC.-***

Before commencing a diversion across the flow of adjacent traffic, the aircraft should , while maintaining the 25NM offset, expedite climb above or descent below levels where the majority of aircraft operate ( e.g: to a level above FL 400 or below FL 290) and then maintain a level which differs by 500ft (150m) from those normally used. However , if the pilot is unable to or unwilling to carry out a major climb or descent, the aircraft should be flown at a level 500ft above or below levels normally used until a new ATC clearance is obtained.

18.8.5 ***Etops aircraft-***

If these contingency procedures are employed by a twin-engine aircraft as a result of an engine shutdown or a failure of an ETOPS critical system, the pilot should advise ATC as soon as practicable of the situation, reminding ATC of the type of aircraft involved and requesting expeditious handling.

18.9 ***Weather deviation procedures in the male' FIR.***

**General Procedures**

The following procedures are intended to provide guidance. All possible circumstances cannot be covered. The pilot's judgement shall ultimately determine the sequence of actions taken and ATC shall all possible assistance.

If the aircraft to deviate from track to avoid weather and prior clearance cannot be obtained, an air traffic control clearance shall be obtained at the earliest possible time. In the meantime, the aircraft shall follow the procedures detailed in paragraph 8.9 below.

The pilot shall advise ATC when weather deviation is no longer required, or when a weather deviation has been completed and the aircraft has returned to the centreline of its cleared route.

When the pilot initiates communications with ATC, rapid response may be obtained by stating " WEATHER DEVIATION REQUIRED" to indicate the priority is desired on the frequency and for ATC response.

The pilot still retains the option of initiating the communications using the urgency call "PAN PAN" to alert all listening parties to a special handling condition, which may receive ATC priority for issuance of a clearance or assistance.

When controller pilot communications are established, the pilot shall notify ATC and request clearance to deviate from track, advising , when possible, the extent of the deviation expected. ATC will take one of the following actions:

- a) if there is no conflicting traffic in the horizontal dimension, ATC will issue clearance to deviate from track; or
- b) if there is conflicting traffic in the horizontal dimension, ATC will separate aircraft by establishing vertical separation or, if unable to establish vertical separation, ATC shall:
  - i) advise the pilot unable to issue clearance for requested deviation
  - ii) advise pilot of conflicting traffic
  - iii) request pilot's intentions

SAMPLE PHRASEOLOGY:

" Unable (requested deviation). traffic is ( call sign. position, altitude, direction), advise intentions."

The pilot will take the following actions:

- a) advise ATC of intentions by the most expeditious means available.
- b) comply with air traffic control clearance issued or .....
- c) execute the procedures detailed in 8.9 below. ( ATC will issue essential traffic information to all affected aircraft).
- d) if necessary, establish voice communications with ATC to expedite dialogue in the situation

18.9.1 **Actions to be taken if a revised air traffic control clearance cannot be obtained**

The pilot shall take the actions listed below under the provision that the pilot may deviate from rules of the air (e.g; the requirement to operate on route or track center line unless otherwise directed by ATC), when it is absolutely necessary in the interests of safety to do so.

If a revised air traffic control clearance cannot be obtained and deviation from track is required from track is required to avoid weather. the pilot shall take the following actions;

- a) if possible, deviate away from an organized track or route system;
- b) establish communication with and alert nearby aircraft by broadcasting at suitable intervals;flight identification, flight level, aircraft position(including the ATS route designator or the track code) and intentions ( including the magnitude of the deviation expected) on the frequency in use, as well as on frequency 121.5 MHZ ( or, as a bak-up, the VHF inter-pilot air-to-air frequency 123.45 MHz)
- c) watch for conflicting traffic both visually and by referance to ACAS (if equipped);
- d) turn on all aircraft lights (commensurate with appropriate operating limitaions);
- e) for deviations of less than 10NM, aircraft should remain at the level assigned by ATC;
- f) for deviations of greater than 10NM, when the aircraft is approximately 10 NM from track, initiate a level change based on the following criteria:

	Deviation >10N	Level change
EAST 000-179 magnetic	LEFT RIGHT	DESCENDED 300 ft CLIMB 300 ft
WEST 180-359 magnetic	LEFT RIGHT	CLIMB 300 ft DESCENT 300 ft

*Note: items (b) and (c) above calls for the pilot to: bradcast aircraft position and pilot's intentions, identify conflicting traffic and communicate air-to-air with near-by aircraft. If the pilot determines that there is another aircraft at or near the same FL with which his aircraft might conflict,then the pilot is expected to adjust the path of the aircraft, as necessary to avoid conflict.*

- g) if contact was not established prior to deviating, continue to attempt to contact ATC to obtain a clearance. If contact was established, continue to keep ATC advised of intentions and obtain essential traffic information
- h) when returning to track, be at its assigned flight level, when the aircraft is within approximately 10NM of center line.

18.10 **Special procedures to mitigate wake turbulence encounters and distracting aircraft system alerts in the oceanic aircraft of the male' FIR**

The following special procedures are applicable to mitigate wake turbulence or ditracting aircraft alerts  
( eg; ACAS, Ground Proximity Warning System (GPWS) in Asia and Pacific airspace where RVSM is applied:

NOTE: in the contingency circumstances below, ATC will not issue clearance for lateral offsets and will not normally respond to actions taken by the pilots.

An aircraft that encounters wake vortex turbulence or experiences distracting aircraft system alerts shall notify ATC and request a flight level, track or speed change to avoid the condition. However, in situations where such a change is not possible or practicable, the pilot may initiate the following temporary lateral offset procedure with the intention of returning line as soon as practicable:

a) the pilot should establish contact with other aircraft, if possible, on the appropriate VHF inter-pilot air to air frequency; 123.45 MHz and

b) one (or both) aircraft may initiate lateral offset(s) not to exceed 2 NM from the assigned track, provided that:

i) as soon as practicable to do so, the offsetting aircraft notify ATC that temporary lateral offset action has been taken and specify the reason for doing so (ATC will not normally respond); and

ii) the offsetting aircraft notify ATC when re-established on assigned route(s) or track(s) (ATC will not normally respond).

#### 18.11 ***Flight planning requirements***

Unless special arrangement is made as detailed below, RVSM approval is required for operators and aircraft to operate within designated RVSM airspace. The operator must determine that the appropriate state authority has granted them RVSM operational approval and they will meet the RVSM requirements for the filed route of flight and any planned alternate routes. The letter "w" shall be inserted in item 10 (Equipment) of the ICAO standard flight plan to indicate that the aircraft and operator are RVSM approved.

All operators filing repetitive flight plan (RPLs) shall include the letter "W" in item Q of the RPL to indicate RVSM approval status and include all equipment and capability in conformity with item 10 of the ICAO flight plan.

#### 18.12 ***Procedures for operation of non-RVSM compliant aircraft in RVSM airspace.***

##### 18.12.1 ***Flight priority***

It should be noted that RVSM approved aircraft will be given priority for level allocation over non-RVSM approved aircraft.

##### 18.12.2 ***Vertical separation.***

The vertical separation minimum between non-RVSM aircraft operating in the RVSM stratum and all other aircraft is 2,000 ft.

##### 18.12.3 ***Phraseology.***

Non-RVSM compliant aircraft operating in RVSM airspace should use the phraseology contained in attachment B



18.12.4 Continuous climb/descent of non-compliant aircraft through RVSM airspace.

Non- RVSM compliant aircraft may be cleared to climb to and operate above FL 290 or descent to and operate below FL 410 provided that they:

- (a) Do not climb or descent at less than the normal rate for the aircraft and
- (b) Do not level off at intermediate level while passing through the RVSM stratum.

Non-RVSM compliant aircraft may not flight between FL 290 and FL 410 inclusive within RVSM airspace. After special coordination as detailed in paragraph 11.6 below, the following non-RVSM aircraft may flight plan at RVSM flight levels in the RVSM stratum.

- (a) The aircraft is being used initially delivered to the state of registry or operator; or
- (b) The aircraft was RVSM approved but has experienced an equipment failure and is being flown to a maintenance facility for repair in order to meet RVSM requirements and / or obtain approval; or
- (c) The aircraft is transporting a spare engine mounted under the wing or
- (d) The aircraft is being utilized for mercy or humanitarian purposes; or
- (e) State aircraft (those aircraft used in military, custom and police services shall be deemed state aircraft)

*Note: The procedures are intended exclusively for the purposes indicated and not as a means to circumvent the normal RVSM approval process.*

The assignment of cruising levels to non-RVSM compliant aircraft listed in paragraph (a) to (e) shall be subjected to an ATC clearance.

Aircraft operators shall be subjected to an ATC clearance. Aircraft operators shall include the "STS/Category (Ferry/HUMANITARIAN/MILITARY/CUSTOMS/POLICE)/ NON-RVSM COMPLIANT" in Field 18 of the ICAO flight plan.

Where necessary, the air traffic control centre may be contacted as follows:

Male'Area/Approach Control Centre  
Telephone: (960) 3322071  
AFTN: VRMFZQZX  
fax: (960) 3313258

This approval process is intended exclusively for the purpose indicated above and not as a means to circumvent the normal RVSM approval process.

18.13 ***Delivery flight for aircraft that are RVSM compliant on delivery***

An aircraft that is RVSM on delivery may operate in RVSM airspace provided that the crew is trained on RVSM policies and procedures applicable in the airspace and the responsible state issues the operator a letter of authorization approving the operation. State notification to the APARMO should be in the form of a letter, e-mail or fax documenting the one-time flight. The planned date of the flight, flight identification, registration number and aircraft type/series should be included.

Email address: atcc@airports.com.mv  
fax number: (960) 3313258  
AFTN : VRMFZQZX

18.14 ***Procedures for suspension of RVSM***

18.15 ***Guidance for pilots and controllers for actions in the event of aircraft system malfunction or turbulence greater than moderate***

See attachment A for guidance in these circumstances.

18.16 ***procedures for air-ground communication failure.***

The air-ground communication failure procedures specified in ICAO PANS-ATM Doc 4444 should be applied.

18.17 ***Attachment A***

18.17.1 ***Contingency Scenarios***

The following paragraph summarize pilot action to mitigate the potential for conflict with other aircraft in certain contingency situations. They should be reviewed in conjunction with the expanded contingency scenarios detailed below which contain additional technical and operational detail.

**\*Scenario 1:** The pilot is:

1. unsure of the vertical position of the aircraft due to the loss or degradation of all primary altimetry system, or
2. unsure of the capability to maintain cleared flight level (CFL) due to turbulence or loss of all automatic altitude control systems

<b>The Pilot Should:</b>	<b>ATC can be expected to:</b>
Maintain CFL while evaluating the situation;	
Watch for conflicting traffic both visually and by reference to ACAS, if equipped;	
If considered necessary, alert nearby aircraft by 1) making maximum use of exterior lights; 2) broadcasting position, FL, and intention on 121.5 MHz ( as a back-up, the VHF inter-pilot air-to-air frequency, 123.45 MHz. may be used).	
Notify ATC of the situation and intended course of action. Possible courses of action include:	Obtain the pilots intentions and pass essential traffic information.

1) maintaining the CFL and route provided that ATC can provide lateral, longitudinal or conventional vertical separation.	1) If the pilot intends to continue in RVSM airspace, assess traffic situation to determine if the aircraft can be accommodated through the provision of lateral, longitudinal, or conventional vertical separation, and if so, apply the appropriate minimum.
2) Requesting ATC clearance to climb above or descent below RVSM airspace if the aircraft cannot establish adequate separation from other aircraft.	2) If the pilot requests clearance to exit RVSM airspace, accommodate expeditiously, if possible.
3) executing the contingency maneuver shown in paragraphs 6.0 and 7.0 of this AIP Supplement to offset from the assigned track and FL, if ATC clearance cannot be obtained and the aircraft cannot maintain CFL.	3) if adequate separation cannot be established and it is not possible to comply with the pilot's request for clearance to exit RVSM airspace, advise the pilot of essential traffic information, notify other aircraft in the vicinity and continue to monitor the situation.
	4) notify adjoining ATC facilities/sectors of the situation.

**Scenario 2:** There is a failure or loss of accuracy of one primary altimetry system (eg; greater than 200 foot difference between primary system altimeters)

<b>The Pilot should</b>
Cross check standard altimeter, confirm the accuracy of a primary altimeter system and notify ATC of the loss of redundancy. If unable to confirm primary altimeter system accuracy, follow pilot actions listed in the preceding scenario.

18.17.2 **Expanded equipment failure and turbulence encounter scenarios.**

Operators may consider this material for use in training programs.

**Scenario 1:** All automatic altitude control system fail (eg;

<b>The Pilot Should initially:</b>	<b>ATC can be expected to</b>
Maintain CFL	
Evaluate the aircraft's capability to maintain altitude through manual control.	
<b>Subsequently</b>	
watch for conflicting traffic both visually and by reference to ACAS, if equipped.	

if considered necessary, alert nearby aircraft by 1) making maximum use of exterior lights; 2) broadcasting position, FL, and intentions on 121.5MHz ( as a back-up, the VHF inter-pilot air-to-air frequency, 123.45 MHz, may be used.)	
Notify ATC of the failure and intended course of action. Possible courses of action include:	
1) Maintaining the CFL and route, provided that the aircraft can maintain level	1. If the pilot intends to continue in RVSM airspace, assess traffic situation to determine if the aircraft can be accommodated through the provision of lateral, longitudinal, or conventional vertical separation, and if so, apply the appropriate minimum.
2) Requesting ATC clearance to climb above or descend below RVSM airspace if the aircraft cannot maintain CFL and ATC cannot establish lateral, longitudinal or conventional vertical separation.	2) If the pilot requests clearance to exit RVSM airspace, accommodate expeditiously, if possible.
3) Executing the contingency maneuver shown in paragraph 6.0 and 7.0 of this AIP Supplement to offset from the assigned track and FL, if ATC clearance cannot be obtained and the aircraft cannot maintain CFL.	3) If adequate separation cannot be established and it is not possible to comply with the pilot's request for clearance to exit RVSM airspace, advise the pilot of essential traffic information, notify other aircraft in the vicinity and continue to monitor the situation.
	4) Notify adjoining ATC facilities /sectors of the situation.

**Scenario 2:** loss of redundancy in primary altimetry system.

The Pilot Should	ATC can be expected to
If the remaining altimetry system is functioning normally, couple that system to the automatic altitude control system, notify ATC of the loss of redundancy and maintain vigilance of altitude keeping.	Acknowledge the situation and continue to monitor progress

**Scenario 3:** All primary altimetry systems are considered unreliable or fail.

The Pilot Should	ATC can be expected to
Maintain CFL by referring to the standby altimetry ( if the aircraft is so equipped).	

Alert nearby aircraft by 1) making maximum use of exterior lights; 2) broadcasting position, FI, and intentions on 121.5 MHz (as a back-up, the VHF inter-pilot air-to-air frequency, 123.45MHz, may be used).	
Consider declaring an emergency. Notify ATC of the failure and intended course of action. Possible courses of action include:	Obtain pilot's intentions and pass essential traffic information.
1) maintaining CFL and route provided that ATC can provide lateral, longitudinal or conventional vertical separation.	1) if the pilot intends to continue in RVSM airspace, assess traffic situation to determine if the aircraft can be accommodated through the provision of lateral, longitudinal, or conventional vertical separation, and if so, apply the appropriate minimum.
2) requesting ATC clearance to climb above or descend below RVSM airspace if ATC cannot establish adequate separation from other aircraft.	2) if the pilot requests clearance to exit RVSM airspace, accommodate expeditiously if possible.
3) executing the contingency maneuver shown in paragraphs 6.0 and 7.0 of this AIP supplement to offset from the assigned track and FL, if ATC clearance cannot be obtained.	3) if adequate separation cannot be established and it is not possible to comply with the pilot's request for clearance to exit RVSM airspace, advise the pilot of essential traffic information, and continue to monitor the situation.
	4) Notify adjoining ATC facilities/ sectors of the situation.

**Scenario 4:** The primary altimeters diverge by more than 200 ft (60m)

<b>The Pilot Should</b>
Determine the defective system through the normal airplane integrated comparator warning system or in the absence of such a system, establish trouble-shooting procedures comparing the primary altimeters to the standby altimeter (corrected using the correction card)
If the defective system can be determined, couple the functioning altimeters to the altitude keeping device in use
If the defective system cannot be determined, follow the guidance in scenario 3 for the failure or unreliable altimeter indications of all primary altimeters.

\***Scenario 5:** Turbulence (greater than moderate) which the pilot believes will impact the aircraft's capability to maintain flight level.

<b>The Pilot Should initially:</b>	<b>ATC can be expected to:</b>
Watch for conflicting traffic both visually and by reference to ACAS, if equipped.	

<p>If considered necessary, alert nearby aircraft by:</p> <p>1) making maximum use of exterior lights; 2) broadcasting position, FL and intentions on 121.5 MHz ( as a back-up, the VHF inter-pilot air-to-air frequency , 123.45 MHz, may be used).</p>	
<p>Notify ATC of intended course of action as soon as possible.</p> <p>Possible causes of action include:</p>	
<p>1) maintain CFL and route provided ATC can provide lateral, longitudinal or conventional vertical separation.</p>	<p>1) Assess traffic situation to determine if the aircraft can be accommodated through the provision of lateral, longitudinal, or conventional vertical separation, and if so, apply the appropriate minimum.</p>
<p>2) requesting flight level change, if necessary.</p>	<p>2) If unable to provide adequate separation, advise the pilot of essential traffic information and request pilot's intentions.</p>
<p>3) executing the contingency maneuver shown in paragraphs 6.0 and 7.0 of this AIP supplement to offset from the assigned track and FL, if ATC clearance cannot be obtained and the aircraft cannot maintain CFL.</p>	<p>3) Notify other aircraft in the vicinity and monitor the situation.</p>
	<p>4) Notify adjoining ATC facilities/sectors of the situation</p>

18.18 **Attachement B**

18.18.1 **Controller-pilot Phraseology**

<b>Message</b>	<b>Phraseology</b>
<p>For a controller to ascertain the RVSM approval status of an aircraft:</p>	
<p>For a pilot to report non- RVSM approval status:</p> <p>i. on the initial call on any frequency within the RVSM airspace (controllers shall provide a readback with this same phrase), and</p> <p>ii. in all request for flight level changes pertaining to flight levels within the RVSM airspace; and</p>	<p><b>NEGATIVE RVSM*</b></p>

<p>iii.in all read-backs to flight level clearances pertaining to flight levels within the RVSM airspace.</p> <p>Additionally, expected for state aircraft, pilots shall include this phrase to read back flight level clearances involving the vertical transit through FL 290 or FL 410.</p> <p><i>See examples that follow.</i></p>	
<p>For a pilot to report RVSM approval status</p>	<b>AFFIRM RVSM*</b>
<p>for a pilot of a non-RVSM approved state aircraft to report non-RVSM approved status, in response to the phrase (call sign).</p> <p><b>CONFIRM RVSM APPROVED.</b></p>	<b>NEGATIVE RVSM STATE AIRCRAFT*</b>
<p>Denial of clearance into the RVSM airspace:</p>	(call sign) <b>UNABLE CLEARANCE INTO RVSM AIRSPACE, MAINTAIN (or DESCENT TO, or CLIMB TO) FLIGHT LEVEL (number)</b>
<p>for a pilot to report when severe turbulence affects the aircraft's capability to maintain the height-keeping requirements for RVSM.</p>	<b>UNABLE RVSM DUE TURBULANCE*</b>
<p>For pilot to report that the aircraft's equipment has degraded enroute below that required for flight within the RVSM airspace. (see attachment A) (This phrase is to be used to convey both the initial indication of the non-MAPS compliance, and henceforth, on initial contact on all frequencies within the lateral limits of the RVSM airspace until such times as the problem ceases to exist, or the aircraft has exited the RVSM airspace.)</p>	<b>UNABLE RVSM DUE EQUIPMENT*</b>
<p>For a pilot to report the ability to resume operations within the RVSM airspace after an equipment or weather-related contingency.</p>	<b>READY TO RESUME RVSM*</b>
<p>For a controller to confirm that an aircraft has regained its RVSM approval status, or to confirm that the pilot is ready to resume RVSM operations.</p>	<b>REPORT ABLE TO RESUME RVSM</b>

THIS PAGE INTENTIONALLY LEFT BLANK