



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

Ref.: T 8/5.10.1:AP162/13 (CNS)

03 December 2013

Subject: The Fourth Meeting of Ionospheric Studies Task Force (ISTF/4)
(New Delhi, India, 05 – 07 February 2014)

Action Required: Reply at your earliest convenience, preferably
before **17 January 2014**

Sir/Madam,

I have the honour to invite your Administration to the Fourth Meeting of the Ionospheric Studies Task Force (ISTF/4) to be held in New Delhi, India, from 05 to 07 February 2014.

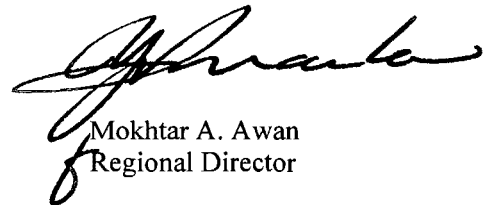
It is suggested that suitably qualified participants(s), who have direct responsibilities in the planning and implementing of GNSS and its applications in your Administration may be nominated to attend the meeting.

The provisional agenda of the meeting is provided in Attachment 1. Your comment, if any on the provisional agenda would be appreciated. Working/Information Papers containing inputs relevant to the proposed agenda for the meeting may be submitted in MS Word/Power Point format at your earliest convenience, preferably **before 17 January 2014**.

The Meeting Bulletin containing information on hotel accommodation, venue of the meeting and other useful information of interest to participant(s) will be forwarded to you separately.

I shall be grateful if you could forward the filled up nomination form provided at Attachment 2 to this letter by e-mail or fax to this Office at your earliest convenience, preferably **before 17 January 2014**.

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



Mokhtar A. Awan
Regional Director

Enclosures:

Attachment 1 - Provisional Agenda

Attachment 2 - Nomination Form



International Civil Aviation Organization

**THE FOURTH MEETING OF IONOSPHERIC
STUDIES TASK FORCE (ISTF/4)**

New Delhi, India, 05 – 07 February, 2014



PROVISIONAL AGENDA

- Agenda item 1: Adoption of agenda
- Agenda item 2: Review of outcome of relevant meetings/conferences
- Agenda item 3: Review of status of States' activities
- Agenda item 4: Review of progress of tasks and related action items
- a) Task 1 - Data Collection
 - b) Task 2 - Iono Analysis
 - c) Task 3 - TEC Generation
 - d) Task 4 - Scintillation Data
 - e) Task 5 - Iono Models
 - f) Task 6 - Space Weather
- Agenda item 5: Any other business
- Agenda item 6: Future plan, review of action items

**INTERNATIONAL CIVIL AVIATION ORGANIZATION
ASIA AND PACIFIC OFFICE**

THE FOURTH MEETING OF IONOSPHERIC STUDIES TASK FORCE (ISTF/4)

(New Delhi, India, 05 – 07 February, 2014)

REGISTRATION FORM

1. Name in full : _____
(as should appear in the official listing and name tag)

2. Title or Official Position: _____

3. State/Organization: _____

4. Mailing Address: _____

5. Telephone Number: _____
Fax Number: _____
E-mail: _____

6. Hotel: _____

Note 1: Participants are expected to make their own hotel/visa arrangements

**Note 2: Please download meeting materials from the ICAO Asia/Pacific website
<http://www.icao.int/apac> prior to the meeting.**

Date Signature

After completing, please send to: ICAO Regional Office for Asia and Pacific, P.O. Box 11, Samyaeak
Ladprao, Bangkok 10901, Thailand, Fax: +66 (2) 537 8199 or E-mail: APAC@icao.int



**4th IONOSPHERIC STUDIES TASK FORCE MEETING (ISTF)
AND
26th INTEROPERABILITY WORKING GROUP MEETING (IWG)
New Delhi, India, 5th to 7th February 2014**



GENERAL INFORMATION FOR MEETING BULLETIN

Background of the meetings:

AIRPORTS AUTHORITY OF INDIA is organizing the meeting of the SBAS Interoperability working Group -26 and 4th meeting of the ICAO –Ionospheric Studies Task Force of the APAC states between February 5th to 7th, 2014 and has arranged Delhi Site visit on 8th February 2014 to those who would be interested in availing the opportunity.

SBAS systems monitor GPS through a dispersed set of ground receivers and then broadcast corrections and integrity information to users in a broad region using geosynchronous satellites. The resulting accuracy improvements, together with information on integrity or the reliability level of the signals renders satellite Navigation suitable for the vertical (as well as horizontal) guidance of aircraft. SBAS also enables a range of other precision applications.

GAGAN (GPS Aided Geo Augmented Navigation) program is India's GNSS augmentation program that is aimed to provide RNP0.1 service levels to the entire Indian Flight Information Region and APV1 service within a specified service volume within Indian land mass. The program is jointly developed by Indian Space Research Organization (ISRO) and Airports Authority of India (AAI). GAGAN is heading for Phase I certification (RNP0.1) by DGCA with GAGAN foot print covering the largely the Asia Pacific States.

Interoperability Working Group: (IWG)

The first IWG meeting was held in 1997, and has become the forum for SBAS service providers to assure common understanding and implementation of International Civil Aviation Organization (ICAO) Standards and Recommended Practices (SARPs) The SARPS provide overarching standards and Guidance for global SBAS implementation

The coordination at IWG enables the SBAS service providers to develop their respective SBAS Systems in a manner that is consistent, enabling the interoperability of aviation equipment with all SBAS.

The IWG 25 was organized by Russia at St. Petersburg from 25th June to 27th June 2013.

The IWG 26 to be organized in India from 5th to 7th February, 2014 is unique in the sense that it will add one more operational **SBAS-GAGAN**. It will also bring together the **prospective providers** on a single platform to support the progress of future SBAS satellite navigation developing into a robust global infrastructure for seamless navigation

The first day on 5th February 2014 will be a plenary session with an objective of **“SBAS promotion within Asia Pacific Region”** as two major systems **MSAS and GAGAN** provide the footprint within the region.

The second and third day of the meeting will focus on the Interoperability and future SBAS development issues brought out by Members. The agenda for the meetings will be circulated in due course.

Ionospheric Studies Task Force Meeting:

ICAO APAC region, Bangkok comprises of states that lie in the equatorial Ionospheric region and are affected by the Ionospheric scintillations. The success of GNSS in the region primarily depends on proper understanding of the Ionospheric effects and need to develop appropriate algorithm. ICAO has felt the need to coordinate such activities between different states so that data can be shared, analyzed, develop Iono model. ICAO has entrusted the task to a task force chaired by Dr. Susumu Saito, ENRI, Japan and participated by all member states.

The third ISTF meeting was held in October, 2013 at Seoul, Republic of Korea. India offered to organize the 4th ISTF meeting at New Delhi from 5th February to 7th February 2014.

The intent of joint meeting of IWG and ISTF on 5th February, 2014 is to encourage the member states on the adoption of SBAS and to have experts from SBAS Iono group to provide valuable inputs to the ISTF working group.

The ISTF agenda for the 6th and 7th will be tentatively as follows:

Agenda Item 1 – Adoption of agenda

Agenda Item 2: Review of outcome of relevant meetings/conferences

Agenda item 3: Review of status of States' activities

Agenda item 4: Review TOR of the Task Force including the needs for space weather studies

Agenda item 5: Review of progress of tasks and related action items

a) Task 1 - Data Collection

b) Task 2 - Iono Analysis

c) Task 3 - TEC Generation

d) Task 4 - Scintillation Data

e) Task 5 - Iono Models

Agenda item 6: Any other business

Agenda item 7: Future plan, review of action items

The final agenda will be circulated by ICAO Regional Office.

The language of both the meetings will be in English

1. Location & Schedule of Meeting

1.1. IONOSPHERIC STUDY TASK FORCE MEETING (ISTF) and INTEROPERABILITY WORKING GROUP MEETING (IWG) meeting will be held from 5th to 7th February 2014 in New Delhi, India.

1.2. The venue of the meeting is Hotel Radisson Blu Plaza, National Highway 8, New Delhi - 110037 which is located approximately 5 Km from IGI Airport. Contact details are as under:

Tel No. + 91 11 2677 9191

Fax No. + 91 11 2677 9090

Email: corporatesales3@radissondel.com

Website: www.radissonblu.com/hotel-newdelhi

1.3. **New Delhi** is the capital of India. New Delhi is one of the world's leading global cities, with a diaspora of multi ethnic art and culture, entertainment, fashion. The city is a perfect host to the various cuisines of the world and tourism is a major boost to its prominence.

Here you will encounter a vibrant city sprinkled with captivating ancient monuments, fascinating museums and art galleries, architectural wonders, vivacious performing-arts, fabulous eating places and bustling market places. November weather accentuates its charms and a stroll along the busy market places is very enjoyable.



2. Hotel Accommodation

2.1. Considering the seasonal booking it is suggested that the booking should be done well in advance. Reference of "Airports Authority of India" special rates for ICAO meeting should be given while submitting the booking request at Hotel Radisson Blu Plaza, National Highway 8, New Delhi.

2.2. Hotel Radisson Blu Plaza is very near to IGI Airport, Delhi. All other suggested hotels fall within 5 to 10 kms radius from IGI Airport, Delhi and the venue of meeting are well connected by road. The list of hotels nearby is also enclosed as **Annexure-A**. Taxi services are normally available through the respective hotel reception counters.

2.3. It is suggested that Hotel Radisson Blu Plaza may be preferred by the delegates for hassle free stay and to avoid heavy traffic congestion during peak hours.

- 2.4. Hotel Radisson Blu Plaza has informed that they will be offering a special discounted rate for all international delegates likely to attend the ISTF and IWG Meeting. The hotel has offered a rate of US\$ 130 per room per day + applicable taxes. The offer includes complimentary breakfast, free airport transfer, free Wi-Fi. International delegates desirous of availing this offer contact the hotel directly on the given telephone numbers or email.
- 2.5. **The delegates desirous of staying at a different hotel may kindly coordinate with the meeting Contact Points before finalizing their bookings.**

3. Transportation

IGI Airport, Delhi to Hotel Radisson Blu Plaza: Prepaid Taxi Service and luxury coaches/car rentals available at the airport arrival lounge.

4. Miscellaneous Information

- 4.1. **Climate:** The climate of New Delhi is a monsoon-influenced humid subtropical climate with high variation between summer and winter, in terms of both temperatures and rainfall. The temperature varies from 46 °C (115 °F) in summers to around 0 °C (32 °F) in winters. Summers are long, from early April to October, with the monsoon season in the middle of the summer. Winter starts in November and peaks in January. Average temperature in February lies within **10 °C (50 °F) to 24 °C (75 °F)** range.
- 4.2. **Time:** India is 5 hours 30 minutes ahead of Universal Coordinated Time (UTC+0530 hours)
- 4.3. **Electric System:** The electric system in India operates on 220 Volt 50 cycles. Adaptor to suit two/three round pin outlets (5A and 15A) will be required for connecting appliances to the electric distribution system. In the conference room, extension power cord will be made available to the users. Plugs in each guest rooms are also suitable for notebook computers.
- 4.4. **Water:** Although tap water in New Delhi is chemically treated and meets World Health Organization (WHO) Standards, it is still recommended that visitors drink only bottled water.
- 4.5. **Passport & Visa:** All foreign nationals entering India must possess valid passport and other valid travel documents. If any clarification is required on visa, please mail your requirements to the meeting contact points for redressal
- 4.6. **Currency, Credit Cards & Banking Service:** The monetary unit in India is Rupee. Currency notes and coins of different denominations are in circulation. The current exchange rate is US\$1 = Rupee 62 (approx.). International Credit cards such as American Express, Visa, Master, Diners Club etc. are widely accepted at major hotels, departmental stores, shops & restaurants. Foreign Exchange service is available round-the-clock at IGI Airport. Other authorized Money Changers booths are also available in several shopping areas and these are open on weekends and public holidays. Private money exchange services may offer better rates, but please check first if they are authorized.

5. Contact Point:

5.1. Correspondence pertaining to travel arrangement such as information of participants' arrival details, request for hotel accommodation and other relevant matters should be directed to the following Contact Points:

Mr. S.V. Satish, GM (ATM-GAGAN)

Airports Authority of India,
Rajiv Gandhi Bhawan,
Safdarjung Airport,
New Delhi 110003.

Tel# +91-11-24692482
+91-11-24632950/2606

Mobile: +91-9717333896

Email: svsatish@aai.aero

Mr. Praveen Kumar, JE (ATM-GAGAN)

Airports Authority of India,
Rajiv Gandhi Bhawan,
Safdarjung Airport,
New Delhi 110003.

Tel# +91-11-24693669
+91-11-24632950/2569

Mobile: +91-9210879210

Email: p.saroha338@gmail.com

6 Following details are required to provide the letter of invitation for VISA purposes.

1. Name
2. Nationality
3. Passport Number
4. Place of Issue
5. Date of Issuance
6. Date of Expiry
7. Period of stay in India
8. Organization and Designation

7 The final Agenda for IWG26 and ISTF4 meeting will be coordinated through respective co-chairs and sent to the participants ASAP

LIST OF HOTELS

S/No.	Name of the Hotel	Accommodation Category	Tariff in USD approx. can vary depending on the date of booking	Contact No./ Email id
1.	M/s Radisson Blu Plaza NH 8 New Delhi. (5 Km from IGI Airport)	Superior Room Single Superior Room Double Premium Room Single Premium Room Double Business Class Room Single Business Class Room Double	US\$ 130+tax US\$ 145+tax US\$ 160+tax US\$ 175+tax US\$ 190+tax US\$ 210+tax	www.radissonblu.com/hotel-newdelhi + 91-11-26779191 businesscentre@radissondel.com corporatesales3@radissondel.com
2.	JW Marriot Hotel New Delhi Aerocity Asset Area 4 - Hospitality District, Delhi Aerocity· (6 Km from Hotel Radisson)	Rooms	(Starts From) US\$ 200+tax	www.marriot.com 011-45212121
3.	M/s The Ashok Chanakyapuri. (13 Km from Hotel Radisson)	Single Room Double Room	US\$ 120+ tax US\$ 135+ tax	www.theashok.com +91-11-2611 0101 roomreservations@theashok.com ashokrooms@gmail.com
4.	M/s The Park 15 Parliament Street New Delhi. (14 Km from Hotel Radisson)	Luxury Room Single Luxury Room Double Luxury Premium Room Single Luxury Premium Room Double	US\$ 110+tax US\$ 125+tax US\$ 125+tax US\$ 140+tax	www.theparkhotels.com +91-11-23743000 +919899061126 dverma@theparkhotels.com
5.	Hotel Saptgiri L-73/L322, Mahipalpur Extn., National Highway-8, Near Indira Gandhi International Airport, New Delhi. (500 meter from Hotel Radisson)	Delux Club Suite	US\$ 80+tax US\$ 95+tax US\$ 130+tax	info@hotelsaptagiri.com , sales@hotelsaptagiri.com , www.hotelsaptagiri.com . Tel: +91-11-46160000 Fax: +91-11-46160010 Mobile: 91-9717196853
6.	Hotel Impress A-25, Khasra No. - 395, Mahipalpur ext. (Mahipalpur - Vasant Kunj Road) New Delhi (500 meter from Hotel Radisson)	Delux Classic Impress Suite	US\$ 50+tax US\$ 65+tax US\$ 100+tax	reservation@hotelimpress.com +91-11-49572222

7.	Hotel Classic Diplomat A-4, NH-8, Near IG International, Mahipalpur, New Delhi. (2 Km from Hotel Radisson)	Standard Room Premium Room Suite	US\$ 60+tax US\$ 75+tax US\$ 90+tax	www.classicdiplomat.com 011 4041 9900
8.	Hotel Clark Green- Airport Hotel & Spa Resort G1,Pushpanjali farms, Dwarka Link Road, Bijwasan, New Delhi – 37. (6.5 Km from Hotel Radisson)	Premium Room Executive Suit	US\$ 75+ tax US\$ 120+ tax	http://www.clarkairport hotel.com +91-1125064275/76/77 g1clarkgreens@gmail.com

Google Map showing Radisson Hotel

