

INTERNATIONAL CIVIL  
AVIATION ORGANIZATION

ORGANIZACIÓN DE AVIACIÓN  
CIVIL INTERNACIONAL



ORGANISATION DE L'AVIATION  
CIVILE INTERNATIONALE

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Ref: ES AN4/44 - 0765

29 November 2004

**Subject: AFI Regional Functional Hazard Assessment Meetings from 31-January to 4 February 2005 and 4 to 8 April 2005, ATNS Training Academy, Johannesburg**

**Action Required: Reply not later than 31 December 2004**

Sir/Madam,

I have the honour to draw your attention to APIRG/14 meeting held in Yaounde, Cameroon, from 23 to 27 June 2003 and letter Ref. ES AN 4/44 – 0607 dated 10 August 2004 (copy attached). APIRG/14 Conclusion 14/21 *inter alia* advocated as follows:

**Conclusion 14/21: Implementation of RVSM in the AFI Region:**

**That:**

**States do their utmost to implement RVSM in selected airspaces, as per plan by AIRAC cycle date of 20 January 2005 concurrently with the CAR/SAM Region.**

**Conclusion 4/1: Safety Assessment**

**AFI RMA undertakes a Safety Assessment as matter of urgency**

As you are aware, an AFI Regional RVSM Pre-Implementation Safety Case is required to provide the assurance that the objectives in the AFI RVSM Safety Policy is met. These Safety Objectives will be complemented by Safety Requirements which will arise as results from a detailed Functional Hazard Analysis (FHA) which yet has to be carried out.

The AFI RVSM Implementation Program requires a full FHA looking at the whole system including air and ground segments and the proposed operational concept. This analysis shall adopt a total aviation system perspective and a risk based approach to the classification of hazards. Furthermore, the FHA shall provide assurance that all hazards and risks

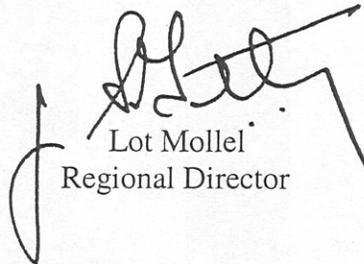
associated with RVSM have been identified and classified. The FHA shall cover (i) the situation that RVSM is operational one year after its introduction, (ii) the particular situation in States which have to ensure the transition between RVSM and non-RVSM airspace and (iii) the change-over on the day of RVSM introduction. The results of the FHA shall be documented in a detailed report and a hazard/risk matrix. It will be used as input to the Collision Risk Assessment and the National Safety Cases where appropriate.

In order to demonstrate to the ICAO ANC that the above-mentioned objectives are met, sufficient operational and technical data are required to identify potential failures/hazards in normal/abnormal environments. These required risk estimates can only be obtained with the assistance from validated senior ATC experts within the AFI Region.

ICAO has scheduled two more FHA meetings at the ATNS Training Academy in Johannesburg, South Africa, from 31 January to 4 February 2005 and 4 to 8 April 2005, to review different operational scenarios and identify mitigation factors that can limit the impact/consequences of any failures. During these meetings all safety objectives required for RVSM Implementation will also be identified for inclusion in National Safety Plans.

In view of the above your administration is invited to nominate, as soon as possible but not later than **31 December 2004**, one Air Traffic Controller who has the above qualifications to attend this very important meeting. Furthermore, for continuity it is preferable that candidates that have attended the first meeting 1-5 November, 2004, also attend the second and final FHA meetings

Accept, Sir/Madam, the assurances of my highest consideration.



Lot Molle  
Regional Director

**Attachment: Contact details for ARMA**

**ATTACHMENT**

Contact details for Functional hazard Assessment Meetings in Johannesburg

Mr. Kevin Ewels

AFI Regional Monitoring Agency

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Park, 1620

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Ref: ES AN 4/44 - 0607

10 August 2004

**Subject: AFI RVSM Safety Assessment**

**Action Required: Reply by 30 September 2004**

Sir/Madam,

I have the honour to draw your attention to APIRG/14 meeting held in Yaounde, Cameroon, from 23 to 27 June 2003. APIRG/14 Conclusion 14/21 and AFI RVSM Task Force/4 meeting Conclusions 4/1 *inter alia* advocated as follows:

**Conclusion 14/21: Implementation of RVSM in the AFI Region:**

**That:**

**States do their utmost to implement RVSM in selected airspaces, as per plan by AIRAC cycle date of 20 January 2005 concurrently with the CAR/SAM Region**

**Conclusion 4/1**

**That:**

**That AFI RMA undertakes safety assessment as a matter of urgency**

As you are aware, the introduction of RVSM must be done in conjunction with a thorough assessment of the safety implications that will result from this change of operation within the Region. As required in other regions AFI RVSM has to demonstrate to the international aviation community that the Target Level of Safety (TLS) set out by ICAO for the vertical collision risk will not be exceeded in the AFI RVSM Airspace.

.../2...

An AFI RVSM Pre-Implementation Safety Case is therefore required to provide the assurance that the objectives stated in the AFI RVSM Safety Policy are met. Evidence must be provided that (i) all identified hazards and risks are managed and mitigated, and (ii) the collision risk meets the ICAO Target Level of Safety. In order to demonstrate that these required objectives are met, appropriate risk estimation methodologies will need to be available, and sufficient operational and technical data will need to be collected to obtain risk estimates with sufficient confidence.

As you are aware, each State is also responsible for the safe implementation of RVSM in the airspace over which it has jurisdiction and will be responsible for providing assurance that their responsibilities have been met. All Area Control Centres (ACC) will be required to conduct monitoring of aircraft height deviations in the AFI RVSM airspace and forward the relevant data to the AFI RMA **on a monthly basis**.

Attached please find the relevant forms required for monitoring of aircraft height deviations that need to be completed monthly. I would be grateful if you could forward copies of the completed forms to the AFI Regional Monitoring Agency (ARMA) as soon as possible, but not later than **30 September 2004**.

Accept, Sir/Madam, the assurances of my highest consideration.



Lot Motte  
Regional Director

**Attachments:            Height Deviation and Traffic Data Forms (1 – 5)**



AFI REGIONAL MONITORING AGENCY (ARMA)

**MONTHLY MOVEMENTS**

**(Form 2)**

**STATE:**

**ACC:**

**MONTH:**

**TOTAL IFR MOVEMENTS FOR THE MONTH:**

**TOTAL MONTHLY IFR MOVEMENTS IN THE BAND F290 - F410**

**AVERAGE TIME PER MOVEMENT IN LEVEL BAND F290 - F410**

**LEVEL FLIGHT**

**CLIMBING AND DESCENDING**





