



International Civil Aviation Organization

**THE THIRD MEETING OF IONOSPHERIC
STUDIES TASK FORCE (ISTF/2)**

15 – 17 October 2013, Seoul, Republic of Korea



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

(a) Task 1- Data Collection

NOTIFICATION SCHEME OF DATA POLICY FOR SHARING

(Presented by Japan)

SUMMARY

In response to the Action Item 1 identified by the second meeting of the Ionospheric Studies Task Force (ISTF/2), this working paper proposes a notification scheme of data policy of the data shared in the ISTF activities. This paper also discusses on the common data format to realize the proposed scheme.

1. INTRODUCTION

1.1 The second meeting of the Ionospheric Studies Task Force held in Bangkok, Thailand from 15 to 17 October 2013 identified an Action Item:

ACTION ITEM 5: Prepare a mechanism to identify the terms of use of data as proposed by the data source and incorporate that in the data processing. Target date for this Action Item is January 2013.

1.2 The template for ionospheric data collection developed and circulated by ICAO APAC office and filled in by States included a field to specify the restriction in sharing. The data sources identified for sharing had three kinds of restrictions, “no restriction”, “no secondary distribution”, and “ISTF activity only”.

1.3 To make the data users be aware of the restrictions and comply with it, a scheme to notify users about the restriction applicable to each data is needed.

2. DISCUSSION

2.1 There are two different kinds of data, one is ionospheric delay data, and the other is the scintillation data. They can be further divided into several types. In the case of ionospheric delay data, three kinds of data types are found, receiver native raw, RINEX, and total electron content (TEC) equivalent to the ionospheric delay. Scintillation data are all in receiver native raw types, though the contents can be either raw phase/amplitude measurements or scintillation index. Since the data formats are very different between the data types, notification schemes need developed for each data types or a unified scheme to cover all of them under one umbrella.

2.2 One of the possible solutions to cover all of the data types could be to have a data catalogue that includes a field to specify the restriction applicable to the data. While this solution does not require any modification to the contributed data and the data catalogue would be extremely useful, the restriction information is not tied to the data, and the restriction would become unclear once they are downloaded from the data server.

2.3 In this ISTF activities, data in the common data formats, GTEX and SCINTEX would be mainly shared, and while receiver native raw data would not be widely shared. Therefore, the following scheme is proposed.

2.4 For data in GTEX and SCINTEX formats, a new field to specify the restriction applicable to the data should be added to the header block. To realize this, defining a new header item “SHARED LEVEL” with possible numeric values from 0 to 2 corresponding to “no restriction”, “no secondary distribution”, and “ISTF activity only”, respectively. Shared-level of 9 could be allocated to “Other” (if any). In the case of shared-level 9, a comment line should be added in the next line.

2.5 For data in other formats that are mostly in receiver native formats, they will not be modified and stored in different directories prepared in the data server. When these data need to be shared, users are requested to follow the restriction applicable in each directory, while the raw data are recommended to be used only in generating analyzed data in the common data formats.

2.6 A data catalogue would be very useful, even in this proposed scheme. The catalogue needs to be updated timely.

3. ACTION REQUIRED BY THE MEETING

3.1 The meeting is invited to do the following:

- a) discuss the scheme of data policy notification presented in this paper;
- b) agree to develop a catalogue of data to be shared; and
- c) discuss any relevant matters as appropriate.
