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منظمة الطيران
المدني الدولي

国际民用
航空组织

Ref: ES AN 4/74 - 0340

27 July 2009

Subject: Joint Meeting of the APIRG Performance Based Navigation and Global Navigation Satellite System Implementation Task Forces (Joint PBN & GNSS/I TFs) (PBN/TF/3, GNSS/TF/I/5) (Nairobi, 8 - 10 September 2009)

Action required: Reply by 14 August 2009

Sir/Madam,

I have the honour to invite your Administration to the Joint meeting of the Performance Based Navigation and Global Navigation Satellite System Implementation Task Forces, which will constitute the third meeting of the PBN Task Force and fifth meeting of the GNSS Implementation Task Force.

The meeting will be held at the ICAO Eastern and Southern African (ESAF) Office in Nairobi, Kenya, from 8 to 10 September 2009. The tentative Agenda for the meeting and the explanatory notes thereto are at **Attachments A and B**. Your comments on the attached Agenda, if any, would be appreciated. The Bulletin describing administrative arrangements for the meeting, other useful information for participants including the Hotel List is at **Attachment C**. The meeting will be conducted in the English language only.

The objective of the joint meeting is to increase efficiency and effectiveness within APIRG, and in this context, to advance the intent of the ATS/AIS/SAR/SG/I0 Conclusion 10/26, the text of which is reflected hereunder.

Conclusion 10/26: Renaming of the APIRG PBN Task Force

That, taking into account the assigned objectives of both the PBN and GNSS Task Forces, the ATS/AIS/SAR proposes that APIRG endorses the merger of the two task forces into the AFI PBN/GNSS task force in order to prevent duplication of work, as per combined Terms of Reference at Appendix L.

With the objective to enhance the effectiveness of the meeting, I shall be grateful if you could ensure that your delegation consists of experts familiar with ICAO documentation and policies, having the required qualifications and experience in the relevant fields, in order to effectively contribute to the work of the task forces. In this regard, it would be appreciated if the PBN National Programme Manager of your State (Ref. State Letter ES AN 4/24 – 0313 dated 14 July 2009) is part of your delegation. In the same vein, the inclusion of the GNSS implementation members in the delegation will be highly appreciated.

For ease of reference and in order to facilitate your decision regarding participants to this meeting, I have provided at **Attachments D** and **E** to this letter, the terms of reference of the PBN/TF and GNSS/I/TF respectively.

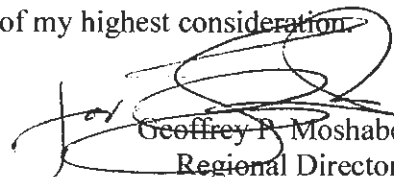
Please note that under Agenda Item 4, States will be expected to make a 10 minute or less presentation on the status of PBN and GNSS implementation in their State. To further facilitate the envisaged outcome of the meeting, I have provided in **Attachment F** to this letter, a form (in Excel spreadsheet format), which you are requested to complete and forward to this Office. The information provided through the form will be used to update information that ICAO has regarding the status of PBN implementation in your State. Furthermore, the 10 minute presentation referred to above will, *inter alia*, be expected to relate to information in this form, as well as to the PBN Implementation Regional Plan and the Draft PBN implementation plan which your Administration has prepared (Ref. State Letter ES AN 4/74 – 0355 dated 23 July 2009). Kindly forward the completed copy of the form (in electronic format) by **18 August 2009**, in order to allow the Secretariat to prepare the provided data for the meeting.

Kindly be reminded that in accordance with current ICAO policy to reduce costs, hard copy (paper) documentation at the meeting will be kept to a minimum, in favour of the use of multimedia projectors and electronic copies of documents. Other than in exceptional cases, working/information papers and related documentation will not be provided in hard copy format.

In light of the above, your Administration is urged to ensure that participants have necessary equipment, to enable them to participate effectively in the meeting. In this regard participants are advised to bring suitable computer equipment (such as laptops) and USB (removable) storage to the meeting. Furthermore, you are kindly requested to print from the relevant websites and bring along your own hard copies, should you find the need for such hard copies.

I would appreciate it if you could, as soon as possible, preferably not later than **14 August 2009**, confirm the participation of your Administration to the meeting by forwarding your response to the following e-mail address (icao@icao.unon.org) with a copy to (seboreso.machobane@icao.unon.org) or Fax number +254 20 762 1092, giving the name(s) of your participant(s). May I furthermore request you to forward your working/information papers, if any, in electronic format to the above-mentioned e-mail addresses.

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


Geoffrey P. Moshabesha
Regional Director

Attachments: Attachment A:	Agenda
Attachment B:	Explanatory Notes
Attachment C:	Information Bulletin for Nairobi
Attachment D:	PBN/TF Terms of Reference
Attachment E:	GNSS/I/TF Terms of Reference
Attachment F:	PBN Approach Terminal Implementation Status

**JOINT PBN AND GNSS TASK FORCE MEETING
Nairobi, Kenya 8 - 10 September 2009**

AGENDA

- Agenda Item 1:** Adoption of the agenda and election of chairperson
- Agenda Item 2:** Review and follow up of Recommendation, Conclusions and Decisions applicable to the Task Forces
- Agenda Item 3:** Terms of Reference of the proposed PBN/GNSS Task Force
- Agenda Item 4:** Status of implementation of PBN in the AFI Region
- Agenda Item 5:** Development of PBN national implementation plans
- Agenda Item 6 :** PBN Implementation Action Plan
- Agenda Item 7:** PBN and GNSS Regional Performance Objectives
- Agenda Item 8:** GNSS Strategy
- Agenda Item 9:** Date and Venue of the next meeting
- Agenda Item 10:** Any other business

**JOINT PBN AND GNSS TASK FORCE MEETING
Nairobi, Kenya 8 - 10 September 2009**

EXPLANATORY NOTES

- Agenda Item 1. Adoption of the agenda and election of chairperson**
The meeting will review and adopt the agenda for the Joint PBN and GNSS Task Force meeting, and elect chairperson for the meeting
- Agenda Item 2. Review and follow up of Recommendation, Conclusions and Decisions applicable to the Task Forces**
The meeting will review and follow up on the Recommendation of SP AFI RAN 2008, Conclusions and Decisions of APIRG/16, PBN TF/2 ATS/AIS/SAR SG/10 and GNSS TF/I/4 applicable to the functions of the PBN and the GNSS Task Forces
- Agenda Item 3. Terms of Reference of the proposed PBN/GNSS Task Force**
The meeting will develop the terms of reference for the proposed PBN/GNSS Task Force
- Agenda Item 4. Status of implementation of PBN in the AFI Region**
The meeting will review and update information regarding the following:
(a) establishment of PBN Implementation bodies/structures
(b) status of implementation of GNSS approaches
(c) fleet readiness
Please note that under Agenda Item 4, States will be expected to do a 10 minute or less presentation on the status of PBN/GNSS implementation in their region.
- Agenda Item 5. Development of PBN national implementation plans**
The meeting will review the status of implementation of the PBN national implementation plans and take action as necessary to assist States in completing their national plans before end of 2009
- Agenda Item 6. PBN Implementation Action Plan**
The meeting will review, update and adopt the PBN Implementation Action Plans developed by the PBN Task Force Terminal/Approach and the En-Route Work Groups
(inclusion of the development of guidance material including “**guidance of operational approvals for airports**” will be explored)
- Agenda Item 7. PBN and GNSS Regional Performance Objectives**
The meeting will, using the PBN Implementation Action Plan as guidance, update the PBN Performance Objectives adopted by SP AFI RAN 2008, and develop other Performance Objectives as necessary

Agenda Item 8.**GNSS Strategy**

The meeting will review the AFI Region Draft GNSS Strategy

Agenda Item 9.**Date and Venue of the next meeting**

The meeting will agree on the tentative date, number of days and venue of the next meeting of the Joint PBN and GNSS Task Force or the proposed PBN/GNSS Task Force

Agenda Item 10.**Any other business**

Another other relevant matters not covered by the above agenda items may be covered under this agenda item.



INTERNATIONAL CIVIL AVIATION ORGANIZATION EASTERN AND SOUTHERN AFRICAN OFFICE

JOINT MEETING OF THE APIRG PERFORMANCE BASED NAVIGATION AND GLOBAL NAVIGATION SATELLITE SYSTEM IMPLEMENTATION TASK FORCES (JOINT PBN & GNSS/I TFS) (PBN/TF/3, GNSS/TF/I/5) (NAIROBI, 8 - 10 SEPTEMBER 2009)

INFORMATION BULLETIN

1. SITE OF THE MEETING

1.1 The meeting will be held at the ICAO Eastern and Southern African (ESAF) Office Nairobi. The ESAF Office is located within the United Nations Complex at Gigiri off Limuru Road about 20 kms from the city centre. The working hours of the Office are 0800-1630. The ICAO Regional Office contacts are:

Telephone: +254-20-762 23 95/96
Fax: +254-20-7621092/7623028
e-mail: icao@icao.unon.org

Seminar/meeting Coordinator:

Mr. Seboreso Machobane, RO/ATM
Tel. +254-20-7622372/74
Cell: +254-717-555811
e-mail: seboreso.machobane@icao.unon.org

1.2 Registration

Registration of participants will be from 0830 to 0900 hours.

2. HOTELS

2.1 Participants are requested to make their own hotel reservations and indicate that they are attending an ICAO meeting/seminar in order to acquire special rates for UN. A list of recommended hotels is attached. When reserving, participants should state that they are attending an ICAO meeting/seminar.

3. VISA

3.1 All travellers arriving in Kenya should have a valid passport. Kenyan entry visas are not required for nationals of a number of countries. Participants are therefore advised to ascertain whether or not they are exempt from the Kenyan entry visa requirement. Those who are not exempt should apply for visas well in advance from Kenyan Embassies or High Commissions, which will issue them upon presentation of documentation showing that the applicants are designated representatives to a particular UN meeting to be held in Nairobi. In countries where there is no Kenyan Embassy or High Commission, the British Embassy or High Commission will generally represent Kenya, and be in a position to issue visas.

4. TRANSPORT

4.1 Nairobi/Jomo Kenyatta International Airport is situated 16 kilometres (a 20-minute drive depending on the traffic) from the city centre. Taxis are readily available. The taxi fare from the airport to the city centre is approximately Kshs.1200/- (US\$20). However it is advisable to establish the fare before getting into the vehicle. It is therefore wise to ensure that the taxi is from a reputable company.

Transport to/from the ESAF Office

4.2 Transportation to/from the ESAF Office will be provided to all delegates. **The bus will depart from the Six Eighty Hotel at 08:30 hours** on the first day of the meeting. Delegates residing in other hotels will be expected to proceed to the Six Eighty Hotel before this time. The time shall be adjusted appropriately during the meeting.

5. CLIMATE

5.1 The mean minimum temperature during the month of September is 11⁰ and the mean maximum temperature is 24⁰.

6. SECURITY

6.1 Please visit the site <http://www.unon.org> and click on "Security Advice" for the latest information. Participants will have to retrieve their badges at the security post at the entrance of the UNON complex in order to be admitted. It is therefore important that the Regional Office be advised as soon as possible of the names of the participants in order for badges to be prepared for them.

7. HEALTH

7.1 A yellow fever vaccination certificate is mandatory for travellers over one year of age coming from infested areas. Please visit the World Health Organization (WHO) site <http://www.who.int/ith/> for information on Kenya.

7.2 A clinic is available at the UN Gigiri Complex.

8. CURRENCY

8.1 The basic unit of currency is the Kenyan shilling, which is divided into 100 cents. There are nickel coins of 50 cents, 1 shilling, 5 shillings, 10 shillings, 20 shillings and 40 shillings. Notes are issued in denominations of 50, 100, 200, 500 and 1000 shillings.

8.2 There is no limit to the amount of foreign bank notes or traveller's cheques which visitors may bring into Kenya. However, the export of Kenyan currency by visitors is strictly forbidden. A maximum of 400 shillings may be taken out. If the amount is greater, the whole lot will be confiscated by the authorities.

8.3 The commercial banks and private Forex Bureaux provide exchange facilities. Most banks are open between 9 a.m. and 3 p.m. from Monday to Friday and between 9 a.m. and 12 p.m. on the first and last Saturday of the month. There are also a number of Forex Bureaux in the city centre. For those who may need Kenyan currency immediately on arrival, the banks at Jomo Kenyatta International Airport are open daily from 7 a.m. to midnight.

8.4 Kenyan shilling exchange rates are determined by the inter-bank trade which varies daily. The mean rate for 1 United States dollar was approximately Kshs.69 in August 2009.

8.5 Banking and postal facilities are available at the UN Gigiri Complex.

List of Hotels/Rates 2009

HOTEL	RATES TARIFF US \$	ADDRESS	TELEFAX NO.	TELEPHONE	Email
Intercontinental Hotel	US\$125.00 (SBB) US\$150.00 (DBB)	Cr. City Hall Way, Uhuru Highway	254-20-32000030	254-20- 32000000	reservations@interconti.co.ke
Holiday Inn	149.00 (SBB) 168.00 (DBB)	Cr. Parklands Road and Mpaka Lane	254-20-3748823	254-20-3740920/1 3740906	Hi-sales@africaonline.co.ke
SixEighty Hotel	Ksh.3645.00(SBB) Ksh.5130.00(DBB)	Cr. Muindi Mbingu Street/Kenyatta Avenue	254-20-332908	254-20-315680	info@680-hotel.co.ke
Serena Hotel	US\$ 260 Deluxe (DB) (SO) US\$30 (Breakfast)	Kenyatta Avenue	254-20-2725184	254-20-2822000 254-20-2725250	nairobi@serena.co.ke www.serenahotels.com
The Stanley Hotel	US\$145.00(SBB) US\$185.00(DBB)	Cr. Kenyatta Avenue/Kimathi Street	254-20-249757 Reserv. 254-20-2715566	254-20-316377 Reserv. 254-20-2713333	reservations@sarova.co.ke
Tribe the Village Market Hotel	US\$ 200 for a deluxe single US\$ 260 for a deluxe double (BB) (5 Star)	Village Market 1km from UN offices in Gigiri	Fax: (254-20) 7200110/020 7200112	Tel: (254-20) 7200106	Email: reservations@tribehotel-kenya.com .
Hilton Hotel	US\$90.00 (SBB) US\$115.00 (DBB) US\$145.00(Deluxe)	Mama Ngina Street	254-20-250099	254-20-250000	hilton@africaonline.co.ke
Nairobi Safari Club	US\$154.00 (SBB) US\$180.00 (DO)	University Way/Koinange Street	254-20-224625 or 215137	254-20-251333	Info@nairobi-safari-club.com
Meridian Court Hotel	US\$63.00 (SBB) US\$89.00(BB)	Murang'a Road, off Moi Avenue	254-20-333658	254-20-313991	Meridian@bidii.com
Jacaranda Hotel	US\$112.00 (SBB) US\$140.00 (DBB)	Chiromo Road, Westlands		254-20-4448715/6/7	cor@jacarandahotel.com
Laico Regency (formerly Grand Regency)	US\$ 160 Deluxe Single (SBB) US\$ 180 Deluxe (DB)	Loita Street	254-20-2217120	254-20-2887000 254-20-733-729062	rachael@laicoregencyhotel.co.ke jsian@laicoregencyhotel.co.ke
Ambassador Hotel	US\$45.00(SBB) US\$55.00(DBB)	Moi Avenue	254-20-336860	254-20-242933 226733	hotelambassador@nbi.ispkenya.com
Windsor Hotel	US\$140.00 (SBB) US\$160.00 (SBB)	Off Kiambu Rd	254-20-8560160/1	254 -20-8562300	admin@windsor.co.ke

These rates are subject to change without notice.

DB = Double, BB=Bed & Breakfast; SBB = Single, Bed and Breakfast, SO/DO= Bed only

SUO = Suite, Bed only

Note: When making their reservations, Delegates should specify that they are attending a UN meeting in order to be accorded special rates for UN.

**PROPOSED TERMS OF REFERENCE FOR COMBINED APIRG
PBN/GNSS TASK FORCE**

1. Terms of Reference

- a) Carry out specific studies in support of the implementation of Performance Based Navigation (PBN) in the AFI Region, according to the ICAO Strategic Objectives and Global Plan Initiative (GPI) 5 and related GPIs (GPIs 7, 10, 11, 12, 20, 21)
- b) Identify other issues/action items arising from the work of ICAO or for consideration by ICAO in order to facilitate regional and global harmonization of existing applications as well as future implementation of Performance Based Navigation operations
- c) Determine and recommend, on the basis of the study, the PBN strategy and Implementation Plan for the AFI Region, based on the ICAO PBN Implementation goals as reflected in assembly resolution 36-23.
- d) Assist States that may require support in the implementation of PBN.

2. Work Programme

- a) Study and assess the Regional RNAV and RNP requirements
- b) Initially focus assistance to States that may require support on development of the State PBN implementation plans.
- c) Identify priority routes and terminal areas where RNAV and RNP should be implemented
- d) Identify priority runways for Approach Procedures with Vertical Guidance (APV) to be implemented based on the ICAO RNP APCH navigation specification (APV/Baro-VNAV).
- e) Develop an amendment proposal to the AFI Regional Supplementary Procedures concerning the implementation of PBN in the Region.
- f) Identify guidance material and training needs
- g) Follow up on the developments in ICAO affecting the Global Plan and PBN in particular, in order to update the Regional plans accordingly
- h) Coordinate with other ICAO Regions as necessary to address implementation interface issues
- i) Undertake other functions relevant to implementation of PBN as assigned by APIRG

- j) Develop and update (as necessary) the Regional PBN Implementation Strategy and Plan
- k) Develop the PBN performance objectives and related action plans for en – route, terminal and approach phases of flight; and;
- l) Report to APIRG through its ATM and CNS Sub-groups.

3. The Task Force shall in its work be guided by the following principles:

- a) Implementation of PBN shall follow the ICAO PBN goals and milestones
- b) Avoid undue equipage of multiple on board equipment and/or ground-based systems.
- c) Avoid the need for multiple airworthiness and operational approvals for intra- and interregional operations.
- d) Continue application of conventional air navigation procedures during the transition period, to guarantee the operations by users that are not RNAV- and/or RNP-equipped
- e) The first regional PBN Implementation Strategy and Plan should address the short term (2008-2012), medium term (2013-2016) and take into account long term global planning issues.
- f) Cognizance that the primary objective of ICAO is that of ensuring the safe and efficient performance of the global Air Navigation System, ensure that pre- and post-implementation safety assessments will be conducted to ensure the application and maintenance of the established target levels of safety g) Take into account the introduction of new technologies, encourage implementation and development in GNSS
- h) Coordinated implementation with other relevant Regional Plans
- i) Apply ICAO guidance material and information as may be applicable to the Region to facilitate the implementation of PBN.

**TERMS OF REFERENCE, FUTURE WORK PROGRAMME
AND COMPOSITION OF THE AFI GNSS
IMPLEMENTATION TASK FORCE**

1. Terms of Reference:

Carry out studies on technical and institutional issues for the progressive implementation of GNSS in the AFI Region, in accordance with the AFI GNSS strategy.

2. Work Programme:

Item	Description	Responsibility
1.	Further development of the AFI GNSS Strategy.	
2.	Identify and address as appropriate, all actions necessary, including funding contributions from AFI service Providers, legal and institutional aspects, for the timely implementation of the AFI GNSS strategy (Ref. AFI/7, Concl. 10/6d).	South Africa* (ASECNA)
3.	Cost/benefits analysis for operational SBAS system.	ASECNA* (ESA, IATA)
4.	Review the report of the COM Working Group.	GNSS/TF
5.	Follow-up and monitor the implementation of Phase 1 of the AFI GNSS Strategy.	

*Main responsibility

3. **Composition:** Cameroon, Egypt, France, Kenya, Nigeria, Senegal, South Africa, Tunisia, ASECNA, IATA, ICAO

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52	<p>1. If the aerodrome is used for international operations, including as an alternate, enter 'Y', if not, enter 'N' 2. If RNP APCH only, enter RNP APCH. If RNP APCH with Baro-VNAV only, enter RNP APCH-VNAV. If both enter BOTH. If RNP AR, enter RNP AR APCH. If there is an RNP AR to the same runway that also has an RNP APCH and/or RNP APCH-VNAV then enter the RNP AR on a separate line for that runway. If this block is filled out "RNP APCH", then provide some explanation in the comments block, e.g. either, "planning to upgrade to RNP APCH-VNAV by [date] or APV not feasible for [reason], 3. If RNAV or RNP SID exists for this runway, note navigation specification, RNAV 1, RNAV 2, or Basic-RNP 1. If not based on a PBN navigation specification, enter RNAV. 4. If RNAV or RNP STAR exists for this aerodrome note navigation specification, RNAV-1, RNAV 2, or Basic-RNP 1. If not based on a PBN navigation specification, enter RNAV. 5. Should list all instrument aerodromes and runway ends in the State, as well as non-instrument runway ends that may be used by aircraft in excess of 5700 kg MTOW. Leave blank blocks J-O as appropriate, if PBN or RNAV approaches, SIDs or STARs are not implemented or planned to be implemented yet for that runway as part of the State PBN Implementation Plan. 6. Enter actual effective date or proposed future effective date as 3-letter month-2-digit year: Oct-07. 7. Provide any relevant comments.</p>															
53																