



**INTERNATIONAL CIVIL AVIATION ORGANIZATION**  
**AFI PLANNING AND IMPLEMENTATION REGIONAL GROUP**  
**SEVENTEENTH MEETING (APIRG/17)**  
**(Burkina Faso, 2 to 6 August 2010)**

**Agenda Item 3.4:** Long Term Minimum Monitoring Requirements

*Presented By: AFI Regional Monitoring Agency (ARMA)*

**SUMMARY:**

This Working Paper Presents the meeting with an overview of the Globally Accepted Long Term Minimum Monitoring Requirements (Height Monitoring) for endorsement by the meeting

**1. INTRODUCTION**

1.1 ARMA has in place Minimum Monitoring Requirements (Height Monitoring), as previously endorsed by APIRG. All States and Aircraft operators should comply with the requirements in order to monitor altimetry stability. These requirements were established during the Pre-Implementation Phase and formed part of the Pre-Implementation Safety Case (PISC). They were derived from the European model which was generally accepted Globally as best practice. The Minimum Monitoring Requirements were amended during the most recent Global RMA meeting and endorsed by ICAO with the proviso that each Regions PIRG should be advised and in agreement.

1.2 The pending amendment to Annex 6 reinforcing the Monitoring requirements is due to be effective in November 2010.

1.3 The Long Term Minimum Monitoring Requirements were presented, discussed and accepted at the ATS/AIS/SAR/SG11 meeting in April 2010.

**2. DISCUSSION**

2.1 The current Minimum Monitoring Requirement Table has 5 monitoring categories. During research conducted by a Global RMA workgroup to establish whether or not the table was still relevant it was found, proposed and accepted by all RMA's that the availability of data had improved to such an extent that the table could be amended. As a result the Global RMA Group has reduced the categories to three. This amendment will not have any profound effect on height monitoring in AFI however will make the process easier.

The three new groups are easily defined as follows:

- Group Approved: Data indicates compliance with RVSM MASPS
- Group Approved: Insufficient data on approved aircraft
- Non Group Aircraft

2.2 The new Table is available as **Attachment A** to this paper and will be published as soon as practically possible after the meeting on the ARMA webpage.

The amendment to Annex 6, which is pending implementation, reads as follows:

“The State of the Operator that has issued an RVSM approval to an operator shall establish a requirement which ensures that a minimum of two aeroplanes of each aircraft type grouping of the operator have their height-keeping performance monitored, at least once every two years or within intervals of 1000 flight hours per aeroplane, whichever period is longer. If an operator aircraft type grouping consists of a single aeroplane, monitoring of that aeroplane shall be accomplished within the specific period.”

2.3 The ARMA will manage the target of the 1000 flight hour interval, which is largely applicable to business jets, by requesting the relevant CAA to provide proof that 1000 flight hours has not been reached at the end of the 24 month period before committing to height monitoring. Further to this the relevant CAA will be requested to advise the ARMA, for tracking purposes, when it is envisaged that the 1000 flight hour target will be met. This will place an additional work load on the relevant CAA and ARMA and should succeed with co-ordination between the two parties

#### **ACTIONS BY THE MEETING**

The meeting is invited to:

- Take note of the contents of this paper; and
- Endorse the Long Term Minimum Monitoring Requirements for use in the AFI Region

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**AFI RVSM POST OPERATIONAL SAFETY CASE SAFETY RECOMMENDATIONS**

No.	<b>System Monitoring</b>
1	RVSM State Approvals must be improved
2	Comply with AFI Minimum Monitoring requirements
3	Operational Error Reporting must be improved
4	Operational Error Reporting and assessment should be consistent
5	Reporting processes should be improved to provide the required information for processing
6	Traffic flow data submission must be improved
7	Proportion of aircraft using GNSS based navigation should be monitored
	<b>Safety Requirements</b>
8	Updating all documentation with current RVSM status
9	RVSM documentation relating to the PISC should be verified
	<b>System Improvements</b>
10	SLOP should be implemented in accordance with ICAO provisions
11	SLOP to be harmonized with other regions
12	Surveillance should be reinforced where appropriate
13	CPDLC should be reinforced where appropriate
14	Unidirectional and/or parallel routes should be implemented where appropriate
	<b>System Operations</b>
15	Class A airspace should be implemented where RVSM is applied
16	The management of non RVSM civil aircraft in RVSM airspace should be reviewed
17	Operator and aircraft RVSM approvals should be reinforced
	<b>System Safety Performance</b>
18	Improvement of ATS performance
19	Improve A/G communications
20	Improve coordination between ATSU's
21	Flight crew discipline should be reinforced
22	Wrong Flight Level allocation by ATS should receive urgent attention
23	Aircraft deviating from cleared flight level should receive urgent attention

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