CIVIL AVIATION AUTHORITY OF THE PHILIPPINES

ADVISORY CIRCULAR AC ANS 15.1

AERONAUTICAL INFORMATION SERVICES

SECTION 1 GENERAL

1.1 PURPOSE

This Advisory Circular (AC) provides an explanation on the basic function of an aeronautical information service (AIS) and to describe the basic organization it requires to operate. This AC also intends to guide the AIS service provider in the collection and distribution of aeronautical information for use by all types of aircraft operations.

1.2 STATUS OF THIS ADVISORY CIRCULAR

This is an original issuance of this AC.

1.3 BACKGROUND

A. CAR-ANS Part 15, *Governing Aeronautical Information Services*, provides the national regulatory standards in providing aeronautical information service (AIS).

B. This AC provides information to supplement and/or amplify the regulatory requirement, procedures, and recommended practices for AIS and is specifically developed to facilitate implementation of the regulatory requirements.

1.4 APPLICABILITY

This Advisory Circular is applicable to air navigation service providers for aeronautical information services operating in the Philippines.

1.5 RELATED REGULATIONS

The following regulations are directly applicable to the guidance contained in this advisory circular—

- CAR-ANS Part 4, Aeronautical Charts;
- CAR-ANS Part 11, Air Traffic Services
- CAR-ANS Part 15, Aeronautical Information Services; and
- Manual of Standards for Aeronautical Information Services (MOS-AIS)

Copies may be downloaded from CAAP Website or obtained from the Aerodrome and Air Navigation Safety Oversight Office (AANSOO).

1.6 RELATED PUBLICATIONS

For further information on this topic, each stakeholder concerned are invited to read the following publications—

International Civil Aviation Organization

- Annex 4, Aeronautical Charts;
- Annex 15, Aeronautical Information Services;
- Document 8697, Aeronautical Chart Manual;
- Document 9859, Safety Management Manual;
- Document 10066, PANS-AIM;
- Document 8126, Aeronautical Information Services Manual;
- Document 9839, Manual on the Quality Management System
- Document 8400, ICAO Abbreviations and Codes (PANS-ABC)

- Document 9674, World Geodetic System – 1984 (WGS -84) Manual; and
- ICAO Guidance Manual for Aeronautical Information Services (AIS) in the ASIA/PACIFIC REGION
- Document 9766, Manual on International Airways Volcano Watch (IAVW)

Copies may be obtained from Document Sales Unit, ICAO, 999 University Street, Montreal, Quebec, Canada H3C 5H7.

- Advisory Circulars are intended to provide advice and guidance to illustrate a means, but not necessarily the only means, of complying with the regulations, or to explain certain regulatory requirements by providing informative, interpretative and explanatory material.
- Where a regulation contains the words "prescribed by the Authority," the AC may be considered to "prescribe" a viable method of compliance, but status of that "prescription" is always "guidance" (never regulation).

1.7 ACRONYMS

The following acronyms are used in this advisory circular—

AANSOO	Aerodrome and Air Navigation Safety Oversight Office
AC	Advisory Circular
AFS	Aeronautical Fixed Services
AIC	Aeronautical Information Circular
AIP	Aeronautical Information Publication
AIRAC	Aeronautical Information Regulation and Control
AIS	Aeronautical Information Services
ANSP	Air Navigation Service Provider
ATC	Air Traffic Control
ATS	Air Traffic Service
ATM	Air Traffic Management
ATMSID	Air Traffic Management Safety Inspectorate Division
CAAP	Civil Aviation Authority of the Philippines
CAR-ANS	CAR-ANS – Civil Aviation Regulations – Air Navigation Services
CRC	Cyclic Redundancy Check
ICAO	International Civil Aviation Organization
MOS-AIS	Manual of Standards for Aeronautical Information Services
NOF	International NOTAM Office
NOTAM	Notice to Airmen
PIB	Pre-flight Information Bulletin
SARPs	Standards and Recommended Practices
SMS	Safety Management System

1.8 DEFINITIONS

The following definitions are used in this advisory circular—

Accuracy. A degree of conformance between the estimated or measured value and the true value.

Aerodrome. A defined area on land or water (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft.

Aerodrome elevation. The elevation of the highest point of the landing area.

Aerodrome operating minima. The limits of usability of an aerodrome for:

a) take-off, expressed in terms of runway visual range and/or visibility and, if necessary, cloud conditions;

b) landing in precision approach and landing operations, expressed in terms of visibility and/or runway visual range and decision altitude/height (DA/H) as appropriate to the category of the operation;

c) landing in approach and landing operations with vertical guidance, expressed in terms of visibility and/or runway visual range and decision altitude/height (DA/H); and

d) landing in non-precision approach and landing operations, expressed in terms of visibility and/or runway visual range, minimum descent altitude/height (MDA/H) and, if necessary, cloud conditions.

Aerodrome Reference Point (ARP). The designated geographical location of an aerodrome.

Aeronautical chart. A representation of a portion of the Earth, its culture and relief, specifically designated to meet the requirements of air navigation.

Aeronautical Data. A representation of aeronautical facts, concepts or instructions in a formalized manner suitable for communication, interpretation or processing.

Aeronautical Information. Information resulting from the assembly, analysis and formatting of aeronautical data.

Aeronautical Information Publication (AIP). A publication issued by or with the authority of a State and containing aeronautical information of a lasting character essential to air navigation.

Aeronautical Information Circular (AIC). A notice containing information that does not qualify for the origination of a NOTAM or for inclusion in the AIP, but which relates to flight safety, air navigation, technical, administrative or legislative matters.

Aeronautical Information Services (AIS). A service established within the defined area of coverage responsible for the provision of aeronautical information/data necessary for the safety, regularity and efficiency of air navigation.

AIP Amendment. Permanent changes to the information contained in the AIP.

AIP Supplement. Temporary changes to the information contained in the AIP which are published by means of special pages.

AIRAC. An acronym (Aeronautical Information Regulation and Control) signifying a system aimed at advance notification based on common effective dates, of circumstances that necessitate significant changes in operating practices.

Aircraft stand. A designated area on an apron intended to be used for parking an aircraft.

Air Defense Identification Zone (ADIZ). Special designated airspace of defined dimensions within which aircraft are required to comply with special identification and/or reporting procedures additional to those related to the provision of air traffic services (ATS).

Air Navigation Service Provider (ANSP). A legal entity providing Air Navigation Services. Air navigation service providers are either government departments, state-owned companies, or private organizations. Depending on the specific mandate, an ANSP provides one or more of the following services to airspace users:

- Air Traffic Management (ATM)
- Communications, navigation and surveillance systems (CNS)
- Meteorological services for air navigation (MET)
- Search and rescue (SAR)
- Aeronautical information services/aeronautical information management (AIS/AIM)

These services are provided to air traffic during all phases of operations (approach, aerodrome and enroute).

Air taxiway. A defined path on the surface established for the air taxiing of helicopters.

Air Traffic Service (ATS). A generic term meaning variously, flight information service, alerting service, air traffic advisory service, air traffic control service (area control service, approach control service or aerodrome control service).

Air transit route. A defined path on the surface established for the air transiting of helicopters.

Airway. A control area or portion thereof established in the form of a corridor.

Altitude. The vertical distance of a level, a point or an object considered as a point, measured from mean sea level (MSL).

Apron. A defined area, on a land aerodrome, intended to accommodate aircraft for purposes of loading or unloading passengers, mail or cargo, fuelling, parking or maintenance.

Area Minimum Altitude (AMA). The minimum altitude to be used under instrument meteorological conditions (IMC), that provides a minimum obstacle clearance within a specified area, normally formed by parallels and meridians.

Arrival routes. Routes identified in an instrument approach procedure by which aircraft may proceed from the en-route phase of flight to an initial approach fix.

ASHTAM. A special series NOTAM notifying by means of a specific format change in activity of a volcano, a volcanic eruption and/or volcanic ash cloud that is of significance to aircraft operations.

ATS route. A specified route designed for channelling the flow of traffic as necessary for the provision of air traffic services.

- **The term ATS route is used to mean variously, airway, advisory route, controlled or uncontrolled route, arrival or departure route, etc.**
- **An ATS route is defined by route specifications that include an ATS route designator, the track to or from significant points (waypoints), distance between significant points, reporting requirements and, as determined by the appropriate ATS authority, the lowest**

ATS surveillance system. A generic term meaning variously, ADS-B, PSR, SSR or any comparable ground-based system that enables the identification of aircraft.

A comparable ground-based system is one that has been demonstrated, by comparative assessment or other methodology, to have a level of safety and performance equal to or better than monopulse SSR.

Bare Earth. Surface of the Earth including bodies of water and permanent ice and snow, and excluding vegetation and man-made objects.

Change-over point. The point at which an aircraft navigating on an ATS route segment defined by reference to very high frequency omni-directional radio ranges is expected to transfer its primary navigational reference from the facility behind the aircraft to the next facility ahead of the aircraft.

Change-over points are established to provide the optimum balance in respect of signal strength and quality between facilities at all levels to be used and to ensure a common source of azimuth guidance for all aircraft operating along the same portion of a route segment.

Clearway. A defined rectangular area on the ground or water under the control of the appropriate authority selected or prepared as a suitable area over which an aeroplane may make a portion of its initial climb to a specified height.

Contour line. A line on a map or chart connecting points of equal elevation.

Cyclic Redundancy Check (CRC). A mathematical algorithm applied to the digital expression of data that provides a level of assurance against loss or alteration of data.

Danger area. An airspace of defined dimensions within which activities dangerous to the flight of aircraft may exist at specified times.

Data quality. A degree or level of confidence that the data provided meet the requirements of the data user in terms of accuracy, resolution and integrity.

Digital Elevation Model (DEM). The representation of terrain surface by continuous elevation values at all intersections of a defined grid, referenced to common datum.

Digital Terrain Model (DTM) is sometimes referred to as DEM.

Displaced threshold. A threshold not located at the extremity of a runway.

Electronic aeronautical chart display. An electronic device by which flight crews are enabled to execute, in a convenient and timely manner, route planning, route monitoring and navigation by displaying required information.

Elevation. The vertical distance of a point or a level, on or affixed to the surface of the earth, measured from mean sea level.

Final approach. That part of an instrument approach procedure which commences at the specified final approach fix or point, or where such a fix or point is not specified,

a) at the end of the last procedure turn, base turn or inbound turn of a racetrack procedure, if specified; or

b) at the point of interception of the last track specified in the approach procedure; and ends at a point in the vicinity of an aerodrome from which:

   1) a landing can be made; or

   2) a missed approach procedure is initiated.

Final Approach and Take-off Area (FATO). A defined area over which the final phase of the approach maneuver to hover or landing is completed and from which the take-off maneuver is commenced. Where the FATO is to be used by performance Class 1 helicopters, the defined area includes the rejected take-off area available.

Final approach fix or point. That fix or point of an instrument approach procedure where the final approach segment commences.

Final approach segment. That segment of an instrument approach procedure in which alignment and descent for landing are accomplished

Flight Information Region (FIR). Airspace of defined dimensions within which flight information service and alerting service are provided.

Flight Level. A surface of constant atmospheric pressure which is related to a specific pressure datum, 1 013.2 hectopascals (hPa), and is separated from other such surfaces by specific pressure intervals.

- A pressure type altimeter calibrated in accordance with the Standard Atmosphere:
  - when set to a QNH altimeter setting, will indicate altitude;
  - when set to a QFE altimeter setting, will indicate height above the QFE reference datum;
  - when set to a pressure of 1 013.2 hPa, may be used to indicate flight levels.
- The terms "height" and "altitude", used in Note 1 above, indicate altimetric rather than geometric heights and altitudes.

Geodetic datum. A minimum set of parameters required to define location and orientation of the local reference system with respect to the global reference system/frame.

Geoid. The equipotential surface in the gravity field of the Earth which coincides with the undisturbed mean sea level (MSL) extended continuously through the continents.

The geoid is irregular in shape because of local gravitational disturbances (wind tides, salinity, current, etc.) and the direction of gravity is perpendicular to the geoid at every point.

Glide path. A descent profile determined for vertical guidance during a final approach.

Height. The vertical distance of a level, a point or an object considered as a point, measured from a specified datum.

Helicopter stand. An aircraft stand which provides for parking a helicopter and, where air taxiing operations are contemplated, the helicopter touchdown and liftoff.

Heliport. An aerodrome or a defined area on a structure intended to be used wholly or in part for the arrival, departure and surface movement of helicopters.

Holding procedure. A predetermined maneuver which keeps an aircraft within a specified airspace while awaiting further clearance.

Hot spot. A location on an aerodrome movement area with a history or potential risk of collision or runway incursion, and where heightened attention by pilots/drivers is necessary.

Human Factors principles. Principles which apply to aeronautical design, certification, training, operations and maintenance and which seek safe interface between the human and other system components by proper consideration to human performance.

Hypsometric tints. A succession of shades or color gradations used to depict ranges of elevation.

Initial approach segment. That segment of an instrument approach procedure between the initial approach fix and the intermediate approach fix or, where applicable, the final approach fix or point.

Instrument approach procedure. A series of predetermined maneuvers by reference to flight instruments with specified protection from obstacles from the initial approach fix, or where applicable, from the beginning of a defined arrival route to a point from

which a landing can be completed and thereafter, if a landing is not completed, to a position at which holding or en-route obstacle clearance criteria apply.

Integrity (Aeronautical Data). A degree of assurance that an aeronautical data and its value have not been lost or altered since the data origination or authorized amendment.

Intermediate approach segment. That segment of an instrument approach procedure between either the intermediate approach fix and the final approach fix or point, or between the end of a reversal, racetrack or dead reckoning track procedure and the final approach fix or point, as appropriate.

Intermediate holding position. A designated position intended for traffic control at which taxiing aircraft and vehicles shall stop and hold until further cleared to proceed, when so instructed by the aerodrome control tower

International NOTAM Office (NOF). An office designated by a State for the exchange of NOTAM internationally.

Landing area. That part of a movement area intended for the landing or take-off of aircraft.

Magnetic variation. The angular difference between True North and Magnetic North

The value given indicates whether the angular difference is East or West of True North.

Maneuvering area. That part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, excluding aprons.

Marking. A symbol or group of symbols displayed on the surface of the movement area in order to convey aeronautical information.

Minimum En-route Altitude (MEA). The altitude for an enroute segment that provides adequate reception of relevant navigation facilities and ATS communications. complies with the airspace structure and provides the required obstacle clearance.

Minimum Obstacle Clearance Altitude (MOCA). The minimum altitude for a defined segment of flight that provides the required obstacle clearance.

Minimum Sector Altitude (MSA). The lowest altitude which may be used which will provide a minimum clearance of 300m (1000 ft) above all objects located in an area contained within a sector of a circle of 46km (25NM) radius centered on a radio aid to navigation.

Missed Approach Point (MAPT). That point in an instrument approach procedure at or before which the prescribed missed approach procedure must be initiated in order to ensure that the minimum obstacle clearance is not infringed.

Missed approach procedure. The procedure to be followed if the approach cannot be continued.

Movement area. That part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, consisting of the maneuvering area and the apron(s).

NOTAM. A notice distributed by means of telecommunication containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations.

Obstacle. All fixed (whether temporary or permanent) and mobile objects, or parts thereof, that are located on an area intended for the surface movement of aircraft or that extend above a defined surface intended to protect aircraft in flight.

The term obstacle is used in this Advisory Circular (AC) solely for the purpose of specifying the charting of objects that are considered a potential hazard to the safe passage of aircraft in the type of operation for which the individual chart series is designed.

Obstacle Clearance Altitude (OCA) or Obstacle Clearance Height (OCH). The lowest altitude or the lowest height above the elevation of the relevant runway threshold or the aerodrome elevation as applicable, used in establishing compliance with appropriate obstacle clearance criteria.

- Obstacle clearance altitude is referenced to mean sea level and obstacle clearance height is referenced to the threshold elevation or in the case of non-precision approaches to the aerodrome elevation or the threshold elevation if that is more than 2 m (7 ft) below the aerodrome elevation. An obstacle clearance height for a circling approach is referenced to the aerodrome elevation.

- For convenience when both expressions are used they may be written in the form "obstacle clearance altitude/height" and abbreviated "OCA/H".
- See Procedures for Air Navigation Services —Aircraft Operations (ICAO Doc 8168), Volume I, Part I, Section 4, Chapter 1, 1.5, and Volume II, Part I, Section 4, Chapter 5, 5.4, for specific applications of this definition.

Orthometric height. Height of a point related to the geoid, generally presented as an MSL elevation.

Point light. A luminous signal appearing without perceptible length.

Position (geographical). Set of coordinates (latitude and longitude) referenced to the mathematical reference ellipsoid which define the position of a point on the surface of the Earth.

Precision approach procedure. An instrument approach procedure utilizing azimuth and glide path information provided by ILS or PAR.

Procedure altitude/height. A specified altitude/height flown operationally at or above the minimum altitude/height and established to accommodate a stabilized descent at a prescribed descent gradient/angle in the intermediate/final approach segment

Procedure turn. A maneuver in which a turn is made away from a designated track followed by a turn in the opposite direction to permit the aircraft to intercept and proceed along the reciprocal of the designated track.

- FProcedure turns are designated "left" or "right" according to the direction of the initial turn.
- Procedure turns may be designated as being made either in level flight or while descending, according to the circumstances of each individual procedure.

Prohibited area. An airspace of defined dimensions, above the land areas or territorial waters of a State, within which the flight of aircraft is prohibited.

Reporting point. A specified geographical location in relation to which the position of an aircraft can be reported.

Required Navigation Performance (RNP). A statement of the navigation performance necessary for operation within a defined airspace.

Navigation performance and requirements are defined for a particular RNP type and/or application.

Resolution. A number of units or digits to which a measured or calculated value is expressed and used.

Restricted area. An airspace of defined dimensions, above the land areas or territorial waters of a State, within which the flight of aircraft is restricted in accordance with certain specified conditions.

Reversal procedure. A procedure designed to enable aircraft to reverse direction during the initial approach segment of an instrument approach procedure. The sequence may include procedure turns or base turns.

RNP type. A containment value expressed as a distance in nautical miles from the intended position within which flights would be for at least 95 per cent of the total flying time.

Example.— RNP 4 represents a navigation accuracy of plus or minus 7.4 km (4NM) on a 95 per cent containment basis.

Runway. A defined rectangular area on a land aerodrome prepared for the landing and take-off of aircraft.

Runway-holding position. A designated position intended to protect a runway, an obstacle limitation surface, or an ILS/MLS critical/sensitive area at which taxiing aircraft and vehicles shall stop and hold, unless otherwise authorized by the aerodrome control tower.

In radiotelephony phraseologies, the expression "holding point" is used to designate the runway-holding position.

Runway strip. A defined area including the runway and stopway, if provided, intended:

a) to reduce the risk of damage to aircraft running off a runway; and

b) to protect aircraft flying over it during take-off or landing operations.

Runway Visual Range (RVR). The range over which the pilot of an aircraft on the center line of a runway can see the runway surface markings or the lights delineating the runway or identifying its center line.

Shoulder. An area adjacent to the edge of a pavement so prepared as to provide a transition between the pavement and the adjacent surface.

Significant point. A specified geographical location used in defining an ATS route or the flight path of an aircraft and for other navigation and ATS purposes.

Station Declination. An alignment variation between the zero degree radial of a VOR and true north, determined at the time the VOR station is calibrated.

Stopway. A defined rectangular area on the ground at the end of take-off run available prepared as a suitable area in which an aircraft can be stopped in the case of an abandoned take-off.

Taxiing. Movement of an aircraft on the surface of an aerodrome under its own power, excluding take-off and landing.

Taxiway. A defined path on a land aerodrome established for the taxiing of aircraft and intended to provide a link between one part of the aerodrome and another, including:

a) *Aircraft stand taxilane.* A portion of an apron designated as a taxiway and intended to provide access to aircraft stands only

b) *Apron taxiway.* A portion of a taxiway system located on an apron and intended to provide a through taxi route across the apron.

c) *Rapid exit taxiway.* A taxiway connected to a runway at an acute angle and designed to allow landing aeroplanes to turn off at higher speeds than are achieved on their exit taxiways thereby minimizing runway occupancy times.

Terminal Arrival Altitude (TAA). The lowest altitude that will provide a minimum clearance of 300m (1000ft) above all objects located in an arc of a circle defined by a 46-km (25 NM) radius centered on the initial approach fix (IAF), or where there is no IAF on the intermediate approach fix (IF), delimited by straight lines joining the extremity of the arc to the IF. The combined TAAs associated with an approach procedure shall account for an area of 360 degrees around the IF.

Terrain. The surface of the Earth containing naturally occurring features such as mountains, hills, ridges, valleys, bodies of water, permanent ice and snow, and excluding obstacles.

In practical terms, depending on the method of data collection, terrain represents the continuous surface that exists at the bare Earth, the top of the canopy or something in between also known as first reflective surface.

Threshold. The beginning of that portion of the runway usable for landing.

Touchdown and Lift-Off area (TLOF). A load bearing area on which a helicopter may touchdown or lift off.

Touchdown zone. The portion of a runway, beyond the threshold, on which landing aeroplanes first touch the runway.

Track. The projection on the earth's surface of the path of an aircraft, the direction of which path at any point is usually expressed in degrees from North (true, magnetic or grid).

Transition altitude. The altitude at or below which the vertical position of an aircraft is controlled by reference to altitudes.

Vectoring. Provision of navigational guidance to aircraft in the form of specific headings, based on the use of an ATS surveillance system.

Visual approach procedure. A series of predetermined maneuvers by visual reference, from the initial approach fix, or where applicable, from the beginning of a defined arrival route to a point from which a landing can be completed and thereafter, if a landing is not completed, a go-around procedure can be carried-out.

Waypoint. A specified geographical location used to define an area navigation route or the flight path of an aircraft employing area navigation.

Waypoints are identified as either:

a) *Fly-by waypoint.* A waypoint which requires turn anticipation to allow tangential interception of the next segment of a route or procedure; or

b) *Flyover waypoint.* A waypoint at which a turn is initiated in order to join the next segment of a route or procedure.

SECTION 2 OPERATION REQUIREMENTS

2.1 GENERAL AIS PROVIDER OPERATION REQUIREMENTS

2.1.1 The AIS provider shall ensure that aeronautical information/data necessary for the safety, regularity or efficiency of air navigation is made available in a form in conformity with CAR-ANS Part 15 and suitable for the operational requirements of:

a) those involved in flight operations, including flight crews, flight planning and flight simulators; and

b) the ATS units responsible for Flight Information Service (FIS) and the services responsible for pre-flight information.

2.1.2 The AIS provider shall receive, and/or originate, collate, edit, format, publish/store and distribute aeronautical information/data concerning the airspace in which the CAAP has responsibility for air traffic services. Aeronautical information shall be published as aeronautical information products such as:

a) AIP, including amendment service (AIP AMDT);

b) Supplements to the AIP (AIP SUP);

c) NOTAM,

d) Pre-flight Information Bulletins (PIB);

e) Aeronautical Information Circular (AIC); and

f) Checklists and lists of valid NOTAMs.

2.1.3 The AIS provider shall ensure that published geographical coordinates indicating latitude and longitude are expressed in terms of the World Geodetic System – 1984 (WGS-84) geodetic reference datum as in ICAO Doc 9674 -World Geodetic System – 1984 (WGS-84) Manual.

2.1.4 Automation enabling digital data exchange should be introduced with the objective of improving the speed, quality, efficiency and cost-effectiveness of aeronautical information services.

2.1.5 The AIS provider shall ensure that the organization of the aeronautical information services as well as the design, contents, processing and distribution of aeronautical information/data shall take into consideration human factors principles which facilitate their optimum utilization. Due consideration shall be given to the integrity of information where human interaction is required and mitigating steps taken where risks are identified.

2.1.6 Metadata shall be collected for aeronautical data processes and exchange points. This metadata collection shall be applied throughout the aeronautical information data chain, from survey/origin to distribution to the next intended user. The metadata to be collected shall include, as a minimum:

a) the name of the organization or entity performing the function;

b) the function performed; and

c) the data and time of operation

> The function performed indicates any action of originating, transmitting or manipulating the data.

2.2 FACILITIES AND THE WORK ENVIRONMENT

2.2.1 In addition to adequate numbers of suitably experienced and competent personnel, AIS provider also requires appropriate accommodation and adequate facilities to get the work done and subsequently provides quality services.

2.2.2 This part of the ISO Standards calls for AIS provider to determine, provide and maintain the facilities it needs to achieve product conformity, including:

a) Workspace;

b) Equipment, hardware and software; and

c) Supporting services

2.2.3 In simple terms, this means that AIS provider needs to identify, provide and maintain adequate space, suitable equipment, tools and systems to enable staff to do their job.

2.2.4 The required minimum facilities and equipment that should be provided for AIS are the following:

- personal computers (PCs) for each unit, printer and reliable internet connection;
- photocopying equipment;
- AFS/AFTN connection;
- telephones/telefax;
- a reliable clock and, for the NOF, a time-stamp clock both showing UTC and, where appropriate, a second clock showing local time;
- adequate table/counter space for processing information;
- adequate filing/card index systems;
- reference charts and documents required for consultation and pre-flight briefing.

2.2.5 At the most basic level, facilities for AIS provider should include:

a) Suitable furniture for staff to work comfortably, efficiently and ergonomically;

b) Sufficient space between work-stations to avoid disruption to other staff;

c) Noisy equipment isolated away from staff or sound-proofed;

d) Adequate overhead or specialist lighting to be able to easily read source document;

e) A quiet area for proof-reading; and

f) Suitable computing equipment for word-processing and data capture.

2.2.6 AIS provider organizations are moving more and more towards automated systems to improve the efficiency, accuracy and cost effectiveness of their businesses. AIS provider needs to ensure that any systems automation and services are designed with the intent of avoiding incompatibilities, divergences and unnecessary duplication of effort and importantly that there is an overall systems integration management plan in place. Standardization of procedures, products and services is essential for the successful automation of AIS.

2.3 QUALITY MANAGEMENT SYSTEM

2.3.1 Quality Management System shall be implemented and maintained by the AIS provider encompassing all functions of an aeronautical information service.

2.3.2 Quality management should be applicable to the whole aeronautical information data chain from data origination to distribution to the next intended user, taking into consideration the intended use of data.

- Quality management may be provided by a single quality management system or serial quality management systems.
- Letters of agreement concerning data quality between originator and distributor and between distributor and next intended user may be used to manage the aeronautical information data chain.

2.3.3 The quality management system implemented in paragraph 2.3.1 shall follow the International Organization for Standardization (ISO) 9000 series of quality assurance standards, and be certified by an approved organization.

2.3.4 The quality management system established by the AIS provider shall include the necessary policies, processes and procedures, including those for the use of metadata,

to ensure and verify that aeronautical data is traceable throughout the aeronautical information data chain so as to allow any data anomalies or errors detected in use to be identified by root cause, corrected and communicated to affected users.

2.3.5 The quality management system established by the AIS provider shall provide the users with the necessary assurance and confidence that the aeronautical information and aeronautical data satisfy the aeronautical data quality for accuracy, resolution and integrity as specified in MOS-AIS, Appendix 1, and the data traceability requirements through the provision of appropriate metadata as specified in 2.1.6. The system shall also provide assurance of the applicability period of intended use of aeronautical information/data as well as that the agreed distribution dates will be met.

2.3.6 The AIS shall ensure that electronic aeronautical data sets shall be protected by the inclusion in the data sets of a 32-bit cyclic redundancy check (CRC) implemented by the application dealing with the data sets.

2.4 OPERATIONS MANUAL

2.4.1 The AIS provider shall submit an Operations Manual to CAAP regulatory body. The information presented in the manual shall serve to demonstrate how the AIS provider will comply with the requirements of this manual. It also serves as a reference document agreed between the AIS provider and regulatory body with respect to the standards, conditions and level of service to be maintained for the provision of aeronautical information service.

2.4.2 The AIS Operations Manual shall contain, as a minimum, the following:

a) the information required of the AIS provider as mentioned in the Manual of Standards for Aeronautical Information Services (MOS-AIS);

b) an organization chart of the AIS provider that shows the name and the position of each personnel, training records, experiences, duties and responsibilities of AIS personnel who are responsible for ensuring the compliance of the organizations requirements in sub-paragraph (a);

c) analysis on the number of AIS staffing requirements;

d) an operation plan for the aeronautical information service; and

e) information on the compliance of the aeronautical information service with the applicable requirements of CAR-ANS Part 15 and MOS-AIS.

2.4.3 The operations manual may consist of a main manual covering the main areas that need to be addressed, as well as separate supporting documents and manuals.

2.4.4 The operations manual is an important document and shall be issued under the authority of the AIS. The AIS document controller shall control the distribution of the operations manual and ensure that it is amended whenever necessary to maintain the accuracy of the information in the operations manual and to keep its contents up to date.

2.5 AERONAUTICAL DATA CATALOGUE (ADC)

2.5.1 The Aeronautical Data Catalogue is a general description of the AIM data scope and consolidates all data that can be collected and maintained by AIS.

The Aeronautical Data Catalogue (ADC) is available electronically and may be obtained from AANSOO, ATMSID.

2.5.2 The ADC provides a reference for aeronautical data origination and publication requirements and represents the common language for data originators and the AIS.

2.5.3 The ADC includes Data element properties, sub-properties and descriptions and quality requirements (accuracy, resolution, integrity) and provides a means to facilitate the identification of the organizations and authorities responsible for the origination of the aeronautical data and aeronautical information.

2.5.4 The ADC provides a common list of terms and facilitates the formal arrangements between data originators and the AIS.

2.5.5 The structure and responsibilities for filling of the ADC are as follows:

	Information sub-domains	*Organization responsible for originating data*
Table A1-1	Aerodrome data	Aerodrome operator
Table A1-2	Airspace data	ANSP
Table A1-3	ATS and other routes data	ANSP
Table A1-4	Instrument flight procedure data	ANSP
Table A1-5	Radio navigation aids/systems data	Aerodorme operator/ ANSP
Table A1-6	Obstacle data	Aerodorme operator/ ANSP
Table A1-7	Geographic data	Aerodorme operator/ ANSP
Table A1-8	Terrain data	Aerodorme operator/ ANSP
Table A1-9	Data types; and	ANSP (AIS)
Table A1-10	Information about national and local regulation, services and procedures	ANSP (AIS)/ CAAP

SECTION 3 ORGANIZATION OF AIS

3.1 INTRODUCTION

3.1.1 The objective of Aeronautical Information Services (AIS), as stated in CAR-ANS Part 15, is to ensure the flow of aeronautical data and aeronautical information necessary for global air traffic management (ATM) system safety, regularity, economy and efficiency in an environmentally sustainable manner.

3.2 ESTABLISHMENT OF THE AIS

3.2.1 The AIS may be established as a separate entity within a civil aviation administration. This could be as an entity with direct responsibility to the head of the civil aviation administration or as an entity at the same level of other air navigation service providers.

3.3 TECHNICAL ORIENTATION AND STATUS

3.3.1 The main user of aeronautical information is the pilot. Another category of user represents those engaged in airline operational control, aeronautical charts provider and document producing agencies, and air traffic services. The aeronautical information service is technically oriented in the nature of the services it provides.

3.3.2 In this connection it should be emphasized that:

a) CAAP is responsible for the aeronautical information provided by the AIS provider;

b) the role and the importance of aeronautical information changed significantly with the implementation of area navigation (RNAV), required navigation performance (RNP) and airborne computer-based navigation systems; and

c) corrupt or erroneous aeronautical information can potentially affect the safety of air navigation.

3.3.3 Consequently, it is essential to establish a high level of technical proficiency within the AIS provider. In addition, the AIS should be given the appropriate status in the civil aviation administration in accordance with the important role it has in the provision of accurate aeronautical information.

3.4 ORGANIZATION – SIZE AND SCOPE OF THE AIS PROVIDER

3.4.1 The volume of aircraft operations and the extent to which civil aviation facilities are provided with aeronautical information and aeronautical data determines the size and scope of the AIS provider. While the amount of information to be processed will vary from one country to another, the nature of the responsibilities remains basically the same.

3.5 WORKING ARRANGEMENTS

3.5.1 Efficient working arrangements within CAAP have underlined a number of common factors which contribute to a sound organizational base. The main considerations are the coordination of AIS provider with:

a) related technical services;

b) the international NOTAM office (NOF);

c) aerodrome/heliport operators;

d) cartographic services (if provided by separate entity);

e) printing and distribution services; and efficient communication facilities, particularly AFTN links, telefax and internet connection (e-mail) for this coordination to function effectively.

SECTION 4 TRAINING, COMPETENCY AND STAFFING

4.1 TRAINING, AWARENESS AND COMPETENCY

4.1.1 The organization providing the aeronautical information services should:

a) determine competency needs for personnel performing activities affecting quality;

b) provide training to satisfy those needs;

c) evaluate the effectiveness of the training provided;

d) ensure that its employees are aware of the relevance and importance of their activities and how they contribute to the achievement of quality objectives; and

e) maintain appropriate records of education, experience, training and quaiifications.

4.2 CHECKING COMPETENCIES AND TRAINING

4.2.1 The head of the AIS provider or the designated training officer needs to regularly review the competence and proficiency of all AIS technicl staff to ensure that all the required skills and qualifications of an AIS technical staff are met for the tasks to be completed.

4.2.2 Training should be required when deficiencies are noted, or when new employees start working with AIS provider. Any training that is required may be carried out in stages, and may be in the workplace, in-house or at an external location.

4.2.3 The scope of the training and checking is largely a matter for the organization to determine, but generally, training for AIS technical personnel should include the following topics:

a) Principles of the Aeronautical Information Service;

b) General Specifications of Aeronautical Charts;

c) Organization of AIS;

d) Responsibilities and Functions of AIS;

- National Regulations and Standards
- ICAO SARPs related to AIS/Aeronautical Charts
- AIS Products
- Responsibilities and Limitations

e) Aeronautical informations products and services;

f) Aeronautical Data and Metadata;

g) Relationships with External Agencies;

h) Change Management;

- Applicable Policies and Procedures
- Quality Processes
- Collation and Processing
- Data Structures
- Checking Procedures and Processes
- Record Keeping
- Distribution
- Standard Operating Procedures
- Coordination Requirements
- Data Entry and Verification
- Formats to be used
- File Management
- Publication and Production

i) AIS Automation.

4.2.4 Training records should be maintained to show what competences staff possess, and to show what training has been carried out, and the results of that training. Records that demonstrate successful completion, i.e. effectiveness, of a training program and the competence of staff can and should be kept simple.

4.3 TRAINING REQUIREMENTS

4.3.1 The AIS provider shall establish procedures to ensure that all the AIS technical staff possess the skills and competencies required in the provision of aeronautical information services. The AIS provider should develop an overall training policy and programme and detailed job descriptions for its staff. The training policy and programme should lay down the training courses that different levels of staff have to undergo to perform their duties, including initial, recurrent and specialized training. The job description should depict the job purpose and key responsibilities of each staff.

4.3.2 The AIS provider shall ensure that their staff should undergo a suitable period of supervised on-the-job training before being deployed for duties.

4.3.3 The AIS provider shall maintain individual training records for each of its staff, which should include a training plan detailing the courses completed by each staff as well as the time-frame for attending future courses as required under his training plan.

4.3.4 The AIS provider shall conduct a yearly review of the training plan for each staff at the beginning of the year to identify any gaps in competency, changes in training requirement and prioritize the type of training required for the coming year.

4.4 STAFFING

4.4.1 The organizational structure and level of staffing of the AIS provider will depend on the volume of work to be handled. The AIS provider should be headed by an individual that is qualified, experienced and knowledgeable in AIS operations. Such individual may have ATS management, flight operations. and air traffic control or airway communication backgrounds.

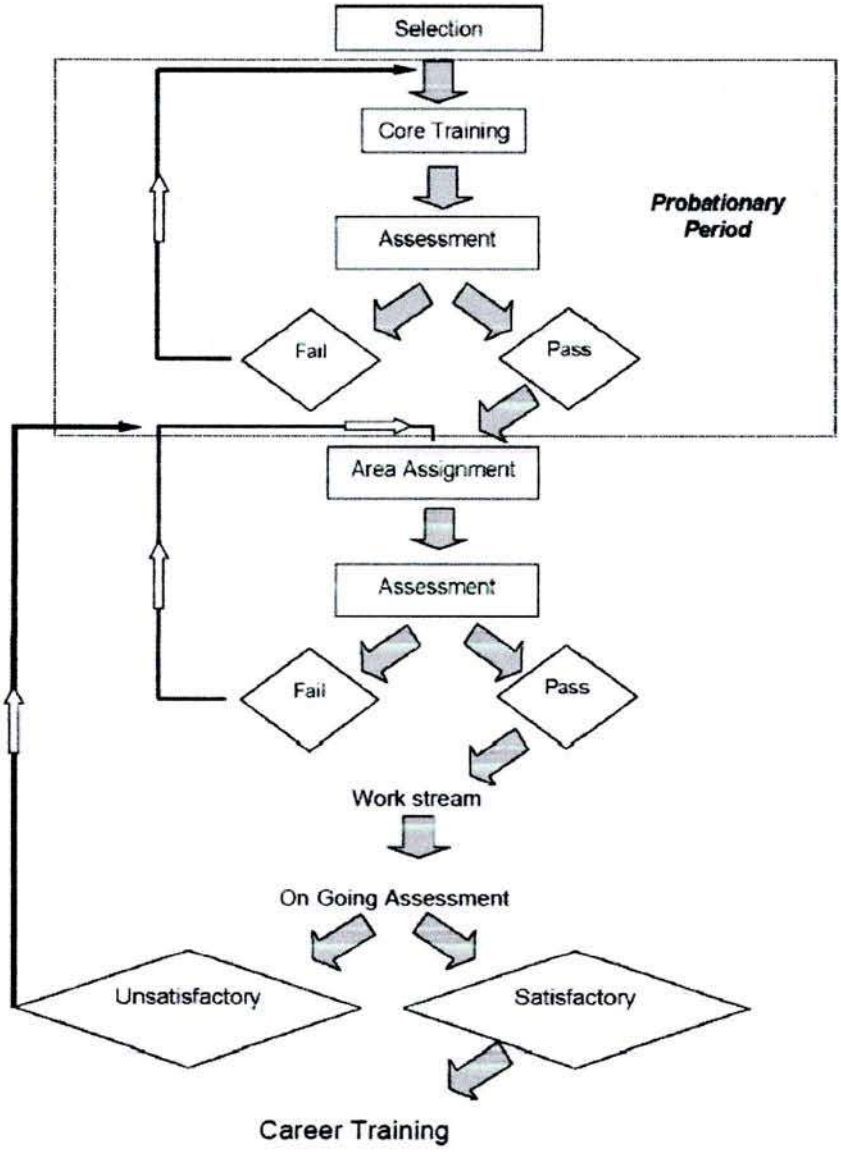
A sample selection and training process is given in Figure 4-1.

The AIS provider should be staffed with qualified and trained Air Traffic Management Officers.

4.4.2 The AIS provider shall employ sufficient number of competent personnel preferably graduates of BATS-AIS/BATS/CATS training conducted at CATC and/or ATS Course or its equivalent training under the former ATO to perform the operation of the service.

4.4.3 The AIS provider shall provide in the operations manual an analysis of the number of personnel required to perform the aeronautical information service taking into account the duties and workload required.

Figure 4-1 - Sample Selection and Training Process



SECTION 5 AERONAUTICAL INFORMATION PUBLICATION (AIP)

5.1 INTRODUCTION

5.1.1 The AIP forms the basic element of the Integrated Aeronautical Information Package. It contains aeronautical information of a permanent nature and temporary changes to this information of long duration. It is the task of the AIS provider to provide a comprehensive document, to maintain it up-to-date and to make it simple to use.

5.1.2 The content of an AIP is governed by Section 15.5.2.2 of CAR-ANS Part 15 and Appendix 2 of MOS-AIS, supplemented by the guidance in this manual as to how the requirements might best be met. Taking into consideration the increased use of automation in aeronautical information service, the information contained in the AIP was arranged in such a manner that automation could be used, both for the production of the "paper" AIP as well as for creation of a database for retrieval of that information. In addition, duplication of information was avoided. To the extent possible, the AIP was also designed to facilitate its use in flight.

5.1.3 The AIP must contain concise, current information relating to, and arranged under, the subject headings listed in Appendix 2 of MOS-AIS. This facilitates both in locating information under a specific heading and the storage/retrieval of the information using automated processing. If no facilities or services are provided or no information is available for publication in respect of one of the categories of information specified in Appendix 2 of MOS-AIS, an indication should be given as to which of these circumstances applies (e.g. "NIL" or "Not AVBL").

5.1.4 The basic structure and referencing must be common to all AIP but at the same time it should allow for the specific requirements of CAAP with respect to quantity and nature of information to be included. Each of the specified "compulsory" reference numbers of a section and/or subsection must relate to the same topic in every AIP, except that it might be noted as "not applicable" in some cases and have larger or smaller quantities of information in others.

5.2 CONTENT AND FORMAT

5.2.1 The AIP must be self-contained and include a table of contents. It should be published in loose-leaf form, unless the complete publication is re-issued at frequent intervals.

5.2.2 The AIP is divided into three parts: GENERAL, ENROUTE and AERODROME. The complete details on the contents of an AIP are described in MOS-AIS, Appendix 2.

5.2.3 Many States may be able to produce the AIP in one volume. Where this is not practicable and the AIP is produced and made available in more than one volume, each volume must include a separate amendment and supplement service, and the following separate sections must be included in each volume:

- Preface
- Record of AIP Supplements
- List of current hand amendments.
- Record of AIP Amendments
- Checklist of AIP pages

5.2.4 When the AIP is published as one volume, the above-mentioned subsections appear only in Part 1 — GEN and the annotation "not applicable" must be entered against each of these subsections in Parts 2 and 3.

5.2.5 Each AIP must be dated. In the case of AIP issued in loose-leaf form, each page must be dated. The date, consisting of the day, month (by name) and year, must be the publication date or the effective date (AIRAC) of the information.

5.3 SPECIFICATIONS FOR INDEX MAPS AND DIAGRAMS

Charts, maps and diagrams are to be substituted for tabulations and text whenever possible. They are also to be used when necessary to elaborate upon or supplement tabulations or text. Index maps and diagrams included in the AIP should comply with the following specifications:

Base map: The base map should be an outline map of the area adapted from existing material with general details. Graticules, topography and other details should be as simple as possible to permit rapid reproduction and amendment. Political subdivisions should be shown and identified. It should be produced in one colour.

Sheet size and scale: The overall dimensions should be 210 mm × 297 mm. If a larger map is required, it should be folded to conform to this size. A uniform scale should be used for all charts produced as a series and other charts where practicable.

Title and marginal notes: The title should be shown on the top border and should be as short and simple as possible.

Colours: The number of colours used should be kept to a minimum. If more than one colour is used, the colours should offer adequate contrast.

Symbols: Symbols should conform, where practicable, to the ICAO Chart symbols shown in CAR-ANS Part 4, Appendix 2. The basic, general purpose symbols for AIP index maps are a closed circle ● and an open circle ○. Except when the symbols used are self explanatory, a legend should be provided. For details for which no ICAO symbol has been provided, any appropriate symbol may be chosen provided it does not conflict with any ICAO symbol.

5.4 CHARTS TO BE INCLUDED IN THE AIP

The following charts for aerodromes/heliports listed in Part 3 — Aerodromes (AD) — must, when available, form part of the AIP unless distributed through a separate subscription service. When included in the AIP, these charts should be in Part 3 — Aerodromes (AD), Section 2, Subsection 24 for aerodromes, or Section 3, Subsection 23 for heliports, immediately following the tabulations for the aerodrome or heliport concerned. The charts, as appropriate, should be included in the following sequence:

a) Aerodrome/Heliport Chart — ICAO
b) Aircraft Parking/Docking Chart — ICAO
c) Aerodrome Ground Movement Chart — ICAO
d) Aerodrome Obstacle Chart — ICAO Type A (for each runway)
e) Precision Approach Terrain Chart — ICAO (precision approach Cat II and III runways)
f) Area Chart — ICAO (departure and transit routes)
g) Radar Minimum Altitude Chart — ICAO
h) Standard Departure Chart — Instrument (SID) — ICAO
i) Area Chart — ICAO (arrival and transit routes)
j) Standard Arrival Chart — Instrument (STAR) — ICAO
k) Instrument Approach Chart — ICAO (for each runway and procedure type)
l) Visual Approach Chart — ICAO
m) Bird concentrations in the vicinity of the aerodrome.

5.5 NOTIFICATION OF THE DIFFERENCE IN THE AIP

5.5.1 The primary purpose of reporting differences is to promote safety and efficiency in air navigation by ensuring that governmental and other agencies, including operators, concerned with international civil aviation are made aware of all national rules and practices in so far as they differ from those prescribed in the ICAO Annexes, Procedures for Air Navigation Services and Regional Supplementary Procedures. If identified in AIP, significant differences would not only provide a clear picture of the operational significance of the differences to users of that document, but facilitate the process of isolating and eliminating those that do not have an important bearing on the safety of air navigation or are inconsistent with the objectives of the ICAO provisions.

5.5.2 CAR-ANS Part 15 requires that any significant differences between the Philippines' national regulations and practices and the related ICAO provisions shall be recorded in the AIP Philippines. It is intended that any such differences be included in GEN 1.7 of the AIP. This is to ensure that an AIP will provide up-to-date information on the status of implementation of Standards, Recommended Practices and Procedures (SARPs), particularly those concerned with aircraft operations and the provision of facilities and services. Any deviation from SARPs that needs to be taken into account in aircraft operations, as indicated below, constitutes a "significant difference".

5.5.3 All significant differences notified to ICAO must also be included in the AIP in a form that will enable a user to differentiate easily between the national rules and practices of CAAP and the related ICAO provisions. They comprise differences from:

a) any of the International Standards;

b) Recommended Practices that are important for the safety of air navigation or, in the case of facilitation, for the speedy handling and clearance through customs, immigration, etc. of aircraft and the loads they carry;

c) Procedures for Air Navigation Services (PANS) that are important for the safety of air navigation; and

d) Regional Supplementary Procedures (SUPPS) those are important for the safety of air navigation.

5.6 AIP REQUIREMENTS

5.6.1 The AIS provider has to publish an Aeronautical Information Publication (AIP) containing current information, data and aeronautical charts relating to the airspace in which Philippines has responsibility for air traffic services. The contents of the AIP must be in accordance with Appendix 2 of MOS-AIS.

5.6.2 The AIS provider must ensure that the AIP to be published is self-contained and includes:

a) a statement of the competent authority responsible for the air navigation facilities, services or procedures covered by the AIP;

b) the general condition under which the services or facilities are available for international use;

c) a list of the significant differences with the ICAO SARPS that CAAP has filed with ICAO with regards to its own regulations and practices;

d) a summary of any significant regulations and practices followed by Philippines where the ICAO SARPS allow alternative course of action.

5.6.3 The AIS provider has to establish a system to disseminate and make the AIP, AIP Amendment and AIP Supplement available to AIS contracting states and its subscribers (paying and complimentary).

5.7 AIP AMENDMENT

5.7.1 The AIS provider shall ensure that permanent changes to the AIP are published as AIP Amendments. Each AIP Amendment shall be allocated with a serial number, which shall be consecutive. Each AIP Amendment page, including the cover sheet, shall display a publication date. A brief description of the subjects affected by the amendment shall be given on the AIP Amendment cover sheet.

5.8 AIP SUPPLEMENTS

5.8.1 Since the AIP is an operational document and therefore subject to frequent change, provisions exist for its continual updating. In addition, changes of a temporary nature affecting the contents of an AIP are often required to cater for unexpected circumstances or, in some cases, planned modifications to a service/facility. The purpose of an AIP Supplement is to bring to the attention of users both temporary changes of long duration (three months or longer) and information of short duration containing extensive text or graphics which affect one or more parts of the AIP. Operationally significant changes to the AIP issued as an AIP Supplement must be published under the AIRAC procedures.

5.8.2 **Specifications for AIP Supplements**

An AIP Supplement must be allocated a serial number which must be consecutive and based on the calendar year (e.g. 2/20). The pages should be printed on coloured paper (preferably yellow) in order to be conspicuous. The pages must be kept in the AIP as long as all or part of their contents remain valid. Although it is recommended that AIP Supplement pages be retained as the first item in an AIP binder, it may be more appropriate for CAAP to issue the Supplements divided into specific parts (e.g. GEN, ENR, AD) for insertion in each AIP part, as necessary. This would eliminate the need to continuously refer to the front of the AIP for the required information in cases where the Supplement affects a number of AIP pages. Each AIP Supplement page must show a publication date. Each AIRAC AIP Supplement page must show a publication date and an effective date.

Specimen of AIP Supplement is given in Figures 5-1.

5.8.3 **AIP Supplement replacing a NOTAM**

Temporary changes anticipated to last less than three months are considered to be information of short duration, which is distributed by NOTAM. When this period is exceeded and expected to last for an additional three months or more, an AIP Supplement is issued replacing the NOTAM. Whenever an AIP Supplement is issued as a replacement of a NOTAM, a reference to the series and number of the NOTAM should be included.

5.8.4 **Checklist of AIP Supplements**

A checklist of all AIP Supplements currently in force must be issued at intervals of not more than one month. Such information is to be included in the monthly printed plain-language list of valid NOTAM.

See Section 8.11.2 of this AC.

5.9 ELECTRONIC AIP (eAIP)

5.9.1 The AIS provider has to publish the AIP, AIP Amendment, AIP Supplement and AIC in a format that allows for displaying on a computer screen and printing on paper.

This composite electronic document is named "Electronic AIP" (eAIP) and may be based on a format that allows for digital data exchange.

5.9.2 When provided, the information content of the eAIP and the structure of chapters, sections and sub-sections has to follow the content and structure of the paper AIP.

5.9.3 When provided, the eAIP shall be available in the physical form CD, DVD and on-line thru the internet for paid subscribers and complimentary subscribers local and international only. The AIP amendment is available at the ats.caap.gov.ph website.

5.10 DISTRIBUTION

5.10.1 All AIP, AIP Amendments and AIP Supplements must be distributed to recipients of the aeronautical infromation products by the most expeditious means available.

5.10.2 When an AIRAC AIP Amendment or an AIRAC AIP Supplement is published, "trigger" NOTAM must be originated and promulgated. The intent of this NOTAM is to serve as a reminder in the pre-flight information bulletin (PIB) by signalling the coming into effect of operationally significant permanent or temporary changes to the AIP, thus ensuring that users are aware of changes that may affect their flights. It also serves as a reminder to AIS officers responsible for updating AIP to insert a new AIP Amendment or AIP Supplement in the affected AIP on the amendment or supplement effective date. For guidance on the organization and distribution of trigger NOTAM. see Appendix A to Section 6 of this AC.

Figure 5-1. Specimen of an AIRAC AIP Supplement page

TEL : (632) 8672-7785
FAX : (632) 8672-7783
Telex: 99 1236
AFTN : RPLLYOYX
EMAIL : phil.aisops@gmail.com

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF TRANSPORTATION
CIVIL AVIATION AUTHORITY OF THE PHILIPPINES
AERONAUTICAL INFORMATION SERVICE
MIA Road 1300, Pasay City, Metro Manila

AIRAC AIP
Supplement 16
31 January 2020

EFFECTIVE DATE: 1 January 2020

TEMPORARY DISRUPTION OF AIR TRAFFIC SERVICES IN MANILA FIR

From 1 January 2020, 0001 UTC till 20 January 2020, 2400 UTC air traffic services will be disrupted in the Manila Flight Information Region (FIR).

Due to the disruption of air traffic services, the following will apply in the Manila FIR:

a) international operations will be provided with flight information service only;

b) aircraft fitted with serviceable TCAS and transponder equipment shall have that equipment selected at all times;

c) Traffic Information Broadcast by Aircraft (TIBA) procedures shall apply. Position reports and AIREP information shall continue to be provided to Nova Radio on HF. SELCAL is permitted. Pilots shall make TIBA reports and maintain continuous listening watch on 128.95 MHz;

d) approved flights shall operate on designated ATS routes only;

e) international flights within the Manila FIR above FL 245 shall cruise at a flight level appropriate for the direction of flight. Flights shall maintain level flight en-route. Climb and descent procedures are not authorized;

f) lights entering Manila FIR above FL 245 from adjacent FIR will be vertically separated or horizontally separated at 20 minutes apart when operating on same direction tracks.

Reference AIP ENR 2.1, ENR 3.1 and ENR 3.2.

SECTION 6 NOTAM

6.1 GENERAL NOTAM REQUIREMENTS

6.1.1 The NOF shall promptly originate and issue a NOTAM (including ASHTAM) whenever the information to be distributed is of a temporary nature and of short duration or when operationally significant permanent changes or temporary changes of long duration are made at short notice, except for extensive text and/or graphics.

6.2 VALUE OF A NOTAM

6.2.1 The basic purpose of NOTAM is the distribution of information in adavance of the event to which it relates, except in the case of unserviceabilities that cannot be foreseen. Thus to realize its purpose, a NOTAM must be received by the addressee in sufficient time for any required action to be taken.

The value of NOTAM lies in its "news content" and its residual historical value is therefore minimal.

6.3 DURATION OF NOTAM

6.3.1 Although not directly specified in CAR-ANS Part 15, NOTAM should not remain in force for more than three months. If the circumstances to be notified are expected to exceed three months, an AIP Supplement must be published. When a temporary change in AIP information issued by NOTAM unexpectedly exceeds the three month period, a new or replacement NOTAM may be issued, but only in those cases where a condition is expected to last for a further period of a maximum of one to two months. If it is expected that the condition will last for a longer period of time, an AIP Supplement must be issued.

6.3.2 The CAAP shall ensure that the NOTAM Office in the Philippines shall:

a) operate the NOF on a 24-hour basis;

b) establish agreements with other international NOTAM offices for the exchange of NOTAM;

c) use appropriate telecommunication facilities to issue and receive NOTAM;

d) issue a checklist of the NOTAM's that are currently in force, at intervals of not more than one month; and

e) issue promptly NOTAM in a format in accordance with Appendix A to Section 6 of this AC and as shown in Figures 6-1 and 6-2 of this document.

6.4 INFORMATION TO BE PROMULGATED BY NOTAM

6.4.1 NOTAM is issued when it is necessary to distribute information of direct operational significance which is:

a) of short duration; or

b) appropriate for inclusion in the AIP but needs immediate distribution.

6.4.2 A NOTAM shall be originated and issued concerning the following information:

a) establishment, closure or significant changes in operation of aerodrome(s)/ heliport(s) or runways;

b) establishment, withdrawal and significant changes in operation of aeronautical services (AGA, AIS, ATS, COM, MET, SAR, etc.);

c) establishment, withdrawal and significant changes in operational capability of radio navigation and air-ground communication services. This includes: interruption or return to operation, change of frequencies, change in notified hours

of service, change of identification, change of orientation (directional aids), change of location, power increase or decrease amounting to 50 percent or more, change in broadcast schedules or contents, or irregularity or unreliability of operation of any radio navigation and air-ground communication services;

d) establishment, withdrawal or significant changes made to visual aids;

e) interruption of or return to operation of major components of aerodrome lighting systems;

f) establishment, withdrawal or significant changes made to procedures for air navigation services;

g) occurrence or correction of major defects or impediments in the maneuvering area;

h) changes to and limitations on availability of fuel, oil and oxygen;

i) major changes to search and rescue facilities and services available;

j) establishment, withdrawal or return to operation of hazard beacons marking obstacles to air navigation;

k) changes in regulations requiring immediate action, e.g. prohibited areas for SAR action;

l) presence of hazards which affect air navigation (including obstacles, military exercises, displays, races and major parachuting events outside promulgated sites);

m) erecting, or removal of, or changes to, obstacles to air navigation in the take-off/climb, missed approach, approach areas and runway strip;

n) establishment or discontinuance (including activation or deactivation) as applicable, or changes in the status of prohibited, restricted or danger areas;

o) establishment or discontinuance of areas or routes or portions thereof where the possibility of interception exists and where the maintenance of guard on the VHF emergency frequency 121.500 MHz is required;

p) allocation, cancellation or change of location indicators;

q) significant changes in the level of protection normally available at an aerodrome for rescue and fire fighting purposes. NOTAM shall be originated only when a change of category is involved and such change of category shall be clearly stated.

> The level of protection provided at an aerodrome for rescue and firefighting is provided in MOS-Aerodromes, Chapter 14.

r) presence or removal of, or significant changes in, hazardous conditions due to slush, or water on the movement area;

s) outbreaks of epidemics necessitating changes in notified requirements for inoculations and quarantine measures;

t) forecasts of solar cosmic radiation, where provided;

u) an operationally significant change in volcanic activity, the location, date and time of volcanic eruptions and/or horizontal and vertical extent of volcanic ash cloud, including direction of movement, flight levels and routes or portions of routes which could be affected;

v) release into the atmosphere of radioactive materials or toxic chemicals following a nuclear or chemical incident, the location, date and time of the incident, the flight levels and routes or portions thereof which could be affected and the direction of movement;

w) establishment of operations of humanitarian relief missions, such as those undertaken under the auspices of United Nations, together with procedures and/or limitations which affect air navigation; and

x) implementation of short-term contingency measures in cases of disruption, or partial disruption, of air traffic services and related supporting services.

Requirement for contingency arrangements is provided in CAR-ANS Part 11, 11.2.32.

6.4.3 The need for origination of NOTAM should be considered in any other circumstances which may affect the operation of aircarft.

6.5 INFORMATION NOT TO BE PROMULGATED BY NOTAM

6.5.1 Information which relates to an aerodrome and its vicinity and which does not affect its operational status shall not be notified by NOTAM. Such information should be given local distribution during pre-flight or in-flight briefing or other local contact with operators or pilots. Since such information is not of direct operational significance, it does not preclude safe operation of aircraft and is not likely to influence a pilot's or operator's decision to divert a flight. Hence, the following circumstances shown hereunder as stated in CAR-ANS Part 15, should not be notified by NOTAM:

a) routine maintenance work on aprons and taxiways which does not affect the safe movement of aircraft;

b) runway marking works, when aircraft operations can safely be conducted on other available runways, or the equipment used can be removed when necessary;

c) temporary obstructions in the vicinity of aerodromes that do not affect the safe operation of aircraft:

d) partial failure of aerodrome lighting facilities where such failure does not directly affect aircraft operations;

e) partial temporary failure of air-ground communications when suitable alternative frequencies are known to be available and are operative;

f) the lack of apron marshalling services and road traffic control;

g) the unserviceability of location, destination or other instruction signs on the aerodrome movement area;

h) parachuting when in uncontrolled airspace under VFR [see 6.3.2. (l)], when controlled, at promulgated sites or within danger or prohibited areas;

i) other information of a similar temporary nature.

6.6 ORIGINATION AND USE OF 'TRIGGER' NOTAM

6.6.1 When an AIP Amendment or an AIP Supplement is published in accordance with AIRAC procedures, "trigger" NOTAM must be originated and promulgated. The intent of this NOTAM is to serve as a reminder in the pre-flight information bulletin (PIB) by signalling the coming into effect of operationally significant permanent or temporary changes to the AIP, thus ensuring that users are aware of changes that may affect their flights. It also serves as a reminder to AIS officers responsible for updating AIP to insert a new AIP Amendment or AIP Supplement in the affected AIP on the amendment or supplement effective date. Trigger NOTAM must contain a brief description of the contents of the amendment or supplement, the effective date-time and the reference number of the amendment or supplement. This trigger NOTAM must come into force on the same effective date as the amendment or supplement. Trigger NOTAM must remain valid, as a reminder in the PIB, for a period of 14 days.

For examples and further guidance on the use of trigger NOTAM, see Appendix A to Section 6.

6.6.2 A trigger NOTAM is issued:

a) in the appropriate NOTAM series, according to the information it contains;

- Trigger NOTAM are never published in Series T which is reserved for NOTAM processing units in cases when basic operational information was not "triggered" by the issuing NOF.

b) for a single location (FIR or aerodrome) only, but may include information on different subjects related to the location in order to reduce the number of NOTAM to be published.

6.7 POSTPONEMENT OF CHANGES TO AERONAUTICAL INFORMATION

6.7.1 Postponement of changes to circumstances listed in CAR-ANS Part 15, 15.6.2 has the effect of cancelling information notified by AIRAC and reinstating previously valid information. Doing so by NOTAM less than 28 days before the effective date for changes to circumstances listed in CAR-ANS Part 15, 15.6.2, does not generally allow sufficient time for previously valid information to be reinstated in airborne navigation databases, with the result that erroneous information would be presented to flight crews. Furthermore, since charts used by flight crews and ATC are updated on a different schedule than airborne navigation databases, it is possible that valid information which is not reflected in the airborne database may nevertheless appear on charts. The resulting mismatch of information would give rise to considerable operational difficulties and potential safety hazards. In the worst case, RNAV procedures that require a navigation database may not be flown (operated).

6.7.2 In order to avoid negative consequences to the safety and efficiency of flights, all possible measures should be taken to ensure that changes to circumstances listed in CAR-ANS Part 15, 15.6.2, take place as notified on the AIRAC date. This will require thorough planning of aeronautical information changes and the cooperation of all parties involved, including AIS.

6.7.3 It is important to recognize that a change to the effective date (or postponement) is information to be notified by AIRAC and therefore constitutes "withdrawal" as stated in CAR-ANS Part 15, 15.6.2. Postponement by NOTAM should be issued more than 28 days in advance of the previously indicated effective date unless the circumstances are of a temporary nature and would not persist for the full period.

6.8 DISTRIBUTION

6.8.1 A NOTAM must be distributed on the basis of a request. To the extent practicable, NOTAM must be distributed via the AFS. Each NOTAM must be transmitted as a single telecommunication message.

6.8.2 **Priorities**

The priority normally accorded to messages sent over the AFS is GG. Under exceptional circumstances and when justified by a requirement or special handling, a NOTAM may be given the higher DD priority.

6.8.3 **Promulgation of transitory information**

For information provided by NOTAM, it may be advantageous to exercise selectivity on a time basis to reduce NOTAM traffic on the AFS and wasted effort in the handling of data that could become redundant in transit. Where the information may be valid for only a few hours or subject to rapid change, and no other channel can ensure timely distribution, arrangements should be made for the information to be provided directly to the relevant air traffic services units using, where practicable, communication channels established for inter-ATS communications.

6.8.4 **International distribution**

The CAAP AIS provider is responsible for selecting the NOTAM to be given international distribution, but due consideration must be given to any stated operational requirements of other States' NOF for both flight planning and pre-flight information purposes.

6.8.5 NOTAM given international distribution must conform, where necessary, with the relevant provisions of the ICAO communication procedures (CAR-ANS Part 2), the ICAO NOTAM Code and abbreviations (see *Procedures for Air Navigation Services — ICAO Abbreviations and Codes* (PANS-ABC, Doc 8400)), indicators, identifiers, etc., and plain language where required for clear understanding. When a NOTAM is distributed by means other than the AFS, a six-digit datetime group indicating the date and time of filing the NOTAM and the identification of the originator must be given preceding the text.

6.8.6 ASHTAM or NOTAM concerning volcanic activity must include in the address list the MWO associated with the origin as listed in Part 2 of the *International Airways Volcano Watch (IAVW)* (ICAO Doc 9766), all VAACS and the SADIS/ISCS Gateway at EGZZVANW.

6.8.7 **Measures to reduce use of the AFS**

In order to avoid excessive traffic on the AFS, NOTAM must be addressed only to NOF and further distribution within the airports in the Philippines made by or through delegation from the NOF concerned. NOTAM used for notifying volcanic activity and ASHTAM must also be sent to volcanic ash advisory centers and must take into consideration the requirements for long-range operations. Furthermore, in exceptional cases, the direct exchange of SNOWTAM between adjacent aerodromes is permitted, should this be operationally necessary and if direct AFS circuits are available. The exchanges between NOF should, as far as practicable, be limited to the pre-ascertained requirements of the receiving States concerned by means of separate series for at least international and domestic flights.

6.8.8 Consideration might also be given to the use of automation in an effort to improve distribution of NOTAM. With the computer technology now available it should be possible to store all NOTAM information (and all basic information) in a jointly-administered information facility in each major operating area. This facility could be interrogated for pre-flight information, or route manual or aeronautical charting purposes, by the AIS provider, individual pre-flight information units or operating agencies, and could be programmed to print up-to-date information on an area, route or terminal basis as required. CAAP NOF would feed information into the center as the occasion demanded and distribution to other States would be at the option of the ultimate recipient. In this way, only information required by the user would be distributed and much unnecessary information that now floods the AFS would cease to burden the AIS and COM services.

6.8.9 **Predetermined distribution system for NOTAM**

Description of the system

When it is agreed between NOF that incoming NOTAM (including SNOWTAM and ASHTAM) must be channelled through the AFS directly to designated addresses predetermined by the receiving State concerned, while concurrently being routed to its NOF for checking and control purposes, an eight-letter addressee indicator constituted as follows must be used:

First and second letters: The first two letters of the location indicator for the AFS communication center associated with the relevant NOF of the receiving State.

Third and fourth letters: The letters "ZZ", indicating a requirement for special distribution.

Fifth letter: The letter "N" for NOTAM, the letter "S" for SNOWTAM and the letter "V" for ASHTAM.

Sixth and seventh letters: Letters each taken from the series A to Z, denoting the national and/or international distribution list(s) to be used by the receiving AFS center.

Eighth letter: The letter "X", to complete the eight letter addressee indicator.

6.8.10 The main objective of the system is to expedite all NOTAM received by eliminating the delay that occurs when the receiving COM center routes incoming NOTAM to its NOF for checking and control purposes and then waits to receive them from the NOF for transmission to other internal addresses. To achieve this objective as well as to ensure proper routing, it is essential that States and territories from which NOTAM are required are advised of the sixth and seventh letters to be used by them in the addressee indicator. Each national distribution list, whether for NOTAM, SNOWTAM or ASHTAM, denotes a group of addressees predetermined by the receiving State on the basis of its requirements for information promulgated by NOTAM. The sixth and seventh letters signify not only the group of addressees but also the automatic relay responsibility of the receiving AFS center.

Checking and control

6.8.11 The CAAP AIS provider is the focal point for the receipt and dispatch of NOTAM, under the predetermined distribution system it shares the responsibility for checking incoming NOTAM with the aerodrome AIS units to which NOTAM are destined. Its responsibility here is mainly one of liaison. It does not relieve the ultimate addressee, to whom the NOTAM has been channelled and who is most affected by any lack of timeliness, accuracy or completeness in the information it contains, from also checking for obvious errors. While the standard format used for NOTAM, SNOWTAM and ASHTAM tends to minimize the possibility of error, the addressee nevertheless has special responsibility under this system to query any errors or omissions through the receiving NOF.

Selectivity in the distribution of information

6.8.12 The success of the predetermined distribution system presupposes competent selection, by the originating State, of NOTAM to be given international distribution and the use of selective distribution lists where practicable to prevent superfluous distribution of information. The selectivity exercised by CAAP NOF in the distribution process should be related to the needs of the receiving NOF. Selectivity in the locations that require the information is controlled through precisely predetermined arrangements made by the receiving NOF, indicated in terms of the sixth and seventh letters to be used in the addressee indicator, and taking into consideration the workload placed on the originating NOF and on the telecommunication services.

6.9 SPECIFICATIONS FOR NOTAM

6.9.1 Message series, number and identifier

Each NOTAM must be allocated a series identified by a letter and a four-digit number, followed by a stroke and a two-digit number for the year so that addressees may check continuity. The number must be consecutive and based on the calendar year. If more than one series of NOTAM is issued, each series must be separately identified by a letter. Letters A to Z, with the exception of S and T, may be used to identify a NOTAM series. Renumbering of existing NOTAM (i.e. containing identical information, but with a new number) is not allowed, nor are NOTAM to be renumbered at the beginning of each year.

6.9.2 One of the following message identifiers is to be inserted as appropriate:

a) NOTAMN if it concerns a NOTAM containing new information.

b) NOTAMR if it concerns a NOTAM replacing a previous NOTAM, followed by the series and number/year of the NOTAM replaced (e.g. A0125/03 NOTAMR A0123/03).

c) NOTAMC if it concerns a NOTAM cancelling a previous NOTAM, followed by the series and number/year of the cancelled NOTAM (e.g. A0460/03 NOTAMC A0456/03).

6.9.3 Corrected versions of NOTAM must not be issued. Erroneous NOTAM must either be replaced or cancelled and a new NOTAM issued.

6.9.4 A NOTAMR must replace only one NOTAM. Both must belong to the same NOTAM series. A NOTAMC must cancel only one NOTAM. Both must belong to the same NOTAM series.

6.9.5 **Promulgation in series**

When considering the needs of States it may be found that an adjacent State may want full information from the originating State while a more distant State may only require a subset of this information or may not be interested in temporary information of short duration. In order to reduce distribution to meet such variable requirements it may be found useful to arrange for NOTAM to be promulgated in two or more series to allow for selective distribution. For example, NOTAM may be classified as follows:

A — NOTAM containing information of concern to long- or medium-range flights and given selected international distribution.

B — NOTAM containing full information on all aerodromes, facilities and procedures available for use in international civil aviation and given international distribution to adjacent States and other States on request.

C — NOTAM containing information of concern to aircraft other than those engaged in international civil aviation and given national distribution only.

S — NOTAM published in the SNOWTAM format concerning the presence or removal of hazardous conditions due to snow, slush or ice on aerodrome pavements or standing water associated with these conditions.

V — NOTAM published in the ASHTAM format concerning the occurrence of pre-eruption volcanic activity, or an operationally significant change in volcanic activity, the location, date and time of volcanic eruptions and horizontal and vertical extent of volcanic ash cloud, including direction of movement, flight levels and routes or portions of routes which could be affected.

Z — NOTAM concerning the status of elements of the global navigation satellite system (GNSS).

Example:

State 2 may require information from the originating State (State 1) on all aerodromes, facilities and procedures available for use by civil aircraft.

State 3 may require information from State 1 for a route stage originating at an aerodrome in its territory and terminating at an aerodrome in State 1, or transit territory for which State 1 is responsible, concerning significant aerodrome facilities, procedures, en-route navigation aids (including airground communications) available to international civil aviation; and occurrences of significance to overflying aircraft along the portion of the route which traverses territory for which State 1 is responsible.

State 1 would then send to State 2 series B, S and V NOTAM while State 3 would be sent series A and V NOTAM and, if a requirement for them has been previously indicated, series S and series Z NOTAM.

6.9.6 **Period of validity**

Information must be provided on the duration of the hazard, change in the normal status of operation, or condition of the facilities being reported on. If, during that time, the condition or activity is active within specified time periods, this must also be given. NOTAM notifying unserviceability of aids to air navigation, facilities or communication services must give the time at which restoration of service is expected or an estimate of the period of unserviceability.

6.9.7 Care should be taken to express the duration of a circumstance notified in the NOTAM in such a way that there will be no misunderstanding. Both the NOTAM Format and the relevant options of the NOTAM Code require an indication of the applicable date(s) and time(s) expressed as a ten-figure group giving year, month, day and hour in UTC.

Example:

Q) RJCG/QLBAS/IV/M/A/000/999/
4248N14140E025
A) RJCC B) 2005130921 C) 2005141800
E) ABN U/S

Meaning:

The aerodrome beacon at Sapporo/Chitose aerodrome became unserviceable at 0921 on 13 May 2020 and will remain out of service until 1800 hours UTC on 14 May 2020.

6.9.8 **Text**

The text of the NOTAM must be contain the information on the hazard, status of operation or condition of the facilities reported on. It must be composed of the significations/uniform abbreviated phraseology assigned to the ICAO NOTAM Code complemented by ICAO abbreviations (ICAO Doc 8400), and indicators, identifiers, designators, call signs, frequencies, figures and plain language. Except as otherwise provided for SNOWTAM and ASHTAM, the text of each NOTAM must contain the information in the order shown in the NOTAM Format.

For additionall information on the text of the NOTAM, please see Appendiz A to Section 6.

6.9.9 Each NOTAM must be as brief as possible and so compiled that its meaning is clear without the need to refer to another document. Each NOTAM must deal with only one subject and one condition concerning the subject. The text should be composed by the NOF in such a way that it will serve for PIB entry without requiring additional processing by the receiving unit.

6.9.10 **Cross-reference to AIP/AIP Supplement**

When a NOTAM contains information that renders necessary an AIP Amendment or AIP Supplement the text must include an appropriate cross-reference to the affected AIP or AIP Supplement and an annotation must be made accordingly, even when the information is of a temporary nature. This informs the user of the AIP or AIP Supplement that there is information outstanding against a particular entry.

6.9.11 When a NOTAM contains temporary information of short duration that does not render necessary the consultation of an AIP Amendment or AIP Supplement to have the full information, AIP references must not be annotated in the NOTAM. This informs the user of the NOTAM that the text of the NOTAM is conveying the totality of the information.

6.9.12 **Naming of locations**

Location indicators included in the text of NOTAM must be those contained in Location Indicators (ICAO Doc 7910), and curtailed forms of these indicators must not be used. In NOTAM containing information concerning a location that has not been assigned an ICAO location indicator, the name of the location must be given in plain language, spelled in conformity with local usage and transliterated when necessary into the Latin alphabet.

6.9.13 **Languages**

NOTAM, as well as other elements of the Integrated Aeronautical Information Package given international distribution, must include an English text for those parts expressed in plain language. This requirement is intended to assist the majority of those engaged in civil aviation.

6.10 NOTAM FORMAT

6.10.1 The NOTAM Format aims at standardizing the presentation of the different types of information promulgated by NOTAM in order to facilitate understanding of the message by the addressee. In developing this format, the need for transcription of the information in the form of AFS messages has been taken into account. The Format therefore includes the special symbols that are mandatory for the teleprinter operator to use in composing the message (i.e. carriage return, line change, space, opening parentheses before message identification and closing parentheses). The NOTAM Format and instructions for its completion, which are contained in CAR-ANS Part 15, are reproduced in Appendix A to Section 6 of this AC.

6.10.2 The NOTAM Format essentially consists of two parts:

a) the part of interest to the communication service handling the AFS message, i.e. the part containing the priority indicator, addresses, date and time of filing and the originator's indicator;

b) the part containing the NOTAM information.

6.10.3 Instructions for the completion of the NOTAM format which relates to the part containing the NOTAM information are provided in Appendix 3 of MOS-AIS. These instructions are repeated in Appendix A to Section 6 of this AC for ease of reference. Appendix A also provides additional guidance and examples of NOTAM.

6.11 USE OF THE NOTAM CODE AND ABBREVIATIONS

6.11.1 **Purpose**

The ICAO NOTAM Code contained in ICAO Doc 8400 or of EUROCONTROL Operating Procedures for AIS Dynamic Data (OPADD) is a comprehensive description of information contained in NOTAM. It serves as one of the most important criteria for storage and retrieval of information, as well as for deciding whether or not an item is of operational significance. It also establishes the relevance of the NOTAM to the various types of flight operations and whether it must therefore be part of a PIB. In addition, it assists in specifying items that are to be subject to immediate notification processes. The NOTAM Code forms the basis upon which NOTAM qualifiers are determined for inclusion in Item Q) of the NOTAM Format, in addition to defining the abbreviated plain-language text which appears in Item E).

6.11.2 **Composition**

All NOTAM Code groups contain five letters. The first letter, Q, indicates that it is a code abbreviation for use when composing NOTAM. The second and third letters indicate the type of facility or condition being reported and the fourth and fifth letters, the hazard or

status of operation being reported. The encode portion of the NOTAM Code has been provided to facilitate the choice of the appropriate code groups, but some imagination and a full appreciation of the Code's potentialities are necessary to make the most effective use of it. It therefore requires considerable study by those responsible for NOTAM composition. In fact, when composing NOTAM in plain language, cognizance should be given to the possible coding of the NOTAM and care taken to frame the NOTAM in a manner which will facilitate later transcription into the NOTAM Code.

6.11.3 **Use of NOTAM Code groups**

The most commonly used NOTAM Code groups and their respective relation with the qualifiers Traffic, Purpose and Scope are presented in the NOTAM Selection Criteria tables in Appendix B of ICAO Doc. 8126.

6.11.4 **Use of abbreviations**

In many instances, NOTAM Code groups need to be amplified, supplemented or completed by significations/uniform abbreviated phraseology assigned to the NOTAM Code and abbreviations, frequencies, call signs, identifications, time groups, etc., in order to convey the essential information. This is a recognized procedure in keeping with the concept of the NOTAM Code and aeronautical telecommunication procedures and should always be used in preference to plain language. Abbreviations specified for use by AIS provider for operational purposes are contained in ICAO Doc 8400. As the need for additional abbreviations becomes evident, steps will be taken to add abbreviations to Doc 8400. Abbreviations which are not in Doc 8400 should not be used.

- Since the Q code (QDM, QFE, etc.) is primarily designed for air/ground request/reply communications, it should be used with caution and only when there is no chance that the message might be misunderstood.

6.12 SNOWTAM

A special series NOTAM given in a standard format providing a surface condition report notifying the presence or cessation of hazardous conditions due to snow, ice, slush, frost, standing water or water associated with snow, slush, ice or frost on the movement area. (MOS-AIS). The CAAP Advisory Circular on SNOWTAM (AC AIS A4) provides explanation and examples on assessing and reporting runway surface conditions using the new SNOWTAM format contained in Appendix 4 of MOS-AIS.

6.13 ASHTAM

6.13.1 A special series NOTAM, called ASHTAM, is used to notify an operationally significant change in volcanic activity, the location, date and time of volcanic eruptions and/or horizontal and vertical extent of volcanic ash cloud, including direction of movement, flight levels and routes or portions of routes which could be affected. A specific format (see Appendix 5 of MOS-AIS) is prescribed for this purpose. Use of the NOTAM Code and plain language is also permissible. When the ASHTAM Format is used, the information must be given in the order shown in that Format. The maximum period of validity of the ASHTAM is 24 hours. A new ASHTAM must be issued whenever there is a change in the level of alert. Instructions for the completion of the ASHTAM Format are reproduced in Appendix A to this chapter.

6.13.2 Information about volcanic activity or the presence of volcanic ash plumes may also be reported by NOTAM. To ensure speedy transmission of initial information to aircraft, the first ASHTAM or NOTAM issued may not contain more information than the fact that an eruption and/or ash cloud is reported at a given location at a given date and time.

APPENDIX A TO SECTION 6 NOTAM, SNOWTAM AND ASHTAM

1. INTRODUCTION

1.1 This appendix contains explanations relating to the issuing of NOTAM, which expands upon the basic guidance provided in Section 6.

1.2 The NOTAM Format and the corresponding instructions for its completion, contained in Appendix 3 to MOS-AIS, are reproduced in this appendix for ease of reference. Examples of NOTAM are also included. Two of these examples are supplemented by the associated AFS messages and by completed NOTAM Formats.

1.3 Guidance has been included on the issuing of trigger NOTAM as well as on the production of checklists to be issued as NOTAM.

1.4 The new SNOWTAM Format and instructions for completion of the SNOWTAM Format, as contained in Appendix 4 to MOS-AIS, is also reproduced in this appendix. Further guidance on the use of the new SNOWTAM format is contained in Advisory Circular AC AIS A4.

1.5 The ASHTAM Format and instructions for completion of the ASHTAM Format, as contained in Appendix 5 to MOS-AIS, is also reproduced in this appendix.

NOTAM FORMAT

Priority indicator												→
Address												
												«≡
Date and time of filing												→
Originator's indicator												«≡(
Message series, number and identifier												
NOTAM containing new information	..... (series and number/year)	NOTAMN										
NOTAM replacing a previous NOTAM	..... (series and number/year)	NOTAMR ..... (series and number/year of NOTAM to be replaced)										
NOTAM cancelling a previous NOTAM	..... (series and number/year)	NOTAMC ..... (series and number/year of NOTAM to be cancelled)										«≡
Qualifiers												
	FIR	NOTAM Code	Traffic	Purpose	Scope	Lower limit	Upper limit	Coordinates, Radius				
Q)	/	Q /	/	/	/	/	/	/				«≡
Identification of ICAO location indicator in which the facility, airspace or condition reported on is located								A)				→
Period of validity												
From *(date-time group)*	B)											→
To *(PERM or date-time group)*	C)										EST* PERM*	«≡
Time schedule *(if applicable)*	D)											→
												«≡
Text of NOTAM: plain-language entry (using ICAO abbreviations)												
E)												«≡
Lower limit	F)											→
Upper limit	G)											) «≡
Signature												

*Delete as appropriate

INSTRUCTIONS FOR THE COMPLETION OF THE NOTAM FORMAT

1. General

The qualifier line (Item Q)) and all identifiers (Items A) to G) inclusive) each followed by a closing parenthesis, as shown in the format, shall be transmitted unless there is no entry to be made against a particular identifier.

2. NOTAM numbering

Each NOTAM shall be allocated a series identified by a letter and a four-digit number followed by a stroke and a twodigit number for the year (e.g. A0023/03). Each series shall start on 1 January with number 0001.

3. Qualifiers (Item Q)

Item Q) is divided into eight fields, each separated by a stroke. An entry shall be made in each field. The definition of the fields is as follows:

1) FIR

a) If the subject of the information is located geographically within one FIR, the ICAO location indicator shall be that of the FIR concerned. When an aerodrome is situated within the overlying FIR of another State, the first field of Item Q) shall contain the code for that overlying FIR (e.g. Q) LFRR/...A) EGJJ);

or,

if the subject of the information is located geographically within more than one FIR, the FIR field shall be composed of the ICAO nationality letters of the State originating the NOTAM followed by "XX". (The location indicator of the overlying UIR shall not be used). The ICAO location indicators of the FIRs concerned shall then be listed in Item A) or indicator of State or non-governmental agency which is responsible for provision of a navigation service in more than one State.

b) If one State issues a NOTAM affecting FIRs in a group of States, the first two letters of the ICAO location indicator of the issuing State plus "XX" shall be included. The location indicators of the FIRs concerned shall then be listed in Item A) or indicator of State or non-governmental agency which is responsible for provision of a navigation service in more than one State.

2) NOTAM CODE

All NOTAM Code groups contain a total of five letters and the first letter is always the letter Q. The second and third letters identify the subject, and the fourth and fifth letters denote the status or condition of the subject reported upon. The two-letter codes for subjects and conditions are those contained in the PANS-ABC (Doc 8400). For combinations of second and third, and fourth and fifth letters, refer to the NOTAM Selection Criteria (ICAO Doc. 8126 or OPADD) or insert one of the following combinations, as appropriate:

a) If the subject is not listed in the NOTAM Code (PANS-ABC, ICAO Doc 8400) or in the NOTAM Selection Criteria (ICAO Doc. 8126), insert "XX" as the second and third letters ; If subject is "XX", use "XX" also for condition (e.g. QXXXX).

b) If the condition of the subject is not listed in the NOTAM Code (ICAO Doc 8400) or in the NOTAM Selection Criteria (ICAO Doc. 8126), insert "XX" as the fourth and fifth letters (e.g. QFAXX);

c) When a NOTAM containing operationally significant information is issued in accordance with CAR-ANS Part 15, 15.6.2.1, and when it is used to announce the existence of AIRAC AIP Amendments or Supplements, insert "TT" as the fourth and fifth letters of the NOTAM Code;

d) When a NOTAM is issued containing a checklist of valid NOTAM, insert "KKKK" as the second, third, fourth and fifth letters; and

e) The following fourth and fifth letters of the NOTAM Code shall be used in NOTAM cancellations:

AK = RESUMED NORMAL OPERATION

AL = OPERATIVE (OR RE-OPERATIVE) SUBJECT TO PREVIOUSLY PUBLISHED LIMITATIONS/ CONDITIONS

AO = OPERATIONAL
CC = COMPLETED
CN = CANCELLED
HV = WORK COMPLETED
XX = PLAIN LANGUAGE

- As Q - - AO = Operational is used for NOTAM cancellation, NOTAM promulgating new equipment or services use the following fourth and fifth letters Q - - CS = Installed.
- Q - - CN = CANCELLED shall be used to cancel planned activities, e.g. navigation warnings; Q - - HV = WORK COMPLETED is used to cancel work in progress.

3) TRAFFIC

I = IFR
V = VFR
K = NOTAM is a checklist

- Depending on the NOTAM subject and content, the qualifier field TRAFFIC may contain combined qualifiers. Guidance concerning the combination of TRAFFIC qualifiers with subject and conditions in accordance with the NOTAM Selection Criteria (ICAO Doc. 8126).

4) PURPOSE

N = NOTAM selected for the immediate attention of flight crew members
B = NOTAM of operational significance selected for PIB entry
O = NOTAM concerning flight operations
M = Miscellaneous NOTAM, not subject for a briefing, but available on request
K = NOTAM is a checklist

- Depending on the NOTAM subject and content, the qualifier field PURPOSE may contain the combined qualifiers BO or NBO. Guidance concerning the combination of PURPOSE qualifiers with subject and conditions in accordance with the NOTAM Selection Criteria (ICAO Doc. 8126).

5) SCOPE

A = Aerodrome
E = En-route
W = Nav Warning
K = NOTAM is a checklist

If the subject is qualified AE, the aerodrome location indicator shall be reported in Item A).

- Depending on the NOTAM subject and content, the qualifier field SCOPE may contain combined qualifiers. Guidance concerning the combination of SCOPE qualifiers with subject and conditions in accordance with the NOTAM Selection Criteria (ICAO Doc. 8126).

6) and 7) LOWER/UPPER LIMITS

Lower and upper limits shall only be expressed in flight levels (FL) and shall express the actual vertical limits of the area of influence without the addition of buffers. In the case of

navigation warnings and airspace restrictions, values entered shall be consistent with those provided under Items F) and G).

If the subject does not contain specific height information, insert "000" for LOWER and "999" for UPPER as default values.

8) COORDINATES, RADIUS

The latitude and longitude accurate to one minute, as well as a three-digit distance figure giving the radius of influence in NM (e.g. 4700N01140E043). Coordinates present approximate center of circle whose radius encompasses the whole area of influence, and if the NOTAM affects the entire FIR/UIR or more than one FIR/UIR, enter the default value "999" for radius.

4. Item A)

Insert the ICAO location indicator as contained in ICAO Doc 7910 of the aerodrome or FIR in which the facility, airspace, or condition being reported on is located. More than one FIR/UIR may be indicated when appropriate. If there is no available ICAO location indicator, use the ICAO nationality letter as given in ICAO Doc 7910, Part 2, plus "XX" and followed up in Item E) by the name, in plain language.

If information concerns GNSS, insert the appropriate ICAO location indicator allocated for a GNSS element or the common location indicator allocated for all elements of GNSS (except GBAS).

- In the case of GNSS, the location indicator may be used when identifying a GNSS element outage (e.g. KNMH for a GPS satellite outage).

5. Item B)

For date-time group use a ten-figure group, giving year, month, day, hours and minutes in UTC. This entry is the datetime at which the NOTAMN comes into force. In the cases of NOTAMR and NOTAMC, the date-time group is the actual date and time of the NOTAM origination. The start of a day shall be indicated by "0000".

6. Item C)

With the exception of NOTAMC, a date-time group (a ten-figure group giving year, month, day, hours and minutes in UTC) indicating duration of information shall be used unless the information is of a permanent nature in which case the abbreviation "PERM" is inserted instead. The end of a day shall be indicated by "2359" (i.e. do not use "2400"). If the information on timing is uncertain, the approximate duration shall be indicated using a date-time group followed by the abbreviation "EST". Any NOTAM which includes an "EST" shall be cancelled or replaced before the date-time specified in Item C).

7. Item D)

If the hazard, status of operation or condition of facilities being reported on will be active in accordance with a specific time and date schedule between the dates-times indicated in Items B) and C), insert such information under Item D). If Item D) exceeds 200 characters, consideration shall be given to providing such information in a separate, consecutive NOTAM.

8. Item E)

Use decoded NOTAM Code, complemented where necessary by ICAO abbreviations, indicators, identifiers, designators, call signs, frequencies, figures and plain language. When NOTAM is selected for international distribution, English text shall be included for

those parts expressed in plain language. This entry shall be clear and concise in order to provide a suitable PIB entry. In the case of NOTAMC, a subject reference and status message shall be included to enable accurate plausibility checks.

9. Item F) and G)

These items are normally applicable to navigation warnings or airspace restrictions and are usually part of the PIB entry. Insert both lower and upper height limits of activities or restrictions, clearly indicating only one reference datum and unit of measurement. The abbreviations GND or SFC shall be used in Item F) to designate ground and surface respectively. The abbreviation UNL shall be used in Item G) to designate unlimited.

2. Examples of NOTAM Using the NOTAM Format

2.1 Examples of NOTAM using the NOTAM Format are given below. These are examples only and should not be considered as having any operational value.

a) At Paris/Orly from the 1st day of April 2003 at 0000 UTC until the 1st day of April 2003 at 0600 UTC, the distance measuring equipment will be unserviceable.

NOTAMN
Q) LFFF/QNDAS/IV/BO/AE/000/999/4843N00221E250
A) LFPO B) 0304010000 C) 0304010600
E) DME U/S)

b) At New York/La Guardia the VHF omnidirectional radio range on 116.9 MHz will be out of service until approximately the 13th day of November 2003 at 0900 UTC.

NOTAMN
Q) KZWY/QNVAS/IV/BO/AE/000/999/4047N07352W250
A) KLGA B) 0311020615 C) 0311130900 EST
E) 116.9 MHZ VOR U/S)

c) At Beograd/Beograd the non-directional beacon on 243 kHz will be permanently withdrawn from service on 1 May 2003 at 0600 UTC. Add reference to AIP.

NOTAMN
Q) LYBA/QNBAW/IV/BO/AE/000/999/4449N02019E300
A) LYBE B) 0305010600 C) PERM
E) 243 KHZ NDB WITHDRAWN REF. AIP LYBE AD 2.19)

d) In the Montreal FIR gun firing will take place on the 21st day of February 2003 from 0800 hours UTC until 1100 hours UTC within an area of 10 NM around the location 45° 37' North 74° 00' West from the surface up to an altitude of 6 100 meters MSL.

NOTAMN
Q) CZUL/QWMLW/IV/BO/W/000/200/4537N07400W010
A) CZUL B) 0302210800 C) 0302211100
E) GUN FIRING WILL TAKE PLACE RADIUS 10 NM CENTER 4537N07400W
F) SFC G) 6100M AMSL)

e) If a danger area EGDXX located at 5510N00520W with a radius of 50 NM (and affecting two FIR) were to be activated up to 40 000 ft MSL on 3, 7, 12, 21, 24 and 28 April 2003, daily from 0730 to 1500 UTC and up to 30 000 ft MSL on 19 and 20 April 2003 daily from 0730 to 1500 UTC, two NOTAM would be required, as follows:

(A0623/03 NOTAMN
Q) EGXX/QRDCA/IV/NBO/W/000/400/5510N00520W050
A) EGTT EGPX B) 0304030730 C) 0304281500

D) APR 03 07 12 21 24 AND 28 0730 TO 1500
E) DANGER AREA DXX IS ACTIVE
F) GND G) 40000FT AMSL)

(A0624/03 NOTAMN
Q) EGXX/QRDCA/IV/NBO/W/000/300/5510N00520W050
A) EGTT EGPX B) 0304190730 C) 0304201500
D) APR 19 AND 20 0730 TO 1500
E) DANGER AREA DXX IS ACTIVE
F) GND G) 30000FT AMSL)

f) At Frankfurt International on the 27th day of November 2003, basic GNSS is unavailable for NPA from 1723 UTC until 1754 UTC, SBAS is unavailable for APV from 1731 until 1746 UTC and GBAS is unavailable from 1735 until 1746 UTC.

(B0116/03 NOTAMN
Q) EDFF/QGAAU/I/BO/A/000/999/5204N01137E250
A) EDDF B) 0311271723 C) 0311271754
E) BASIC GNSS UNAVBL FOR NPA 0311271723
TIL 0311271754 SBAS UNAVBL FOR APV 0311271731 TIL 0311271748
GBAS UNAVBL 0311271735 TIL 0311271746)

g) SBAS is unavailable for all APV operations in an area of 250 NM radius around Paris Charles de Gaulle as of December 14th, 2003 at 2135 hours UTC until December 15th, 2003 at 2135 hours UTC (estimated).

(A2500/03 NOTAMN
Q) LFFF/QGWAU/I/BO/A/000/999/4901N00232E250
A) LFPG B) 0312142135 C) 0312152135 EST
E) SBAS UNAVBL FOR APV)

h) Basic GNSS, SBAS and GBAS will be unavailable for all en-route and aerodrome operations in an area of 460 km (250 NM) radius around Paris Charles de Gaulle as of October 16th, 2003 at 1815 hours UTC until 2315 hours UTC.

(A3546/03 NOTAMN
Q) LFFF/QGWAU/I/BO/AE/000/999/4901N00232E250
A) LFPG B) 0310161815 C) 0310162315
E) BASIC GNSS UNAVBL SBAS UNAVBL GBAS UNAVBL)

2.2 Examples of completed NOTAM Formats are given in Figures 6-1 and 6-2, and the meanings of the NOTAM messages are included below together with the associated examples of AFS messages.

MEANING OF NOTAM IN FIGURE 6-1

NOTAM series A number 0068 replacing NOTAM series A number 0062 of the current year. Vagar, Faroe Islands, aerodrome closed for maintenance on the runway from 2300 hours UTC on the 8th day of May 2003 to approximately 0100 UTC on the 9th day of May 2003.

AFS message

GG EHZZNNLX EBZZNNLX EDZZNINX
EKZZNIDX
021432 BGSFYNYX
(A0068/03 NOTAMR A0062/03
Q) BIRD/QFALC/IV/NBO/A/000/999/6204N07163W010
A) EKVG B) 0305082300 C) 0305090100 EST
E) AD CLSD FOR MAINT

MEANING OF NOTAM IN FIGURE 6-2

In the Tokyo FIR, hot air balloon flying will take place in an area bounded by the following points 43 00 N 140 40 E, 42 40 N 140 30 E, 42 36 N 140 30 E and 42 36 N 140 54 E. The flying will be held during VMC only up to an altitude of 2 000 m above mean sea level during the following days and times:

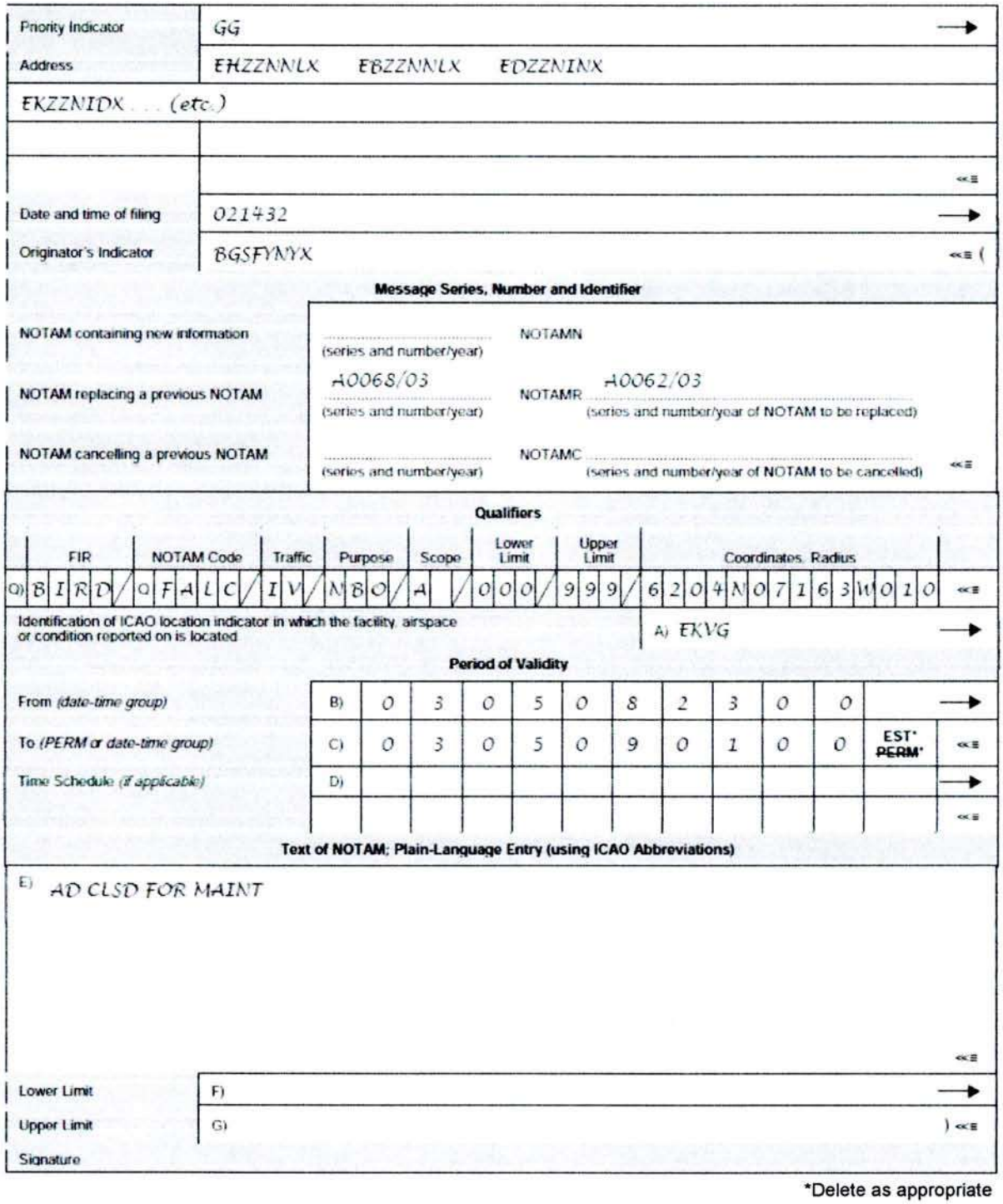
in 2003, May 31 19h30 – June 1 09h30, June 6 19h30 – June 7 09h30, June 7 19h30 – June 8 09h30, June 13 19h30 – June 14 09h30, June 14 19h30 – June 15 09h30, June 20 19h30 – June 21 09h30, June 21 19h30 – June 22 09h30, June 27 19h30 – June 28 09h30, June 28 19h30 – June 29 09h30.

Or in a more concise form:

In 2003, on the following days: May 31, June 6, 7, 13, 14, 20, 21, 27 and 28 at periods starting at 19h30 and ending at 9h30 the next day.

AFS message

GG CYZZNBBX KDZZNOKX LFZZNNMX
NTTYNYX WMKKYNYX
301203 RJAAYNYX
(A0703/03 NOTAMN
Q) RJTG/QWLLW/V/M/W/000/065/4248N14042E100
A) RJTG B) 0305311930 C) 0306290930
D) MAY 31 JUN 06 07 13 14 20 21 27 28 1930-0930
E) HOT AIR BALLOON FLT IN AREA 4300N14040E – 4240N14030E – 4236N14030E – 4236N14054E – 4300N14040E VMC ONLY
F) SFC G) 2000M AMSL)



*Delete as appropriate

Figure 6-1. Example 1 of a completed NOTAM Format

Priority indicator	GG →
Address	CYZZNBBX KDZZNOKX LFZZNNMX
	NTTOYNYX WMKKYNYX . . . (etc.)
	≪
Date and time of filing	301203 →
Originator's Indicator	RJAAYNYX ≪ (

Message Series, Number and Identifier

NOTAM containing new information	A0703/03 (series and number/year)	NOTAMN
NOTAM replacing a previous NOTAM	..... (series and number/year)	NOTAMR ..... (series and number/year of NOTAM to be replaced)
NOTAM cancelling a previous NOTAM	..... (series and number/year)	NOTAMC ..... (series and number/year of NOTAM to be cancelled) ≪

Qualifiers

FIR	NOTAM Code	Traffic	Purpose	Scope	Lower Limit	Upper Limit	Coordinates, Radius
Q) RJTG /	QWLLW /	V /	M /	W /	000 /	065 /	4248N14042E100 ≪

Identification of ICAO location indicator in which the facility, airspace or condition reported on is located	A) RJTG →	

Period of Validity

From *(date-time group)*	B)	0	3	0	5	3	1	1	9	3	0		→
To *(PERM or date-time group)*	C)	0	3	0	6	2	9	0	9	3	0	~~EST~~ ~~PERM~~	≪
Time Schedule *(if applicable)*	D)	MAY 31 JUN 06 07 13 14 20 21 27 28 1930-0930											≪

Text of NOTAM; Plain-Language Entry (using ICAO Abbreviations)

E) HOT AIR BALLOON FLT IN AREA 4300N14040E - 4240N14030E - 4236N14030E - 4236N14054E - 4300N14040E VMC ONLY

≪

Lower Limit	F) SFC →
Upper Limit	G) 2000M AMSL) ≪
Signature	

*Delete as appropriate

Figure 6-2. Example 2 of a completed NOTAM Format

3. TRIGGER NOTAM

3.1 Trigger NOTAM are issued in the situations described in Figure 7-9 in Section 7 in accordance with the same instructions as for any other NOTAM with the following exceptions:

3.1.1 *Qualifiers (Item Q))*

NOTAM CODE

The second and third letters (subject) must be selected from the PANS-ABC (ICAO Doc 8400) and must never be the letters XX. If there is no suitable selection, use FA for aerodromes and AF for FIR. In the case of multiple subjects for the same aerodrome or FIR, the second and third letters must be selected according to the subject of highest operational importance.

- Condition "TT" may be used to retrieve specific trigger NOTAM from any issuing NOF and can also be used to include/exclude trigger NOTAM in/from PIB at a specific time before their effective date.

PURPOSE

As trigger NOTAM are issued relative only to information of operational significance, the qualifier PURPOSE must relate to BO.

SCOPE and TRAFFIC

In the case of multiple subjects for the same aerodrome or FIR, and even though only the subject of highest operational significance is listed in the NOTAM code, the qualifiers SCOPE and TRAFFIC must be selected to cover all subjects.

3.1.2 *Items B) and C)*

Trigger NOTAM must contain in Item B) the AIRAC effective date-time of the AIRAC AIP Amendment or AIRAC AIP Supplement. As trigger NOTAM must remain valid for a period of 14 days after the effective date of an amendment or supplement, Item C) must contain the AIRAC effective date-time plus 14 days.

Example:

B) 0603161000 *(AIRAC effective date-time)*
C) 0603301000 *(AIRAC effective date-time + 14 days)*

When the information published by an AIRAC AIP Supplement has a duration that is shorter than 14 days, Item C) of a trigger NOTAM must have the date and time when the information published in the AIP Supplement will expire.

A trigger NOTAM is generally self-cancelling at the datetime specified in Item C). In a case where the information contained in an AIRAC AIP Supplement becomes invalid before this date, the trigger NOTAM may be cancelled or replaced if the AIRAC AIP Supplement remains valid for a short period.

3.1.3 *Item E)*

The text in Item E) should not exceed 300 characters and must always start with the words "TRIGGER NOTAM" (followed, only in the case of an AIP Amendment, by the abbreviation PERM), a reference number of the published AIRAC AIP Amendment or AIRAC AIP Supplement concerned, the effective and end date of validity (or the effective date only in the case of PERM) and a brief description of its content.

- PERM or end of validity is inserted in Item E) to stress that the information published by the referenced AIP Amendment or AIP Supplement is of a permanent nature or of planned duration respectively while the trigger NOTAM contains an end date as per Item C).

3.2 Trigger NOTAM relative to AIRAC AIP Amendments

3.2.1 AIRAC AIP Amendments represent permanent operational changes to the AIP on a predefined AIRAC effective date. The text in Item E) must include an indication that permanent changes are taking place.

Example:

Q) LOVV/QARTT/I/BO/E/245/999/4720N01330E999
A) LOVV
B) 0603161000 *(AIRAC effective date-time)*
C) 0603301000 *(AIRAC effective date-time + 14 days)*
E) TRIGGER NOTAM — PERM AIRAC AIP AMDT 3/06 WEF 16MAR2006
IMPLEMENTATION OF NEW ATS ROUTE UA15

3.3 Trigger NOTAM relative to AIRAC AIP Supplements

3.3.1 AIRAC AIP Supplements represent temporary operational changes of long duration (three months or longer) or operational changes of short duration containing extensive text or graphics.

Example:

A0034/06 NOTAMN
Q) ESMM/QFATT/IV/BO/A/000/999/
5739N01217E005
A) ESGG B) 0604131000 C) 0604271000
E) TRIGGER NOTAM — AIRAC AIP SUP 14/06 WEF 13APR2006 TIL 25MAY2006
USE OF AERODROME RESTRICTED DUE TO MAJOR CONSTRUCTION WORK.

3.3.2 Generally, changes to a given AIRAC AIP Supplement are announced by replacing it by another AIRAC AIP Supplement and the normal rules for trigger NOTAM apply. However changes of short duration, of short notice or of temporary nature, such as short-notice notification of an earlier end of validity or notification of the activation of information described in the AIP SUP, are announced by normal NOTAM referring to the AIP SUP.

Examples:

A0115/08 NOTAMN
Q) ESAA/QMDCH/IV/BO/A/000/999/
5739N01217E005
A) ESGG B) 0804120637 C) 0805112359
E) RWY 03/21 TORA 2800M. REF AIRAC AIP SUP 14/08.

A0127/08 NOTAMN
Q) ESAA/QFALT/IV/BO/A/000/999/5739N01217E005
A) ESGG B) 0804230000 C) 0805112359
E) REF AIRAC AIP SUP 14/08 WORK COMPLETED.
RESTRICTIONS ON THE USE OF AERODROME NO LONGER IN FORCE.

4. CHECKLIST OF NOTAM

Checklists are issued as NOTAMR and are completed as follows:

Qualifiers (Item Q))

FIR

- the FIR indicator; or
- the State indicator letter(s) followed by XX, or XXX if there is more than one FIR in a State; or
- the State indicator of the issuing NOF followed by XX, or XXX if publishing for FIR in different States.

NOTAM CODE

- the dedicated NOTAM Code QKKKK.

TRAFFIC, PURPOSE and SCOPE

- K = NOTAM is a checklist.

- The NOTAM code QKKKK and the qualifier Kfor TRAFFIC, PURPOSE and SCOPE are used to allow selective retrieval of the checklist. This also prevents the checklist from appearing in the pre-flight information bulletin (PIB).

LOWER/UPPER

- default values 000/999.

COORDINATES, RADIUS

- the geographical coordinates of the centre of the FIR(s) listed in Item A), followed by the default radius 999.

Item A)

Item A) must contain the FIR or a list of all the FIRs to which the checklist relates.

Item B)

The current checklist NOTAMR replaces the previous checklist with immediate effect. Consequently Item B) is the issuing time of the checklist and supersedes the previous one immediately.

Item C)

The checklist is issued with an estimated validity of not more than one month. Item C) is indicated as one month after the date of issue, followed by EST.

Item E)

Item E) is divided into two sections:

First section:

- begins with the keyword "CHECKLIST";
- contains the list of the valid NOTAM numbers, which have been promulgated in the same series as the checklist, in a format suitable for automatic and manual processing;

- The list must not contain the number of the replaced NOTAM checklist or its own NOTAM checklist number.
- Each NOTAM number (always four digits) is separated by a blank with no other punctuation mark.

— groups NOTAM by year, using the word "YEAR" and the "=" sign, followed by the four-digit year of publication without blanks (e.g. YEAR=2002).

Each indicator of a different year must start on a new line.

Second section:

— begins with the words "LATEST PUBLICATIONS";

— contains the list of the latest publications, in a format suitable for manual processing only.

- Whenever the numbering of AIP Amendments takes place on a yearly basis, a reference to the year of publication must be added to the number.
- Checklists must contain the numbers of the NOTAM incorporated in a normal AIP Amendment or AIP Supplement until the time that these NOTAM are cancelled by the publication of a

Examples:

(A0037/03 NOTAMR A0016/03
Q) LIXX/QKKKK/K/K/K/000/999/4323N01205E999
A) LIBB LIMM LIRR B) 0303310900
C) 0304300900EST
E) CHECKLIST
YEAR=2001 0101 0232 0244 0288 0345 0511
YEAR=2002 0101 0104 0347 0601 0653 0674 0687
YEAR=2003 0004 0006 0009 0010 0011 0012 0014
0018 0025 0027 0029 0034 0035
LATEST PUBLICATIONS
AIRAC AIP AMDT 004/03 EFFECTIVE 20 APR 00
AIP SUP 001/03
AIP AMDT 413
AIC A001/03

Differentiating between IFR or VFR publications (volumes) can be stated, if so required:

AIP SUP VFR 001/03
AIP SUP IFR 002/03
AIRAC AIP AMDT IFR 004/03 EFFECTIVE 20 APR 03

Erroneous checklists

When the publication of a checklist contains an error, the following procedures will apply:

Error: A valid NOTAM number was not inserted in the checklist.

a) if the omitted NOTAM is in force, a NOTAMR must be published replacing the omitted NOTAM with a new number;

b) if the omitted NOTAM is not yet in force, a NOTAMC and NOTAMN shall be issued.

Error: An invalid NOTAM number was erroneously inserted in the checklist.

— A revised checklist (NOTAMR replacing the erroneous checklist) must be published without the invalid NOTAM number (no correct version).

This procedure will allow for consistency of the data in the databases of all recipients, whatever the method used to process checklists.

SNOWTAM FORMAT (*(Applicable as of 04 November 2021)*

(COM heading)	(PRIORITY INDICATOR)	(ADDRESSES)		<≡
	(DATE AND TIME OF FILING)	(ORIGINATOR'S INDICATOR)		<≡
(Abbreviated heading)	(SWAA* SERIAL NUMBER) S W • •	(LOCATION INDICATOR)	DATE/TIME OF ASSESMENT	(OPTIONAL GROUP) <≡(

SNOWTAM →	(Serial number) <≡			
Aeroplane performance calculation section				
(AERODROME LOCATION INDICATOR)		M	A)	<≡
(DATE/TIME OF ASSESSMENT *(Time of completion of assessment in UTC)*)		M	B)	→
(LOWER RUNWAY DESIGNATION NUMBER)		M	C)	→
(RUNWAY CONDITION CODE (RWYCC) ON EACH RUNWAY THIRD) *(From Runway Condition Assessment Matrix (RCAM) 0, 1, 2, 3, 4, 5 or 6)*		M	D)	/ / →
(PER CENT COVERAGE CONTAMINANT FOR EACH RUNWAY THIRD)		C	E)	/ / →
(DEPTH *(mm)* OF LOOSE CONTAMINANT FOR EACH RUNWAY THIRD)		C	F)	/ / →
(CONDITION DESCRIPTION OVER TOTAL RUNWAY LENGTH) *(Observed on each runway third, starting from threshold having the lower runway designation number)* COMPACTED SNOW DRY DRY SNOW DRY SNOW ON TOP OF COMPACTED SNOW DRY SNOW ON TOP OF ICE FROST ICE SLUSH STANDING WATER WATER ON TOP OF COMPACTED SNOW WET WET ICE WET SNOW WET SNOW ON TOP OF COMPACTED SNOW WET SNOW ON TOP OF ICE		M	G)	/ / →
(WIDTH OF RUNWAY TO WHICH THE RUNWAY CONDITION CODES APPLY, IF LESS THAN PUBLISHED WIDTH)		O	H)	<≡≡
Situational awareness section				
(REDUCED RUNWAY LENGTH, IF LESS THAN PUBLISHED LENGTH *(m)*)		O	I)	→
(DRIFTING SNOW ON THE RUNWAY)		O	J)	→
(LOOSE SAND ON THE RUNWAY)		O	K)	→
(CHEMICAL TREATMENT ON THE RUNWAY)		O	L)	→
(SNOWBANKS ON THE RUNWAY) *(If present, distance from runway centre line (m) followed by 'L', 'R' or 'LR' as applicable)*		O	M)	→
(SNOWBANKS ON A TAXIWAY)		O	N)	→
(SNOWBANKS ADJACENT TO THE RUNWAY)		O	O)	→
(TAXIWAY CONDITIONS)		O	P)	→
(APRON CONDITIONS)		O	R)	→
(MEASURED FRICTION COEFFICIENT)		O	S)	→
(PLAIN-LANGUAGE REMARKS)		O	T)	)

NOTES:
1. *Enter ICAO nationality letters as given in ICAO Doc 7910, Part 2 or otherwise applicable aerodrome identifier.
2. Information on other runways, repeat from B to H.
3. Information in the situational awareness section repeated for each runway, taxiway and apron. Repeat as applicable when reported.
4. Words in brackets ( ) not to be transmitted.
5. For letters A) to T) refer to the *Instructions for the completion of the SNOWTAM Format*, paragraph 1, item b).

*SIGNATURE OF ORIGINATOR *(not for transmission)*

INSTRUCTIONS FOR THE COMPLETION OF THE SNOWTAM FORMAT

Origin of data, assessment process and the procedures linked to the surface conditions reporting system are prescribed in the Procedures for Air Navigation Services — Aerodromes (PANS-Aerodromes, Doc 9981)

1. General

a) When reporting on more than one runway, repeat Items B to H (aeroplane performance calculation section).

b) The letters used to indicate items are only used for reference purpose and should not be included in the messages. The letters, M (mandatory), C (conditional) and O (optional) mark the usage and information and shall be included as explained below.

c) Metric units shall be used and the unit of measurement not reported.

d) The maximum validity of SNOWTAM is 8 hours. New SNOWTAM shall be issued whenever a new runway condition report is received.

e) A SNOWTAM cancels the previous SNOWTAM.

f) The abbreviated heading "TTAAiiii CCCC MMYYGGgg (BBB)" is included to facilitate the automatic processing of SNOWTAM messages in computer data banks. The explanation of these symbols is:

TT = data designator for SNOWTAM = SW;

AA = geographical designator for States, e.g. LF = FRANCE, EG = United Kingdom (see *Location Indicators* (Doc 7910), Part 2, Index to Nationality Letters for Location Indicators);

iiii = SNOWTAM serial number in a four-digit group;

CCCC = four-letter location indicator of the aerodrome to which the SNOWTAM refers (see *Location Indicators* (Doc 7910));

MMYYGGgg = date/time of observation/measurement, whereby:

- MM = month, e.g. January = 01, December = 12
- YY = day of the month
- GGgg = time in hours (GG) and minutes (gg) UTC;

(BBB) = optional group for correction, in the case of an error, to a SNOWTAM message previously disseminated with the same serial number = COR.

- Brackets in (BBB) are used to indicate that this group is optional.
- When reporting on more than one runway and individual dates/times of observation/assessment are indicated by repeated Item B, the latest date/time of observation/assessment is inserted in the abbreviated heading (MMYYGGgg).

Example: Abbreviated heading of SNOWTAM No. 149 from Zurich, measurement/observation of 7 November at 0620 UTC:

SWLS0149 LSZH 11070620

The information groups are separated by a space, as illustrated in the example.

g) The text "SNOWTAM" in the SNOWTAM Format and the SNOWTAM serial number in a four-digit group shall be separated by a space, for example: SNOWTAM 0124.

h) For readability purposes for the SNOWTAM message, include a line feed after the SNOWTAM serial number, after Item A, and after the aeroplane performance calculation section.

i) When reporting on more than one runway, repeat the information in the aeroplane performance calculation section from the date and time of assessment for each runway before the information in the situational awareness section.

j) Mandatory information is:

1) AERODROME LOCATION INDICATOR;
2) DATE AND TIME OF ASSESSMENT;
3) LOWER RUNWAY DESIGNATOR NUMBER;
4) RUNWAY CONDITION CODE FOR EACH RUNWAY THIRD; and
5) CONDITION DESCRIPTION FOR EACH RUNWAY THIRD (when runway condition code (RWYCC) is reported 1–5)

2. Aeroplane performance calculation section

Item A — Aerodrome location indicator (four-letter location indicator).

Item B — Date and time of assessment (eight-figure date/time group giving time of observation as month, day, hour and minute in UTC).

Item C — Lower runway designator number (nn[L] or nn[C] or nn[R]).

Only one runway designator is inserted for each runway and always the lower number.

Item D — Runway condition code for each runway third. Only one digit (0, 1, 2, 3, 4, 5 or 6) is inserted for each runway third, separated by an oblique stroke (n/n/n).

Item E — Per cent coverage for each runway third. When provided, insert 25, 50, 75 or 100 for each runway third, separated by an oblique stroke ([n]nn/[n]nn/[n]nn).

- This information is provided only when the runway condition for each runway third (Item D) has been reported as other than 6 and there is a condition description for each runway third (Item G) that has been reported other than DRY.
- When the conditions are not reported, this will be signified by the insertion of "NR" for the appropriate runway third(s).

Item F — Depth of loose contaminant for each runway third. When provided, insert in millimetres for each runway third, separated by an oblique stroke (nn/nn/nn or nnn/nnn/nnn).

- This information is only provided for the following contamination types:
  - standing water, values to be reported 04, then assessed value. Significant changes 3 mm up to and including 15 mm;
  - slush, values to be reported 03, then assessed value. Significant changes 3 mm up to and including 15 mm;
  - wet snow, values to be reported 03, then assessed value. Significant changes 5 mm; and
  - dry snow, values to be reported 03, then assessed value. Significant changes 20 mm.
- When the conditions are not reported, this will be signified by the insertion of "NR" for the appropriate runway third(s).

Item G — Condition description for each runway third. Insert any of the following condition descriptions for each runway third, separated by an oblique stroke.

COMPACTED SNOW
DRY SNOW
DRY SNOW ON TOP OF COMPACTED SNOW
DRY SNOW ON TOP OF ICE
FROST
ICE
SLUSH
STANDING WATER
WATER ON TOP OF COMPACTED SNOW

WET
WET ICE
WET SNOW
WET SNOW ON TOP OF COMPACTED SNOW
WET SNOW ON TOP OF ICE

DRY (only reported when there is no contaminant)

When the conditions are not reported, this will be signified by the insertion of "NR" for the appropriate runway third(s).

Item H — Width of runway to which the runway condition codes apply. Insert the width in metres if less than the published runway width.

3. Situational awareness section

- Elements in the situational awareness section end with a full stop.
- Elements in the situational awareness section for which no information exists, or where the conditional circumstances for publication are not fulfilled, are left out completely.

Item I — Reduced runway length. Insert the applicable runway designator and available length in meters (example: RWY nn [L] or nn [C] or nn [R] REDUCED TO [n]nnn).

This information is conditional when a NOTAM has been published with a new set of declared distances.

Item J — Drifting snow on the runway. When reported, insert "DRIFTING SNOW".

Item K — Loose sand on the runway. When loose sand is reported on the runway, insert the lower runway designator and with a space "LOOSE SAND" (RWY nn or RWY nn[L] or nn[C] or nn[R] LOOSE SAND).

Item L — Chemical treatment on the runway. When chemical treatment has been reported applied, insert the lower runway designator and with a space "CHEMICALLY TREATED" (RWY nn or RWY nn[L] or nn[C] or nn[R] CHEMICALLY TREATED).

Item M — Snow banks on the runway. When snow banks are reported present on the runway, insert the lower runway designator and with a space "SNOW BANK" and with a space left "L" or right "R" or both sides "LR", followed by the distance in metres from centre line separated by a space FM CL (RWY nn or RWY nn[L] or nn[C] or nn[R] SNOW BANK Lnn or Rnn or LRnn FM CL).

Item N — Snow banks on a taxiway. When snow banks are present on a taxiway, insert the taxiway designator and with a space "SNOW BANK" (TWY [nn]n SNOW BANK).

Item O — Snow banks adjacent to the runway. When snow banks are reported present penetrating the height profile in the aerodrome snow plan, insert the lower runway designator and "ADJ SNOW BANKS" (RWY nn or RWY nn[L] or nn[C] or nn[R] ADJ SNOW BANKS).

Item P — Taxiway conditions. When taxiway conditions are reported as poor, insert the taxiway designator followed by a space "POOR" (TWY [n or nn] POOR or ALL TWYS POOR).

Item R — Apron conditions. When apron conditions are reported as poor, insert the apron designator followed by a space "POOR" (APRON [nnnn] POOR or ALL APRONS POOR).

Item S — Measured friction coefficient. Where reported, insert the measured friction coefficient and friction measuring device.

> This will only be reported for States that have an established programme of runway friction measurement using a State-approved friction measuring device.

Item T — Plain language remarks.

EXAMPLES OF COMPLETED SNOWTAM FORMAT

Example SNOWTAM 1

GG EADBZQZX EADNZQZX EADSZQZX
170100 EADDYNYX
SWEA0149 EADD 02170055
(SNOWTAM 0149
EADD
02170055 09L 5/5/5 100/100/100 NR/NR/03 WET/WET/WET SNOW
)

Example SNOWTAM 2

GG EADBZQZX EADNZQZX EADSZQZX
170140 EADDYNYX
SWEA0150 EADD 02170135
(SNOWTAM 0150
EADD
02170055 09L 5/5/5 100/100/100 NR/NR/03 WET/WET/WET SNOW
02170135 09R 5/2/2 100/50/75 NR/06/06 WET/SLUSH/SLUSH
)

Example SNOWTAM 3

GG EADBZQZX EADNZQZX EADSZQZX
170229 EADDYNYX
SWEA0151 EADD 02170225
(SNOWTAM 0151
EADD
02170055 09L 5/5/5 100/100/100 NR/NR/03 WET/WET/WET SNOW
02170055 09L 5/5/5 100/100/100 NR/NR/03 WET/WET/WET SNOW
02170225 09C 2/3/3 75/100/100 06/12/12 SLUSH/WET SNOW/WET SNOW

RWY 09L SNOW BANK R20 FM CL. RWY 09R ADJ SNOW BANKS. TWY B POOR. APRON NORTH POOR)

Example SNOWTAM 4

GG EADBZQZX EADNZQZX EADSZQZX
170350 EADDYNYX
SWEA0152 EADD 02170345
(SNOWTAM 0152
EADD
02170345 09L 5/5/5 100/100/100 NR/NR/03 WET/WET/SLUSH
02170134 09R 5/2/2 100/50/75 NR/06/06 WET/SLUSH/SLUSH
02170225 09C 2/3/3 75/100/100 06/12/12 SLUSH/WET SNOW/WET SNOW 35

DRIFTING SNOW. RWY 09L LOOSE SAND. RWY 09R CHEMICALLY TREATED. RWY 09C CHEMICALLY TREATED.)

ASHTAM FORMAT

(COM heading)	(PRIORITY INDICATOR)	(ADDRESSEE INDICATOR(S))[1]			
	(DATE AND TIME OF FILING)		(ORIGINATOR'S INDICATOR)		
(Abbreviated heading)	(VA*[2] SERIAL NUMBER) V A *2 *2		(LOCATION INDICATOR)	DATE/TIME OF ISSUANCE	(OPTIONAL GROUP)

ASHTAM	(SERIAL NUMBER)	
(FLIGHT INFORMATION REGION AFFECTED)		A)
(DATE/TIME (UTC) OF ERUPTION)		B)
(VOLCANO NAME AND NUMBER)		C)
(VOLCANO LATITUDE/LONGITUDE OR VOLCANO RADIAL AND DISTANCE FROM NAVAID)		D)
(VOLCANO LEVEL OF ALERT COLOUR CODE, INCLUDING ANY PRIOR LEVEL OF ALERT COLOUR CODE)[3]		E)
(EXISTENCE AND HORIZONTAL/VERTICAL EXTENT OF VOLCANIC ASH CLOUD)[4]		F)
(DIRECTION OF MOVEMENT OF ASH CLOUD)[4]		G)
(AIR ROUTES OR PORTIONS OF AIR ROUTES AND FLIGHT LEVELS AFFECTED)		H)
(CLOSURE OF AIRSPACE AND/OR AIR ROUTES OR PORTIONS OF AIR ROUTES, AND ALTERNATIVE AIR ROUTES AVAILABLE)		I)
(SOURCE OF INFORMATION)		J)
(PLAIN-LANGUAGE REMARKS)		K)

NOTES:

1. See also Appendix 7 regarding addressee indicators used in predetermined distribution systems.
2. *Enter ICAO nationality letter as given in ICAO Doc 7910, Part 2.
3. See paragraph 3.5 below.
4. Advice on the existence, extent and movement of volcanic ash cloud G) and H) may be obtained from the volcanic ash advisory centre(s) responsible for the FIR concerned.
5. Item titles in brackets ( ) not to be transmitted.

*SIGNATURE OF ORIGINATOR *(not for transmission)*

INSTRUCTIONS FOR THE COMPLETION OF THE ASHTAM FORMAT

1. General

1.1 The ASHTAM provides information on the status of activity of a volcano when a change in its activity is, or is expected to be, of operational significance. This information is provided using the volcano level of alert colour code given in 3.5 below.

1.2 In the event of a volcanic eruption producing ash cloud of operational significance, the ASHTAM also provides information on the location, extent and movement of the ash cloud and the air routes and flight levels affected.

1.3 Issuance of an ASHTAM giving information on a volcanic eruption, in accordance with paragraph 3 below, should **not** be delayed until complete information A) to K) is available but should be issued immediately following receipt of notification that an eruption has occurred or is expected to occur, or a change in the status of activity of a volcano of operational significance has occurred or is expected to occur, or an ash cloud is reported. In the case of an expected eruption, and hence no ash cloud evident at that time, items A) to E) should be completed and items F) to I) indicated as "not applicable". Similarly, if a volcanic ash cloud is reported, e.g. by special air-report, but the source volcano is not known at that time, the ASHTAM should be issued initially with items A) to E) indicated as "unknown", and items F) to K) completed, as necessary, based on the special air-report, pending receipt of further information. In other circumstances, if information for a specific field A) to K) is not available, indicate "NIL".

1.4 The maximum period of validity of ASHTAM is 24 hours. New ASHTAM shall be issued whenever there is a change in the level of alert.

2. Abbreviated heading

2.1 Following the usual aeronautical fixed telecommunication network (AFTN) communications header, the abbreviated heading "TT AAiiii CCCC MMYYGGgg (BBB)" is included to facilitate the automatic processing of ASHTAM messages in computer data banks. The explanation of these symbols is:

TT = data designator for ASHTAM = VA;

AA = geographical designator for Philippines = RP (see *Location Indicators* (ICAO Doc 7910), Part 2, Index to Nationality Letters for Location Indicators);

iiii = ASHTAM serial number in a four-figure group;

CCCC = four-letter location indicator of the flight information region concerned (see *Location Indicators* (ICAO Doc 7910), Part 5, addresses of centers in charge of FIR/UIR);

MMYYGGgg = date/time of report, whereby:

- MM = month, e.g. January = 01, December = 12
- YY = day of the month
- GGgg = time in hours (GG) and minutes (gg) UTC;

(BBB) = Optional group for correction to an ASHTAM message previously disseminated with the same serial number = COR.

Brackets in (BBB) are used to indicate that this group is optional.

Example: Abbreviated heading of ASHTAM for Manila FIR, report on 7 November at 0620 UTC:

VARP0001 RPLP 11070620

3. Content of ASHTAM

3.1 *Item A* — Flight information region affected, plain-language equivalent of the location indicator given in the abbreviated heading, in this example "Manila FIR".

3.2 *Item B* — Date and time (UTC) of first eruption.

3.3 *Item C* — Name of volcano, and number of volcano as listed in the *Manual on Volcanic Ash, Radioactive Material and Toxic Chemical Clouds* (ICAO Doc 9691), Appendix E, and on the World Map of Volcanoes and Principal Aeronautical Features.

3.4 *Item D* — Latitude/Longitude of the volcano in whole degrees or radial and distance of volcano from NAVAID as listed in ICAO Doc 9691, Appendix E, and on the World Map of Volcanoes and Principal Aeronautical Features).

3.5 *Item E* — Colour code for level of alert indicating volcanic activity, including any previous level of alert colour code as follows:

Level of alert colour code	*Status of activity of volcano*
GREEN ALERT	Volcano is in normal, non-eruptive state. *or, after a change from a higher alert level:* Volcanic activity considered to have ceased, and volcano reverted to its normal, non-eruptive state.
YELLOW ALERT	Volcano is experiencing signs of elevated unrest above known background levels. *or, after a change from a higher alert level:* Volcanic activity has decreased significantly but continues to be closely monitored for possible renewed increase.
ORANGE ALERT	Volcano is exhibiting heightened unrest with increased likelihood of eruption. *or,* Volcanic eruption is underway with no or minor ash emission *[specify ash-plume height if possible]*.
RED ALERT	Eruption is forecast to be imminent with significant emission of ash into the atmosphere likely. *or,* Eruption is underway with significant emission of ash into the atmosphere *[specify ash-plume height if possible]*.

The colour code for the level of alert indicating the status of activity of the volcano and any change from a previous status of activity should be provided to the area control center by the responsible vulcanological agency in Philippines, e.g. "RED ALERT FOLLOWING YELLOW" OR "GREEN ALERT FOLLOWING ORANGE".

3.6 *Item F* — If volcanic ash cloud of operational significance is reported, indicate the horizontal extent and base/top of the ash cloud using latitude/longitude (in whole degrees) and altitudes in thousands of meters (feet) and/or radial and distance from source volcano. Information initially may be based only on special air-report, but subsequent information may be more detailed based on advice from the responsible meteorological watch office and/or volcanic ash advisory center.

3.7 *Item G* — Indicate forecast direction of movement of the ash cloud at selected levels based on advice from the responsible meteorological watch office and/or volcanic ash advisory center.

3.8 *Item H* — Indicate air routes and portions of air routes and flight levels affected, or expected to become affected.

3.9 *Item I* — Indicate closure of airspace, air routes or portions of air routes, and availability of alternative routes.

3.10 *Item J* — The source of the information (e.g. "special air-report" or "vulcanological agency.)should always be indicated, whether an eruption has actually occurred or ash cloud reported, or not.

3.11 *Item K* — Include in plain language any operationally significant information additional to the foregoing.

SECTION 7 PROVISION OF PRE-FLIGHT INFORMATION SERVICE

7.1 REQUIREMENT

7.1.1 Pre-flight information must be made available at each aerodrome/heliport normally used for international operations. This includes all aerodromes/heliports designated for regular use by international commercial air transport as listed in the relevant ICAO regional plans and any aerodromes/heliports serving as alternates to these regular aerodromes/heliports.

7.1.2 Pre-flight information service should be arranged so as to supplement existing arrangements where these do not fully meet the operators' requirements.

This service is required by all operators and particularly those who have not made specific arrangements to obtain such information.

7.2 RESPONSIBILITY FOR EXECUTION

7.2.1 The CAAP-administered AIS, or other agency appointed by the CAAP, is responsible for the execution of the above requirement. The AIS provider established for this purpose should be organized and administered on the basis of the amount and type of traffic normally expected to use the aerodrome/heliport and on the length and number of the air routes originating at the aerodrome/heliport. Such units should be staffed by qualified AIS technical personnel, since a complete and responsible briefing can only be provided by staff possessing the requisite knowledge in this field. It may be necessary, however, to delegate such responsibility to an air traffic services (ATS) unit or other operational service at an aerodrome/heliport where minimal traffic requires personnel to perform more than one task.

7.3 LOCATION OF THE AIS PROVIDER UNIT

7.3.1 AIS provider units should be situated close to aerodrome/heliport flight services and to airline flight operations offices to facilitate pre-flight functions by flight crews with maximum efficiency and without their being compelled to cover undue distances. Ideally, all such services, namely meteorological briefing, flight clearance and the collection of fees and charges (if any), should be established in a group of soundproof offices located on the ground floor of the terminal building, preferably near the apron.

7.3.2 In order to reduce ground time, particularly for flights continuing without a change of crew, arrangements should be made for access to pre-flight information services without the necessity of customs clearance and/or other formalities. For the convenience of crews unfamiliar with the aerodrome/heliport, a diagram indicating the location of the Pre-Flight Information Service unit should be placed at the apron entrance(s) to the terminal building.

7.3.3 Where the aerodrome/heliport is the site of a flight information center or area control center, it may be advisable to locate the ATS unit and the AIS provider unit in close proximity (providing the principles outlined above are not compromised).

7.4 WALL DISPLAYS

7.4.1 Wall displays normally should consist of the following, although the extent of the coverage zone, the availability of suitable charts and the size of the available wall area may necessitate some deviation:

a) two sets of charts of the coverage zone at small scale

(1:1,000,000 to 1:3,000,000) showing

1) the ATS system, aerodromes/ heliports and radio aids to navigation;

2) areas over which the flight of aircraft is dangerous, restricted or prohibited;

The areas contained in navigation warning bulletins should be plotted on glass or transparent plastic sheeting and superimposed on this chart.

b) a 1:500,000 or larger scale chart of the Philippines in which the aerodrome/heliport is located;

In larger States this may be limited to the flight information region (FIR) in which the aerodrome/heliport is located and adjacent FIR.

c) an outline chart of the coverage zone at small scale with an index to the area or route breakdown used in distributing briefing material. This chart should show the FIRs and items that would be mentioned in a briefing bulletin;

d) a large scale chart or series of charts of the aerodrome/heliport traffic area showing controlled areas, approach aids, and holding, approach and departure procedures (the scale should be as large as practicable);

e) an Aerodrome Obstacle Chart;

f) a large scale chart (approximately 1:3,000) of the aerodrome/heliport movement area and approaches (in so far as necessary to include all lighting aids) showing the location of all technical services and the normal taxiing routes to be followed from apron to take-off positions; and

g) a large scale diagram of the terminal area showing location of various offices and facilities of interest to visiting flight crews.

7.5 UPDATING OF CHARTS

7.5.1 Due to the frequent changes in the ATS system, the information about the current situation can best be indicated by the use of coloured tapes, pins, markers, etc., superimposed on a chart. Such a presentation can be amended from day to day and is much more intelligible to flight crews.

7.6 ACCES TO BASIC DOCUMENTS

7.6.1 Basic documents (such as up-to-date AIP, AIP Supplements, AIC and ICAO documents) should be stored in such a way as to facilitate access to those wishing to refer to them. Whatever filing system a unit chooses to adopt for its reference library should be such that it is immediately identifiable to the intended user and thereby help to promote self-briefing.

7.7 SALE OF AERONAUTICAL CHARTS

7.7.1 At AIS provider arrangements could be made, where practicable, to have appropriate aeronautical charts available for sale. The quantity maintained on hand should be kept to the minimum consistent with the potential demand in order to avoid, as much as possible, the effect of obsolescence.

7.8 VERBAL BRIEFING

7.8.1 Verbal briefing should be adjusted to the pilot's requirements depending upon familiarity with the route. A checklist may be used by the briefing officer to ensure that the briefing is as comprehensive as necessary; the completeness of a briefing should not be dependent upon the unaided memory of the briefing officer. The items to be included in such a checklist will vary according to the local situation. If there is any reason to doubt published information, e.g. on aerodromes/heliports or aerodrome/heliport facilities, the briefing officer should not hesitate to telephone the appropriate authority for the latest information. To facilitate SAR action, the briefing officer must ensure that the exact location of the intended landing places of the flight which is being briefed is known, particularly in the case of light aircraft not equipped with a two-way radio. When it is impracticable to obtain information for the complete flight planned route, or when it is more expeditious for information concerning part of the route to be provided by or through another unit, the briefing officer must ensure that the pilot knows where to obtain information for the next route segment. It may be necessary, in exceptional cases, to supplement the normal bulletins and verbal briefing with additional written material specially prepared for a pilot totally unfamiliar with the route to be flown.

A list of items upon which the checklist may be based is given in Figure 7-1.

7.9 SELF BRIEFING

7.9.1 Pre-flight information bulletins

The provision of daily bulletins is of primary significance in a self-briefing service. Manually prepared, printed plain-language bulletins for collection by pilots, containing current information on the status of facilities and services should be provided. Additionally, amendments to the information contained in bulletins should be made available in the form of hand-out sheets or updated PIB.

7.9.2 Scope of bulletins

Bulletins may take the simple form of a list of current NOTAM covering selected routes or areas, or at the discretion of CAAP, may be presented in a more elaborate form.

A list of the types of bulletins that can be made available is found in 7.9.7.

7.9.3 Treatment

Bulletins should be prepared for major traffic areas or air routes, the choice of areas and/or air routes being dependent upon the needs of the major users and the degree to which it is feasible to provide a specialized service. For example, a group of routes extending in the same general direction may be treated collectively. To facilitate use of the bulletins, the information for each area or route may be divided into the following two categories and published as separate bulletins:

a) navigation warnings, i.e. activation of areas over which the flight of aircraft is dangerous or restricted (termed "NAV WARNINGS"; and

A sample format is provided at Figure 7-2.

b) information other than navigation warnings, i.e. routine serviceability reports, changes in procedures, etc. (termed "GENERAL"

A sample format is provided at Figure 7-3.

7.9.4 Navigation warning display

As mentioned in 7.4.1 a) 2), the wall display should include a plot of the navigation warnings that appear in the daily navigation warning bulletins. A

A sample navigation warning display is provided at Figure 7-4.

1:1 000 000 scale chart is suitable for this purpose, but the actual scale chosen will depend upon the coverage zone of the bulletins and the wall space available. If there is insufficient wall space, consideration should be given to the use of a mobile board. The bulletin coverage zone may be divided into areas (e.g. FIR or States) and each area allocated a letter. This letter should be allocated to all navigation warnings in that area. Additionally, each navigation warning should be allocated a number. Thus all navigation warnings in a particular area will have the same identifying letter and each a separate number. This reference would appear on the left side of the bulletin and, as a means of identification, on the chart on which the warnings are plotted. To further facilitate self-briefing, and as a time saver for those using the service, the reference on the chart of navigation warnings that have an upper limit in excess of a specified flight level/altitude may be underlined in red. This will help the users to readily identify navigation warnings that may affect their flight. A suitable notice would have to be displayed on or adjacent to the chart indicating the meaning of the red underlining.

7.9.5 **Entries**

Entries made on the bulletin relating to the serviceability of facilities should clearly indicate:

a) the location of the facility including, if appropriate, the city and the aerodrome/heliport served by the facility, together with the four-letter location indicator where available; and

b) the information to be conveyed, in plain language, including, where appropriate, ICAO abbreviations.

7.9.6 **Central bulletin production**

Where aerodrome/heliport AIS units have overlapping coverage zones or route stages, central bulletin production offers the most efficient method of providing PIB. For this purpose, sufficiently rapid and reliable air or surface (electronic) communications must be available for bulletin distribution. The local AIS unit will have to update the bulletin, whenever necessary, with the latest information. The date and time of issue should therefore be given in each bulletin. The use of automated processes is ideally suited to central bulletin production, since the information content is continually changing; direct line communications are, of course, essential for distribution purposes. This method of producing PIB can offer considerable savings in staffing requirements and enhance the consistency and consequent operational reliability of published information.

7.9.7 **Bulletin types**

There are two broad categories of bulletins, the "area" and "route" types, as well as a variety of subdivisions of each of these. The common set of NOTAM qualifiers, as explained in the instructions for completing the NOTAM Format, enables a system to provide this range of bulletins. From the foregoing it can be seen that NOTAM are the principal source of information which affect the contents of PIB and data can be structured to meet the needs of any user(s), based on specific operational requirements.

The NOTAM format is provided in Appendix A to Section 6 (see also Appendix 3 of MOS-AIS).

7.9.7.1 Depending on the requirements of users, PIB should be made available in the form of:

a) area type bulletins;

b) route type bulletins;

c) aerodrome type bulletins;

d) immediate automatic notification of items of urgent operational significance; and

e) administrative bulletins.

7.9.7.2 The bulletins should be provided using a standard format and sequence of information. PIB should only contain information of operational significance that differs from that published in the AIP, and should be tailored to meet both operational and administrative users' needs.

Examples of standard PIB formats are given in Figures 7-5 to 7-7.

7.9.8 **Area type bulletin (FIR, groups of FIR or States))**

The following area type bulletins can be made available from within an automated system:

a) all PIB information;

b) IFR PIB information;

c) VFR PIB information;

d) OPSIG information;

e) IMMEDIATE NOTIFICATION information;

f) only en-route information (IFR, VFR, OPSIG, IMMEDIATE NOTIFICATION, LOWER/UPPER);

g) selected lists by aerodrome location indicators; and

h) any combination of the above.

7.9.9 **Route type bulletins**

The following route type bulletins can contain the same type of information as the area type bulletins in the form of:

a) *FIR route specific:* i.e. providing information regarding FIR crossed and specific departure, destination and alternate aerodromes/heliports; and

b) *Narrow path route specific:* i.e. providing information only for an area determined by a strip defined geographically about the route with departure, destination and alternate aerodromes/heliports.

7.9.9.1 A benefit of route-specific bulletins based on FIR is that they can also include information for the return flight which does not always follow the same routing for the outgoing one. Also, when there is a choice of two or more routings between one city pair, for which a narrow path bulletin could be inadequate, a bulletin based on FIR may be preferable. There could be a requirement, in addition to the above, for the provision of more refined data retrieval which requires the introduction of a geographical reference feature. This form of retrieval can provide narrow-path route-specific bulletins which may be required for RNAV operations and to cater to a higher level of automation within certain air navigation services and user systems.

7.9.10 **Aerodrome type bulletins**

Essentially, aerodrome type bulletins should contain information on selected aerodromes/heliports as may be necessary. Depending on user requirements, such bulletins can contain data on aerodromes/heliports within one or more FIR, for specified sectors or for destination and alternate aerodromes/heliports only. These requirements should be established through agreement between the AIS authority and the operator(s) concerned.

7.9.11 **Immediate automatic notification of items of urgent operational significance**

Items of urgent operational significance, which are listed separately in the NOTAM Selection Criteria, must be brought to the attention of operators concerned even after the pre-flight briefing stage.

7.9.12 **Administrative bulletins**

The following administrative bulletins must be provided:

a) checklists of all current NOTAM by AIS provider/FIR/aerodrome/heliport; and

b) all NOTAM input since a specified date-time group. (This procedure greatly facilitates briefings.)

7.9.13 **Bulletin updates**

The updating of PIB should be covered by:

a) the system products listed in 7.16 or 7.17; or

b) a request for a new bulletin.

The above-mentioned bulletin types would make obsolete the requirement for specific update bulletins which have been found to require complex time reference procedures.

7.9.14 **Postal bulletins**

It is envisaged that, for the foreseeable future, there will still be a need for a very comprehensive area type bulletin, containing information from a specified date-time group projected ahead to another date-time group, which will have to be distributed to minor aerodromes/heliports by post. AIS authorities should therefore ensure that such data are expedited with a minimum of delay.

7.9.15 **Bulletin format**

The bulletin output must have the following characteristics:

a) NOTAM text in significations/uniform abbreviated phraseology assigned to the ICAO NOTAM Code complemented by ICAO abbreviations, indicators, identifiers, designators, call signs, frequencies, figures and plain language; and

b) NOTAM number to the right of text.

7.9.15.1 Bulletins must be prepared in the following sequence:

a) a heading (identity of origination, area covered and for whom prepared);

b) en-route information;

c) aerodrome/heliport information; and

d) navigation warnings.

7.9.15.2 Within each of subparagraphs b) to d) above, the information should be presented in the order of subsections of the AIP. These may also be used as subheadings, if so desired, but are not essential as the subject should be clear from Item E) of the NOTAM (see Chapter 6).

7.10 POST-FLIGHT INFORMATION

7.10.1 **Purpose of post-flight information**

The purpose of post-flight information is to ensure that inadequacies of facilities essential to the safety of flight operations, and the presence of birds on or around the airport constituting a potential hazard to aircraft operations, observed by a pilot during the flight, are reported without delay to the authority responsible for those facilities. PCAR Part 8, 8.6.2.2 (b) places on the operator the responsibility for reporting any inadequacy. CAR-ANS Part 15, 15.5.6 requires States to ensure that arrangements are

made at aerodromes/heliports to receive this information and to make it available to the AIS "for such distribution as the circumstances necessitate". This is the basis on which the collection and distribution of post-flight information should be administered, and should influence the formulation of a format for the collection of such information.

7.10.1.1 Furthermore, CAR-ANS Part 15, 15.5.6.3 and 15.5.6.4 requires States to ensure that arrangements are made to receive at aerodromes/heliports information concerning the presence of birds observed by aircrews and ensure that such information is made available to the AIS for such distribution as the circumstances necessitate.

7.10.2 Collection of post-flight information

In most cases, an inadequacy of a facility or the presence of birds is reported by the pilot on the appropriate ATS frequency, and this information must then be passed on to the responsible authority and to AIS for required action.

7.10.2.1 After landing, a pilot wishing to confirm in writing any observations, or wishing to make an initial report, may do so at the aerodrome/heliport AIS unit, where a post-flight report form should be available. A space could also be provided on a PIB to facilitate the reporting of such data in writing at the aerodrome/heliport of destination.

A specimen post-flight report form is given in Figure 7-8.

7.10.2.2 Copies of the post-flight report form could also be made available in the airline operator's offices at the aerodrome/heliport to facilitate filing of post-flight reports by the pilot. The report must subsequently be made available to the AIS without delay.

Figure 7-1. Briefing checklist

1. *Regulations and procedures*
   - a) Basic publications and recent amendments and supplements
   - b) Procedures applicable to airspace to be used
   - c) ATS procedures
   - d) Altimeter setting
2. *Meteorological information*
   - a) Availability of MET facilities, forecasts and weather reports
   - b) Provision of relevant available meteorological information where there is no meteorological office at the aerodrome/heliport, including weather information reported by en-route aircraft
3. *Route and destination information*
   - a) Suggestions concerning available routes
   - b) Tracks, distances, general topography and terrain features and information required to maintain safe levels en route
   - c) Availability and serviceability state of aerodromes/heliports and aerodrome/heliport facilities
   - d) Availability and serviceability state of navigation aids
   - e) SAR procedures and facilities and functions of the SAR organization

Figure 7-1. Briefing checklist (cont.)

4.	*Communication facilities and procedures* a) Availability and serviceability of air/ground communication facilities b) Procedures c) Radio frequencies and hours of operation d) Communication facilities available to aircraft not equipped with radio for forwarding movement reports
5.	*Hazards to air navigation*
6.	*Any other essential information* (including that requested by a pilot which might not be available locally but which can be obtained from the appropriate source)

Figure 7-2. Sample of pre-flight information bulletin — navigation warnings

Pre-flight information bulletin NAVIGATION WARNINGS	AERONAUTICAL INFORMATION SERVICE		Date and time of issue 22/8/03 1200 UTC	Route or area coverage NORTH ATLANTIC
FIR/UIR Ref.	Period Time (UTC)	Area and nature of activity		Upper limit Lower limit
SHANNON FIR				
A2	28/8/03 0945-1015	10 KM radius of 532800N 0105600W. Demolition of explosives.		2 000 M MSL GND
SHANNON OCEANIC FIR				
A5	23/8/03 0700-1600	Sector 573000N 0111500W GEO BRG 200° and 280°, distance 45 KM. Firing on towed target.		4 500 M MSL SFC
A7	21-25/8/03 0800-2200	Area: 503600N 0114200W 502000N 0115300W 503300N 0125200W 505000N 0124500W 503600N 0114200W In-flight refuelling.		FL 180 FL 120
GANDER FIR				
C1	22/8/03 0300-1200	20 KM radius of 473000N 0533000W. Air-to-air firing.		500 M MSL SFC

Figure 7-3. Sample of pre-flight information bulletin — information other than navigation warnings

Pre-flight information bulletin	AERONAUTICAL INFORMATION SERVICE	Date and time of issue 4/11/03 1200 UTC	Route or area coverage NORTH ATLANTIC

Loction	Facility	Information
LONDON FIR		
LONDON/Heathrow EGLL	RWY 05/23	Closed for maintenance 2100 – 0500 on nights of 7, 8 and 9 Nov.
REYKJAVIK FIR		
KEFLAVIK/Keflavik BIFK	ILS	AVBL for RWY 12 only.
SONDRESTROM FIR		
PRINS CHRISTIANS SUND BIFK	ILS	FREQ. 2868, 2945 and 2987 KHZ unserviceable.
GANDER FIR		
GANDER CYQX	VOR	112.7 MHZ Voice unserviceable

Figure 7-4. Sample navigation warning display

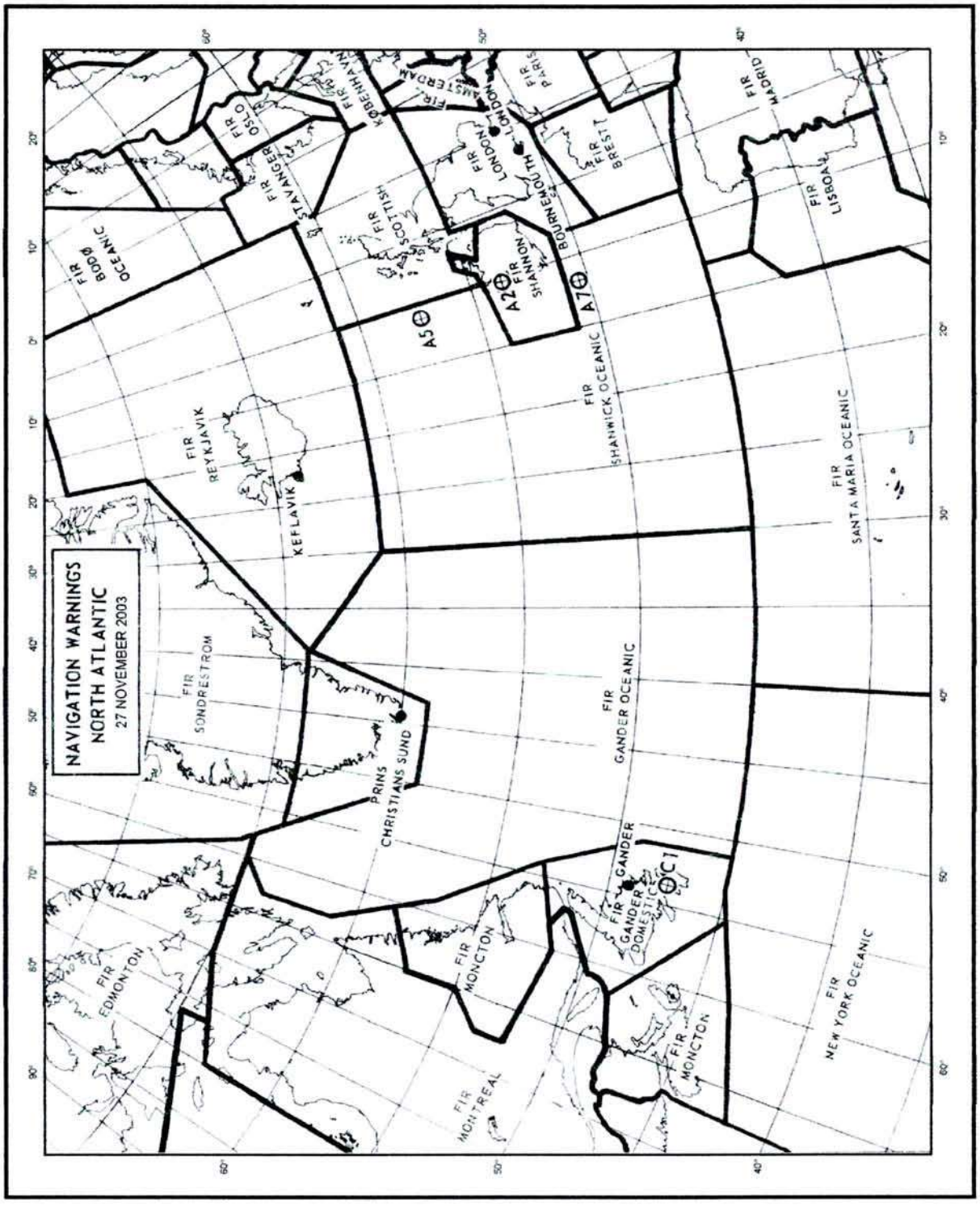


Figure 7-5. Example of standard PIB format — Aerodrome type (skeleton for a two-day period)

Pre-flight information bulletin (Aerodrome)	(State) AERONAUTICAL INFORMATION SERVICE
Date/time: 03/06/15/1000	Period: 03/06/15/0000 to 03/06/16/2400
Type of traffic: IFR/VFR	Height limits: Lower Upper
Bulletin contents: General purpose/OPSIG, AD	
Aerodromes: EDDF, EDDM, EDDV, etc.	
FRANKFURT/MAIN (EDDF) [NOTAM sorted in the order of subsections of AIP Part 3 — Aerodromes (AD)] MUNCHEN/RIEM (EDDM) [NOTAM sorted in the order of subsections of AIP Part 3 — Aerodromes (AD)] HANNOVER/LANGENHAVEN (EDVV) [NOTAM sorted in the order of subsections of AIP Part 3 — Aerodromes (AD)] Other aerodromes (name/ICAO location indicator), etc.	

Figure 7-6. Example of standard PIB format — Area type (skeleton for a two-day period)

Pre-flight information bulletin (Area)	(State) AERONAUTICAL INFORMATION SERVICE
Date/time: 03/06/15/1000	**Period: 03/06/15/0000 to 03/06/16/2400**
Type of traffic: IFR/VFR	**Height limits: Lower 000 Upper 999**
Bulletin contents: General purpose/OPSIG, en-route, AD, NAV warning	
Area: RJTG (Tokyo)	

TOKYO FIR (RJTG)

EN-ROUTE

[NOTAM sorted in the order of subsections of AIP Part 2 — En-route (ENR)]

AERODROMES

RJAA (XXYYZZ aerodrome)

[NOTAM sorted in the order of subsections of AIP Part 3 — Aerodromes (AD)]

Other aerodromes (names of aerodromes)

NAV WARNINGS

Figure 7-7. Example of standard PIB format — Route type (skeleton for a one-day period)

Pre-flight information bulletin (Route)	(State) AERONAUTICAL INFORMATION SERVICE
Date/time: 03/06/15/1000	Time (UTC): 0835
Type of traffic: IFR	Period: 03/06/15/0000 to 03/06/16/2400
Bulletin contents: General purpose/OPSIG, en-route, AD, NAV warning	
Height limits — All FIR (Lower/upper) — First FIR	000/999 000/120 Other: 120/999 Last: 000/120
Flight number:	City pair:
Height limits: Lower 000 ADDEST: CYMX	Alternates: CYYZ
FIR: EHAA — EGTT — EISN — EGGX — CZQX — CZYL — CZYZ	

EN-ROUTE EHAA (AMSTERDAM FIR)
[NOTAM sorted in the order of subsections of AIP Part 2 — En-route (ENR)]

Next FIR (etc.)

AERODROMES

AERODROME (DEPARTURE EHAM (AMSTERDAM/Schiphol)
[NOTAM sorted in the order of subsections of AIP Part 3 — Aerodromes (AD)]

AERODROME (ARRIVAL) CYMX (MONTREAL/Mirabel)
[NOTAM sorted in the order of subsections of AIP Part 3 — Aerodromes (AD)]

AERODROMES (ALTERNATES)
[Additional aerodrome information only if specially requested.]

NAV WARNINGS

Figure 7-8. Post-flight report on inadequacies in the status and operation of air navigation facilities and presence of birds

POST-FLIGHT REPORT

Aircraft nationality or common mark and registration mark:

Owner/FLT NR:

Departure aerodrome: ATD (UTC):

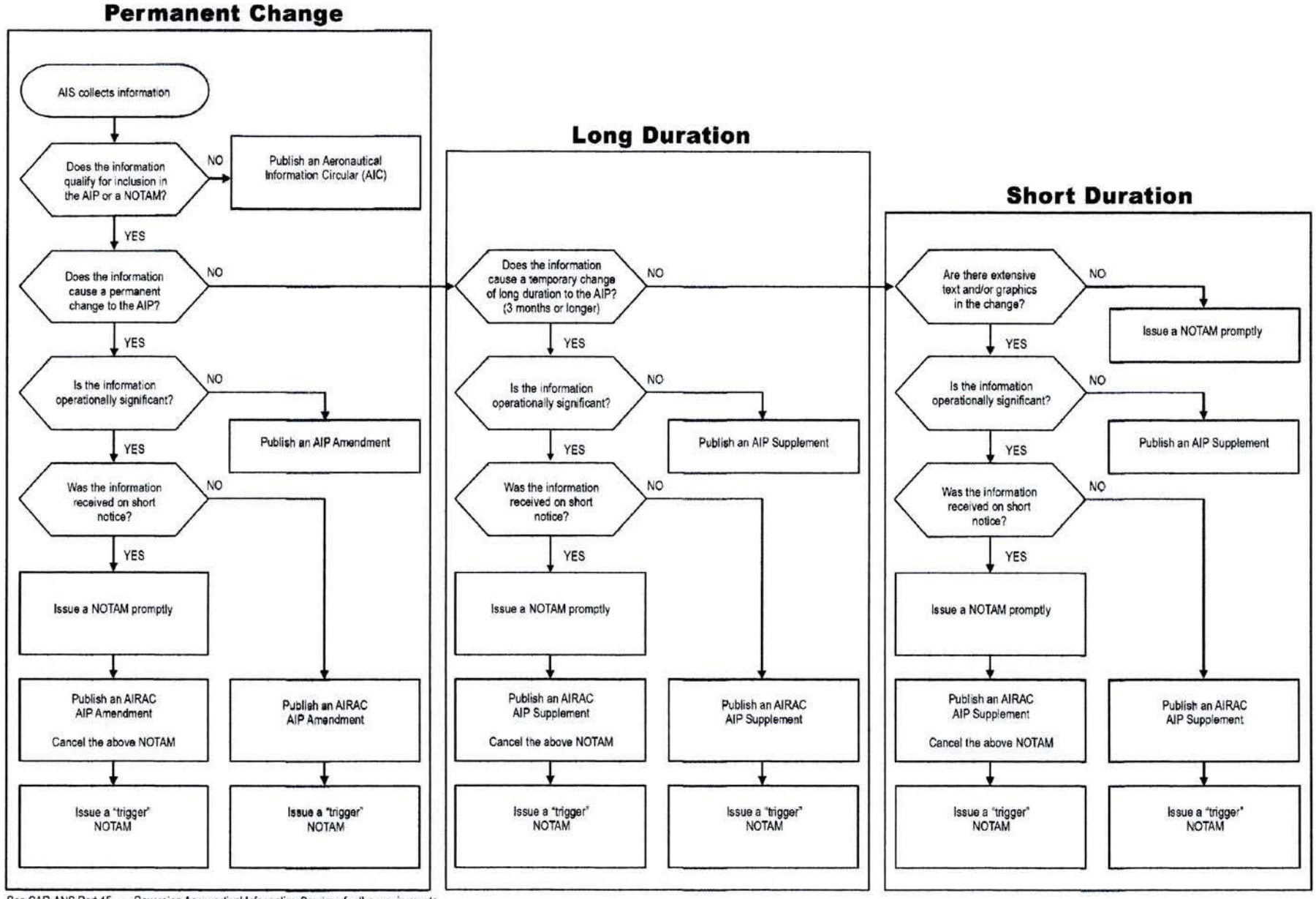
Arrival aerodrome: ATA (UTC):

Facility	Location	Details of inadequacy*	Time of observation

Birds	Location	Details	Time of observation

Date: _____ Signature of pilot: _____

**Includes flight altitude/level distance and bearing from the facility(ies) observed.*



See CAR-ANS Part 15 — Governing Aeronautical Information Services for the requirements.

Figure 7-9. Handling of permanent and temporary types of information

SECTION 8 AERONAUTICAL INFORMATION REGULATION AND CONTROL (AIRAC)

8.1 THE NEED FOR CONTROL

8.1.1 Information concerning changes in facilities, services or procedures in most cases requires amendments to be made to airline operations manuals or other documents produced by various aviation agencies. The organizations responsible for maintaining these publications up to date usually work to a pre-arranged production programme. 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 up to date. Alternatively, if a schedule of predetermined dates on which changes were to become effective were fixed throughout the year, it would be possible for a production programme to take account of or be based on these predetermined dates.

8.2 REGULATED SYSTEM

8.2.1 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, CAR-ANS Part15, 15.6, calls for the use of a regulated system designed to ensure, unless operational considerations make it impracticable, that:

a) information concerning any circumstances listed in CAR-ANS Part 15, 15.6.2 will be issued as AIP Amendments or AIP Supplements. These amendments and supplements must be identified by the acronym "AIRAC" and distributed at least 42 days in advance of the effective date for usual changes and 58 days in advance for major changes with the objective of reaching recipients at least 28 days in advance for usual changes and 44 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 29 January 1998; 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.

8.2.2 Essentially, implementation dates other than AIRAC effective dates **must not be used** for pre-planned, operationally significant changes requiring cartographic work and/or updating of navigation databases.

8.2.3 The processing cycle for airborne navigation databases requires the database to be delivered 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.

The processing cycle for airborne navigation databases is shown in Figure 8-2.

8.2.4 In addition to the use of a predetermined schedule of effective AIRAC dates, Coordinated Universal Time (UTC) must also be used to indicate the time when the AIRAC information will become effective. Since CAR-ANS Part 15, 15.1.2.3.1, specifies that the Gregorian calendar and UTC must be used as the temporal reference system for international civil aviation, in addition to AIRAC dates, when an effective time other than 0000 UTC is used, the effective time must be included explicitly with the AIRAC information.

8.3 SCHEDULE OF AIRAC EFFECTIVE DATES

8.3.1 The schedule of predetermined, internationally agreed AIRAC effective dates for the years 2020 to 2022 inclusive is given in Table 8-1.

8.4 COORDINATION

8.4.1 In order for the AIRAC system to operate satisfactorily, it is essential that the technical branches of the CAAP that are assigned the responsibility of supplying raw data to the AIS provider be thoroughly familiar with the AIRAC system. In particular, they must be aware not only of the effective dates but also the latest dates on which the raw data must reach the AIS in order for an AIP Amendment or AIP Supplement to be published and reach recipients at least 28 days in advance of the effective date. It is the responsibility of the AIS to determine these latest dates in order to publish amendments/supplements that will meet the corresponding AIRAC effective dates. A convenient way of informing technical branches of these dates is for the dates to be printed on the reverse side of the aeronautical information promulgation advice form as shown in Figure 8-1. In addition, the AIS publishes on a yearly basis, usually in the form of an AIC, a list of AIRAC effective dates, publication dates and latest dates on which raw material has to reach the AIS. Technical branches should endeavour to forward raw data to the AIS as early as possible and not wait until the latest date. This applies particularly where lengthy or complicated drafts are concerned. Early receipt will allow the AIS to process the data at a normal speed, whereas late receipt will normally mean that processing will be rushed, increasing the possibility of error.

8.5 SIGNIFICANT DATES

8.5.1 There are three significant dates associated with the AIRAC system:

a) the effective date;

b) the publication date; and

c) the latest date for raw data to reach the AIS.

8.5.2 There must be an interval of 42 days between the distribution date and the effective date. This allows for a period of up to 14 days' distribution time, **by the most expeditious means**, in order for recipients to receive the information at least 28 days in advance of the effective date.

8.5.3 In cases where major changes (i.e. extensive changes to procedures or services which will impact international air transport) are planned and more advance notice is desirable and practicable, a distribution date of 56 days (or even longer) in advance of the effective date should be used. Examples of major changes are:

a) the introduction of a new aerodrome;

b) the introduction of new approach and/or departure procedures at international aerodromes; and

c) the introduction of new ATS routes.

8.5.4 When the AIS does not receive AIRAC material from the responsible authorities/agencies for publication on the next scheduled AIRAC effective date, it must issue a NIL notification by NOTAM (or other means) at least one cycle (28 days or more) before the AIRAC effective date concerned.

8.6 USE OF THE AIRAC SYSTEM DURING HOLIDAY PERIODS

8.6.1 In some areas of the world the use of an AIRAC effective date that falls within major holiday periods (e.g. Christmas/New Year, Haj, Mardi Gras, summer vacations) creates difficulties in processing the material received because of reduced staff during these

periods. In addition, the increased burden on postal services during such periods frequently delays delivery of AIRAC material, causing considerable problems to users.

8.6.2 To improve the situation during the year-end holiday period, it is recommended that the AIRAC cycle date occurring in the 28-day period from 21 December to 17 January inclusive should not be used for AIRAC effective dates for the introduction of significant operational changes.

8.6.3 It should be emphasized, however, that the AIRAC system provides for considerable flexibility in its application, with a choice of thirteen AIRAC effective dates each calendar year. Bearing in mind that 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. CAR-ANS Part 15.6.2, specifies that AIRAC material must reach recipients at least 28 days in advance of the AIRAC effective date. Preferably such material should reach recipients more than 28 days before the effective date (for instance, 42 or 56 days or more). 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 to essential information, even if the effective date falls within a major holiday period.

8.7 PROVISION OF AERONAUTICAL INFORMATION IN PAPER COPY AND ELECTRONIC FORMS

8.7.1 The AIRAC system has proved to be an effective means of regulating and controlling the provision of aeronautical information affecting operation of aircraft. In addition, the AIRAC system has been used as a basic source of information for the updating of computer-based navigation systems. Recently, CAAP have introduced or are increasingly introducing automation with the objective of improving the speed, accuracy, efficiency and cost- effectiveness of aeronautical information services. Aeronautical information may soon be provided to the user on line and in real time, which may change the AIRAC system. However, a large sector of the aviation community will continue to require aeronautical information (documentation) in paper copy form and CAAP introducing provision of aeronautical information in electronic form must continue to provide it in paper copy form as well. Therefore, the AIRAC system must apply to the provision of aeronautical information in both the paper and electronic environments.

8.7.2 In view of the above, under the AIRAC system information must always be published in paper copy form and be distributed by the AIS at least 42 days in advance of the AIRAC effective date, to reach the user at least 28 days in advance of the effective date.

8.7.3 The automated AIS systems must ensure that the effective dates of information in the database are the same as the AIRAC effective dates used for the provision of information in paper copy form. AIS must ensure that AIRAC material provided in electronic form is received by the user at least 28 days in advance of the AIRAC effective date. Where major changes are planned and more advance notice is desirable and practicable, information provided in electronic form should be issued at least 56 days before the AIRAC effective date.

8.8 EXAMPLE

8.8.1 An example of the application of the AIRAC system follows:

a) On 1 January 2003, CAAP decides that it will place in service a new final approach aid at a particular aerodrome within the next three months.

b) CAAP consults the schedule of AIRAC effective dates and decides that 15 May 2003 would be the most suitable.

c) It further notes that the corresponding publication date is 3 April 2003 and that the information it wishes to issue must be provided to the AIS not later than 27 March 2003, i.e. a week before the date of publication.

d) The information is provided to the AIS on 25 March 2003, is published along with other similar information on 3 April 2003, and all matters covered by the AIP Amendment or AIP Supplement concerned become effective on the same effective date — 15 May 2003. The information is provided to the AIS on 25 March 2003, is published along with other similar information on 3 April 2003, and all matters covered by the AIP Amendment or AIP Supplement concerned become effective on the same effective date — 15 May 2003.

8.9 SIGNIFICANCE

8.9.1 It will be apparent from this example that the benefits to be derived from such a system are almost entirely 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 from the schedule of AIRAC effective dates sufficiently in advance to permit issue of the relevant information in accordance with the prescribed procedure. AIRAC effective dates are used by ICAO, when appropriate, as the date of implementation for amendments to ICAO Standards, Recommended Practices and Procedures.

8.10 LATE RECEIPT OF AIRAC PUBLICATIONS

8.10.1 When AIRAC AIP Amendments or Supplements are not received at least 28 days in advance of the AIRAC effective date, it is the responsibility of the recipient AIS to investigate whether late receipt is due to local postal, customs or administrative delays and, if so, to take remedial action as required. Otherwise, the recipient AIS will report this to the originating AIS, whose duty it will be to investigate and eliminate the cause of the delay.

Figure 8-1. Aeronautical information promulgation advice form

CIVIL AVIATION DEPARTMENT

AIP AMENDMENTS, AIP SUPPLEMENTS AND NOTAM

All portions of this form must be completed. One copy of this form should be submitted for each section of the AIP affected (e.g. GEN, ENR, AD).

To: AIS ..... Originator .....
....
..... Section: .....
Tel: ..... Tel.: .....
Copt to: ..... Date: .....

Originator's file reference	AIP references (as applicable)				*Text of NOTAM, AIP Amendment and/or Supplement*	*Effective date*	*For promulgation by †*
	*Page (date)**	*Para.*	*Line*	*Col.*			

* All AIP pages affected by each amendment should be quoted.

† Insert a, b or c as applicable, where: a — AIP Supplement and subsequent inclusion in AIP reprint page
b — AIP page, when next due for reprinting (AIP Supplement not required).
c — AIP Supplement only (i.e. temporary information).

AIRAC — If applicable but not applied, please state reasons: The following Directorates/Branches have been consulted in respect of:

..... (a) Policy ..... (b) Accuracy of information .....

..... Sgned ..... Head of .....
(Originating Branch)

..... Date .....

The above particulars and/or the attached draft are authorized for publication as indicated.

Signed ..... Head of ..... (Directorate Branch) ..... Date .....

Figure 8-2. Processing cycle for airborne navigation databases

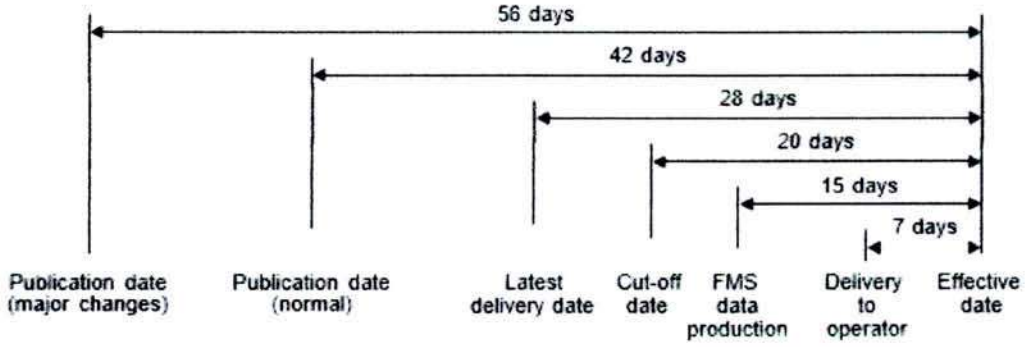


Table 8-1. Schedule of AIRAC effective dates, 2020 - 2022

2020	*2021*	*2022*
02 January	28 January	27 January
30 January	25 February	24 February
27 February	25 March	24 March
26 March	22 April	21 April
23 April	20 May	19 May
21 May	17 June	16 June
18 June	15 July	14 July
16 July	12 August	11 August
13 August	09 September	08 September
10 September	07 October	06 October
08 October	04 November	03 November
05 November	02 December	01 December
03 December	30 December	29 December
31 December		

SECTION 9 AERONAUTICAL INFORMATION CIRCULAT (AIC)

9.1 GENERAL

The AIS shall originate an AIC whenever it is necessary to promulgate aeronautical information, mainly of an administrative nature, which does not qualify for inclusion in the AIP or NOTAM. An AIC shall be originated whenever it is desirable to promulgate:

1) a long-term forecast of any major change in legislation, regulations, procedures or facilities;
2) information of a purely explanatory or advisory in nature liable to affect flight safety;
3) information or notification of an explanatory or advisory in nature concerning technical, legislative or purely administrative matters.

9.2 INFORMATION APPROPRIATE FOR AIC

In such cases, rather than overburden the AIP and/or NOTAM service, the information must be distributed by means of an AIC which is an element of the Integrated Aeronautical Information Package. The types of information appropriate for AIC are as follows:

1) forecasts of important changes in the air navigation procedures, services and facilities provided (e.g. new layout of control sectors or implementation plan for a radar network);
2) forecasts of implementation of new navigational systems (VOR, DME, etc.);
3) significant information arising from aircraft accident/incident investigation that has a bearing on flight safety;
4) information on regulations relating to the safeguarding of international civil aviation against acts of unlawful interference;
5) advice on medical matters of special interest to pilots;
6) warnings to pilots concerning the avoidance of physical hazards;
7) effect of certain weather phenomena on aircraft operations;
8) information on new hazards affecting aircraft handling techniques;
9) regulations relating to the carriage of restricted articles by air;
10) reference to the requirements of, and publication of changes in, national legislation;
11) aircrew licensing arrangements;
12) training of aviation personnel;
13) application of, or exemption from, requirements in national legislation;
14) advice on the use and maintenance of specific types of equipment;
15) actual or planned availability of new or revised editions of aeronautical charts;
16) carriage of radio equipment;
17) explanatory information relating to noise abatement;
18) selected airworthiness directives;
19) changes in NOTAM series or distribution, new editions of AIP or major changes in their contents, coverage or format;
20) other information of a similar nature.

9.3 AIC SERIAL NUMBER

Each AIC shall be issued in printed form and be allocated a serial number which should be consecutive and based on the calendar year.

9.4 ANNUAL REVIEW AND CHECKLIST

9.4.1 AIC should be numbered consecutively on a calendar year basis. Since AIC formation is often effective for long periods and requires little amendment, it will usually be found that AIC can, if necessary, remain outstanding for several years without inconvenience. A review and re-issue on a yearly basis is however advisable. In any case, a checklist of AIC currently in force must be issued as an AIC at least once a year. Further, if AIC are issued in more than one series, each series must be identified by a letter (A 2/02, B 4/02, etc.)

The format for the Aeronautical Information Circular (AIC) is shown in Figure 9-1

The sheet size for the AIC should be A4.

9.5 DISTRIBUTION

9.5.1 The originating AIS providers select the AIC that are to be given international distribution. AIC thus selected must be given the same distribution as the AIP, AIP Amendments and AIP Supplements. In addition, it is highly recommended that AIC be colour coded by subject where there are sufficient circulars in force to warrant such identification, e.g.:

a) white — administrative;
b) yellow — ATC;
c) pink — safety;
d) mauve — danger area map; and
e) green — maps/charts

9.5.2 Distribution of AIC on a national basis is left to the discretion of the originating AIS provider.

Figure 8-1. Aeronautical information promulgation advice form

TEL:(632) 879- 9159 FAX:(632) 879- 9288 AFTN: RPLLYOYX E-mail: ais@ats.caap.gov.ph	**REPUBLIC OF THE PHILIPPINES** CIVIL AVIATION AUTHORITY OF THE PHILIPPINES AERONAUTICAL INFORMATION SERVICE MIA ROAD, PASAY CITY	AIC Series A 11/03 14 OCT

SECTION 10 AUTOMATED AIS SYSTEM

10.1 BASIC PRINCIPLES

10.1.1 The principal objective of developing an automated AIS system is to improve, through automation, the overall speed, efficiency, accuracy and cost-effectiveness of the AIS.

10.1.2 For an automated or computer-based AIS system, the following material focuses on the advantages and flexibility to be derived from such an application. Essentially, an automated AIS system should be capable of providing a more flexible pre-flight information service by tailoring its automation processes to cater to a wider spectrum of users. As such, the tailoring/selection functions required for this service should be performed by the automated AIS system with a minimum of manual intervention so that duplication of work can be reduced if not eliminated entirely. For reasons of cost-effectiveness, such a service must strike a balance between the degree of sophistication of the system required and the amount of information to be accepted in the various categories of bulletins. It is necessary therefore to:

1) select a simple, flexible and efficient system for storage and retrieval of information; and

2) develop methods of providing a greater selectivity of information in accordance with user requirements

10.1.3 As such, the system should be designed with the intent of avoiding incompatibilities, divergences and unnecessary duplication of effort thereby ensuring standardization of procedures, products and services to end-users. It is highly desirable that all AIS systems be automated along the same or similar lines in order to ensure compatibility.

10.2 USER'S OPERATIONAL REQUIREMENTS IN AN AUTOMATED AIS SSYTEM

10.2.1 The overall system should provide a service that is capable of satisfying users' operational requirements, which include:

1) availability of the latest PIB of the specific type needed (e.g. route or area);

2) provision of information on specific items for given areas required by flight planning services, ATS, AIS or other users;

3) availability of NOTAM entered into the system after a specific date-time group, to facilitate briefing; and

4) provision of immediate notification capability for items of urgent operational significance.

10.2.2 Automated pre-flight information systems for the supply of aeronautical information/data for self-briefing, flight planning and flight information service should:

1) provide for continuous and timely updating of the system database and monitoring of the validity and quality of the aeronautical information stored;

2) permit access to the system by flight operations personnel, including flight crew members, aeronautical personnel concerned and other aeronautical users, through a suitable means of telecommunications;

3) ensure provision, in paper copy form, of the aeronautical information/data accessed, as required;

4) use access and interrogation procedures based on abbreviated plain language and ICAO location indicators, as appropriate, or based on a menu-driven interface or other appropriate mechanism as agreed between the civil aviation authority and operator(s) concerned; and

5) provide for rapid responses to user requests for information.

10.2.3 On the basis of the foregoing, an automated AIS system should be able to provide end-users, such as pilots, ATS and military, with PIB geared to meet their specific requirements.

10.3 TYPES OF INFORMATION TO BE PROVIDED

10.3.1 The system should provide NOTAM covering the area of service, the area of responsibility and the area of coverage. The system should additionally provide the following PIB and lists:

a) route type bulletin containing NOTAM relevant to the aerodrome/heliport of departure, the planned route based on FIR crossed, the aerodrome/heliport of destination, and alternate aerodromes/heliports;

b) area type bulletin containing NOTAM relevant to FIR;

c) aerodrome type bulletin containing NOTAM concerning any aerodrome/heliport or group of aerodromes/heliports;

d) immediate notification items;

e) checklists of NOTAM, FIR and aerodrome/heliport; and

f) list of NOTAM for a specific period or NOTAM entered into the system after a specific date-time group.

10.3.2 The updating of PIB should be covered by the items listed in 11.3.1 d), e) and f), or by request for a new PIB. The system features described in 11.2 should permit PIB to be tailored to the needs of users and should provide flexible options for information content ranging from full system data coverage to data of urgent operational significance. PIB should be provided in a standard format.

10.4 DATABASE CONTENTS

10.4.1 The following lists the types of data which can be made available in an automated AIS system center database. These data are divided into three categories:

a) *Static data*

Data common to civil aviation and documented in AIP or other related documents. Such data include FIR, aerodromes, navaids, areas, maps, rules, and NOTAM related to these subjects;

b) *Basic data*

Data required by an AIS system to enable NOTAM processing, i.e. reference lists, standard routes, distribution files, the NOTAM Selection Criteria, association criteria as well some static data.

c) *Dynamic data*

National and foreign (worldwide NOTAMN, NOTAMC, NOTAMR, ASHTAM, all checklists received, all system messages exchanged, and other aeronautical information such as AIC).

--------- END OF ADVISORY CIRCULAR ---------

CAPT. JIM C. SYDIONGCO
Director General

Date of Issue: NOV 26 2020