INTERNATIONAL CIVIL AVIATION ORGANIZATION

THE AFI PLANNING AND IMPLEMENTATION REGIONAL GROUP (APIRG)

FIRST MEETING OF THE

PBN ROUTE NETWORK DEVELOPMENT WORKING GROUP
(PRND WG/1)
AND ATS ROUTES DEVELOPMENT COORDINATION

(Fourways, Johannesburg, South Africa, 13 – 16 July 2010)

Approved by the Meeting
and published by authority of the Secretary General

PRND WG/1
Report

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PART I – HISTORY OF THE MEETING

1.   PLACE AND DURATION

1.1   The First meeting of the Performance Based Navigation Route Network Development Working Group (PRND WG/1) was convened at Indaba Hotel, Fourways, Johannesburg, South Africa from 13 to 16 July 2010. The meeting was convened on 16/07/2010, at the end of an ATS route Coordination meeting which was held jointly with the International Air Transport Association (IATA) at which IATA member airlines also participated as airspace users concerned and as sponsors. Other members of the industry also participated as sponsors and with tools to support the coordination process. On the third day of the coordination sessions, a presentation on the ICAO 5 Letter Code Designators system (ICARD) was made by the ICAO EUR/NAT Regional Office in Paris.

1.2   Prior to the formal PRND Working Group session, a user/provider coordination process was held for two days in which detailed ATS route trajectories were discussed, analysed and consensus reached at informal level among the participants. As part of and in order to facilitate the coordination, a brief user-sponsored workshop/teambuilding exercise was held in the first day of coordination (13/7/2010).

2.   OPENING

2.1   The Meeting was opened with remarks by Mr. Seboseso Machobane, ICAO Regional Officer Air Traffic Management/Search and Rescue. In his opening remarks, on behalf of the ICAO Regional Director and ICAO Secretariat supporting the meeting, Mr. Machobane thanked the participants, their organizations and States as well as industry sponsors for their participation and support.

2.2   Mr. Machobane reminded the meeting of the objectives of the ICAO ATM Operational Concept, the Global Air Navigation Plan and the APIRG performance objectives with regard to the AFI ATS route network. In particular, participants were reminded that the primary objective was to achieve the most efficient route network, within the confines of safety, and that this should come as close as practical to preferred user profiles. Furthermore, the network should be freed from the VOR radial defined routes, in favour of the PBN concept.

3.   ATTENDANCE

3.1   The meeting was attended by a total of forty three (43) participants from eleven (11) States (Burundi, DRC, Egypt, Ghana, Kenya, Morocco, Seychelles, Tanzania, Tunisia, Uganda and Zambia) and four (4) international organisations (ASECNA, IATA (and 5 member airlines), IFALPA and IFATCA, as well as two (2) invited industry organizations (Jeppesen and Mitre). The list of participants is at the **Appendix B** to this Report.

4.   OFFICERS AND SECRETARIAT

4.1   The meeting was chaired Mr. E M Njogu, Manager Air Traffic Services, Kenya Civil Aviation Authority. Mr. Seboseso Machobane, Regional Officer ATM/SAR ESAF Office was the Secretary of the meeting, supported by Messrs. Sadou Marafa, Regional Officer ATM/SAR WACAF Office and David Labrosse, ATM Consultant ESAF Office. Mrs. Nicole Goldschmid, ATM Assistant EUR/NAT made a presentation and demonstration on the ICAO ICARD system and supported the route development process with regard to the 5 Letter Name Codes for agreed routes.

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5.   **LANGUAGE**

5.1   Discussions were conducted in the English language and documentation was also issued in the English language.

6.   **AGENDA**

6.1   The following Agenda was adopted:

Strategic Objective	Agenda Item No.	Subject
D	1	**Adoption of provisional agenda and Election of the Chairperson/Facilitator and Rapporteur**
A & D	2	**Development of a comprehensive user ATS route requirement**
A & D	3	**ATS route implementation prioritization**
A & D	4	**ATS route trajectory validation**
D	5	**Development of Strategy and assignment of responsibilities**
	6	**Any other business.**

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PART II: REPORT ON AGENDA ITEMS

REPORT ON AGENDA ITEM 1:   ADOPTION OF PROVISIONAL AGENDA AND ELECTION OF THE CHAIRPERSON/FACILITATOR AND RAPPORTEUR

1.1   The meeting reviewed the provisional agenda that had been circulated as an attachment to the State Letter circulated in May 2010 inviting States and concerned international organizations, to participate in the ATS Route Development Coordination and first meeting of the PBN Route Network Development Working Group (PRND WG/1). Following slight modification, the agenda of the meeting was adopted as at paragraph 6 of the History of the Meeting.

1.2   The meeting unanimously agreed that Mr. Erastus M. Njogu, Manager Air Traffic Services (Kenya CAA), who had been elected as Chairperson to facilitate the proceedings of the user/provider ATS route coordination process during the past three days, should also be Chairperson of the first meeting of the PRND Working Group. In the same vein, the meeting agreed that Mr. Igbal Sajan, Chief Air Navigation and Aerodrome Inspector (Tanzania CAA) be elected as its Rapporteur.

REPORT ON AGENDA ITEM 2:   DEVELOPMENT OF A COMPREHENSIVE USER ATS ROUTE REQUIREMENT

2.1   The meeting acknowledged that its business had been necessarily confined to a relatively small number of ATS routes which had been presented by the users as on high priority basis. In this regard, the meeting agreed that the users, led by IATA should continue to develop a comprehensive user requirement aimed at reviewing the entire AFI ATS route and present it at the next meeting of the PRND Working Group.

2.2   While acknowledging ICAO provisions relevant to the work of the PRND Working Group, which include the Global ATM Operational Concept (Doc 9854), the Global Air Navigation Plan (Doc 9750), and the AFI PBN Regional Implementation Plan, the following principles were highlighted:

- Most efficient routes
- User preferred profiles
- Environmental protection
- PBN shall be the priority navigation specification considered for the routes under development
- No route shall compromise agreed safety levels

REPORT ON AGENDA ITEM 3:   ATS ROUTE IMPLEMENTATION PRIORITIZATION

3.1   The meeting agreed that all the ATS route requirements submitted by users merited high priority implementation, for implementation as soon as possible.

3.2   Cognizant of the need to implement the agreed ATS routes as soon as possible, the meeting agreed that the ATS routes at **Appendix A** to this report be implemented as of AIRAC date of 21 October 2010 with temporary ATS route designators. The meeting noted however, that ATS route proposal number 17 in the Cairo FIR is yet to undergo internal process in Cairo, and as such may not be ready for the October implementation date.

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3.3   The meeting also requested that ICAO Regional Offices should prioritize processing of an amendment proposal for the AFI Basic ANP (Doc 7474) Table ATS 1, with regard to the agreed ATS routes at Appendix A, in order that the same may be considered for approval as Regional requirements.

REPORT ON AGENDA ITEM 4:   ATS ROUTE TRAJECTORY VALIDATION

4.1   The meeting agreed with the ATS routes trajectories in the list at Appendix A. However, it was noted that some requirements had to be modified for various reasons, to what could be implemented in the near future. In this regard, the meeting noted that the performance of the AFI Region ATS route network processes would be measured by how closely it came to achieving 100% of the user preferred trajectories. Accordingly, the meeting agreed that States/ANSPs should continue to give attention to ATS routes which do not meet user-preferred profiles.

4.2   In order to best meet the user requirements and cognizant of the ICAO performance-based approach, the meeting agreed that the application of the PBN concept is favoured over conventional ATS routes.

4.3   Except for the ATS routes in the Cairo FIR, all ATS routes at Appendix A will be on RNAV 10 specification. The ATS route in Cairo FIR (Proposal #17 (UT261)), will be on RNAV 5 specification, since that environment has surveillance. Following further assessments on the airspace classification, including availability of surveillance, the change to another NAV specification (RNAV 5, or more stringent, depending on airspace requirements) may be made. The change of specification could be made together with the ANP amendment proposal which will also include a change of designations to Regional designation in accordance with Annex 11 to the Chicago Convention, or at a later date.

4.4   The meeting acknowledged that due to the absence of representation from Kano, Khartoum, Addis, Mogadishu and Algiers FIRs at the Johannesburg meeting, ATS route requirements traversing these FIRs could not be conclusively discussed. In this regard, the meeting requested ICAO and IATA to facilitate coordination which would include the said FIRs as soon as possible. Furthermore, that ATS route requirements in these FIRs would still be on the implementation date of 21 October 2010.

4.5   The meeting requested IATA and ICAO to facilitate coordination with respect to routes extending beyond the AFI Region. These include the Seychelles/Mumbai and Mogadishu/Mumbai interface. Furthermore, with regard to ATS route proposal No. 14 (NV-KESOM-MOGDU-DCT-BKK), attention is to be brought to the ICAO APAC Regional Office that the route goes beyond Mumbai to Bangkok.

4.6   It was highlighted that States (ANPSs) remain responsible for safety assessments associated with ATS Routes implementation (Ref. Paragraph 2.27.5 of Annex 11). Further ICAO guidance material including the PBN Manual and the Manual on Airspace Planning Methodology for the Determination of Separation Minima (Doc 9689) were also available for reference.

REPORT ON AGENDA ITEM 5: DEVELOPMENT   OF   STRATEGY   AND   ASSIGNMENT   OF RESPONSIBILITIES

5.1   The meeting recognized that much had been achieved over the four days (13-16 July 2010) and that maintaining the impetus was essential to ongoing success. The meeting noted with appreciation that many concerned FIRs represented at the meeting had, during the course of the meeting, also discussed and signed updates to their Letters of Procedures/Agreements (LOPs/LOAs). LOPs/LOAs were signed as follows:

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> Nairobi and Dar es Salaam with regard to Routes UT252 and UT146
> Nairobi and Entebbe with regard to Routes UT238 UT136 and UM216
> Kinshasa and Entebbe with regard to Route UT136 and UM216
> Dar es Salaam and Lusaka with regard to Route UT252
> Lubumbashi and Lusaka with regard to route UT252

5.2   The meeting was urged that the remaining LOPs/LOAs should be signed at side meetings during APIRG 17, if not already signed by the time APIRG 17 is convened. In this regard the concerned parties are to ensure that officials who have appropriate mandate (to sign) attend the APIRG 17 meeting so that the LOAs/LOPs can be signed at side meetings convened for the purpose. Concerned FIRs are as follows:

Kano, Khartoum, Addis, Mogadishu, Algiers, Seychelles, Niamey, Ndjamena, Brazzaville, Douala, Libreville and Accra

Note: APIRG 17 will be used as an <u>opportunity</u> due to officials attending.

5.3   The meeting noted the constructive atmosphere that prevailed throughout the ATS route coordination process. In addition to the ATS route requirements submitted by users in advance of the Johannesburg coordination process, the meeting acknowledged with appreciation and agreed to the following ATS routes aimed at reducing flight distances within the proposing FIRs. The routes were regarded as further positive Regional contributions to achieving efficiency in the AFI Region airspace. These routes should also be included in the ANP amendment proposal.

Route identification/Temporary Designator	Proposing FIR	Remarks
UT238	Nairobi and Entebbe	
UT281	Lusaka	
UT366	Accra	
BULIS/ECHED DCT IBALU DCT AKUDA	Casablanca	
UT365	Kano, Niamey, Dakar and Canarias	Requirement indicated by Delta, accepted.

5.4   The meeting was informed that the DRC ATS authorities had completed an internal process to implement an outstanding segment of UA617 between ITNEL and KSA. The meeting also acknowledged and agreed to the following ATS routes which were proposed by users during the meeting and accepted:

Route identification/Temporary Designator	Segment	FIR/s / Remarks
UT367	ABJ –AMPAS-LGI	Abidjan and Roberts FIRs
UT368	ACC –BKO	Accra, Ouagadougou and Bamako FIRs

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REPORT ON AGENDA ITEM 6: ANY OTHER BUSINESS.

6.1   Due to internet constraints at the venue of the meeting, a planned workshop on the ICAO 5 Letter Name Codes (ICARD) system could not be achieved. However, a presentation including some demonstrations were provided to participants with the support of the ICAO EUR/NAT Regional Office. Information was also provided about ongoing effort to resolve conflicts in the assigned 5LNCs.

6.2   The meeting noted that individual States are to follow through with registration of their airspace planners, through their Regional Offices, in order to use the ICARD system.

6.3   The meeting acknowledged with appreciation the support provided by the EUR/NAT Office which enabled the online assignment of over 70 5LNC in two days, to enable implementation of the agreed ATS routes on the AIRAC date of 21 October 2010. It was noted however, that prior to publication, some geographical coordinates of some of the significant points had to be further verified by the States (ANSPs).

6.4   As part of the closing remarks, the ICAO Secretariat thanked and acknowledged the participants' positive contribution. Special thanks were also expressed to sponsors of the meeting who made it possible for several State/ANSP representatives who were essential to the coordination process, to participate. The AFI Region performance objectives with regard to ATS route development were recalled. Note was also made that further work should still be anticipated with regard to agreed routes that did not as yet meet user preferred trajectories. FIRs that had not signed updated LOPs/LOAs were urged to do so by the time of the APIRG 17 meeting at the latest.

6.5   Mr. Gaoussou Konate, IATA Regional Director Africa – Safety Operations and Infrastructure, echoed the remarks of the Secretariat and thanked the participants and the sponsors for their positive contributions and for the work achieved. Special note was made of completed and signed LOPs/LOAs and other parties were urged to follow suit as soon as possible.

6.6   **CLOSING** -- In closing the meeting, the Chairman thanked the participants for supporting his role of facilitating the meeting and for the significant success achieved. The meeting was adjourned at 14:15 hours on 16 July 2010.

List of ATS Routes for implementation

Serial No.	PBN Nav spec	Temp Designator	Segments	States/FIR/Remarks
1	RNAV 10	UT124	BDR-DCT-NUBAR	Sudan, Ethiopia
2	RNAV 10	UT127	TIKAR-MRW	Sudan, Ethiopia
3	RNAV 10	UT129	GWZ-ALEMU	Ethiopia
4	RNAV 10	UT134	15GWZ-SAGBU	Sudan, D.R.C
5	RNAV 10	UT136	LOV-PATAR-BUN	Kenya, D.R.C, Uganda
6	RNAV 10	UT139	(W886) –GM-DCT-MPK	Sudan, Ethiopia, D.R.C, ASECNA (BZV)
7	RNAV 10	UT142	MLK-DCT-FL	Sudan, ASECNA (NDJ)
8	RNAV 10	UT143	KGI-DCT-LV	D.R.C, ASECNA (BZV)
9	RNAV 10	UT146	RUDOL-DCT- KIV-DCT-MWZ	Kenya, Tanzania
10	RNAV 10	UT151	OXILO-DCT-LAG	Nigeria
11	RNAV 10	UT152	MLK-DCT-LAG	Sudan, ASECNA (BZV/NDJ), Nigeria
12	RNAV 10	UT149	DLA-DCT-ACC	ASECNA (BZV), Nigeria, Ghana
13	RNAV 10	UT252	NV-DCT-LUB	Kenya, D.R.C, Tanzania, Zambia
14	RNAV 10	UT253	NV-KESOM-MOGDU-DCT-BKK	Kenya, Somalia, Seychelles, India
15	RNAV 10	~~UT257~~ UA617	WHV-AKAZU-ITNEL-KSA	D.R.C
16	RNAV 10	UT258	ERKEL-DCT-BIRNI	ASECNA (Niamey)
17	RNAV 5	UT261	BRN-DCT-ATMUL	Cairo (To coordinate approval with military and CAA)
18	RNAV 10	UT263	LUKRO-KAN	Nigeria
19	RNAV 10	UT267	JDW-IPONO-FL	Khartoum, ASECNA (NDJ), Jeddah
20	RNAV 10	UT269	TLE-ABC	Accra, Kano
21	RNAV 10	UT271	TLE-MPK	ASECNA (BZV), Accra, Kano
~~22~~	~~RNAV 5/10~~		~~UG402-TAMANRASSET-DCT~~	Dropped
23	RNAV 10	UT273	TOBUK-DCT-FL)	DA, DR, DG, DN/ASECNA
24	RNAV 10	UW900	CBA-TADOX- OZT-UG629-GAO-NY–LV	GM, DA, DR, HT
25	RNAV 10	UT279	UG981-GAO-DCT BATIA-DCT- LOS	DR, DN, FC

List of ATS Routes for implementation

26	RNAV 10	UT281	LUB-BESHO-TMA07-MFUWE	Zambia
27	RNAV 10	UT238	NV-DCT-NAK-NABRO-JUB	Kenya, Uganda, Sudan
28	RNAV 10	UT365	ABC-DCT - GAO-LUKNA-SOLMA-POVAS-SADKA-MIYEC	Kano, Niamey, Dakar
29	RNAV 10	UT366	TLE-LIPUS-AMSIL-KELEX-OPALA	Accra
30	RNAV 10	UT367	ABJ-V207-AMPAS-LGI	Dakar
31	RNAV 10	UT368	ACC-KSI-SN-BKO	Accra, Dakar , ASECNA

FIRST MEETING OF THE PBN ROUTE NETWORK DEVELOPMENT WORKING GROUP (PRND WG/1)

AND ATS ROUTES DEVELOPMENT COORDINATION

(Fourways, Johannesburg, South Africa, 13 – 16 July 2010)

LIST OF PARTICIPANTS

	STATE	NAME	DESIGNATION/E-MAIL-TELEPHONE
1.	**Burundi**	Mr. Emmanuel HABIMANA	Chief of ANS – Burundi - CAA Tel:+257-77750052 (mobile) or 257-22224239 (office) Fax:+257-22223428 **E-mail:habiem2001@yahoo.fr**
2	**Democratic Republic of Congo (RVA)**	Mr. Billy DIABASENGA KUSUAMINA	**Head ATM Section** **Tel : + 243 818 151745** **Email : billydk67@yahoo.fr**
3	**Democratic Republic of Congo (RVA)**	Mr. Pascal IZAI KEP'NA	**Deputy Director Air Navigation** **Tel: + 243 818 151745** **Email: izai_pascal@yahoo.fr**
4	**Egypt NANSC**	Mr. Nasr Eldin Ali MOHAMED SAYED	**Tel: + 20 10 11 48968** **Fax: + 20222680629 / 20222680627** **Email: neam2002@hotmail.com**
5	**Ghana**	Mr. Albert TAYLOR	**Director Air Traffic Services** **Tel: + 233 302 776 079** **Mob: + 233 2020 18277** **Fax: + 233 302 773 293** **Email: ataylor@gcaa.com.gh**
6	**Ghana**	Mr. Daniel MENSAH	**AIS Senior Supervisor and Instructor** **Tel: + 233 302 776079** **Fax: + 233 302 773293** **Email: danmensa@yahoo.com**

	STATE	NAME	DESIGNATION/E-MAIL-TELEPHONE
7	**Morocco**	Mr. Abdelkader TAHRI	**Tel: + 06 6010 0042** **Email: a.Tahri@onda.ma**
8	**Kenya**	Mr. Erastus E. M. NJOGU	**Manager ATS** **Email: enjogu@kcaa.or.ke**
9	**Kenya**	Ms. Keziah OGUTU	**Chief ATCO Jomo Kenyatta Airport** **Tel: + 254 20 827101** **Mob: + 254 722 386001** **Fax: + 254 20 827102** **Email: kogutu@kcaa.or.ke**
10	**Kenya**	Mr. Tirrus E. MUTUNGA	**Ag. Chief ATCO Planning** **Email: tmutunga@kcaa.or.ke**
11	**Seychelles**	Ms. Esmee SAMSON	**Manager Air Traffic Services** **Tel: + 248 384039** **Mob: + 248 527206** **Fax: + 248 384032** **Email: esamson@scaa.sc**
12	**Tanzania**	Mr. Solomon MWANG'ONDA	**In-charge ATM (JNIA)** **Tel: + 255 222 111 951** **Email: smwangonda@tcaa.go.tz**
13	**Tanzania**	Mr. Iqbal Noormohamed SAJAN	**Chief Aerodrome & Air Navigation Systems Service** **Tel: + 255 222 115079 / 80** **Fax: + 255 222 118905** **Email: isajan@tcaa.go.tz**
14	**Tunisia**	Mr. Abderraou BELDI	**Tel: + 216 24086205** **Email: nizar.elmrabti@oaca.nat.tn**
15	**Tunisia**	Mr. Nizar ELMRABTI	**Tel: + 216 240 86205**
16	**Tunisia**	Mr. Khechana LASSAAD	**Tel: + 216 240 86205**

	STATE	NAME	DESIGNATION/E-MAIL-TELEPHONE
17	**Uganda**	Mr. Moses KANIIKE	**Principal AIS Officer** **Tel: + 256 782 813789** **Fax: + 256 414 320964** **Email: Mkaniike@caa.co.ug**
18	**Uganda**	Mr. Moses SEZIBWA	**Principal ATMO** **Email: ais@caa.co.ug**
19	**Zambia**	Mr. Stanley SITALI	**Tel: + 260 211 271018** **Fax: + 260 211 271018** **Email: Stanley.sitali@lun.aero**
20	**Zambia**	Ms. Mary HARAH	**Manager Air Traffic Services NACL** **Tel + 260 211 271018** **Fax: + 260 977 706803** **Email: maryharah@lun.aero**
21	**Zambia**	Mr. Alex SINYANGWE	**Senior ATM Inspector** **Tel: + 260 1253 149 / 260 1251 861** **Fax: + 260 1251 841** **Email: asinyangwe@yahoo.com**
	INTERNATIONAL ORGANIZATIONS		
22	**ASECNA**	Mr. Amadou Yoro DIALLO	**ATM Expert** **Tel: + 221 338 695661** **Fax: + 221 338 207594** **Email: dialloamad@asecna.org**
23	**ASECNA**	Mr. Aubert Mesmin GBENAFA	**Tel: + 221 772 53730 / 221 338 201331** **Fax: + 221 338 207 594** **Email: ghenaf_meslu@hotmail.fr**
24	**ASECNA**	Mr. Amadou Malal GUEYE	**Tel: + 221 338 695668** **Fax: + 221 338 207594** **Email: gueyeama@asecna.org**

	STATE	NAME	DESIGNATION/E-MAIL-TELEPHONE
25	**IATA**	Mr. Gaoussou KONATE **IATA, Johannesburg**	**Tel: + 27 11 523 2732** **Fax: + 27 11 523 2704** **Email: KonateG@iata.org**
26	**IATA**	Mr. Protus SEDA **IATA, Johannesburg**	**Tel: + 27 11 523 2732** **Fax: + 27 11 523 2704** **Email: SedaP@iata.org**
27	**IATA**	Ms. Ranga DANDAJENA **IATA, Johannesburg**	**Tel: + 27 11 523 2732** **Fax: + 27 11 523 2704** **Email: DandajenaR@iata.org**
28	**IATA**	Mr. Bernard GONSALVES **IATA, HQ Montreal**	**Tel: + 151 487 40202** **Email: GonsalvesB@iata.org**
29	**IATA**	Capt Michael JONES **Delta**	**Flight Operations - Delta** **Tel: + 404 7151988** **Mob: + 404 3583067** **Email: michael.g.jones@delta.com**
30	**IATA**	Mr. Grant WILSON **Emirates**	**Aeronautical Services Manager – Emirates** **Tel: + 97 1420 84302** **Fax : + 97 1428 64085** **Email : grant.wilson@emirates.com**
31	**IATA**	Capt Demsash HAGOS **Ethiopian**	**Senior Pilot-Line pilot-Captain B757/767 Ethiopian Airlines** **Tel: + 251 1151 78111** **Email: Demsash@gmail.com**
32	**IATA**	Mr. Edward Kagunyi KAMAU **Kenya Airways**	**Fuel Manager – Kenya Airways** **Tel: + 254 735 767 300** **Email: Edward.Kamau@Kenya-airways.com**
33	**IATA**	Capt Peter Wangai KIMERIA **Kenya Airways**	**Safety Manager – Kenya Airways** **Tel: + 254 722 519124** **Email: Peter.Kimeria@Kenya-airways.com**

	STATE	NAME	DESIGNATION/E-MAIL-TELEPHONE
34	**IATA**	Mr. Mwanyota W. MWACHOLA **Kenya Airways**	**Senior Flight Opeartion Engineer – Kenya Airways** **Email: Mwachola.Mwanyota@Kenya-airways.com**
35	**IATA**	Ms. Agnes KAMAU **Kenya Airways**	**Flight Operation Engineer – Kenya Airways** **Email: Agnes.Kamau@Kenya-airways.com**
36	**IATA**	Ms. Maria Ludovina SANTOS **TAP**	**Assessor Flight Operations – TAP** **Tel: + 35 12184 16236** **Fax: + 34 12184 15941** **Email: Issantos@tap.pt**
37	**IFALPA**	Capt Arif JINNAH	**Regional Vice-President Africa East** **Tel: + 255 222 136355** **Mob: + 255 785 000011** **Fax: + 255 222 119742** **Email: arif@arif.co.tz**
38	**Jeppesen**	Mr. Werner KURZ-DEU	**Tel : + 49 610 2508170** **Fax : + 49 610 2507239** **Email : Werner.Kurz@jeppesen.com**
39	**MITRE**	Mr. Chris Ira HINSON	**Tel : + 703 983 4578** **Email : chinson@mitre.org**
	SECRETARIAT		
40	**ICAO**	Mr. Seboseso MACHOBANE	**Regional Officer ATM/SAR (ESAF)** **Tel : + 254 20 7622372** **Fax : + 254 20 7621092** **Email : Seboseso.Machobane@icao.unon.org**
41	**ICAO**	Mr. Sadou MARAFA	**Regional Officer ATM/SAR (WACAF)** **Tel: + 221 338 399390** **Fax: + 221 338 236 926** **Email: smarafa@dakar.icao.int**

	STATE	NAME	DESIGNATION/E-MAIL-TELEPHONE
42	**ICAO**	Mrs. Nicole GOLDSCHMID	**ATM Assistant EUR/NAT** **Tel: + 331 46418528** **Email: ngoldschmid@paris.icao.int**
43	**ICAO**	Mr. David LABROSSE	**ATM Consultant (ESAF)** **Tel : + 254 20 7622368** **Email : David.Labrosse@icao.unon.org**