International Civil Aviation Organization

Fifteenth Meeting of the ICAO Aeronautical Information Services − Aeronautical Information Management Implementation Task Force (AAITF/15)

Video Teleconference, 01 – 05 June 2020

Agenda Item 5: AIS-AIM Updates

GIS PRESENTATION OF DIGITAL DATA

(Presented by JAPAN)

SUMMARY

This paper presents the best practice in Japan to visualize the digital data with geographic information system technology to contribute the better understanding of aeronautical information.

1. INTRODUCTION

1.1 Traditional aeronautical information is described by only limited English texts, so it needs lots of efforts to understand what happen, when, and where. And it is possibility to cause the misunderstanding.

1.2 Digital NOTAM is the final goal to provide right information at right time. Digital data which is suitable for computer analysis will contribute both for AIS units who originate accurate and timely aeronautical information products and for ATM community to consume published AIS products. Thus it will expect the enormous contribution to safe and effective air traffic operation.

1.3 Geographic information system (GIS) is the one of key technology to improve the understanding published aeronautical information/data. As the one step toward the digital NOTAM implementation, JCAB started to provide digital data with the geographical viewer on the internet website for the purpose to improve the understanding of aeronautical information products for ATM community.

2. DISCUSSION

Aeronautical Information Viewer (AIView)

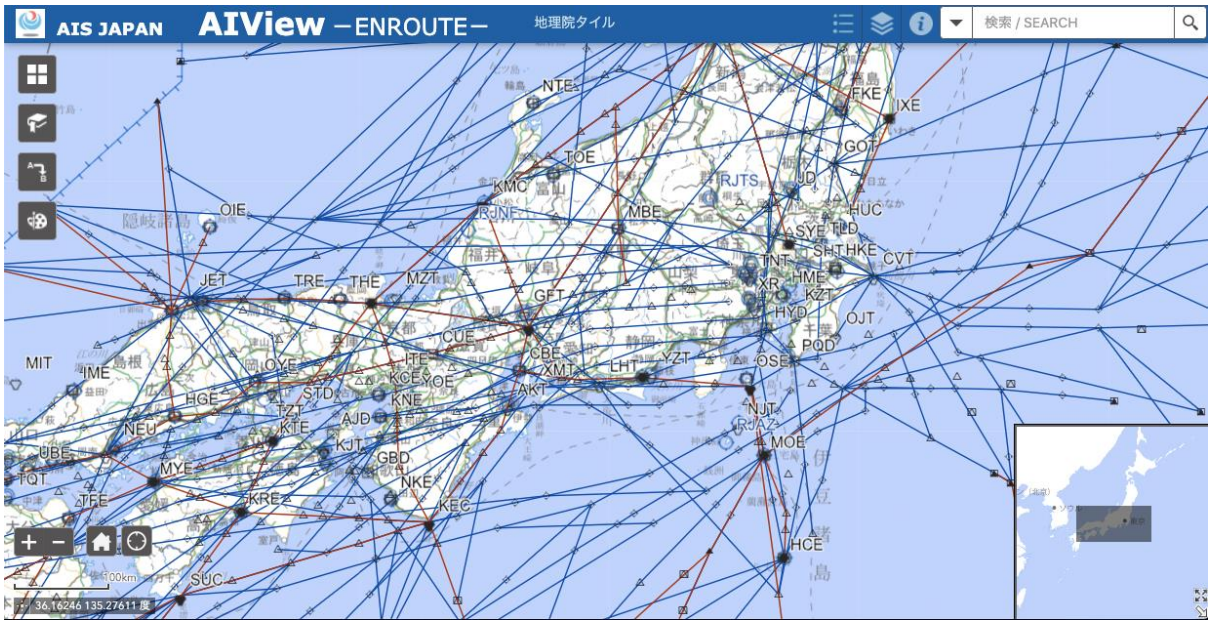
2.1 On March 2020, JCAB opened new AIS service, named Aeronautical Information Viewer (AIView) with using GIS technology to support the understanding of published aeronautical information. This service provides the two viewers for Enroute data and Obstacle data, where the AIP data and obstacle data can be visible on the public web site.

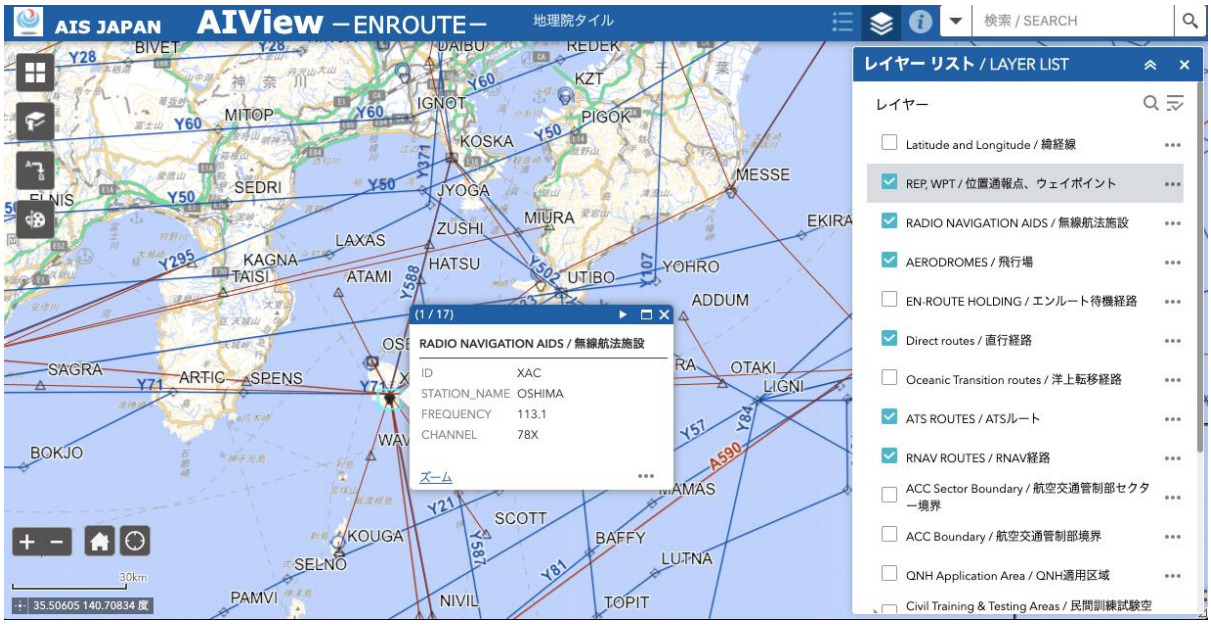
AIView -Enroute-

2.2 Enroute viewer is a digital enroute charts. It includes AIP data such as ATS routes, Reporting points, Radio navigation aids, training/testing areas, and so on. These data are shown with layered structure, so user can select their view on their preference.

2.3 Enroute charts on paper are only published twice a year, however, the data of AIView is updated for each AIRAC, so user can confirm the latest information anytime.

2.4 Even in a congested airspace, user can easily identify the target data with zoom-in and find the detailed information.

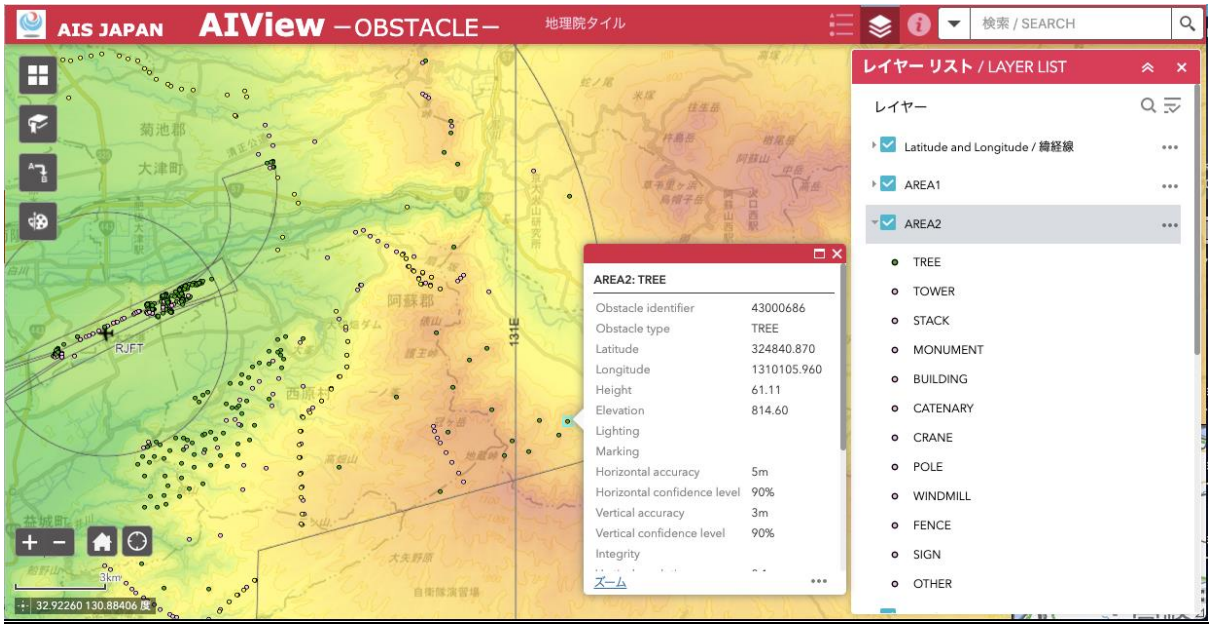




AIView -Obstacle-

2.5 Obstacle viewer presents the obstacle data of area 1 and area 2 with restricted surfaces of each airport and terrain undulations. These additional data can be superimposed and displayed upon users preference. User can also find the distance and direction between the obstacle and airport by using the measuring tools.

2.6 JCAB has published tens of thousands of obstacles data, however it seems really difficult for aircraft operator to find impact for each flight without such tool.



Conclusion

2.7 As digital data is invisible useful data, it needs the special knowledge and technology to use data, so that it is not said as user-friendly for every aircraft operator, for example, small aircraft operator or leisure aviation users. To contribute the safety, we should focus how users can be usable these data as well as we publish these data accurately and timely.

2.8 AIView has started to provide static data, and it will expect gradually to enhance its role to include dynamic data in near future along with AIM roadmap.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

a) note the information contained in this paper; and

b) discuss any relevant matters as appropriate.

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