	Company Name <b>የኢትዮጵያ ሲቪል አቪዬሽን ባለሥልጣን</b> <b>Ethiopian Civil Aviation Authority</b>	Document No. ECAA-ANR-AC-024	
Document title Guidance for the development of to ensure information& application Reduced Vertical Separation Minima (RVSM)		Issue No. 1	Page No. Page 1 of 6

The Air Navigation Regulation Directorate has issued this guidance material to be used by ANSP to prepare procedure manuals and other working documents for implementation of ICAO SARPS and National Regulations.

It is important to note that this guidance material improve the safety of air navigation services within Ethiopian air space .

The Director General of Ethiopian Civil Aviation Authority has here by approved this guidance material on September 18,2017 to be used as a guidance to air navigation services provider..


Approved by

Date September, 2017



**Wossenyeleh Hunegnaw (Col.)**  
**Director General**



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Document title Guidance for the development of to ensure information& application Reduced Vertical Separation Minima (RVSM)		Issue No. 1	Page No. Page 2 of 6

## 1. GENERAL

*This guidance provides information & application reduced vertical separation minima(RVSM).*


*The objective of information & application reduced vertical separation minima (RVSM) is important for maintaining the safety, regularity and efficiency of international air navigation.*

*RVSM approval will encompass the following elements:*

- a) Airworthiness approval (including continued airworthiness). The aircraft will be approved as meeting the requirements of the appropriate State airworthiness document derived from the height-keeping capability requirements as defined by the RVSM MASPS. Furthermore, the aircraft altimetry and height-keeping equipment must be maintained in accordance with approved procedures and servicing schedules; and*
- b) Operational approval. As defined by ICAO regional air navigation agreements, it may be necessary for an operator to hold a separate RVSM-specific operational approval in addition to an RVSM airworthiness approval to operate in RVSM airspace.*

## 2. PURPOSE

*2.1 This guidance provides instruction for the revision of documents, procedures and programs to enable the maintenance of a 300 m (1 000 ft) VSM between FL 290 and FL 410 inclusive within their particular regions in accordance with the criteria and requirements developed by ICAO.*

	Company Name <b>የኢትዮጵያ ሲቪል አቪዬሽን ባለሥልጣን</b> <b>Ethiopian Civil Aviation Authority</b>	Document No. ECAA-ANR-AC-024	
Document title Guidance for the development of to ensure information& application Reduced Vertical Separation Minima (RVSM)		Issue No. 1	Page No. Page 3 of 6

3. *Guidance to air traffic service provider on those measures necessary to ensure that the criteria and requirements are met within their area of responsibility;*

#### 4. REFERENCE

4.1 *ECARAS Part - 14;*

4.2 *Doc 9574 3.3 , 4.3 & 5.4*

#### 5. ROLE OF THE APPROPRIATE ATC AUTHORITY IN MONITORING HEIGHT-KEEPING PERFORMANCE

5.1 *The ATC authority has a vital role to play in the monitoring process in that there is a need to gather information on and report any deviation equal to or greater than 90 m (300 ft), for any reason, from cleared levels whether the deviation causes an incident or not. This information will contribute to the assessment of the level of overall risk in the system. The information required by the RMA to conduct the risk assessment might, depending on the region of implementation, include the following data:*

- a) *reporting unit;*
- b) *location of deviation, either as latitude/longitude or a bearing and distance from a significant point;*
- c) *date and time of large height deviation;*
- d) *sub-portion of airspace, such as established route system, if applicable;*
- e) *flight identification and aircraft type;*



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**Ethiopian Civil Aviation Authority**

Document No.

ECAA-ANR-AC-024

Document title

Guidance for the development of to ensure information&  
application Reduced Vertical Separation Minima (RVSM)

Issue No.

1

Page No.

Page 4 of 6


- f) *assigned flight level;*
- g) *final reported flight level or altitude and basis for establishment (e.g. pilot report or Mode C);*
- h) *duration at incorrect level or altitude;*
- i) *possible cause of deviation;*
- j) *any other traffic in potential conflict during deviation;*
- k) *crew comments when notified of deviation; and*
- l) *Remarks from ATC unit making report.*

## 6. GUIDANCE


6.1 *The continuity of RVSM operations safely in relation to the provision of air navigation services requires that ATC procedures be periodically reviewed and appropriate recurrent training provided. As a basis for the periodic review of regional procedures, consideration should be given to the appropriate action to be taken by controllers in the following situations, as applicable:*

- a) *Aircraft known not to be suitably equipped are flight planned into RVSM airspace;*
- b) *An aircraft informs ATC that the capability to maintain a CFL appropriate to RVSM requirements has been lost;*
- c) *The pilot advises that the automatic altitude-keeping device has been turned off; and*
- d) *The displayed altitude differs from the CFL by 90 m (300 ft) or more.*

6.2 *Confirmation of approval status*

	Company Name <b>የኢትዮጵያ ሲቪል አቪዬሽን ባለሥልጣን</b> <b>Ethiopian Civil Aviation Authority</b>	Document No. ECAA-ANR-AC-024	
Document title Guidance for the development of to ensure information& application Reduced Vertical Separation Minima (RVSM)		Issue No. 1	Page No. Page 5 of 6

- a) *Continuity of RVSM operations is dependent on the establishment of an aircraft approval confirmation process, which is intended to exclude unqualified aircraft and operators from operating in RVSM airspace unless the appropriate separation is applied. The primary responsibility for confirmation of the approval status of an aircraft/operator must rest with the State of the Operator/State of Registry.*
- b) *At the appropriate level, a secondary responsibility should rest with the air traffic services (ATS) provider States to institute routine checks of the approval status of aircraft operating within their area of authority and intending to operate in RVSM airspace. Apart from the scrutiny activities conducted by the relevant RMA, this responsibility could be met by:*
- *Scrutinize ATS flight plans;*
  - *Conducting cross-checks against the regional RVSM-approvals database, taking into account the currency of its contents; and*
  - *Querying operators that are suspected of not being in compliance with the airspace requirements.*
- c) *Depending on regulations, ATC clearances may be withheld for operations that are not in compliance with the airspace requirements.*
- d) *In conjunction with the ATS provider, a further level of confirmation of approval can be affected by the RMA of a region in which RVSM applies. This can be achieved by the RMA taking action.*

	Company Name <b>የኢትዮጵያ ሲቪል አቪዬሽን ባለሥልጣን</b> <b>Ethiopian Civil Aviation Authority</b>	Document No. ECAA-ANR-AC-024	
Document title Guidance for the development of to ensure information& application Reduced Vertical Separation Minima (RVSM)		Issue No. 1	Page No. Page 6 of 6

6.3 *The continuity of RVSM operations safely in relation to the provision of air navigation services requires that ATC procedures be periodically reviewed and appropriate recurrent training provided. As a basis for the periodic review of regional procedures, consideration should be given to the appropriate action to be taken by controllers*

- a) *Aircraft known not to be suitably equipped are flight planned into RVSM airspace;*
- b) *An aircraft informs ATC that the capability to maintain a CFL appropriate to RVSM requirements has been lost;*
- c) *The pilot advises that the automatic altitude-keeping device has been turned off; and*
- d) *The displayed altitude differs from the CFL by 90 m (300 ft) or more.*