



February 27, 2015

Air Navigation Services Department

Civil Aviation Bureau, MLIT

Data Extracted from the Air Navigation Services Department's Database Becomes Available

The Committee for Promoting Renovation of the Air Traffic System chaired by Professor Tetsuo Yai, Department of Built Environment, Tokyo Institute of Technology, has been having discussions toward the establishment of air traffic systems for the next generation, and measures to promote R&D in the air traffic field have been studied as part of it.

Given the fact that research institutions, such as universities have long been requesting the Air Navigation Services Department (JCAB) to provide them with its data, a policy to release data from the JCAB's database has been formulated last year, with the objective of promoting R&D as well as expanding its horizon in the air traffic field.

This is to inform you that, based on this policy, JCAB has examined the contents of database at the CARATS R&D promoting subgroup early this year, harmonizing views among interested parties, and determined to provide its data under the following conditions. Through such efforts, it expects that R&D in the air traffic field will be encouraged, leading to the improvement in air traffic services.

Overview of Policy

1. Contents of the Database: Time, position, etc. of scheduled flights – FY2012
(For database details and conditions of use, please see the Attachment 1)
2. How to provide data: Copy the data from the database into DVD-R/RW(s) and send it (them) by mail at requestor's expense. (The cost includes postage and media-related expenses and please see the Attachment 2 for the steps to follow)
3. Where to apply: **Secretariat of the Committee for Promoting Renovation of the Air Traffic System**

【Contact Information】

**Secretariat of the Committee for Promoting Renovation of the
Air Traffic System**

Air Navigation Services Planning Division

Air Navigation Services Department,

Civil Aviation Bureau, Ministry of Land, Infrastructure,

Transport and Tourism (MLIT)

Ueki ・ Yamada (Ext. 51106)

Tel 03-5253-8111

Direct line 03-5253-8739

Fax 03-5253-1664

Data Made Available to the Public – “CARATS Open Data”

1. Available Data

Six (6) weeks worth data of scheduled flights within the Fukuoka FIR (Flight Information Region) – FY2012 (*April through March)

○Data Item

Time (JST)、flight number (virtual Flt #)、latitude (degrees)、longitude (degrees)、altitude (ft.) and aircraft type

※Please note that data may contain device-to-device variations and errors caused by coordinate conversion.

○Time Frames

Six (6) weeks worth of data

From May 7 (Mon.) to 13 (Sun.), From July 9 (Mon.) to 15 (Sun.) – 2012

From Sept. 3 (Mon.) to 9 (Sun.), From Nov. 5 (Mon.) to 11 (Sun.) – 2012

From Jan. 7 (Mon.) to 13 (Sun.), From Feb. 4 (Mon.) to 10 (Sun.) – 2013

※Some data are missing.

○Data Format and Storage Sequence

Data is stored in CSV format in the following sequence;

Time, virtual flight #, latitude (degree), longitude (degree), altitude (ft.) and aircraft type

(Example) 08:00:00,FLT0300,42.413533,141.681313,6247,B763

2. Conditions for the Use of Data

- Data distribution is strictly limited to R&D, educational and academic study use, and it is prohibited to distribute the data to a third party or for the purpose of business or commercial activities. In the case where prohibited act was found, data may not be provided to that person from then on.
- MLIT assumes no responsibility whatsoever on the contents of database and all matters resulting from the use of this database.
- MLIT will not be able to respond to inquiries about the contents of database, purpose of flight or control methods. Please also refrain from making an inquiry to airlines or the area control center.
- When you release a document or publicize a scientific paper containing this data, you should state that “CARATS Open Data provided by MLIT” is used.

3. Other Conditions

- Requestor's personal information will be used for analyses, including validity checking of data disclosure, measures for the development of air traffic systems, etc.
- For the details on data, please read the instructions "About the Use of CARATS Open Data (Japanese only)" to be sent with the data.
- To help increase the degree of data usability, the "PlotTrack (Japanese ver. only)" developed by the Electric Navigation Research Institute (ENRI), the independent administrative institute undertaking data visualization, will also be enclosed.

Procedure for Requesting CARATS Open Data

1. You can apply via e-mail to the address shown below, with your name, address and purpose of use.

- If more than one person will use the data, for example, the data will be shared among the R&D team, you're requested to list all users.
- For the purpose of use, please write in concrete terms as much as you can, following the examples.

(Example 1) To carry out research and development of ●● simulation software

(Example 2) To use as study materials for △△ class at ×× university

【E-mail】carats@mlit.go.jp



2. Secretariat of the Conference for the Promotion of CARATAS will respond to the requestor whether the data is available to him/her after it confirmed the conditions of use, etc. Also, it may contact the requestor to ask the purpose of use, etc.



3. Those who have received the response from the Secretariat saying that the data is available to you, shall send the items as specified below by mail to the following address.

- DVD-R/RW(s) corresponding to the number of request(s). However, that of disc is limited to one for each user.
- Protection material, such as AirCap to protect DVD-R/RW(s).
- Addressed and stamped envelope for reply, that can contain two items mentioned above.

※ For instance, 140yen worth stamps need to be put on a reply envelope if it weighs less than 100g.

【Mailing address】

Secretariat of the Conference for the Promotion of CARATAS

Air Navigation Services Planning Division, Air Navigation Services Department,
Civil Aviation Bureau, Ministry of Land, Infrastructure, Transport and Tourism (MLIT)

2-1-3 Kasumigaseki, Chiyoda-ku, Tokyo 100-8918



4. Secretariat of the Conference for the Promotion of CARATAS takes charge of copying the data into DVD-R/RW(s) and sends it (them) to the requestor in a reply envelope.