



**AERONAUTICAL SERVICES  
ADVISORY MEMORANDUM  
(ASAM)  
Focal Point: Gen**

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No: 024  
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**Title: Guidance Material on the European AIS Database (EAD)**

## **1. INTRODUCTION**

- 1.1. Aeronautical information is constantly changing: airspace structures and routes are revised, navigation aids change, SIDs and STARs are amended, runway and taxiway information changes. It is essential, for both efficiency and safety, that Pilots, Air Traffic Controllers, Air Traffic Flow Managers, Flight Management Systems and Aviation Charts all have the same data set. This can be followed through European AIS Database (EAD).
- 1.2. EAD is the world's largest Aeronautical Information System – a centralised reference database of quality-assured aeronautical information and, simultaneously, a fully integrated, state-of-the-art Aeronautical Information Services (AIS) solution.
- 1.3. EAD lets aeronautical information providers – including AIS organisations from civil aviation authorities, air navigation service providers and military administrations in the European Civil Aviation Conference (ECAC) area – enter and maintain their data in a central repository.
- 1.4. At the same time, EAD enables data users – such as aircraft operators, private pilots and the general public – to retrieve and download AIS data from the system in real-time.
- 1.5. Aeronautical data originators need to be aware of the AIS provider's cut off dates to meet each of the EAD's effective dates.

## **2. REFERENCES**

- 2.1. The operation and maintenance of Aeronautical Information Services in Ireland is subject to a number of ICAO, EC and Irish Regulations, Standards and Recommended practices. Relevant legislation includes:
  - 2.1.1. ICAO Annex 15 to the convention on International Civil Aviation, (Aeronautical Information Services).
  - 2.1.2. ICAO Doc 8126-AIS Manual
- 2.2. Eurocontrol EAD Safety Case
- 2.3. Eurocontrol EAD Programme

## **3. DETAIL**

### **3.1. One-Stop-Shop, Open 24 Hours, Around the World**

- 3.1.1. EAD offers instant access, no matter where you are in the world, to the most up-to-date digital aeronautical information from the ECAC area, NOTAM (Notices to Airmen), Pre-flight Information Bulletins (PIBs) from around the world.

### **3.2. Why EAD?**

- 3.2.1. EAD is a single source for your aeronautical data needs. EAD is a safer, faster; more accurate and cost-effective solution than previous non-harmonized methods of AIS data collection and delivery, and it increases the availability and accessibility of AIS information.



### 3.3. Data Users

3.3.1. Data users consult and download data or aeronautical publications, and generate reports from EAD. Typical data users include:


- 3.3.1.1. data providers;
- 3.3.1.2. aircraft operators;
- 3.3.1.3. international organisations;
- 3.3.1.4. private pilots;
- 3.3.1.5. commercial users; and
- 3.3.1.6. the general public

### 3.4. Benefits

3.4.1. The European AIS Database (EAD) offers a number of clear benefits to both Data Providers and Data Users. They include:

- 3.4.1.1. a reliable source of European aeronautical information in real-time;
- 3.4.1.2. significantly improved data quality enabled by constant data-checking (based on International Civil Aviation Organisation (ICAO) and EUROCONTROL recommendations), including NOTAMs (Notice to Airmen) validation and cross-border data-coherence verification;
- 3.4.1.3. ensure data integrity based on cyclic redundancy checks (CRC);
- 3.4.1.4. additional cross-border data-coherence verification;
- 3.4.1.5. a secure channel for timely and efficient electronic distribution of aeronautical information to all users; and
- 3.4.1.6. reduced workload throughout the complete AIS process;
- 3.4.1.7. reduced investment costs in development and maintenance of local systems by both AIS Units and airspace users; and
- 3.4.1.8. Increased availability of data through easy access

### 3.5. Safety

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3.5.1. The EAD contributes to a reduction in safety risks posed by the distribution and publication of aeronautical information. A full safety case, in line with Eurocontrol ESARR's, has allowed to identify, mitigate and manage all risks with respect to the introduction, operation and correct use of the EAD.

### **3.6. Data quality**

3.6.1. One of the major objectives of the EAD is the improvement of the quality of data. Data quality will continue to increase as all parties use standardised rules and procedures, implemented at system level, and ensure cross-border consistency. Additionally, other quality improvement steps have been taken to ensure that errors, which were not detected during input, in the EAD are identified and rectified, thus enhancing the quality of the data contained in EAD.


3.6.2. In order to ensure the highest levels of quality of the whole EAD, the data contained within the EAD is reviewed in accordance with the Service Provider QMS. This does not only include the data processed by the EAD Service Provider but it also includes the data updated by the migrated Data Providers. Furthermore for each error, the severity will be determined according to a specific classification which is based upon the potential risk resulting from the corruption of data and upon the use to which the item data is put as defined in ICAO Annex 15, item 3.2.8 and Appendix 7. In case of an original or Data Provider error, the relevant Data Provider and/or originating State are informed while all other errors are corrected by the EAD Service Provider.

3.6.3. Rigorous quality checking procedures have been put in place to ensure that the quality of the data within the whole EAD is of the highest level. The standardization of data input rules, together with data checking and rectification, are and will remain therefore one of the major focal points of everyone involved in the EAD to ensure, in time and relevant delivery of aeronautical information.

### **3.7. EAD Access**

3.7.1. The European AIS Database (EAD) adapts to your needs – and your budget. **EAD Basic** offers standard aeronautical data reports, Pre-flight Information Bulletins (PIBs) and Aeronautical Information Publications (AIP) and is available via the web. **EAD Pro** allows sophisticated applications to be installed on your terminal, enabling you to create and generate reports on NOTAM (Notice to Airmen) and Aeronautical Information Service (AIS) publications to facilitate your daily briefing activities. And with **My EAD**, you can even configure EAD to feed NOTAM and aeronautical data directly into your own IT systems

3.7.2. EAD allows pilots to check their planned routes, online, from their homes, offices or hotels. Every data user has access to the same information at all times, making route-planning and forecasting easier and safer. EAD also offers AIS data providers and

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users the possibility to save precious human and financial resources by eliminating the need to independently process data or to maintain expensive AIS IT systems.

### **3.8. EAD Basic**

3.8.1.EAD Basic is the database's Public Access Service application for pilots, aviation specialists and the general public. EAD Basic allows users to browse the database via the web – with instant access, anytime, anywhere. You can quickly and easily:

- 3.8.1.1. create ad-hoc Pre-flight Information Bulletins (PIB);
- 3.8.1.2. generate standard aeronautical data reports; and
- 3.8.1.3. browse Aeronautical Information Publication (AIP) and chart publications

3.8.2.If this is your first time accessing EAD Basic, please complete the free registration form online at <http://ead-website.ead-it.com/publicuser/public/pu/registration.jsp>

3.8.3.. Then review the software requirements checklist. Lastly, follow the Java plug-in installation procedure.

### **3.9. EAD Pro**

3.9.1.EAD Pro is the database's service for professional, high-volume users such as air operators, airlines, aviation service companies and Aeronautical Information Services (AIS) data providers. It is a software suite of specially-designed applications that provide access to all European AIS Database (EAD) services via a user-friendly, graphical interface. EAD Pro is a fully integrated, state-of-the-art AIS solution that offers users:

- 3.9.1.1. NOTAM (Notice to Airmen) creation and Pre-flight Information Bulletins (PIB);
- 3.9.1.2. static data maintenance, data downloads and report generation;
- 3.9.1.3. chart and AIP (Aeronautical Information Publication) production; and
- 3.9.1.4. An AIP and chart library.


3.9.2.If you want to register or, if you are ready to start using My EAD, please contact Eurocontrol to discuss your requirements at [ead.service@eurocontrol.int](mailto:ead.service@eurocontrol.int).

### **3.10. My EAD**

3.10.1. My EAD provides your organisation's existing Aeronautical Information Services (AIS) applications with a full range of functions, and allows your systems to access and exchange data seamlessly with European AIS Database (EAD). My EAD lets the systems communicate by sending and receiving messages based on XML schemas.

3.10.2. My EAD can work with any application in your organisation that requires EAD data, and can customise those applications based on your needs. This includes, but is not limited to:

- 3.10.2.1. NOTAM (Notice to Airmen) creation and Pre-flight Information Bulletins;
- 3.10.2.2. static data maintenance and report generation; and
- 3.10.2.3. Aeronautical Information Publication (AIP) and chart library management.

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### **3.11. How My EAD Works**

3.11.1. Technically, on the client side, My EAD consists of three basic components:

3.11.1.1. An EAD System Interface (ESI), which is a library of functions that user-applications can access to exchange data. Data is transferred by sending and receiving ESI messages.

3.11.1.2. ESI Middleware, which is a COTS (commercial off-the-shelf) product that provides message transport facilities across a wide area network or via the Internet.

3.11.1.3. XML schemas that define the format and syntax of ESI messages. Each EAD subsystem provides a set of XML schemas that specify how to construct request messages that invoke subsystem functions, and how to interpret responses received from the subsystem via ESI.

3.11.2. The ESI document library is available via the OneSky Teams website (EURO Control's restricted-access extranet). If you want to register or, if you are ready to start using My EAD, please contact Eurocontrol to discuss your requirements at [ead.service@eurocontrol.int](mailto:ead.service@eurocontrol.int).

### **3.12. EAD Dates**

#### **3.12.1. Private slots' closing date**

3.12.1.1. At 23:59 on this day, Private Slots will become inaccessible to the client. Until this date the client shall have finalised the static data updates, checked the private slot content to prevent any data error and check the status of the private slot that must be either consistent or closed.

3.12.1.2. During the next 7 days the EAD DOP shall check the public slot and coordinate with the clients problems detected, if any.

#### **3.12.2. Planned Commit Date**

**3.12.3. The public slot shall be in the status "consistent". The EAD DOP commits the data to the database. The data is replicated to the AIP and Chart production tool.**

3.12.3.1. The static data validated is now available for the production of the AIP amendment and the update of the charts.

#### **3.12.4. Effective Date**

3.12.4.1. At this date the data enters into effect.

#### **3.12.5. Note:**

3.12.5.1. The clients shall ensure that the Private Slot Closing Date and/or Planned Commit Date do not coincide with weekends and/or public holidays, otherwise last minute coordination concerning inconsistencies in the loaded data cannot take place.

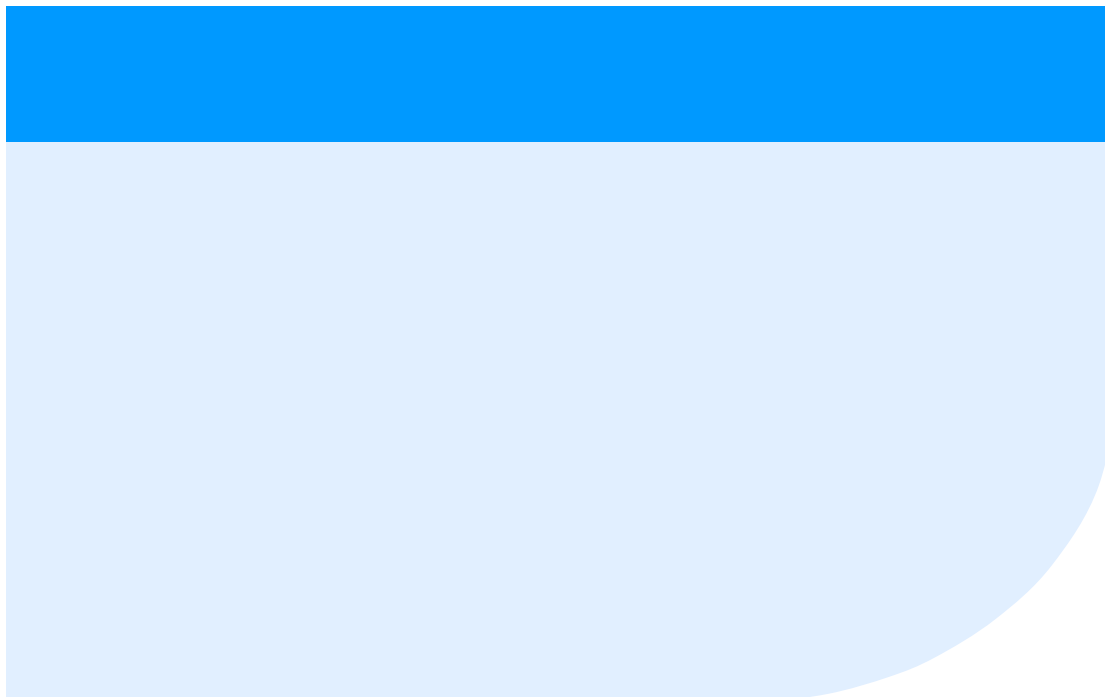
### **3.13. EAD System**



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**3.13.1. . The sequence for EAD means of compliance with the AIRAC standards of ICAO Annex 15 is –**

- 3.13.1.1. Electronic data in AIXM format is entered in the Database prior to AIRAC minus 70 days.
- 3.13.1.2. This data is checked and verified by the EAD System during the 7 day period between AIRAC minus 67 to AIRAC minus 60.
- 3.13.1.3. Paper preparation begins following successful electronic data input at AIRAC minus 60.
- 3.13.1.4. Bulk printing and posting typically absorbs 7 to 10 days thus allowing approximately 8 days for initial paper preparation at AIRAC minus 60 to AIRAC minus 52.



**3.13.2. The Irish State has chosen the EAD method of compliance as the acceptable means of compliance with the AIRAC Standards of ICAO Annex 15. Ireland has reported no differences to exist between the standards applicable within the Irish State and those of ICAO Annex 15.**

- 3.13.2.1. Date at which changes take effect.