

BRASIL

MINISTÉRIO DA DEFESA – COMANDO DA AERONÁUTICA
DEPARTAMENTO DO CONTROLE DO ESPAÇO AÉREO
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AVAILABILITY OF AERONAUTICAL DATA ACCORDING TO AIXM STANDARDS

Period of validity: from 05 JAN 2017 to PERM.

1 PRELIMINARY ARRANGEMENTS

1.1 PURPOSE

The purpose of this Aeronautical Information Circular (AIC) is to inform the availability and use of aeronautical information data according to AIXM international standards.

1.2 SCOPE

The provisions set forth in this AIC shall apply to all units and partners of the Brazilian Airspace Control System (SISCEAB), and users who consult or make use of aeronautical information data in computer-based systems.

1.3 DEFINITIONS AND ABBREVIATIONS

In this AIC, the listed terms have the following meanings:

AIC	Aeronautical Information Circular
AIP	Aeronautical Information Publication
AIS	Aeronautical Information Services
AIXM	Aeronautical Information Exchange Model
DECEA	Department of Airspace Control
GML	Geography Markup Language
NOTAM	Notice to Airmen
OACI	International Civil Aviation Organization
SWIM	System-Wide Information Management

2 AIXM CHARACTERISTICS

2.1 The evolution of information systems and the internet made possible the availability of information and data exchange in different sectors. In the aviation field, ICAO has established the SWIM Concept, which aims at enhancing the situational awareness by means of information exchange in real time, ensuring quality, integrity and safety.

2.2 The SWIM concept essentially consists of standards, infrastructure and governance. In this way, several aviation information exchange models were developed, among which AIXM. Its adoption enables the digital distribution and management of aeronautical information data by AIS operators and units, as a way to meet the needs of air traffic managing systems, comprising several flight phases.

2.3 The AIXM system is based on a series of standards regarding geospatial data (ISO 19100), and is coded in OGC Geography Markup Language (GML 3.2), in order to ensure the alignment of international geolocalization standards and facilitate its adoption by technologies which accept or offer support to GML, promoting interoperability among systems. It is currently in 5.1 version and its complete specification can be obtained from the following website: <http://www.aixm.aero>.

2.4 AIXM enables another way to publish aeronautical information. With that, the user will have access to georeferenced aeronautical data.

2.5 AIXM 5.1 data made available, excepting NOTAM information, will comprise information on aerodromes, air navigation aids, *waypoints*, obstacles, routes and airspace.

3 DOWNLOAD AND VISUALIZATION

3.1 DOWNLOAD

3.1.1 The set of AIXM data will be made available for download, in XML format, on our portal <http://aisweb.decea.gov.br/>.

3.2 VISUALIZATION

AIXM enables visualization of aeronautical information in georeferenced databases. This optimizes the consultation and analysis of data, besides enabling cross-checking with other georeferenced data, as topographical databases. The list of organizations which make AIXM 5.1 viewer tools available is provided at <http://www.aixm.aero/page/free-aixm-viewers>. Therefore, after having downloaded the data set from our AISWEB portal, the user will be able to view it in such platforms, as depicted in the images below:

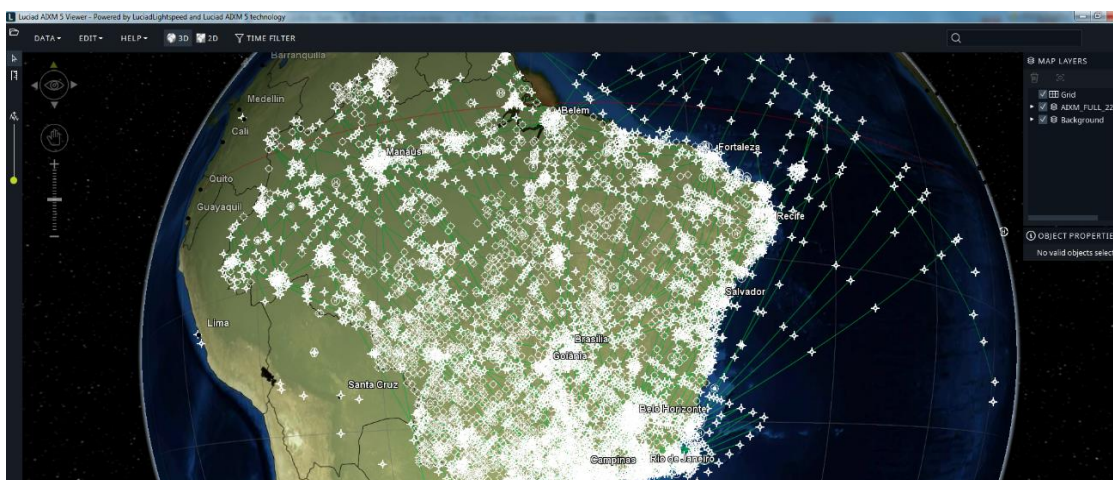


Figure 1: Brazil AIXM data viewed in AIXM 5 Viewer, a Luciad proprietary software

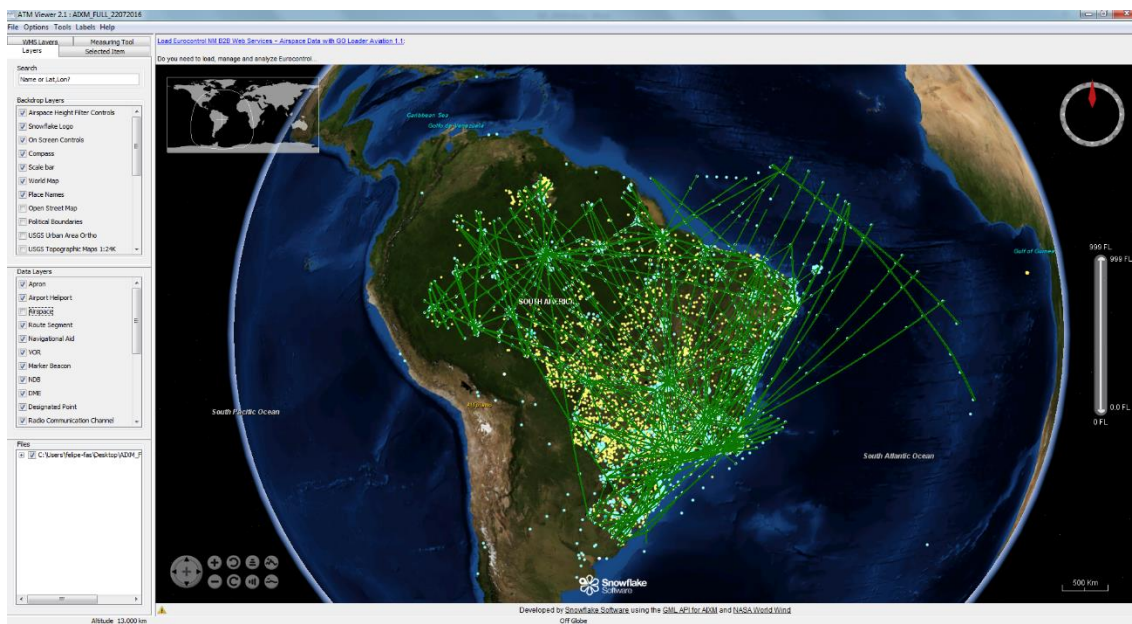


Figure 2: Brazil AIXM data viewed in ATM Viewer 2.1, a Snowflake proprietary software

4 FINAL ARRANGEMENTS

4.1 In order to forward suggestions for the ongoing enhancement of this publication, click on the specific publication link at <http://publicacoes.decea.intraer/> or <http://publicacoes.decea.gov.br>.

4.2 The cases not foreseen in this Circular shall be submitted to the Head of DECEA Operations Subdepartment.