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Ref: ES AN 4/44 – 0080

18 February 2010

Subject: AFI Reduced Vertical Separation Minimum (RVSM) Implementation Safety Seminar (RISS) (Nairobi, Kenya 19 – 23 April 2010)

Sir/Madam,

I have the honour to recall that on 25 September 2008 the application of RVSM was successfully implemented in the AFI Region, bringing the Region into alignment with other ICAO Regions. I wish to once again thank you for your contribution in realizing this important milestone and to invite your participation in the above-mentioned seminar.

The implementation of RVSM has a number of safety and efficiency benefits which relate directly to air traffic management service providers and airspace users, as well as to air transport systems users, albeit less directly. As you would be aware however, in order to sustain these benefits in an environment of continual and improving safety, the process of RVSM implementation itself requires safety monitoring in which States have to take individual responsibilities characterized by specific tasks, in addition to and as part of the Regional monitoring which is undertaken by the AFI Regional Monitoring Agency (ARMA).

Your attention is invited to the outcome of the Special AFI Regional Air Navigation Meeting (SP AFI RAN), Durban, South Africa 24-29 November 2008, in particular deliberations on implementation of RVSM, from which the meeting agreed, *inter alia*, on Recommendations 6/6 – *Operational safety assessment methodology*, 6/7 – *Establishment of a Tactical Action Group*, and 6/8 – *Reduced vertical separation minimum (RVSM) monitoring and follow-up activities*. An extract of the related deliberations is provided as **Attachment 1** hereto for ease of reference.

In this context, in order to support the AFI States to play a more effective role in their individual safety enhancement efforts and their support of the ARMA, ICAO has arranged an RVSM implementation safety seminar (RISS) as a Special Implementation Project (SIP). The Seminar will to be convened from 19 to 23 April 2010 in Nairobi Kenya. The specific location, which is expected to be in the Nairobi central business district (CBD), will be confirmed in due course. Please note that if the CBD venue is confirmed, transportation to/from the venue will **not** be provided by ICAO.

The importance of participating in this Seminar, particularly when related to the challenges encountered prior to the implementation date of 25 September 2008, as well as the experience gained since then, cannot be overemphasized. I therefore, urge your Administration/Organization to participate in this Seminar, and to ensure that as a minimum, your delegation includes the **RVSM National Programme Manager (NPM)** of your State.

Eastern and Southern African Office
United Nations Office at Nairobi
P.O. Box 46294,
00100 Nairobi, Kenya

Tel. No: 254 (20) 7622395 (ICAORD)
254 (20) 7622396 (ICAODEPRD)
254 (20) 7622391 (TECH. COOP)
254 (20) 7622399 (ADMIN)
Fax No: 254 (20) 7621092
E-Mail: icao@icao.unon.org

In this regard, may I again refer you to the abovementioned SP AFI RAN Rec. 6/8 and the list of tasks to be fulfilled by RVSM NPMs. The text of the Recommendation and the related list of tasks were provided in State Letter ES AN 4/24 – 0313 date 14 July 2009, copy of which is at **Attachment 2** hereto for ease of reference.

Other officials that you are encouraged to include in the delegation are:

- Officials involved in the RVSM operational approvals of aircraft Flight Operations and Airworthiness.
- Officials involved in the capturing and processing of safety data for RVSM monitoring which is forwarded monthly to ARMA.
- Safety officers whose tasks include airspace/air traffic management safety hazards report processing, as well as incident investigations.
- Any other officers who in your view would also benefit from the Seminar and be able to effectively apply such benefit in their regular job assignments.
- Head of air traffic services/air traffic control.
- Representatives of aircrew and Air Maintenance Organization Personnel (ie. chief pilots, fleet managers, chief engineers etc.) should not be excluded and should also be encouraged to attend selected agenda items applicable to their fields of expertise.

Let me take this opportunity to remind you that, in accordance with current ICAO policy to reduce costs, hard copy (paper) documentation at the Seminar will be kept to a minimum, in favour of the use of multimedia projectors and electronic copies of documents. Other than in exceptional cases, documentation will not be provided in hard copy format.

In light of the above, your Administration/Organization is urged to ensure that participants have necessary electronic equipment, to enable them to participate effectively at the Seminar. In this regard participants are advised to bring suitable computer equipment (such as laptops), Standard 700MB CD-R and USB (removable) storage to the Seminar.

I would appreciate it if you could, as soon as possible, preferably not later than **17 March 2010**, confirm the participation of your Administration to the RISS by forwarding your response to the following e-mail address (icao@icao.unon.org) with a copy to (seboeso.machobane@icao.unon.org) or Fax number +254 20 762 1092, giving the name(s) of and official/job titles of your participant(s).

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



Geoffrey P. Moshabesha
Regional Director

Attachments: Attachment 1 – Extract of related deliberations.
Attachment 2 – SL ES AN 4/24 – 0313 dated 14 July 2009

Safety Assessments and reduced vertical separation minimum (RVSM)

6.13 The meeting noted with satisfaction that RVSM had been safely and successfully implemented in the AFI Region on 25 September 2008 and recognized that this would serve to enhance efficiency, reduce workload and facilitate improved flight profiles resulting in fuel savings while at the same time reducing CO₂ emissions by allowing the use of more efficient flight levels and more direct routes.

6.14 The meeting acknowledged the efforts made by States and international organizations (i.e. ARMA, ASECNA, IATA, IFALPA, IFATCA, ICAO), over many years that led to the successful implementation of RVSM in the AFI Region.

6.15 When examining the safety implications of RVSM and the requirements to ensure that safety levels were maintained, the meeting recalled that subsequent to the implementation of RVSM in other regions, yearly follow-up safety assessments showed that the overall collision risk was exceeding the target level of safety (TLS) of 5×10^{-9} fatal accidents per aircraft flight hour. However, the meeting recognized, as had other ICAO regions, supported by hazard analyses, that the higher collision risk was caused primarily by controller/pilot errors and other contingencies that would have occurred at the same rates whether RVSM was implemented or not.

6.16 In light of this, it was agreed that except for technical altimetry performance, a different, more robust and realistic approach should be followed by the AFI Region for the monitoring of RVSM operations, which should utilize best practices of other regions as well as safety management principles.

6.17 In this respect, the meeting noted that in the AFI Region, RVSM implementation planning had been conducted under the framework of a comprehensive plan known as the RVSM pre-implementation safety case (PISC) with the active participation of the AFI Regional Monitoring Agency (ARMA), supported by Air Traffic Navigation Services (ATNS) of South Africa, which managed the PISC and maintains the RVSM database as well as carry out other monitoring activities.

6.18 In the context of the above and considering the effectiveness of the comprehensive RVSM implementation plan incorporating safety management principles, the meeting agreed on the following recommendation:

Recommendation 6/6 — Operational safety assessment methodology

That APIRG adopt the ATM Performance Objective: Operational Safety Assessment Methodology as contained in the performance framework form in Appendix B to the Report on Agenda Item 6.

6.19 Noting the continuing communication difficulties in certain parts of the AFI Region, the meeting agreed to take advantage of the momentum gained through the implementation of RVSM and the work of the RVSM Task Force and its Project Management Team (PMT). In this respect, it was recalled that the PMT began tracking and promoting the investigative follow-up of errors and deviations brought to its attention, on a regular basis, as a result of its efforts to implement RVSM.

6.20 The meeting was informed that the PMT had also been working on these matters through weekly teleconferences organized by the ATM Section at ICAO Headquarters in Montreal. This weekly

focus on deficiencies, errors and deviations had resulted in a decline in reported incidents and communications deficiencies.

6.21 It was noted that the PMT was made up of representatives from several States and international organizations with support from ICAO Headquarters as well as the ATM Regional Offices in Dakar and Nairobi. In addition, the PMT had been fortunate to have participating in the weekly teleconferences, representatives from Angola and the ATS provider from the Democratic Republic of Congo (DRC) and the Regie Des Voies Aeriennes, (RVA). The meeting was informed that in the opinion of the PMT, great strides had been taken toward enhancing the safety of operations however, the PMT also believed that with consistent follow-up there could be greater safety gains.

6.22 The meeting was informed that the PMT during the weekly teleconferences had been experimenting with very good results, with a low-cost web application that allowed members to view each other's screens thus allowing presentations to be made remotely. The application which included voice over internet protocol (VOIP) cost less than USD\$50 a month with unlimited meeting scheduling. In this context, the meeting agreed that funding avenues should be pursued in order to minimize costs and maximize benefits and participation.

6.23 The meeting agreed that the PMT should be renamed as the Tactical Action Group (TAG), with terms of reference and a work programme. It was agreed that the group, through its by-weekly teleconferences, should tactically address any deficiencies or operational errors identified. The meeting therefore agreed to the following recommendation:

Recommendation 6/7 — Establishment of a Tactical Action Group (TAG)

That:

- a) a Tactical Action Group (TAG) be created in the AFI Region with the Terms of Reference and Work Programme outlined in Appendix C to the Report on Agenda Item 6; and
- b) States as a matter of priority make all efforts to assist and comply with requests from the TAG group.

6.24 In the post-RVSM implementation period, it was noted that data would continue to be collected and analyzed in order to maintain the highest safety levels. This data would be provided to ARMA by operators, States, other regional monitoring agencies and stakeholders. ARMA, on a yearly basis would report on the safety level of RVSM operations. In this context, the meeting recalled the importance of providing data to the ARMA for analyses and reporting and stressed the need for all States to meet their obligations in this respect.

6.25 The meeting was pleased to note that the results of the latest data analysis carried out by ARMA showed that there had been a steady decrease in the collision risk in the region. The meeting accepted that this improvement was due to the RVSM National Safety Plans and the feedback and follow-up carried out by ARMA and the PMT.

6.26 The meeting was advised that operational errors leading to large height deviations were critical contributors to the erosion of safety levels. For this reason the meeting agreed with a proposal by ARMA to establish an RVSM scrutiny group early in 2009 to assist with the management of operational errors.

6.27 The meeting was informed of the scope of activities carried out by ARMA in support of RVSM implementation and proposed follow-up activities as follows:

- a) maintain a database of State RVSM operational approvals (operators/aircraft);
- b) monitor aircraft height-keeping performance and the occurrence of large height deviations reporting results appropriately;
- c) conduct safety assessments and report results appropriately;
- d) monitor operator compliance with State approval requirements; and
- e) initiate necessary remedial actions if RVSM requirements are not met.

6.28 On the basis of the above, the meeting agreed that in order for the AFI Region to meet its obligations toward continuous monitoring and regular assessment of the safety level in RVSM airspace, a structured approach should be implemented and agreed to the following recommendation:

Recommendation 6/8 — Reduced vertical separation minimum (RVSM) monitoring and follow-up activities

That AFI States support:

- a) the long-term submission of State RVSM operationally approved aircraft to the AFI Regional Monitoring Agency (ARMA);
- b) provision of long-term support to the AFI height monitoring programme;
- c) long-term collection of safety assessment data;
- d) the availability of personnel to fulfil the role of RVSM National Programme Managers;
- e) the establishment of the ARMA scrutiny group in 2009; and
- f) measures to reduce the large number of horizontal incidents in the AFI Region.

6.29 The meeting noted that as required by the AFI RVSM safety policy, a Post Operational Safety Case (POSC) would be completed to ensure that all the PISC aspects had been met and that RVSM was meeting safety expectations.

Implementation of performance-based navigation (PBN)

6.30 The meeting recalled that APIRG, at its sixteenth meeting held in Rubavu, Rwanda from 19 to 23 November 2007, discussed various issues related to the implementation of PBN in the AFI Region in the context of a performance-based global ATM system, taking into consideration the benefits of PBN, recent actions by ICAO at the global and regional levels, and in consideration of the role that APIRG, the States and stakeholders should play.



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Ref: ES AN 4/24 - 0313

14 July 2009

**Subject: AFI Region Tactical Action Group (TAG) Points of Contact (POC);
AFI Regional Monitoring Agency (ARMA) National Programme
Managers (NPM)**

Action required: Reply by 31 July 2009

Sir/Madam,

I have the honour to refer to the outcome of the Special AFI Regional Air Navigation Meeting (SP AFU08 RAN) (Durban, South Africa, 24 to 29 November 2008), in particular Recommendations 6/7 and 6/8 thereof, concerning establishment of the TAG, and Reduced Vertical Separation Minimum (RVSM) monitoring and follow-up activities, respectively. For ease of reference, the text of the two Recommendations is reflected hereunder and a copy of the TAG terms of reference (TOR) is in Attachment A to this letter.

Recommendation 6/7 - Establishment of a Tactical Action Group (TAG)

That:

- a) a Tactical Action Group be created in the AFI Region with the Terms of Reference and Work Programme outlined in Appendix C to the Report on Agenda Item 6; and
- b) States as a matter of priority make all efforts to assist and comply with requests from the TAG group.

**Recommendation 6/8- Reduced vertical separation minimum (RVSM)
monitoring and follow-up activities**

That AFI States support:

- a) the long-term submission of State RVSM operationally approved aircraft to the AFI Regional Monitoring Agency (ARM);
- b) provision of long-term support to the AFI height monitoring programme;
- c) long-term collection of safety assessment data;
- d) the availability of personnel to fulfil the role of RVSM National Programme Managers;
- e) the establishment of the ARMA scrutiny group in 2009; and
- f) Measures to reduce the large number of horizontal incidents in the AFI Region.

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With respect to Recommendation 6/7, you may wish to note that at its first meeting (Dakar, Senegal, 15 to 16 May 2009), the TAG agreed that in the interest of the effectiveness of the Group, besides its core members (Kenya, Nigeria, ATNS, ARMA, ASECNA, IATA, IFALPA, IFATCA, and representatives from the ICAO Regional and Headquarters' offices), there should be Extended TAG Members, comprising the TAG points of contact as designated by each State or organization concerned.

In this context, your Administration is requested to nominate a TAG Point of Contact (POC), *inter alia*, for the purposes of reporting, coordination and follow-up of issues arising from within the functions of TAG.

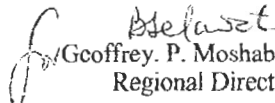
With regard to Recommendation 6/8, your attention is invited more specifically to item d) of the Recommendation, "*the availability of personnel to fulfil the role of RVSM National Programme Managers.*" The ARMA, as you may be aware, requires the on-going availability of RVSM National Program Managers (NPM) in order to successfully manage the Key Performance Areas assigned to it. Moreover, it is imperative that these NPMs should at least have the mandate from their respective civil aviation authorities, to execute the tasks reflected in **Attachment B** hereto.

For ease of reference, I have provided in **Attachment C**, a list of RVSM (ARMA) NPMs most of whom also had the role of TAG points of contact (i.e. extended TAG members). This is the information that was available to ICAO as of 7 July 2009. I would be grateful if you could update the information in the list by completing the nomination forms at **Attachment D** and **Attachment E** to this letter, identifying the POC for the TAG and the RVSM (ARMA) NPM, with updated information regarding title, addresses, telephone, e-mail and fax numbers, etc.

It is possible that your Administration may wish to nominate one official to fulfill both roles [(POC for the TAG and the RVSM (ARMA) NPM)]. In this case, only the RVSM (ARMA) NPM nomination Form need be completed and an indication given in the covering letter/email that the same person will fulfill both roles.

As it is important for the above bodies (TAG and ARMA) to progress with the business assigned to them, I would be grateful if you could, at your earliest convenience, preferably **not later 31 July 2009**, respond to this letter, providing the POC for the TAG and the NPM for the ARMA, as well the contact details thereof. In the same vein, should a response not be received by **31 July 2009**, the currently nominated RVSM (ARMA) NPM will be assumed to still be current and will further be assumed to be the TAG extended member, until such time that updated information might be received from your State.

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


Gcoffrey P. Moshabesha
Regional Director

**TERMS OF REFERENCE AND WORK PROGRAMME OF THE
TACTICAL ACTION GROUP (TAG)**

Terms of reference

To carry out ongoing safety assessment of operations in the AFI Region on a bi-weekly basis. The assessment will include all aspects related to the operational environment in the AFI airspace at or above FL290 including but not limited to ATC loop errors, communications problems, navigation and surveillance issues and any other item affecting the safety of operations. Meet twice yearly to coordinate activities and plan future goals.

Work Programme

Operational level of safety:

- a) review, on a bi-weekly basis, all error and deviation reports received for the AFI Region;
- b) investigate and, if necessary, propose corrective action to identified deficiencies;
- c) coordinate activities with and maintain a two-way communication bridge with the ARMA; and
- d) provide yearly feedback to APIRG about TAG activities.

National Programme Managers (NPMs) TASKS LIST

1. Manage the RVSM monthly data returns to ARMA i.e :
 - F1 – Large Height Deviations
 - F2 – Monthly Movements
 - F3 – Other Operational Considerations
 - F4 – Aircraft Traffic Flow Data

 2. Assist ARMA with maintaining Civil Aviation Co-ordination Points of Contact for :
 - Civil Aviation Authority Operational Approvals (Airworthiness and Flight Operations)
 - Managing Height Monitoring Targets
 - Notification of Height Monitoring Results ASE
 - Investigating Large Height Deviation Reports
 - Air Force Related Large Height Deviations

 3. Assist ARMA with Aircraft Operator Co-ordination Points of Contact for
 - Scheduling Height Monitoring Flights
 - Notification of Height Monitoring Result ASE

 4. RVSM Safety Administration
 - Receiving a copy of any RVSM meeting invitation
 - Receiving and distributing any ARMA safety reports within the State to the relevant recipients
 - On request by ARMA provide requested flight plan in support of LHD
 - Inform ARMA of any current or predicted RVSM “Hot Spots” anomalies
 - Ensure that NPM contact details are current
 - Periodically peruse the ARMA webpage for relevant RVSM information
 - Be available for any telephone conference that might be called
 - Assist with any Safety Assessment queries made by ARMA
-