INTERNATIONAL CIVIL AVIATION ORGANIZATION

ORGANIZACIÓN DE AVIACIÓN CIVIL INTERNATIONAL



МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ

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ES AN 4/44 - 0765 Ref:

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.

Regional Director

Attachment: Contact details for ARMA

ATTACHMENT

Contact details for Functional hazard Assessment Meetings in Johannesburg

Mr. Kevin Ewels

AFI Regional Monitoring Agency

Private Bag X15, Kempton

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.

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.

Regional Director

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

AFI REGIONAL MONTORING AGENCY (ARMA)

HEIGHT DEVIATIONS

(Form 1)

STATE:	AC	C:	MONTH:	
State of Registry				
Flight Identification				
Operator				
State of Operator				
Aircraft Type and Serie	S			
Registration				
Serial Number				
Mode S Address				
Total height deviation				
Total time of deviation				
Cause of Deviation ¹				
	_			
Date and Time of Measurement	Assigned Flight Level	Observed Flight Level	Air route	Geographical Location
Provide description of in	ncident including total he	ight profile if available.		

Include Number from List Below

- 1. Error in altimetry or altitude-keeping system of an aircraft
- 2. Turbulence or weather related phenomena
- 3. Emergency descent by aircraft without crew following established contingency procedures
- 4. Response to Airborne Collision Avoidance System (ACAS) advisories
- 5. Error in following a correctly issued ATC clearance, resulting in flight at an incorrect flight level
- 6. Error in issuing an ATC clearance, resulting in flight at an incorrect flight level
- 7. Errors in coordinaton of transfer of contrl responsibility for an aircraft between adjacent ATC units, resulting in flight at an incorrect flight level
- 8. Other reason, include reason in Description of Incident

AFI REGIONAL MONTORING AGENCY (ARMA)						
	VEMENTS	(Form 2				
STATE:	ACC:	MONTH:				
TOTAL IFR MOVEME	ENTS FOR THE MONTH:					
TOTAL MONTHLY IF	R MOVEMENTS IN THE BAND F2	290 - F410				
AVERAGE TIME PER	R MOVEMENT IN LEVEL BAND F	290 - F410				
	LEVEL FLIGHT					
	CLIMBING AND	DESCENDING				
	·		•			

AFI REGIONAL MONTORING AGENCY (ARMA) OTHER OPERATIONAL CONSIDERATIONS (Form 3) ACC: STATE: MONTH: COORDINATION FAILURES **NUMBER OF EVENTS IN MONTH** COMMUNICATION FAILURE DATE TIME DURATION **CAUSE OF COMMUNICATION FAILURE TOTAL TIME FOR MONTH** TURBULENCE MAGNITUDE¹ DATE TIME **DURATION LOCATION** 1 Magnitude as measured from Meteorology Turbulence Scale ACAS INCIDENTS Date **Description of ACAS Incident** Time

AFI REGIONAL MONTORING AGENCY (ARMA)

ATTRESIONAL MONTONINO AGENOT (ANIMA)								
		TRA	AFFIC FLOW D	ATA	(Form 4)			
STATE:		ACC:		MONTH				
Please include al	I information for the mo	nth on aircraft arriv	ring or departing from v	within the state, which	operate within the			
band F280 - F410	. Do not include aircraft	overflying the FIR.						
CALLSIGN	OPERATOR	AIRCRAFT TYPE	DEPARTURE PT	DESTINATION	FLIGHT LEVEL			
					+			
					+			
					+			
					+			
					†			
					1			
					1			

AFI REGIONAL MONTORING AGENCY (ARMA)

TRAFFIC FLOW DATA (OVERFLYING AIRCRAFT)

(Form 5)

STATE:	ACC:	MONTH:

Please include information on all aircraft overfling the airspace within the flight level band F280 - F410

DATE	ROUTE	CALLSIGN	AIRCRAFT TYPE	OPERATOR	DEPARTURE AERODROME	DESTINATION AERODROME	NAV EQUIPMENT	WAYPOINT	TIME AT WAYPOINT PASSING