



Advisory

Circular

UCAAA-AC-AIM011

December 2022

GUIDANCE ON THE USE OF AIRAC SYSTEM TO NOTIFY SIGNIFICANT CHANGES OF CIRCUMSTANCES.

1.0 PURPOSE

This Advisory Circular (AC) provides information and guidance on the use of the AIRAC system to notify significant changes of circumstances that necessitate significant changes in operating practices.

2.0 REFERENCE

- 2.1. Regulation 41 of The Civil Aviation (Aeronautical Information Services) Regulations, 2022
- 2.2. ICAO Doc 10066 – PANS AIM
- 2.3. ICAO Doc 8126 – AIS Manual

3.0 GUIDANCE AND PROCEDURES

3.1. Background

- 3.1.1. Regulation 41 of The Civil Aviation (Aeronautical Information Services) Regulations, 2022 requires the aeronautical information service provider (AISP) to distribute under the regulated system (AIRAC) information concerning the establishment, withdrawal or significant change of circumstances that necessitate significant changes in operating practices, upon a series of common effective dates at intervals of twenty-eight days.
- 3.1.2. Aeronautical information is constantly changing as airspace structures and routes are revised, navigation aids change, flight procedures are amended, and runway and taxiway information changes. It is essential for efficiency and safety that airlines, pilots, air traffic controllers, air traffic flow managers, Flight Management Systems developers/designers and Aeronautical Charts producers all use the same aeronautical information at the same time. This necessitates a need to put in place a system based on common effective dates to ensure that changes to aeronautical information are made in a consistent manner by States around the world, thus the aeronautical information regulation and control (AIRAC).
- 3.1.3. AIRAC is a system aimed at advance notification, based on common effective dates, of circumstances that necessitate significant changes in operating practices. As a result, States are working with globally agreed timelines when it comes to making aeronautical information available, allowing all further actors in the data chain to perform their obligations in a timely manner.

3.2. Responsibilities of the AISP

The AISP is responsible for the following:

- 3.2.1. Ensuring the flow of aeronautical information necessary for the safety, regularity and efficiency of air navigation, that includes all information concerning changes in facilities, services or procedures that needs to be processed in a timely manner.
- 3.2.2. Publishing aeronautical information and data according to the AIRAC effective dates. They shall ensure the integrity of data and confirm the level of accuracy of the information distributed for operations, including the source of such information, before such information is distributed. Therefore, operationally significant changes to the AIP shall be published in accordance with AIRAC.
- 3.2.3. Determining the latest date for making information available in order to meet the corresponding AIRAC effective dates. Aeronautical data originators need to be aware of the AISP's sign-off or cut-off dates to meet each of the AIRAC effective dates. The best way of informing data originators of the cut-off dates for information to be received by the AISP is to include the dates in the formal arrangements with the data originators, e.g. service level agreements or data product specifications. These formal arrangements should be reviewed and updated on a regular basis. In addition, the AISP should regularly publish, usually in the form of an AIC or online, a list of AIRAC effective dates, publication dates and latest reception dates on which the aeronautical information has to reach the AISP. A table presenting a schedule of AIRAC significant dates is shown below.

2023	2024	2025	2026	2027	2028	2029
2023-01-26	2024-01-25	2025-01-23	2026-01-22	2027-01-21	2028-01-20	2029-01-18
2023-02-23	2024-02-22	2025-02-20	2026-02-19	2027-02-18	2028-02-17	2029-02-15
2023-03-23	2024-03-21	2025-03-20	2026-03-19	2027-03-18	2028-03-16	2029-03-15
2023-04-20	2024-04-18	2025-04-17	2026-04-16	2027-04-15	2028-04-13	2029-04-12
2023-05-18	2024-05-16	2025-05-15	2026-05-14	2027-05-13	2028-05-11	2029-05-10
2023-06-15	2024-06-13	2025-06-12	2026-06-11	2027-06-10	2028-06-08	2029-06-07
2023-07-13	2024-07-11	2025-07-10	2026-07-09	2027-07-08	2028-07-06	2029-07-05
2023-08-10	2024-08-08	2025-08-07	2026-08-06	2027-08-05	2028-08-03	2029-08-02
2023-09-07	2024-09-05	2025-09-04	2026-09-03	2027-09-02	2028-08-31	2029-08-30
2023-10-05	2024-10-03	2025-10-02	2026-10-01	2027-09-30	2028-09-28	2029-09-27
2023-11-02	2024-10-31	2025-10-30	2026-10-29	2027-10-28	2028-10-26	2029-10-25
2023-11-30	2024-11-28	2025-11-27	2026-11-26	2027-11-25	2028-11-23	2029-11-22
2023-12-28	2024-12-26	2025-12-25	2026-12-24	2027-12-23	2028-12-21	2029-12-20

- 3.2.4. Putting in place measures to ensure that AIRAC information is issued to be received by the user not later than 28 days, and for major changes not later than 56 days, in advance or before the effective date.
- 3.2.5. Ensuring that the information notified under the AIRAC system is not changed further for at least another 28 days after the effective date unless the circumstance notified is of a temporary nature and would not persist for the full period.
- 3.2.6. Issuing a trigger NOTAM at the AIRAC effective date, giving a brief description of the contents, effective date and reference number of the AIRAC AIP AMDT or AIRAC AIP SUP that will become effective on that date. The Trigger NOTAM will remain in force as reminder in the PIB until the new checklist/summary is issued.
- 3.2.7. Meeting the AIRAC dates, thus ensuring that amendments to airline operations manuals or other documents produced by data integrators can be updated in a timely manner. If AIP Amendments or

AIP Supplements concerning such information were published indiscriminately with a variety of effective dates, it would be impossible to keep the manuals and other documents consistent and up to date.

3.3. Responsibilities of the aeronautical data/aeronautical information originator

- 3.3.1. The benefits of the AIRAC system are directly dependent upon the degree to which the AIRAC procedures are applied and monitored by the authorities responsible for originating changes in facilities, services or procedures.
- 3.3.2. The aeronautical data and/or aeronautical information originator is responsible for ensuring that the aeronautical data and/or aeronautical information to be published in accordance with AIRAC is submitted to for regulatory approval in sufficient time to enable the regulatory approval processes to be undertaken and thereafter have the aeronautical data and/or aeronautical information forwarded to the AIS by the latest date the information is meant to reach AIS for publication in accordance with the AIRAC system.

3.4. Information to be distributed under AIRAC

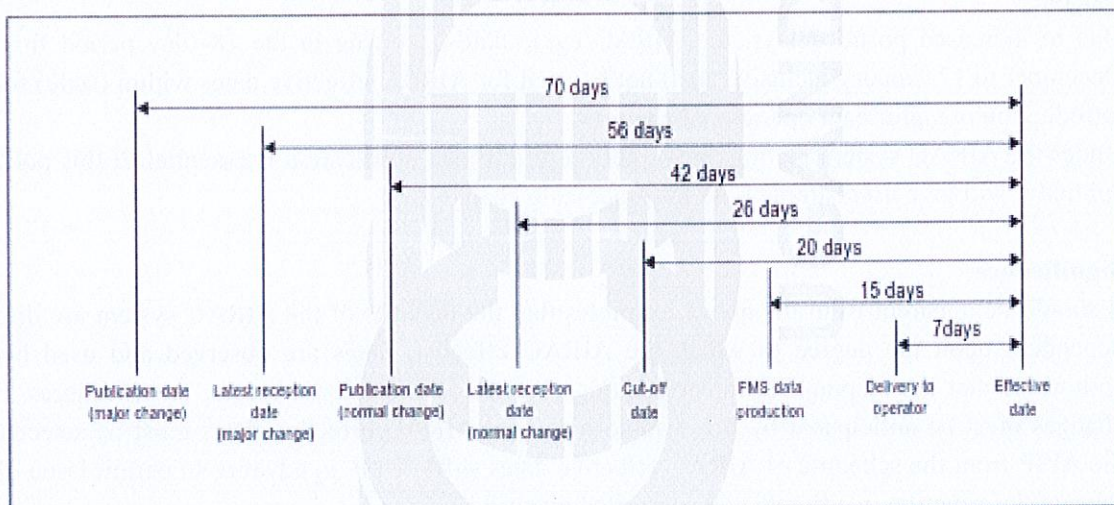
- 3.4.1. The AISP shall distribute under the regulated system (AIRAC) information concerning, the following circumstances, basing the establishment, withdrawal or significant changes, upon a series of common effective dates at intervals of twenty-eight days as follows:
 - a) horizontal and vertical limits, regulations and procedures applicable to—
 - i. flight information regions;
 - ii. control areas;
 - iii. control zones;
 - iv. advisory areas;
 - v. ATS routes;
 - vi. permanent danger, prohibited and restricted areas including type and periods of activity when known and ADIZ;
 - vii. permanent areas or routes or portions where the possibility of interception exists;
 - b) positions, frequencies, call signs, identifiers, known irregularities and maintenance periods of radio navigation aids, and communication and surveillance facilities;
 - c) holding and approach procedures, arrival and departure procedures, noise abatement procedures and any other pertinent ATS procedures;
 - d) transition levels, transition altitudes and minimum sector altitudes;
 - e) meteorological facilities, including broadcasts and procedures;
 - f) runways and stopways;
 - g) taxiways and aprons;
 - h) aerodrome ground operating procedures including low visibility procedures;
 - i) approach and runway lighting; and
 - j) aerodrome operating minima if published by the Authority.
- 3.4.2. The AISP should ensure that information notified under the AIRAC system is not changed further for at least another twenty-eight days after the effective date unless the circumstance notified is of a temporary nature and would not persist for the full period.
- 3.4.3. Information provided under the AIRAC system shall be made available by the AISP so as to reach recipients at least twenty-eight days in advance of the AIRAC effective date.
- 3.4.4. When information has not been submitted by the AIRAC date, a NIL notification shall be distributed by the AISP not later than one cycle before the AIRAC effective date concerned.

- 3.4.5. The AISP should ensure that implementation dates other than AIRAC effective dates are not used for pre-planned operationally significant changes requiring cartographic work or for updating of navigation databases.
- 3.4.6. The regulated AIRAC system shall be used by the AISP for the provision of information relating to the establishment and withdrawal of, and premeditated significant changes in, the following circumstances:
- a) position, height and lighting of navigational obstacles;
 - b) hours of service of aerodromes, facilities and services;
 - c) customs, immigration and health services;
 - d) temporary danger, prohibited and restricted areas and navigational hazards, military exercises and mass movements of aircraft; and
 - e) temporary areas or routes or portions thereof where the possibility of interception exists.
- 3.4.7. Whenever major changes are planned and where advance notice is desirable and practicable, information shall be made available by the AISP so as to reach recipients at least fifty-six days in advance of the effective date and the effective date shall be applied to the establishment of, and premeditated major changes in, the following circumstances and other major changes if deemed necessary:
- a) new aerodromes for international IFR operations;
 - b) new runways for IFR operations at international aerodromes;
 - c) design and structure of the air traffic services route network;
 - d) design and structure of a set of terminal procedures including change of procedure bearings due to magnetic variation change;
 - e) circumstances in 3.4.1 above if the entire State or any significant portion is affected or if cross-border coordination is required.

3.5. AIRAC, a system of keeping aeronautical information up to date

- 3.5.1. An AISP must publish AIP Amendments, AIP Supplements and aeronautical charts in accordance with the international schedule of AIRAC effective dates. Permanent changes to the AIP shall be published as AIP Amendments. Temporary changes of long duration (three months or longer) and information of short duration which contains extensive text and/or graphics shall be published as AIP Supplements.
- 3.5.2. Since many of the changes to facilities, services and procedures can be anticipated, and become effective in accordance with a predetermined schedule of effective dates, Regulation 41 of The Civil Aviation (Aeronautical Information Services) Regulations, 2022 requires the AISP to use a regulated system designed to ensure, unless operational considerations make it impracticable, that:
- a) information concerning any circumstances listed in para 3.5 above will be issued as AIP Amendments or AIP Supplements. These amendments and supplements must be identified by the acronym "AIRAC" and reach the recipient at least 28 days in advance of the effective date for usual changes and 56 days in advance for major changes;
 - b) the AIRAC effective dates must be in accordance with the predetermined, internationally agreed schedule of effective dates based on an interval of 28 days, including 2 January 2020; and
 - c) information so notified must not be changed further for at least another 28 days after the indicated effective date unless the circumstance notified is of a temporary nature and would not persist for the full period.

- 3.5.3. Essentially, the AISP must not use implementation dates other than AIRAC effective dates for pre-planned, operationally significant changes requiring cartographic work and/or updating of navigation databases.
- 3.5.4. There are three significant dates associated with the AIRAC system, namely:
- the publication date, i.e. the date at which the AIS sends out the information;
 - the latest reception date, i.e. the latest date for new, amended or deleted information to reach the recipients; and
 - the effective date, i.e. the AIRAC date at which the changes take effect.
- 3.5.5. The processing cycle for airborne navigation databases requires the database to be distributed at least seven days before the effective date. At least eight days are necessary to prepare the data in the database; therefore, the navigation data houses generally exercise a cut-off 20 days prior to the effective date in order to ensure that the subsequent milestones are met. Data supplied after the 20-day cut-off will generally not be included in the database for the next cycle as shown in the Figure below.



3.6. Coordination

- 3.6.1. An AIS organization depends on various parties for the distribution of aeronautical data and aeronautical information to be used in its products and services. The following are some causes that can lead to AIRAC non-adherence and the AISP should endeavour to look out for:
- insufficient planning and coordination between data originators and the AIS provider, or even amongst States' AIS providers. As a result, it is important for the AISP to be involved in the planning phase, which can be achieved by use of formal arrangements with the interested party (i.e. data originators);
 - misalignment in communication, i.e. the use of different file formats, translation of aeronautical data in another language, distribution delays;
 - failure to comply with AIRAC system, i.e. missing State regulations requiring AIRAC adherence;
 - corrections applied to aeronautical data and information; and
 - software or hardware malfunction of the automated AIM system.
- 3.6.2. In order for the AIRAC system to operate satisfactorily, it is essential that State authorities create awareness amongst the data originators responsible for supplying information to the AIS provider. These parties should be familiar with the AIRAC system and must particularly be aware of not only

the effective and publication dates but also the latest cut-off dates by which the information must reach the AIS provider in order for information to be made available and reach recipients at least 28 days in advance of the effective date.

- 3.6.3. Concerned parties should endeavour to forward information to the AIS provider as early as possible and not wait until the latest date. This applies particularly to situations where significant changes, e.g. major airspace changes, ATS route restructuring or new international airports, are involved. Timely receipt of aeronautical data and aeronautical information will allow the AISP to process the data at a normal speed, whereas late receipt can rush the process, increasing the possibility of errors being introduced.

3.7. Use of AIRAC system during holiday periods

- 3.7.1. As many significant changes to facilities, services and procedures can be anticipated well in advance, a suitable effective date can be selected which does not conflict with a major holiday period. In addition, a publication date can be selected that provides for as much advance notice as possible.
- 3.7.2. Due to increased postal delays, the AIRAC cycle date occurring in the 28- day period from 21 December to 17 January inclusive shall not be used for AIRAC effective dates within (state) for the introduction of significant operational changes.
- 3.7.3. Under the AIRAC system the maximum period of advance notification is essential. If this policy is applied it will give users ample time for processing changes.

3.8. Significance

- 3.8.1. It should be apparent from the above examples that the benefits of the AIRAC system are directly dependent upon the degree to which the AIRAC effective dates are observed and used by the authorities that are responsible for originating changes in facilities, services, or procedures. Such changes must be anticipated by these authorities, and AIRAC effective dates must be selected by the AISP from the schedule of AIRAC effective dates sufficiently in advance to permit issue of the relevant information in a timely and controlled manner.
- 3.8.2. It should also be noted that AIRAC effective dates are used by ICAO, when appropriate, as the date of implementation for amendments to its standards, recommended practices and procedures.
- 3.8.3. The adherence to AIRAC is an important step in achieving and maintaining the reliability and efficiency of the aeronautical information products and services, and the air navigation system in general. Not following the AIRAC system may produce irregularities (i.e. incorrect information being published or unawareness of updated information), which may create issues for all airspace users that have access to the same aeronautical data and aeronautical information at the same time.



Director Safety, Security and Economic Regulation