

## About This Standard

**Current Status** *Emerging*

**Standard Identifier**      **AIXM 5.0**

### **Title of Standard**

Aeronautical Information Exchange Model (AIXM), Version 5.0, 10 March 2008

### **Standards History**

Introduced to Registry	Date Emerging	Date Mandated	Last Status Update	Last Status Review	Inactive/Retired
2009-03-26	2009-03-26	n/a	2009-03-26	2009-03-26	n/a

**Replaced**      [AIXM v4.5](#)

**Standards Body**      [Other](#)      [Broken Link?](#)  
**URL to Access or Acquire**      <http://www.aixm.aero>

### **Working Group**

**Primary Owner**      Geospatial Intelligence (GWG)  
**Secondary Interest**      No Secondary Interest

**Service Area**      GEOINT: Geospatial

**KIPs**      No KIP Found

### **Standard Applicability**

**2009-03-27**

This standard is applicable to the development of systems that have requirements to share aeronautical data. AIXM 5.0 provides a mechanism to exchange information applicable to aerodromes (airports), heliports, routes, navigation aids, fixes, instrument approach procedures, instrument departures, standard terminal arrival routes, organizations, units, services, obstacles and airspace. AIXM 5.0 is not backward compatible with any previously released versions of AIXM, for it introduces the use of GML, temporality, and metadata never used in an aeronautical data exchange before.

### **Standard Abstract**

**2009-03-27**

Aeronautical Information Exchange Model (AIXM) 5.0 is a standard exchange format containing hundreds of entities, data types, and relationships used to represent aeronautical data based on International Civil Aviation Organization (ICAO) standards and recommended practices as well as industry standards requirements for digital data exchange and GIS capability.

### **Profiling Questions**

**GEOINT: Geospatial**

- Do you require a system-to-system exchange of aeronautical data or do you need a data model for representing aeronautical data or are you working with aeronautical data such as airports, runways, routes, airspace, navigation aids and/or procedures?

## **Products Incorporating This Standard**

None

## **Relevant Information**

This citation is authored by the GWG Application Schemas for Feature Encoding Focus Group (ASFE).

## **Implementation Guidance**

AIXM 5.0 should be used in association with any standard or specification for a service that requires the ability to encode aeronautical information.

## **Standard Selection Criteria**

### **Interoperability/Supportability**

The Aeronautical Information Exchange Model (AIXM), v5.0 is a standards-based specification supporting aeronautical information collection, dissemination, and transformation throughout the data chain. AIXM uses Geography Markup Language (GML) to leverage existing commercial-off-the-shelf tools as well as web services. The AIXM conceptual model uses the Unified Modeling Language to define the relationships, behavior, and high-level ideas for aeronautical data.

### **Technical Maturity**

AIXM 5.0 was released for public use February 2008. AIXM 5.0 will not be backward compatible with previously released public versions, such as AIXM 4.5 and 3.3. The Aeronautical Information Conceptual Model (AICM) was first developed in 1996 by EUROCONTROL. In 1999, the AIXM XML exchange model for the AICM was developed. EUROCONTROL and various nations, including Canada, are using AIXM v4.5, released September 2006, for updates to their respected Aeronautical Information Publications (AIP) including the European Aeronautical Information System (AIS) Database (EAD).

### **Public Availability**

AICM/AIXM are freely available to the public and may be obtained at [www.aixm.aero](http://www.aixm.aero).

### **Implementability**

The European Organization for Safety of Navigation (EUROCONTROL) has been successfully using AIXM as an exchange standard between its member states to update the European AIS Database (EAD) for many years. Canada and partner NavCanada currently use AIXM to exchange their aeronautical data and update their Aeronautical Information Publications. The National Geospatial-Intelligence Agency (NGA) aeronautical division has transitional efforts underway to modernize the source workflow process and product line, with the AIXM standard being a large component driving that transformation.

### **Authority**

The AIXM standard is being managed through coordinated efforts among EUROCONTROL, FAA, and NGA. Comments, proposals, and contact with the development team can be submitted by email, telephone, or online forum at [www.aixm.aero](http://www.aixm.aero).

**Standard Type** Non-Military

**Standard Classification** Unclassified

**Keywords for Search**

AICM, AIXM, ARINC, EUROCONTROL, FAA, GML, ICAO, Safety of Navigation, XML, aeronautical, airports, airspace, aviation, navigation aids, routes, runways