INTERNATIONAL CIVIL AVIATION ORGANIZATION

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

Item 4.2 of Agenda: **Efforts of the States and the Area for the
Elimination of the deficiencies of navigation**

Report of the 3rd co-ordinating Meeting of Indian Ocean FIRs

(Working paper presented by ASECNA)

SUMMARY

This working paper has the aim of submitting to APIRG/17 the report of the 3rd Co-ordinating Meeting of the Indian Ocean FIRs, in order to harmonize the implementation of the Air navigation programs.

Action by APIRG is in paragraph 3.

Bellow attached: Final report of the 3rd co-ordinating meeting of FIRs of the Indian Ocean

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1. **Introduction**

1.1.   ASECNA regularly organizes co-ordinating meetings for FIRs in charge to manage (Antananarivo, Brazzaville, Dakar, Djamena, and Niamey FIRs).

1.2.   During these co-ordinating meetings, intended operational ATS centers have to examine the status of their installations and air navigation services according to the AFI Plan.

1.3.   The last one was the 3rd Indian Ocean inter-Firs ATS coordination meeting was held at the International Conference Center Ivato from 16th to 18th June 2010

1.4.   This co-ordinating meeting concluded that its Presidium must submit the final report to the 17th APIRG meeting in order to harmonize the implementation of the programs in this region (Conclusion C3/03).

2. **Findings**

2.1.   Participants

- Actions taken on the recommendations of the 2nd meeting FIRs co-ordinating held to Dar-Es-Salam of the 25 at February 27, 2003;
- ASECNA Direction of Operations ;
- Madagascar Civil Aviation Authority;
- Madagascar National Meteorological General Directorate;
- Aéroports de Madagascar (ADEMA);
- Comoros National Meteorology Agency

2.2.   The agenda was listed below :

- Review of the 2nd Indian Ocean inter FIR coordination meeting held at Dar-Es-Salam from 25th to 27th February 2003;
- Review of the 2nd Indian Ocean inter FIR coordination meeting.
- Communication, Navigation and Surveillance issues
- Air Traffic Management
- Search and Rescue
- Meteorology
- Miscellaneous

2.3.   The final report is attached to this present working paper.

2.4.   In the final report, conclusion and recommendation were defined as following:
- Conclusion: Action that the implementation fully depends on the ATS Centers concerned;
- Recommendation: Action that the implementation depends on external structures.

2.5.   The meeting adopted about 17 conclusions and 13 recommendations as :

Conclusion C3/04: interoperability of surveillance system

The meeting encouraged the extension of cooperation to ensure the interoperability of surveillance systems for the data and applications exchange.

Conclusion C3/ 11: Database exchange interoperability

The meeting urges ATS units to cooperate and take the necessary measures to ensure interoperability of database exchange systems.

Recommendation R3/01 : Maintenance procedures

The meeting recommends that the equipment maintenance procedures for the SADC network connections should be reviewed in order to reduce the time of unavailability.

Recommendation R3/04: ATS contingency plan harmonization

The meeting urges all ATS Units to finalize their ATS Contingency Plan by 31st October 2010 in order to validate them by correspondence.

Recommendation R3/05:   Effective implementation of 10-minute longitudinal separation minimum

The meeting recommends the intervention of ICAO for the effective implementation of 10MN separation in Somalia and Kenya airspace.

Recommendation R3/06: SAR LOA

The meeting recommended in one hand the signature of SAR letter of agreement between ANTANANARIVO and France and between ANTANANARIVO and the Republic of South Africa in the second hand, regarding SAR in Indian Ocean region.

3.   Action by APIRG

3.1.   The meeting is invited to :

a.   to examine this attached final report of the 3rd Co-ordinating Meeting of Indian Ocean FIRs.

b.   to adopt conclusions necessary to implement Recommendations R3/01and R3/05 of the final report.

Appendix APIRG/17 WP/42 INDAN OCEAN MEETING

THIRD ATS INTER FIR COORDINATION MEETING INDIAN OCEAN

Ivato, from 16th to 18th June 2010

FINAL REPORT

S U M M A R Y

1. INTRODUCTION

The third Indian Ocean inter-Firs ATS coordination meeting was held at the International Conference Center Ivato from 16th to 18th June 2010.

Such meetings aim to gather all actors from neighboring ATS Units and the hosting unit itself to discuss on air navigation-related problems and to find appropriate solutions presented as conclusions or recommendations to be addressed to the Authorities.

This third coordination meeting assessed our installation and service providing compliances with AFI Plan.

2. PARTICIPANTS

Four non-ASECNA ATS Units attended the meeting: SEYCHELLES, REUNION, Beira (MOZAMBIQUE), and (Dar-es-Salaam) TANZANIA.

Two ASECNA ATS Units were present. Apart from Antananarivo, Comoros sent delegates.

Were also represented:
- ASECNA Direction of Operations ;
- Madagascar Civil Aviation Authority;
- Madagascar National Meteorological General Directorate;
- Aeroports de Madagascar ADEMA;
- Comoros National Meteorology Agency

The list of participants appears in Appendix 1

3. OPENING CEREMONY

There were three speeches for the opening ceremony.

➢ **Representative of ASECNA in Madagascar speech**
The Representative of ASECNA in Madagascar Mr. Desire RAMANANADRO welcomed every participant and wished a successful meeting.

➢ **ASECNA Director of Operations speech**
This speech was followed by ASECNA Director of Operation Mr. Meissa Ndiaye. He highlighted the interests of those kinds of meetings as well as the meeting expectations and objectives. He urged everybody to reach strength through unity.

➢ **Madagascar CAA Director speech**
During his opening speech Madagascar CAA Director General (Mr. Clarisse DOUAN) focused on the main roles of ASECNA as an ANSP and the benefits of exchange between ANSPs.

Then he declared the meeting opened.

4. WORK ORGANISATION

➢ Meeting chairperson

- Mr. MEISSA NDIAYE Director of Operations from ASECNA Headquarter was appointed as Chairman of the meeting.
- Mr. SAIDA A. ONGA ATS Unit Manager of DAR-ES-SALAAM was appointed as first Vice-Chairman.
- Mr RAMANADRO Desire Representative of ASECNA in Madagascar was elected second Vice-Chairman

➢ Secretariat

Following formed the Secretariat of the meeting:
- Bakary TIORO, ATM Manager Direction of Operations ASECNA HQ, Monsieur TIORO Bakary was appointed as the meeting spokesman.
- Sylvain RAKOTOARIVONY, ATM Manager Antananarivo
- Harilalaina RASOAMANA Antananarivo Chief ATS ;
- Herinjaka RAKOTOBE, Air Traffic Controller Officer Antananarivo;
- Ayayi MAWULE-ATIKPO, ATS Executive from Direction of Operations ASECNA HQ.
- Moussa SOURA, CELICA-ATC Executive Direction of Operations ASECNA HQ.

➢ Working languages

The discussions were conducted in English and French and the meeting documentation was issued in both languages. Translation and simultaneous interpretation services were provided .

➢ Working agenda

The draft agenda was adopted and listed below:

- Point 1: Review of the 2nd Indian Ocean inter FIR coordination meeting.
- Point 2 : Communication issues.

- Point 3 : Navigation issues

- Point 4 : Surveillance.

- Point 5 : Air Trafic Management

- Point 6 : Search and Rescue

- Point 7 : Meteorology

- Point 8 : Miscellaneous

5. MEETING RESULTS

ITEM 1 OF THE AGENDA: Review of conclusions and recommendations of the 2nd coordination meeting of the FIRs of Indian Ocean.

The conclusions and recommendations of the 2nd meeting were reviewed. The meeting noted that out of the eighteen (18) findings, three (03) were implemented while fifteen (15) were partially or not implemented. (W.P 1.1) The unrealized conclusions are returned to the relevant item agenda. The implementation status of the conclusions and recommendations of 2003 is reported in the table attached as Annex 3.
The last meeting report was not sent to ICAO as agreed.

Conclusion C3/01: transmission of the 3rd Meeting report
The meeting requests the chairperson of this meeting to transmit this report for appreciation during the APIRG 17 in order to harmonize planning and implementation provision to the sub-region program.

ITEM 2 OF THE AGENDA: Communication

The meeting perused two (02) working papers dealing with the implementation and the availability of means of communications within Antananarivo FIR.

2.1 Communication – Implementation

The meeting was informed of:

• All AFI plan required network communication have been fully set up (Aeronautical Fixed Service and Aeronautical Mobile Service);
• Completion of additional circuits to ensure the integrity of links between FIRs;

• Implementation of VHF remote station through VSAT, expansion and intensification of VHF coverage;
• The implementation of data link communications (CPDLC)

The meeting noted also the prospects for improved means of communication according to ASECNA Service and Equipment Plan (PSE).
The discussions focused also on maintenance difficulties regarding SADC network equipments which depend on ATNS technicians as well as the implementation of CPDLC in different ATS Units.

Recommendation R3/01: Maintenance procedures
The meeting recommends that the equipment maintenance procedures for the SADC network connections should be reviewed in order to reduce the time of unavailability.

Conclusion C3/02: aircraft FANS equipment plan
The meeting will encourage aircraft operators that are able to do so, to equip their aircraft with data link communication.

2.2. Communication availability
The meeting noted that availability of AFS is quite satisfactory and real improvement of AMS thanks to the implementation of VHF remote station using VSAT.
The quality of HF communication is not as expected despite the renewal of HF equipment at Ivato
The periodic regional survey on VHF coverage carried out jointly by ASECNA and IATA for quality analysis was valued by all participants.
BEIRA ATS unit informed the meeting about their VHF coverage extension plan.
SEYCHELLES ATS Unit informed the meeting about the difficulties encountered when implementing VHF remote station due to the oceanic extent of their FIR.

Conclusions C3/03: VHF coverage implementation
ANSPs are invited to comply with RAN AFI7 5/12 conclusions regarding VHF coverage.

ITEM 3 OF THE AGENDA: Air Navigation
Two WPs have been examined. The meeting have received implementation report regarding the means of navigation in the Antananarivo FIR: conventional means, the implementation of GNSS Procedures and WGS-84. The deliberations were about sharing experiences of the simultaneous use of

GNSS procedures and conventional procedures management. The use of different methods of procedures may lead to potential problem.

Recommendation R3/02*: Continuation of WGS-84 campaign*
The meeting recommends the continuation of WGS-84 campaigns including AIR point.

Recommendation R3/03: FANS (future air navigation system)
The meeting calls upon the states of the Indian Ocean to change progressively their means of navigation to the future air navigation systems.

ITEM 4 OF THE AGENDA: SURVEILLANCE
Two working papers (WP 4.1.; WP 4.2) were presented including the implementation of surveillance capabilities (ADS-C) in the FIR Antananarivo, ADS-B experiments with Réunion as well as ADS-C implementation and ADS-B experiments in Seychelles Airspace.

Conclusion C3/04: interoperability of surveillance system
The meeting encouraged the extension of cooperation to ensure the interoperability of surveillance systems for the data and applications exchange.

ITEM 5 OF THE AGENDA: Air Traffic Management.

Eight (08) working papers were presented (WP 5.1 to WP 5.8).

5.1. ATS incidents report review
The meeting noted the procedure for investigating air incidents at ASECNA ATS Units and made a comparative analysis of AIRPROX identified in the Antananarivo FIR for the last seven (07) years.
From the analysis of contributing factors to the occurrence of incidents, the human factor (ATCO and Pilots) is the most important:
- Professional and Technical Skills
- Discipline on board;
The meeting exchanged views on interfaces that should exist between the ANSP and the national Authorities.

Conclusion C3/05: air incident notification and investigation report transmission to the relevant authority
As a reminder, the meeting invites ATS centres to transmit notifications and results of investigations to their respective Civil Aviation Authority and to the neighbouring CAA.

Conclusion C3/06: **means of coordination redundancy**
The meeting calls centres to make every effort to ensure redundancy in ground to ground communication system (PST, INMARSAT phone) and to publish the phone numbers.

Conclusion C3/07: Air investigation reports exchange
The meeting requests ATS units to exchange incident reports to capitalize experiences.

5.2. Dzaoudzi Airspace Organization

This working paper focused on the proposed reorganization of the airspace around DZAOUDZI to ensure flight safety on approach to the aerodrome. The discussion was postponed to be conducted outside of this coordination meeting between the centres of Antananarivo, Moroni and France (La Reunion, Dzaoudzi), with the participation of ASECNA HQ.

Conclusions C3/08: Coordination meeting
Moroni, Tana and Reunion will organize a meeting in order to find the relevant solution regarding IFR traffic problems landing and taking off from Dzaoudzi.

5.3 Airspace Organization of NOSY BE;

On this point, the meeting noted the characteristics of traffic using Nosy-BE airfield, evolution and growing of traffic; lack of TMA to protect the trajectories of departure and arrival.

Conclusion C3/09: TMA technical studies for the creation of Nosy be TMA
The meeting request ASECNA Head Quarter to expedite safety and technical studies for the creation of a TMA around the airfield of Nosy-BE.

5.4 AIS Data Exchange:
Concerning this point, the meeting noted the difficulties relating to the publication of aeronautical information between BNI (NOTAM Office).

Conclusion C3/10: Aeronautical data exchange
The ATS centres must make the necessary amendments to aeronautical information, exchange information between International Notam Office consistently and on time basis.

5.5. Transition from AIS to AIM:
On this point, the meeting took note of the roadmap and various programs related to the transition from AIS to AIM at ASECNA.

Conclusion C3/ 11: **Database exchange interoperability**
The meeting urges ATS units to cooperate and take the necessary measures to ensure interoperability of database exchange systems.

5.6. Contingency Plan
The meeting noted that Antananarivo FIR Contingency Plan project is finalized and submitted for approval to neighbouring centres. Madagascar CAA, Mauritius and Seychelles ATS Units have replied and their remarks were taken in account.
Some ATS centres such as Beira, Seychelles and Mauritius are finalizing their contingency plan.

Recommendation R3/04: ATS contingency plan harmonization
The meeting urges all ATS Units to finalize their ATS Contingency Plan by 31st October 2010 in order to validate them by correspondence.

5.7 Letters of Procedures
The meeting noted that all the required letters of procedures between ATS units in the region have been signed updated and are in force. Nevertheless, some difficulties in applying the provisions of certain letters have been identified by now.
Conclusion C3/12: LOPs applications and updating.
The meeting request all ATS Units to:
- Strictly comply with the provisions of the Letters of Procedures and deal with any difficulties according to established procedures.
- To undertake a review of the Letters of Procedures whenever this is deemed necessary.

5.8. ATS routes implementation (RNAV included)
The meeting noted that ATS routes (including RNAV routes) are used but are not mentioned yet on AIP documents.

Conclusion C3/13: AIP updates
The meeting urges each ATS Units to update on regular and time basis their AIP especially the aeronautical chart.

5.9. ATS control extension
ASECNA informed the meeting about new classification of all ATS routes in its upper airspace from G Class or F to A Class by September 2010.
It's also noted that ATS control is not effective 150 NM around some major airports as required.

Conclusion C3/14: Extension of air traffic control services within the 150 NM around international airports

States and ANSPSs which have not done so, should implement the concept of control of air traffic within ATS route 150 NM around international airports in accordance with recommendation 5/21 RAN AFI / 7.

5.10. Implementation of the 10 minutes of separation:

The meeting noted some difficulties on the implementation of 10-minute longitudinal separation minimum in Mogadiscio and Nairobi airspace.

Recommendation R3/05: Effective implementation of 10-minute longitudinal separation minimum.

The meeting recommends the intervention of ICAO for the effective implementation of 10MN separation in Somalia and Kenya airspace.

ITEM 6 OF THE AGENDA: Search and Rescue.

Two WPs were presented (WP 6.1, WP 6.2)

6.1. Implementation of the SAR service in the FIR of the Indian Ocean

The meeting took note of the SAR implementation progress in Madagascar level.

The meeting provided an update on the status of implementation of regulatory provisions on the subject in the region (Annex 12 of ICAO AFI APIRG) which highlighted the deficiencies includes the following:

- Lack of legislation in some states,
- Lack of cooperation between states
- No implementation of appropriate measures to use satellite capabilities for SAR.
- Lack of SAR Exercises
- Indication of the focal point of the SAR (SPOC).

CONCLUSION C3/15: SAR assistance to States

The meeting invites all ATS centers:

- To update the information contained in the implementation of provision SAR in the FIRs of the Indian Ocean;

- To assist national authorities in the implementation of the provision of SAR (participation in the preparation of texts, organization of exercises, implementation of SAR)

Recommendation R3/06: SAR LOA
The meeting recommended in one hand the signature of SAR letter of agreement between ANTANANARIVO and France and between ANTANANARIVO and the Republic of South Africa in the second hand, regarding SAR in Indian Ocean region.

ITEM 7 OF THE AGENDA: Meteorology.
Two WPs were presented.

7.1. Data OPMET reception at the Antananarivo meteorological watch office in during the years 2008, 2009 and 2010:

The meeting noted that in general, the reception of METARs and TAFs has improved from 2008 until this year 2010. However, with few exceptions, the availability rate of messages does not reach for most the recommended standard of 97% is specified by ICAO.

Recommendation R3/07: OPMET data exchange
Centers are required to take appropriate measures to optimize data exchange OPMET according FASID Table MET2 requirements.

7.2 SIGMET Management at the Antananarivo meteorological watch office:
Apart from volcanic ashes report, there are no major problems for SIGMET. However, a better exchange between the MWO region is recommended.

Recommendation R3/08: SIGMET PUBLICATION
Meteorological Watch Offices are invited to comply with ICAO DOC 9691 and 9766 regarding SIGMET elaboration and diffusion.
RecommendationR3/09: Meteorological Watch Offices addresses.
In order to improve information exchange between meteorological centres, meeting are invited to communicate each other their addresses by 31st July 2010.
Recommendation R3/10: NOTEM Direction application.
Primary Meteorological Centers attached to ANTANANARIVO MWO are invited to implement the provisions of NOTEM-DIRECTION pièce E.2 issued in 1st February 2000 related to SIGMET (AVISIG) publication.

Recommendation R3/11:   AIREP reports collect
The ATS unit and crew members should systematically collect reports from aircraft (AIREP and AIREP SPECIAL) in their respective areas for the improvement of services offered to our airspaces.

ITEM 8 OF THE AGENDA: Any other business

Three (03) working papers were presented.

8.1 Exchange of Personnel:
The meeting noted with great interest the operational objectives and benefits of personnel exchange programs. She reiterated the need to strengthen such staff exchange programs. Participants noted the organizational and financial difficulties in the implementation of this program by the Authorities.

Conclusion C3/16: Strengthening and continuation of personnel exchange.

The meeting invites ATS centers to:
-Strengthen   and   continue   the   exchange   of   ATS   personnel;
- Encourage those who have not yet done so, in the establishment and implementation of a staff exchange policy.

Recommendation R3/12: **extension of personnel exchange program**
The meeting recommended the expansion of exchange programs to meteorology, maintenance and communication officer.

8.2. Implementation of the Controller License

The meeting noted ASECNA implementation process on ATCO licensing.

Recommendation R3/13: ATCO work hour checking
The meeting urged ASECNA to set up a logbook system to check ATCO actual working hours.

8.3. Meeting Agenda APIRG 17

The meeting reviewed the draft agenda APIRG 17 which will be held from 2 to 6 August 2010 in Ouagadougou. He was asked to:

ConclusionC3/17: APIRG 17TH preparations
Regarding the agenda, the meetings urged each ATS Unit:

- To prepare particular Sections 2.2, 4.2, 4.3, 4.4, 5.1, 5.2;
- To participate massively in the meeting given the importance of issues to be discussed in.

8.4. International meetings organized by ASECNA:

The Director of Operations of ASECNA plans to hold two important international meetings:
- The third meeting of AFI ANSPs
- AFI Region Symposium on Meteorological assistance
He invited all participants to attend those meetings.

8.5. Venue of the next coordination meeting:
Moroni will host the 4th ATS meeting and the date will be communicated later. Coordination will be done to agree on the date.

8.6 Visits of Antananarivo facilities
The participants visited Antananarivo air navigation services facilities. They have expressed their satisfaction about the performance of those air navigation plants.
They mentioned as well that they have appreciated the working methods and the Centre equipments quality.

6. CLOSING CEREMONY

The participants
  ➢ The Participants have expressed their satisfaction about the content and quality of the discussions, the experiences and lessons learnt from this meeting.

  ➢ **ASECNA Representative in Madagascar**
The Representative has congratulated the meeting for the work performed which could provide pertinent conclusions and recommendations. He personally commits to contribute for the achievement of those conclusions and recommendations.
Before wishing to participants a nice return back home, he has presented his apologies for some inconveniences observed with the organisation.

  ➢ **ASECNA Director of Operations**
The Operations Manager first thanked the National Authorities of Madagascar for their encouragement to the Agency, to the ASECNA

Representative and all his staff for their rigor in the organisation of the meeting and in their duties.

He has then pointed out how professional the participants were and how technical the debates were all along the meeting. He has specified that the meeting has met its objectives, namely the formulation of pertinent conclusions and recommendations.

He urged the participants to implement effectively the meeting conclusion and recommendations. As for himself, he added that he would do his best to support this action.

Lastly, he declared the 3rd Indian Ocean FIRs coordination meeting closed.

Antanarivo 18th June 2010

7. APPENDIX LIST

Appendix1: List of participants

Appendix 2: List of Working papers and information notes

Appendix 3: 2nd ATS meeting conclusions and recommendations implementation status

Appendix 4: Speeches

> ➢ Appendix 4.1: Opening ceremony speech by the Director of Operations

> ➢ Appendix 4.2: ASECNA Madagascar opening speech

> ➢ Appendix 4.2: General Director of Madagascar CAA speech.

Appendix 5: APIRG 17 agenda meeting

Appendix 6: Thanks addressing

Appendix 7: SPOC addresses and AIS resources addresses.