



ICAO Annex 15 and PANS-AIM from an Industry Perspective

Interregional EUR/MID PANS AIM Workshop
Paris, France, 10-12 July 2018

Volker Meyer
Boeing Digital Aviation & Analytics
Jeppesen

AIRAC Adherence in New Annex 15

6.2 Aeronautical Information Regulation and Control (AIRAC)

6.2.3 ~~6.2.1~~ Information provided under the AIRAC system ~~in paper copy form shall be distributed~~ made available by the AIS unit at least 42 days in advance of the effective date with the objective of reaching ~~so as to reach~~ recipients at least 28 days in advance of the AIRAC effective date.

Note. — AIRAC information is distributed by the AIS at least 42 days in advance of the AIRAC effective dates with the objective of reaching recipients at least 28 days in advance of the effective date.

6.2.7 ~~6.2.2~~ **Recommendation.** — *Whenever major changes are planned and where advance notice is desirable and practicable, information ~~provided in paper copy form shall be distributed~~ made available by the AIS unit so as to reach recipients at least 56 days in advance of the effective date. This should be applied to the establishment of, and premeditated major changes in, the circumstances listed in Appendix 4, Part 3, below, and other major changes if deemed necessary.*

AIRAC Adherence in New Annex 15

6.2 Aeronautical Information Regulation and Control (AIRAC)

6.2.3 Information provided under the AIRAC system shall be made available by the AIS so as to reach recipients at least 28 days in advance of the AIRAC effective date.

Note. — AIRAC information is distributed by the AIS at least 42 days in advance of the AIRAC effective dates with the objective of reaching recipients at least 28 days in advance of the effective date.

6.2.7 Recommendation. — *Whenever major changes are planned and where advance notice is desirable and practicable, information should be made available by the AIS so as to reach recipients at least 56 days in advance of the effective date. This should be applied to the establishment of, and premeditated major changes in, the circumstances listed below, and other major changes if deemed necessary.*

AIRAC Cycle and Industry Processing Timelines

AIRAC Cycle Number	ICAO Annex 15/PANS AIM			Jeppesen		Avionics	ICAO
	Major Changes (56 days in advance)	Normal Changes (42 days in advance)	Normal Changes to Reach Recipients (28 days in advance)	Processing of Nav Data Extract Begins	ARINC 424 Data Set Deliveries to OEMs Begin	OEM Database Deliveries to FMS Begin	AIRAC Effective Date
1807	26 Apr 18	10 May 18	24 May 18	1 Jun 18	4 Jun 18	7 Jun 18	21 Jun 18
1808	24 May 18	7 Jun 18	21 Jun 18	29 Jun 18	2 Jul 18	5 Jul 18	19 Jul 18
1809	21 Jun 18	5 Jul 18	19 Jul 18	27 Jul 18	30 Jul 18	2 Aug 18	16 Aug 18
1810	19 Jul 18	2 Aug 18	16 Aug 18	24 Aug 18	27 Aug 18	30 Aug 18	13 Sep 18
1811	16 Aug 18	30 Aug 18	13 Sep 18	21 Sep 18	24 Sep 18	27 Sep 18	11 Oct 18

56 days

42 days

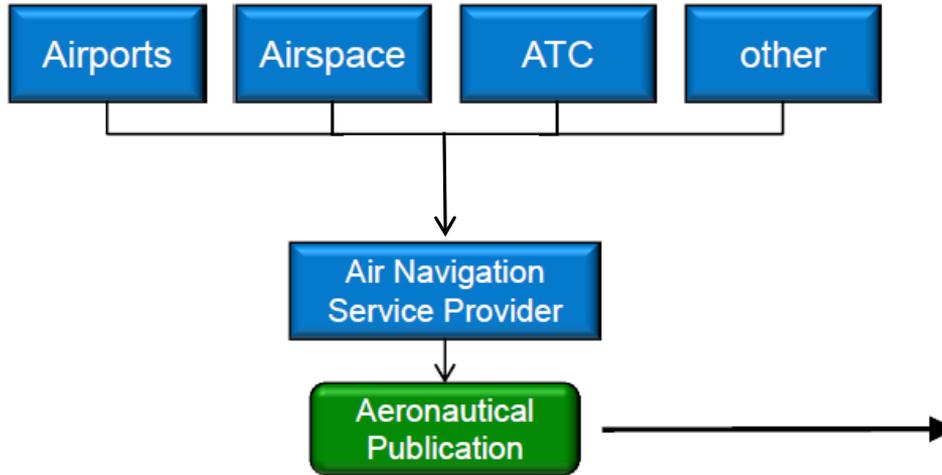
28 days

20 days

17 days

14 days

Standardizing Aeronautical Information



New ICAO Annex 15

2.1 State responsibilities

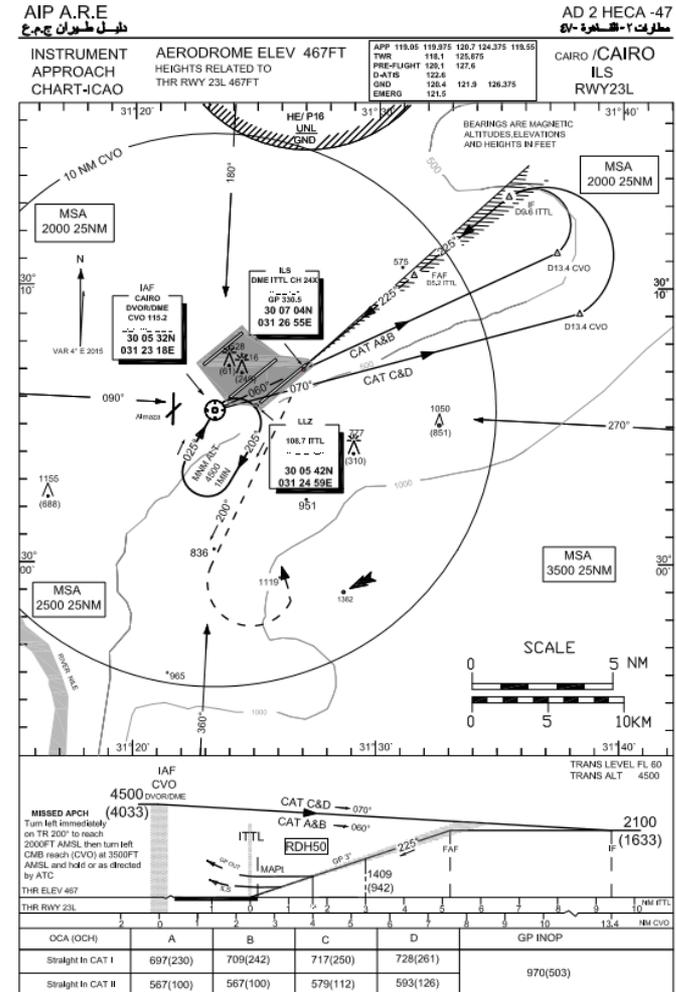
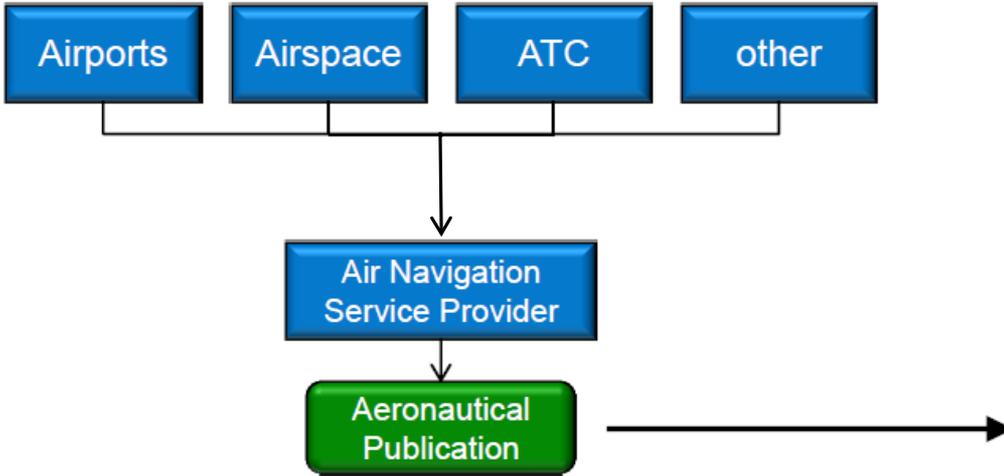
2.1.1 Each Contracting State shall:
provide an aeronautical information
service (AIS) ...

2.1.2 Each Contracting State shall
ensure that the provision of aeronautical data
and aeronautical information covers its own
territory and those areas over the high seas for
which it is responsible for the provision of air
traffic services ...

2.1.4 Each Contracting State shall
ensure that the aeronautical data and
aeronautical information provided are
complete, timely and of required quality ...

Standardizing Aeronautical Information

Boeing Commercial Airplanes / Flight Services | Jeppesen GmbH

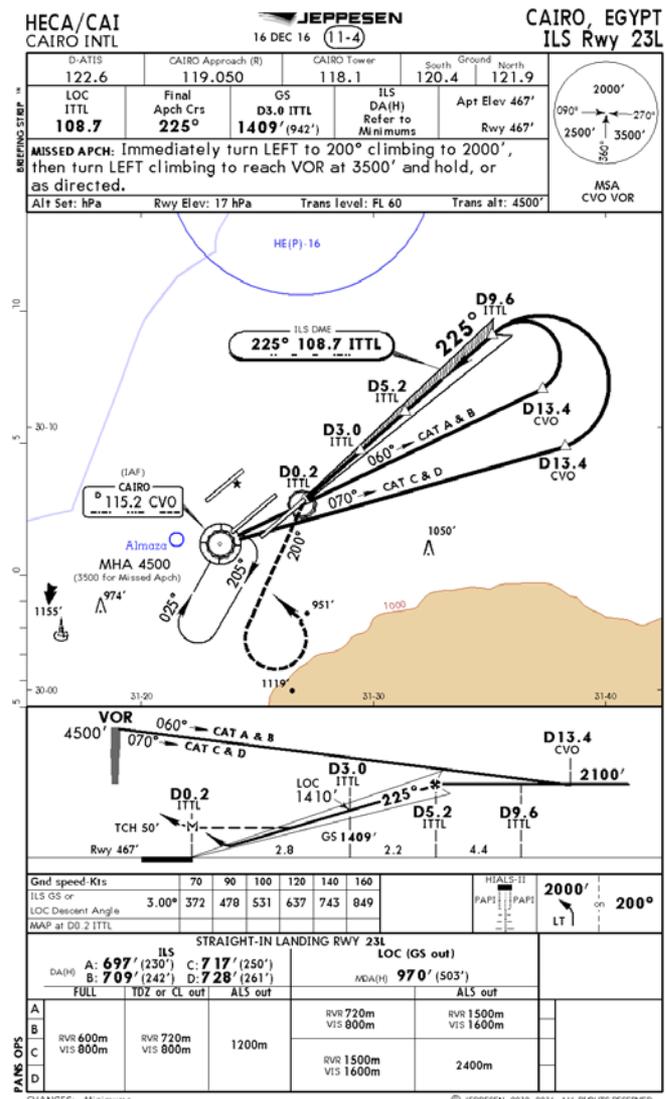
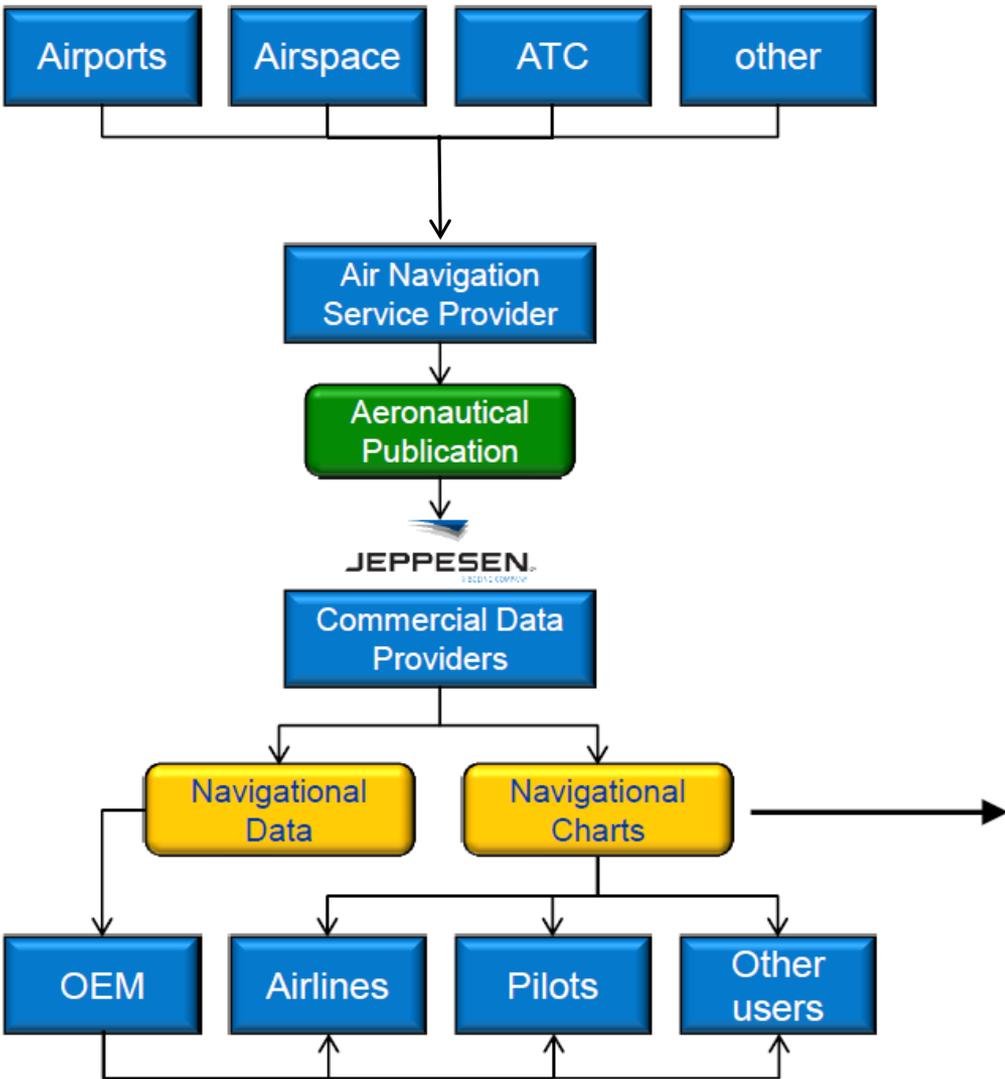


Ministry of Civil Aviation - Cairo.
 وزارة الطيران المدني - القاهرة

08 DEC 2016
 AIRAC 4/16

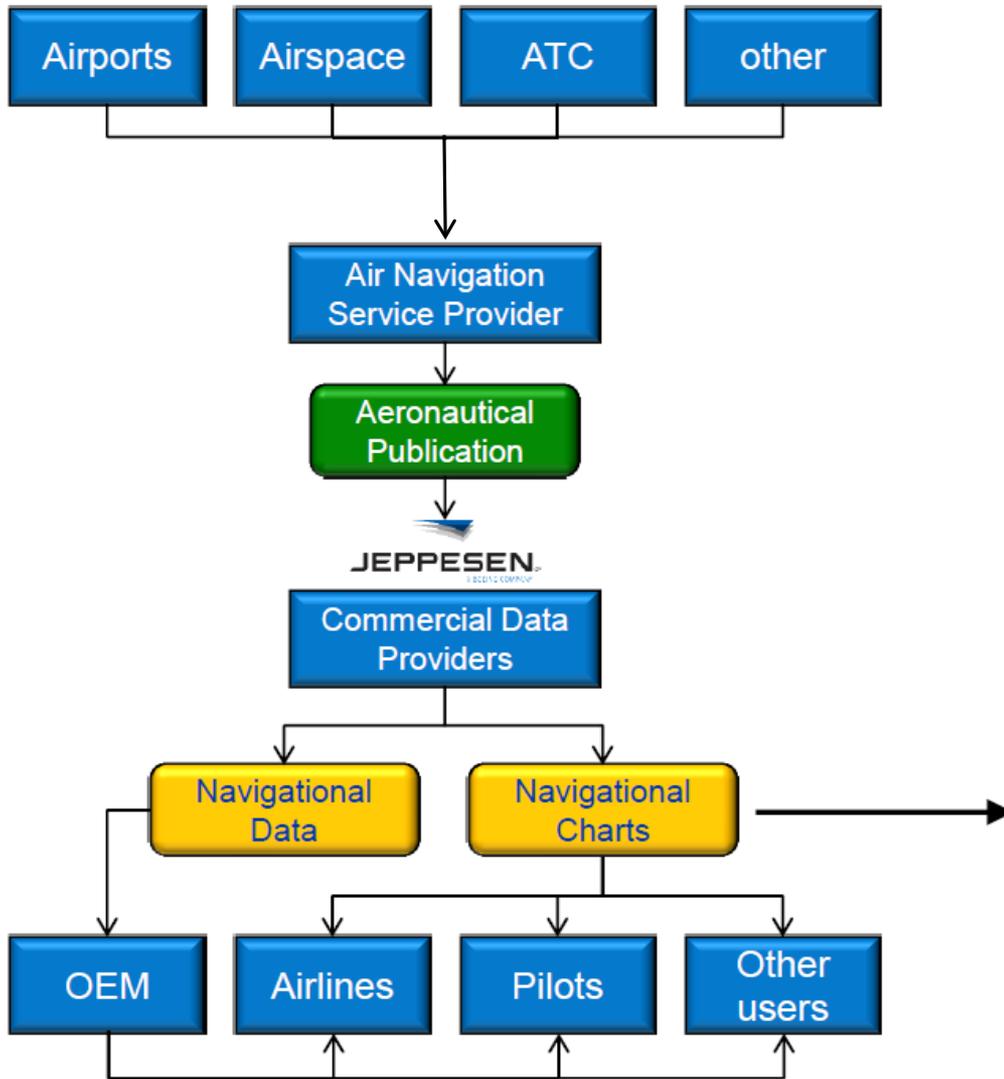
Standardizing Aeronautical Information

Boeing Commercial Airplanes / Flight Services | Jeppesen GmbH

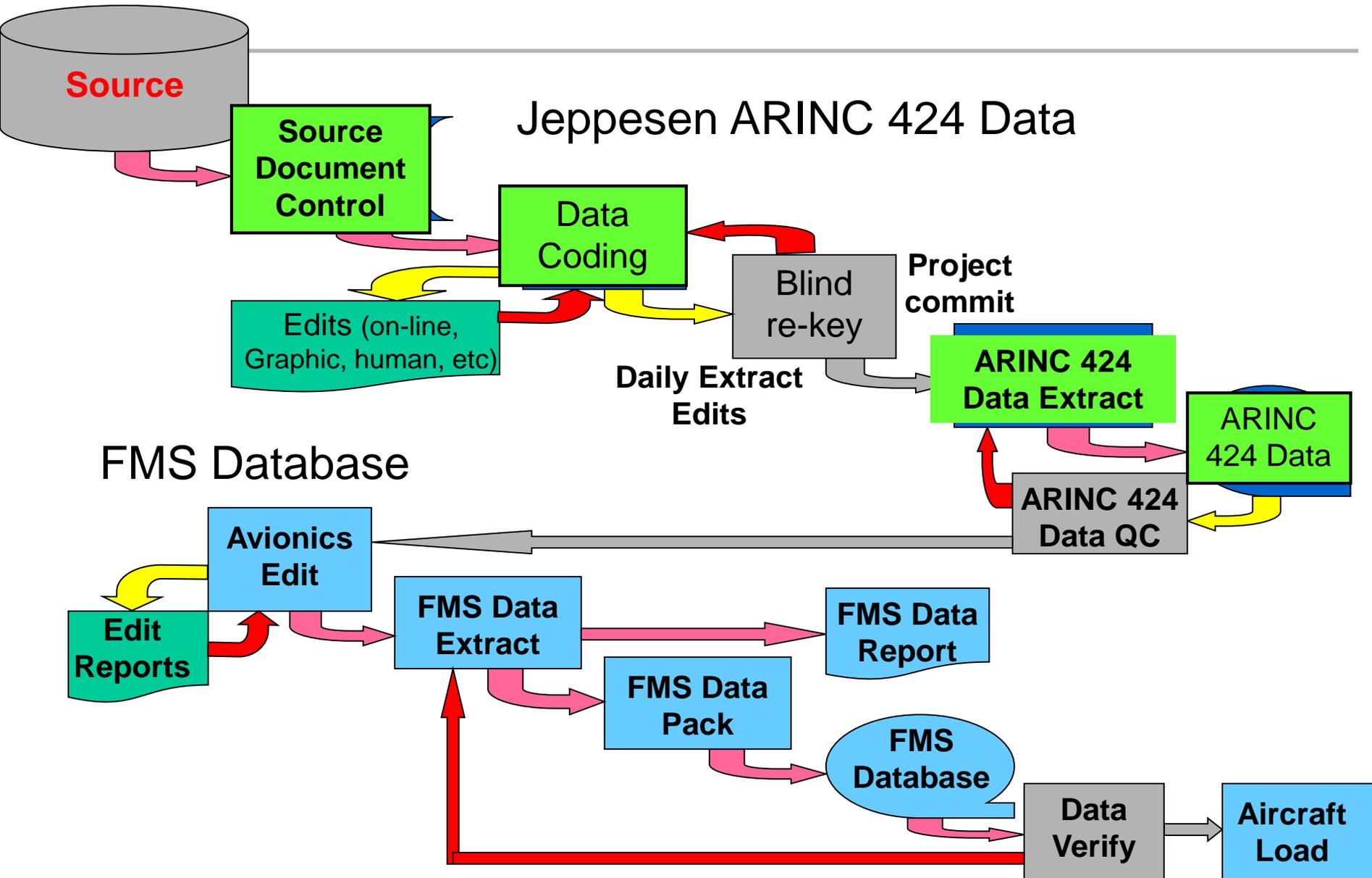


Jeppesen NavData

Boeing Commercial Airplanes / Flight Services | Jeppesen GmbH



Downstream Data Process



Worldwide Data Challenge

- **Very large and growing**
- **Increasing difficulty in managing with required quality**

- 🌐 14,600 Airports
- 🌐 89,200 Airport Details
- 🌐 10,600 Airport Comms
- 🌐 28,600 Nav aids
- 🌐 4,600 ILS Approaches
- 🌐 6,300 VOR Approaches
- 🌐 3,600 NDB Approaches
- 🌐 7,100 RNAV Approaches
- 🌐 17,500 Departures
- 🌐 13,200 Arrivals
- 🌐 72,000 Terminal Waypoints
- 🌐 3,400 High Airways
- 🌐 3,000 Low Airways
- 🌐 2,800 High/Low Airways
- 🌐 22,600 Enroute Waypoints

AIRAC Adherence in New Annex 15

6.3.3 Data set updates

6.3.3.1 Data sets shall be amended or reissued at such regular intervals as may be necessary to keep them up to date.

6.3.3.2 Permanent changes and temporary changes of long duration (three months or longer) made available as digital data shall be issued in the form of a complete data set or a sub-set that includes only the differences from the previously issued complete data set.

6.3.3.3 **Recommendation.**— *When made available as a completely re-issued data set, the differences from the previously issued complete data set should be indicated.*

6.3.3.4 **Recommendation.**— *When temporary changes of short duration are made available as digital data (Digital NOTAM), they should use the same aeronautical information model as the complete data set.*

6.3.3.5 Updates to AIP, AIP data sets and Instrument Flight Procedures data sets shall be synchronised.

New ICAO Doc 10066 (PANS-AIM)

CHAPTER 6 - AERONAUTICAL INFORMATION UPDATES

6.1 Aeronautical Information Product updates

6.1.1 The same update cycle shall be applied to the AIP Amendments, the AIP data set and the Instrument Flight Procedures data set in order to ensure the coherence of the data items that appear in multiple Aeronautical Information Products.

6.1.2 Specifications for AIP Amendments

6.1.2.1 The AIP Amendment regular interval shall be specified in the AIP, Part 1 — General (GEN).

Note.— Guidance material on the establishment of intervals between publication dates of AIP Amendments is contained in Doc 8126.

6.1.2.2 When an AIP Amendment will not be published at the established interval or publication date, a NIL notification shall be originated and distributed by the NOTAM checklist.

6.1.2.3 Recourse to hand amendments or annotations shall be kept to a minimum.

6.1.2.4 When the AIP is provided in more than one volume, each volume should include separate amendment services.

New ICAO Doc 10066 (PANS-AIM)

6.1.5 Specifications for digital data updates

6.1.5.1 The update interval for the AIP data set and Instrument Flight Procedures data sets shall be specified in data product specification.

6.1.5.2 Data sets that have been made available in advance (according to the AIRAC cycle) shall be updated with the non-AIRAC changes that occurred in between the publication and the effective date.

Typical Aeronautical Data Problems

- **Late publication of information per AIRAC**
- **Late postponement of information per AIRAC**
- **Publications not received (nrs missing in sequence)**

A Result of Late State Source



JEPPESSEN[®] **Chart Alert**

!! URGENT !!

Date: 8 September 2017

Subject:

Multiple Procedures

AIP SUP 37/17 (effective 14 SEP 17)

Charts not updated

AIP SUP 37/17 (effective 14 Sep 17) was received after the date specified by ICAO for aeronautical information distribution. As a result, changes could not be processed for the 14 Sep 17 effective date. The charts will be updated as shown below:

SID charts 10-3/10-3A/10-3B/10-3C	Revision 15 Sep 17
Approach & Airport charts update	Revision 22 Sep 17

This Chart Alert is also posted on the Jeppesen Web site: [Notices and Alerts](#).

Industry Challenge – Volume & Timeliness of State Source Changes

■ Statement of Issue

- State publication of major and normal changes – either late or in a heavy volume – can overload industry capability to process and provide users with current procedures and aeronautical information

■ Stakeholders

- State AIM and ATM, Industry, Civil/Military Users

■ Potential Solutions

- AIRAC adherence and good communication and coordination

