Aeronautical Information Services Operation Manual (AISOM)

CIVIL AVIATION AUTHORITY OF NEPAL

AERONAUTICAL INFORMATION MANAGEMENT (AIM) DEPARTMENT

Version 2.0

2025

FOREWORD

This Aeronautical Information Services Operation Manual referred herein after AISOM has been enacted by Aeronautical Information Management (AIM) Department, Civil Aviation Authority of Nepal (CAAN) for personnel providing Aeronautical Information Services (AIS) Pursuant to the provision of article 82 of the CAAN Civil Aviation Regulation, 2058

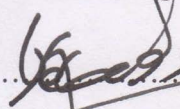
This manual provides information, guidance and procedures for the provision of Aeronautical Information Services in conformity with ICAO Annex and Docs relevant to AIS. The parameters of Aeronautical Information Services in Nepal harmonizes with the promulgated standard and recommended practices/procedure of ICAO

Aeronautical data and Aeronautical information is provided by Aeronautical Information Management (AIM) Department of Civil Aviation Authority of Nepal through Aeronautical Information Product consisting of Aeronautical Information Publication (AIP) including AIP Amendments and AIP Supplements, NOTAM, AIC, Aeronautical Charts and Digital Data sets. These products are published and distributed by AIM Department. The Aeronautical Information Product constitutes fundamental tool for Aviation industry as the data so published is utilized by Airlines, ATS personnel, Aerodrome operators.

It is considered to be a living document. Therefore, we solicit valuable suggestions from all professionals, readers and stakeholders. For any query/suggestion regarding this AIS Manual, all are advised to contact on the following address.

Note: This AIS Operation Manual supersedes the AISOM CAAN, 2020

Aeronautical Information Management (AIM) Department
Civil Aviation Authority of Nepal Sinamangal, Kathmandu, Nepal
Phone: 977-01-5718027
Email: caanais@caanepal.gov.np, caanais2016@gmail.com



Er. Pradeep Adhikari
Director General
Civil Aviation Authority of Nepal

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6.	General Manager, GBIA	1
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8.	Chief, Civil Aviation Academy	1
9.	Aerodrome Engineering Department, CAAN HO	1
10.	AIM Department, CAAN HO	1
11.	ATM Department, CAAN HO	1
12.	CNS Department, CAAN HO	1
13.	Com. Nav. Aid. Department, Sinamangal	1
14.	Rescue & Fire Fighting Department, CAAN HO	1
15.	Domestic Airport & Facilitation Department, CAAN HO	1
16.	International NOTAM Office (AIM Department), TIA	1
17.	Information Division (AIM Department), CAAN HO	1
18.	Publication Division (AIM Department), CAAN HO	1

19.	Aviation Security Department, CAAN HO	1
20.	Air Transport Department, CAAN HO	1
21.	Flight Safety Standard Department, CAAN HO	1
22.	ANS Safety Standards Department, CAAN HO	1
23.	Aerodrome Safety Standard Department, CAAN HO	1
24.	Safety Management Division, CAAN HO	1
25.	Air Transport Capacity Enhancement Project	1
26.	National Pride Project, CAAN HO	1
27.	Flight Operation Department, TIA	1
28.	Aerodrome Operation Department, TIA	1
29.	Technical Service Department, TIA	1
30.	Civil Engineering Division, TIA	1
31.	Library, CAAN HO	1
32.	Director, GBIA	1
33.	Airport Operations Division, GBIA	1
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35.	Electrotechnical Division, GBIA	1
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ABBREVIATION

AD	:	Aerodrome
AGA	:	Aerodrome, Air routes and ground aids
AIC	:	Aeronautical Information Circular
AIM	:	Aeronautical Information Management
AIMD	:	Aeronautical Information Management Department
AIP	:	Aeronautical Information Publication
AIRAC	:	Aeronautical Information Regulation and Control
AIS	:	Aeronautical Information Service
AOC	:	Air worthiness certificate
ATM	:	Air Traffic Management
ATS	:	Air Traffic Service
AVSEC	:	Aviation Security
CAAN	:	Civil Aviation Authority of Nepal
CNS	:	Communication Navigation Surveillance
Com	:	Communication
DGCA	:	Director General of Civil Aviation
DME	:	Distance Measuring Equipment
ENR	:	En-route
GEN	:	General
ICAO	:	International Civil Aviation Organization
MIS Unit	:	Management Information System Unit
MET	:	Meteorology
NOF	:	International NOTAM Office
NOTAM	:	Notice to Airman

PBN	:	Performance based navigation
PIB	:	Pre-flight Information Bulletin
RFF	:	Rescue and Fire Fighting
RVR	:	Runway Visual Range
RNAV	:	Area Navigation
SAR	:	Search and Rescue
SUP	:	Supplement (AIP Supplement)
UN	:	United Nation
UTC	:	Coordinated Universal Time
VHF	:	Very High Frequency (30 to 300MHZ)
VOR	:	VHF Omnidirectional Radio

REFERENCE DOCUMENTS

Annex 15 – Aeronautical Information Services

Annex 4 – Aeronautical Charts

Civil Aviation Requirements for Aeronautical Information Services, CAR – 15

Civil Aviation Requirements for Aeronautical charts, CAR – 4

Doc 10066 – Procedures for Air Navigation Services - Aeronautical Information Management, PANS – AIM

Doc 8126 – Aeronautical Information Services (AIS Manual)

Doc 8697 – Aeronautical Chart Manual

Doc 9674 – World geodetic System – 1984 (WGS – 84) Manual

Doc 7910 – Location Indicators

Doc 8400 – ICAO Abbreviations and codes (PANS – ABC)

Doc 8585 – Designates for Aircraft Operating Agencies, Aeronautical Authorities and services.

Doc 7383 – Aeronautical Information Services provided by States

MOS AIS - Manual of Standard Aeronautical Information Service

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Chapter 1

DEFINITION

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

Note. — For measured positional data the accuracy is normally expressed in terms of a distance from a stated position within which there is a defined confidence of the true position falling.

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 mapping data (AMD): Data collected for the purpose of compiling aerodrome mapping information.

Note. — Aerodrome mapping data is collected for purposes that include the improvement of the user's situational awareness, surface navigation operations, training, charting and planning.

Aerodrome mapping database (AMDB): A collection of aerodrome mapping data organized and arranged as a structured data set.

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 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 Management (AIM): The dynamic, integrated management of aeronautical information through the provision and exchange of quality-assured digital aeronautical data in collaboration with all parties.

Aeronautical Information Products: Aeronautical data and aeronautical information provided either as digital data sets or as a standardized presentation in paper or electronic media. Aeronautical information products include:

— Aeronautical Information Publication (AIP), including Amendments and Supplements;
— Aeronautical Information Circulars (AIC);

— Aeronautical charts;
— NOTAM; and
— Digital data sets.

Note. —Aeronautical information products are intended primarily to satisfy international requirements for the exchange of aeronautical information.

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 Service (AIS): A service established within the defined area of coverage responsible for the provision of aeronautical data and aeronautical information 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.

Air Traffic Management (ATM): The dynamic, integrated management of air traffic and airspace (including air traffic services, airspace management and air traffic flow management) — safely, economically and efficiently — through the provision of facilities and seamless services in collaboration with all parties and involving airborne and ground- based functions.

Application: Manipulation and processing of data in support of user requirements (ISO 19104).

Area Navigation (RNAV): A method of navigation which permits aircraft operation on any desired flight path within the coverage of ground- or space-based navigation aids or within the limits of the capability of self-contained aids, or a combination of these.

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.

Assemble: A process of merging data from multiple sources into a database and establishing a baseline for subsequent processing.

Note. — The assemble phase includes checking the data and ensuring that detected errors and omissions are rectified.

ATS surveillance service: Term used to indicate a service provided directly by means of an ATS surveillance system.

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

Automatic dependent surveillance — broadcast (ADS-B): A means by which aircraft, aerodrome vehicles and other objects can automatically transmit and/or receive data such as identification, position and additional data, as appropriate, in a broadcast mode via a data link.

Automatic dependent surveillance — contract (ADS-C): A means by which the terms of an ADS-C agreement will be exchanged between the ground system and the aircraft, via a data link, specifying under what conditions ADS-C reports would be initiated, and what data would be contained in the reports.

Automatic terminal information service (ATIS): The automatic provision of current, routine information to arriving and departing aircraft throughout 24 hours or a specified portion thereof:

— Data link-automatic terminal information service (D-ATIS). The provision of ATIS via data link.

— Voice-automatic terminal information service (Voice-ATIS). The provision of ATIS by means of continuous and repetitive voice broadcasts.

Bare Earth: Surface of the Earth including bodies of water and permanent ice and snow, and excluding vegetation and manmade objects.

Calendar: Discrete temporal reference system that provides the basis for defining temporal position to a resolution of one day (ISO 19108*).

Canopy: Bare Earth supplemented by vegetation height.

Confidence level: The probability that the true value of a parameter is within a certain interval around the estimate of its value.

Note. — The interval is usually referred to as the accuracy of the estimate.

Controller-pilot data link communications (CPDLC): A means of communication between controller and pilot, using data link for ATC communications.

Culture: All man-made features constructed on the surface of the Earth, such as cities, railways and canals.

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

Data completeness: The degree of confidence that all of the data needed to support the intended use is provided.

Data format: A structure of data elements, records and files arranged to meet standards, specifications or data quality requirements.

Data integrity (assurance level): A degree of assurance that an aeronautical data and its value has not been lost or altered since the origination or authorized amendment.

Data product: Data set or data set series that conforms to a data product specification (ISO 19131*).

Data product specification: Detailed description of a data set or data set series together with additional information that will enable it to be created, supplied to and used by another party (ISO 19131*).

Note. — A data product specification provides a description of the universe of discourse and a specification for mapping the universe of discourse to a data set. It may be used for production, sales, end-use or other purpose.

Data quality: A degree or level of confidence that the data provided meet the requirements of the data user in terms of accuracy, resolution, integrity (or equivalent assurance level), traceability, timeliness, completeness and format.

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

Data set: Identifiable collection of data (ISO 19101*).

Data set series: Collection of data sets sharing the same product specification (ISO 19115*).

Data timeliness: The degree of confidence that the data is applicable to the period of its intended use.

Data traceability: The degree that a system or a data product can provide a record of the changes made to that product and thereby enable an audit trail to be followed from the end-user to the originator.

Datum: Any quantity or set of quantities that may serve as a reference or basis for the calculation of other quantities (ISO 19104*).

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

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

Ellipsoid height (geodetic height): The height related to the reference ellipsoid, measured along the ellipsoidal outer normal through the point in question.

Geodesic distance: The shortest distance between any two points on a mathematically defined ellipsoidal surface.

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.

Note. — 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.

Geoid undulation: The distance of the geoid above (positive) or below (negative) the mathematical reference ellipsoid.

Note. — In respect to the World Geodetic System — 1984 (WGS-84) defined ellipsoid, the difference between the WGS-84 ellipsoidal height and orthometric height represents WGS-84 geoid undulation.

Gregorian calendar: Calendar in general use; first introduced in 1582 to define a year that more closely approximates the tropical year than the Julian calendar (ISO 19108*).

Note. — In the Gregorian calendar, common years have 365 days and leap years 366 days divided into twelve sequential months.

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

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.

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.

Integrity Classification (aeronautical data): Classification based upon the potential risk resulting from the use of corrupted data. Aeronautical data are classified as:

a) **Routine data:** there is a very low probability when using corrupted routine data that the continued safe flight and landing of an aircraft would be severely at risk with the potential for catastrophe;

b) **Essential data:** there is a low probability when using corrupted essential data that the continued safe flight and landing of an aircraft would be severely at risk with the potential for catastrophe; and

c) **Critical data:** there is a high probability when using corrupted critical data that the continued safe flight and landing of an aircraft would be severely at risk with the potential for catastrophe.

International airport: Any airport designated by the Contracting State in whose territory it is situated as an airport of entry and departure for international air traffic, where the formalities incident to customs, immigration, public health, animal and plant quarantine and similar procedures are carried out.

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

Logon address: A specified code used for data link logon to an ATS unit.

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

Metadata: Data about data (ISO 19115*).

Note. — A structured description of the content, quality, condition or other characteristics of data.

Minimum en-route altitude (MEA): The altitude for an en-route 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.

Movement area: That part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, consisting of the manoeuvring area and the apron.

Navigation specification: A set of aircraft and flight crew requirements needed to support performance-based navigation operations within a defined airspace. There are two kinds of navigation specifications:

— Required navigation performance (RNP) specification. A navigation specification based on area navigation that includes the requirement for performance monitoring and alerting, designated by the prefix RNP, e.g., RNP 4, RNP APCH;

— Area navigation (RNAV) specification. A navigation specification based on area navigation that does not include the requirement for performance monitoring and alerting, designated by the prefix RNAV, e.g., RNAV 5, RNAV 1.

Next intended user: The entity that receives the aeronautical data or information from the aeronautical information service.

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:

a) are located on an area intended for the surface movement of aircraft; or
b) extend above a defined surface intended to protect aircraft in flight; or
c) stand outside those defined surfaces and that have been assessed as being a hazard to air navigation.

Obstacle/terrain data collection surface: A defined surface intended for the purpose of collecting obstacle/terrain data.

Origination (aeronautical data or aeronautical information): The creation of the value associated with new data origination or the modification of the value of existing data or information.

Originator (aeronautical data or aeronautical information): An entity that is accountable for data or information origination and/or from which the AIS organization receives aeronautical data and aeronautical information.

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

Performance-based communication (PBC): Communication based on performance specifications applied to the provision of air traffic services.

Performance-based Navigation (PBN): Area navigation based on performance requirements for aircraft operating along an ATS route, on an instrument approach procedure or in a designated airspace.

Note. — Performance requirements are expressed in navigation specifications (RNAV specification, RNP specification) in terms of accuracy, integrity, continuity, availability and functionality needed for the proposed operation in the context of a particular airspace concept.

Performance-based surveillance (PBS): Surveillance based on performance specifications applied to the provision of air traffic services.

Portrayal: Presentation of information to humans (ISO 19117*).

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.

Post spacing: Angular or linear distance between two adjacent elevation points.

Precision: The smallest difference that can be reliably distinguished by a measurement process.

Note. — In reference to geodetic surveys, precision is a degree of refinement in performance of an operation or a degree of perfection in the instruments and methods used when taking measurements.

Pre-flight Information Bulletin (PIB): A presentation of current NOTAM information of operational significance, prepared prior to flight.

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.

Quality: Degree to which a set of inherent characteristics fulfills requirements (ISO 9000*).

Note 1. — The term "quality" can be used with adjectives such as poor, good or excellent.

Note 2. — "Inherent", as opposed to "assigned", means existing in something, especially as a permanent characteristic.

Quality assurance: Part of quality management focused on providing confidence that quality requirements will be fulfilled (ISO 9000*).

Quality control: Part of quality management focused on fulfilling quality requirements (ISO 9000*).

Quality management: Coordinated activities to direct and control an organization with regard to quality (ISO 9000*).

Quality Management System (QMS): A QMS consists of a framework of policies, processes and procedures through which an AIS provider manages the inter-related parts of its business to achieve its objectives.

Radio navigation service: A service providing guidance information or position data for the efficient and safe operation of aircraft supported by one or more radio navigation aids.

Required communication performance (RCP) specification: A set of requirements for air traffic service provision and associated ground equipment, aircraft capability, and operations needed to support performance-based communication.

Required surveillance performance (RSP) specification. A set of requirements for air traffic service provision and associated ground equipment, aircraft capability, and operations needed to support performance-based surveillance.

Requirement: Need or expectation that is stated, generally implied or obligatory (ISO 9000*).

Note 1. — "Generally implied" means that it is custom or common practice for the organization, its customers and other interested parties, that the need or expectation under consideration is implied.

Note 2. — A qualifier can be used to denote a specific type of requirement, e.g., product requirement, quality management requirement, customer requirement.

Note 3. — A specified requirement is one which is stated, for example, in a document.

Note 4. — Requirements can be generated by different interested parties.

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.

Route stage: A route or portion of a route flown without an intermediate landing.

SNOWTAM: † A special series NOTAM notifying the presence or removal of hazardous conditions due to snow, ice, slush or standing water associated with snow, slush and ice on the movement area, by means of a specific format.

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.

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.

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.

† Applicable until 4 November 2020.

†† Applicable as of 5 November 2020.

Traceability: Ability to trace the history, application or location of that which is under consideration (ISO 9000*).

Note. — When considering product, traceability can relate to:

— the origin of materials and parts;

— the processing history; and

— the distribution and location of the product after delivery.

Validation: Confirmation, through the provision of objective evidence, that the requirements for a specific intended use or application have been fulfilled (ISO 9000*).

Verification: Confirmation, through the provision of objective evidence, that specified requirements have been fulfilled (ISO 9000*).

Note. — The term "verified" is used to designate the corresponding status.

VOLMET: Meteorological information for aircraft in flight.

- Data link-VOLMET (D-VOLMET). Provision of current aerodrome routine meteorological reports (METAR) and aerodrome special meteorological reports (SPECI), aerodrome forecasts (TAF), SIGMET, special air-reports not covered by a SIGMET and, where available, AIRMET via data link.

- VOLMET broadcast. Provision, as appropriate, of current METAR, SPECI, TAF and SIGMET by means of continuous and repetitive voice broadcasts.

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* ISO Standard

8601 — Data elements and interchange formats — Information interchange — Representation of dates and times
9000 — Quality Management Systems — Fundamentals and Vocabulary
19101 — Geographic information — Reference model
19104 — Geographic information — Terminology
19108 — Geographic information — Temporal schema
19109 — Geographic information — Rules for application schema
19110 — Geographic information — Feature cataloguing schema
19115 — Geographic information — Metadata
19117 — Geographic information — Portrayal
19131 — Geographic information — Data product specification

Chapter 2

GENERAL

2. General

2.1 The main objective of the Aeronautical Information Service (AIS) is to ensure the flow of aeronautical data and aeronautical information necessary for the global air traffic management (ATM) system safety, regularity economy and efficiency in an environmentally sustainable manner based on ICAO Standards and Recommended Practices (SARPs) and procedures for Aeronautical Information Services in Annex 15 and PANS-AIM (Doc 10066). The role and importance of aeronautical data/ information has changed significantly with the implementation of area navigation (RNAV), performance-based navigation (PBN), airborne computer-based navigation systems and data link systems. Corrupt, erroneous late, or missing aeronautical data/information can potentially affect the safety of air navigation.

2.2 Aeronautical information service is provided by Aeronautical Information Management (AIM) Department, Civil Aviation Authority of Nepal (CAAN), for the whole of Nepalese Territory and Kathmandu Flight Information Region (FIR), for which it is responsible for the provision of Air Traffic Services (ATS).

2.3 Aeronautical Information Management (AIM) Department, Civil Aviation Authority of Nepal has the responsibility to receive, collate, format, edit, and publish and distribute aeronautical data and aeronautical information relating to permanent or temporary changes of longer duration in respect of all aerodromes under the control of CAAN.

2.4 AIM Department receives aeronautical information and aeronautical data from the following sources:

a) Aviation Services Directorate, CAAN
b) Aviation Safety and Security Regulation Directorate, CAAN
c) Corporate Directorate, CAAN
d) GBIA Civil Aviation Office, CAAN
e) PIA Civil Aviation Office, CAAN
f) TIA Civil Aviation Office, CAAN
g) Aerodrome Safety Standards Department, CAAN
h) ANS Safety Standards Department, CAAN
i) Flight Safety Standards Department, CAAN
j) Aerodrome Engineering Department, CAAN
k) Air Traffic Management Department, CAAN
l) Air Transportation Department, CAAN

m) CNS Planning and Development Department, CAAN

n) Communication and Navigation Aids Department, CAAN

o) Domestic Airport and Facilitation Department, CAAN

p) Electro-Mechanical Department, CAAN

q) Air Transport Capacity Enhancement Project, CAAN

r) National Pride Project, CAAN

s) Biratnagar Civil Aviation Office, CAAN

t) Nepalgunj Civil Aviation Office, CAAN

u) Domestic Airports, CAAN

v) Rescue Co-ordination Center (RCC), TIA

w) Survey Department, Government of Nepal (GoN).

x) Department of Hydrological and Meteorology (GoN)

y) Training Centers, Nepali Army

z) Armed Police Force (APF)

Wherein,

- AIM Department at the CAAN Head office, Sinamangal, Kathmandu is responsible for the publication of Aeronautical Information Publication (AIP), Amendment to the AIP (AIP AMDT), Supplement to the AIP (AIP SUP), Aeronautical Information Circular (AIC) and Aeronautical Charts Scale 1:500,000.
- International NOTAM Office (NOF) is responsible for the publication of NOTAMs, PIB and monthly Checklist of valid NOTAMs.

2.5 This manual contains the standards, requirements and procedures pertaining to the planning and operation of aeronautical information services.

2.6 This manual document information pertaining to the rules, regulation, procedures and instructions to be followed for the provision of Aeronautical Information Services by officers and staffs working under AIM Department, CAAN Head Office, Sinamangal, Kathmandu and International NOTAM Office located at Tribhuvan International Airport, Gauchar, Kathmandu.

2.7 Aeronautical Information Service is provided in conformity with the following ICAO Annexes, Civil Aviation Requirements and documents:

a) Annex 15 - Aeronautical Information Services

b) Annex 4 – Aeronautical Charts

c) Civil Aviation Requirements for Aeronautical Information Services (CAR - 15)

d) Civil Aviation Requirements for Aeronautical Charts (CAR - 4)

e) Doc 10066 – Procedure for Air Navigation Services - Aeronautical Information Management (PANS – AIM)

f) Doc 8126 - Aeronautical Information Services Manual

g) Doc 9674 - World Geodetic System – 1984 (WGS – 84) Manual

h) Doc 8400 - ICAO Abbreviations and Codes

i) Doc 8679 - Aeronautical Charts Manual

j) Doc 7910 - Location Indicators

k) Doc 9839 - AIM Quality Manual

l) Doc 9991-Aernautical Information Service Training Manual

m) Doc 9854 - Global Air Traffic Management Operational Concept.

n) Manual of Standards Aeronautical Information Service (MOS-AIS)

2.8 This manual may be amended by AIM Department as and when considered appropriate. The need to amend this manual may arise due to the following reasons, (some of the parameters on account of which amendment may be considered are listed below):

a) Amendments to the applicable ICAO Annex and Documents

b) Introduction of new technologies in the provision of AIS

c) Changes/introduction of Civil Aviation Requirements (CARs) approved by DGCA

d) Requirements from ATS, Airlines or any other concerned aviation agency

2.9 Any queries or further guidance required on the contents of this Manual shall be addressed to:

Director,
AIM Department
Civil Aviation Authority of Nepal
Sinamangal, Kathmandu.
Email: caanais@caanepal.gov.np, caanais2016@gmail.com

2.10 Common Reference System for Air Navigation

2.10.1 Horizontal Reference System

World Geodetic System — 1984 (WGS-84) is used as the horizontal (geodetic) reference system for international air navigation. Consequently, aeronautical geographical coordinates (indicating latitude and longitude) are expressed in terms of the WGS-84 geodetic reference datum.

Note 1: - Comprehensive guidance material concerning WGS-84 is contained in the World Geodetic System — 1984 (WGS-84) Manual (Doc 9674).

2.10.2 **Vertical Reference System**

2.10.2.1 Mean Sea level (MSL) datum, which gives the relationship of gravity-related height (elevation) to a surface known as the geoid, will be used as the vertical reference system for international air navigation.

Note 1: - The geoid globally most closely approximates MSL. It is defined as the equipotential surface in the gravity field of the Earth which coincides with the undisturbed MSL extended continuously through the continents.

Note 2: - Gravity-related heights (elevations) are also referred to as orthometric heights while distances of points above the ellipsoid are referred to as ellipsoidal heights.

2.10.2.2 The Earth Gravitational Model – 1996 (EGM-96) is used as the global gravity model for international air navigation.

2.10.2.3 At those geographical positions where the accuracy of EGM-96 does not meet the accuracy requirements for elevation and geoid undulation on the basis of EGM-96 data, regional, national or local geoid models containing high resolution (short wavelength) gravity field data will be developed and used. When a geoid model other than the EGM-96 model is used, a description of the model used, including the parameters required for height transformation between the model and EGM-96, will be provided in the Aeronautical Information Publication (AIP).

Note: - Specifications concerning the accuracy and data integrity classification of air traffic services and aerodrome related aeronautical data are contained in PANS-AIM (Doc 10066), Appendix 1.

2.10.3 **Temporal Reference System**

2.10.3.1 Gregorian calendar and coordinated Universal Time (UTC) are used as the Temporal Reference System for all AIS publications.

2.10.3.2 When a different temporal reference system is used for some applications, the feature catalogue, or the metadata associated with an application schema or a data set, as appropriate, will include either a description of that system or a citation for a document that describes that temporal reference system.

Note 4: - ISO Standard 19108 describes some aspects of calendar that may have to be considered in such a description.

2.11 **General Specifications**

2.11.1 The material to be provided by and exchanged between States is published as an aeronautical information product (i.e., Aeronautical Information Publication-AIP, including Amendment service, AIP Supplements, NOTAM, Aeronautical Information Circulars-AIC, Aeronautical Charts). Each element of aeronautical information products for distribution will be in the English language.

2.11.2 Place names will be spelt in conformity with local usage, transliterated, when necessary, into the Latin alphabet.

2.11.3 Units of Measurement used in the origination, processing and distribution of aeronautical data and aeronautical information should conform to the tables contained in AIP Nepal GEN.2.1-1 Units of measurement.

2.11.4 ICAO abbreviations contained in Doc 8400 will be used for the publication and distribution of aeronautical information/data.

2.11.5 Each Prohibited area, Restricted area or Danger area established in Nepal, has been given identification and full details have been promulgated in Section ENR 5.1 of AIP Nepal.

2.11.5.1 The identification assigned to each area is used to identify the area in all subsequent notifications pertaining to that area.

2.11.5.2 The identification assigned to each area is composed of a group of three letters and figures, as follows: -

a. The first letter “V” – the letter assigned by ICAO to identify Nepal (the State/region) for purpose of location indicator.

b. The second letter will identify regions of Nepal, "N"

c. The third letter will be either “P” for prohibited area, “R” for restricted area or “D” for danger area, as appropriate.

d. A group of numbers (this will not be duplicated in any other region in the country), e.g., VNR 101 indicates a restricted area located in Nepal.

2.11.5.3 If any identification number is cancelled, it will not be re-used for a period of at least one year to avoid confusion.

Chapter 3

RESPONSIBILITIES AND FUNCTIONS

3.1 Purpose of Aeronautical Information Service (AIS)

3.1.1 Needs of the operator

The operator of an aircraft must have available a variety of information concerning the air navigation facilities and services expected to be used during flight operations. Such as the operator must know the regulations concerning entry into and transit from the airspace of Nepal as well as the aerodromes and/or helipads, navigation aids, meteorological services, communication services, availability of air traffic services, flight procedures and regulations associated with them. The operator must also get information, often on very short notice, of any changes affecting operations of these facilities and services and any airspace restrictions or hazards likely to affect flights. While this information can always be provided before take-off, it must in some instances be provided during flight as well.

3.1.2 Need for uniformity

In accordance with Article 37 of the Convention, Annex 15 is designed to promote uniformity in the collection and distribution of aeronautical information, in the interest of safety, economy, and efficiency in environmentally sustainable manner of the global civil aviation.

3.1.3 Scope and type of information

The information handled by AIM department may vary widely in terms of the duration of its applicability. For example, information related to airports and its facilities may remain valid for many years while changes in the availability of those facilities (for instance, due to construction or repair) may be valid only for a relatively short period. Information may be valid for as short time as days or hours. The urgency of the information as well as the extent of its applicability in terms of the number of operators or types of operations affected may also vary. Information may also be concise or lengthy and include graphics. Therefore, aeronautical information is handled differently depending on its urgency, operational significance, scope, volume and the length of time it will remain valid and relevant to users.

3.1.4 Liaison with related services

In order to efficiently perform the dual role of collecting data from the data originators and distributing information to all concerned, AIM Department must also establish and maintain a direct and continuous liaison with related services, as follows:

a. **the AIS in other States** from which it is necessary to receive information to meet operational requirements within the State for pre-flight information;

b. **technical services within the State** that are directly concerned with the provision and maintenance of the various air navigation facilities, services and procedures — this, in turn, is necessary to ensure timely distribution of all significant information both within the State and to other States as required;

c. **military services within the State**, as necessary, to receive and distribute information concerning navigation warnings (military exercises, etc.) or any special military facilities or procedures available to or affecting civil aviation;

d. **air traffic services within the State**, to ensure immediate transmission of all required information to services for air traffic control and for in-flight information purposes;

e. **aircraft operators** conducting operations in or through the State, to ensure that pre-flight information requirements are adequately met; and

f. **any other services** that may either be a source of information of interest to civil aviation or have a legitimate reason for requiring information about civil aviation.

3.2 Responsibilities and functions

Annex 15 and Civil Aviation Requirements for Aeronautical Information Service (CAR 15) specifies that each Contracting State must provide AIS for the collection and distribution of aeronautical information for use by all types of aircraft operations. Annex 15 and CAR 15 also specifies that the State concerned remains responsible for the aeronautical information published. Therefore, the State is responsible for making available in the interest of civil aviation safety any or all information which is pertinent to and required for the operation of aircraft engaged in international civil aviation within its territory, as well as in areas outside its territory in which the State has air traffic control or other responsibilities.

3.2.1 In Nepal Aeronautical information service is provided by Civil Aviation Authority of Nepal (CAAN) by adequately complying the provision of Standards and Recommended Practices in Annex-15.

3.2.1.1 CAAN provides aeronautical data and information within Kathmandu flight information region (FIR) for which responsibility for providing Air Traffic Service has been accorded by ICAO. It is ensured that the aeronautical data and information provided is complete, timely and of the required quality. Formal arrangements are established through service level agreements between the aeronautical data originators and AIM Department in relation to the timely and complete provision of aeronautical data and aeronautical information.

3.2.1.2 AIM Department ensures the provision of aeronautical information service for 24/7.

3.2.2 Aeronautical information is obtained from the following sources for the provision of pre-flight information and in-flight information:

a. from the aeronautical information services of other States;

b. from other sources (such as observations made by pilots and crew members) that may be useful for in-flight information.

Note: - Aeronautical data and aeronautical information obtained under 3.2.2 a) should, when distributed, be clearly identified as having the authority of the State of Origin.

Note: - Aeronautical data and aeronautical information obtained under 3.2.2 b) should, if possible, be verified or the source clearly identified before distribution.

3.2.3 Other documents such as AIP Nepal, AIC, AIP Supplements and Charts are also available for pre-flight briefing.

3.2.4 Aeronautical data and information necessary for the safety, regularity and efficiency of air navigation, is made available in a form suitable for the operational requirements of the air traffic management (ATM) community.

Note: - A description of the ATM community is contained in the Global ATM Operational Concept (Doc 9854)

3.2.5 Aeronautical data and information are distributed in standard formats for the operational requirements of:

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

b) the air traffic services unit responsible for flight information service and those units responsible for pre-flight information.

3.2.6 AIM Department and NOF are responsible to receive/originate, collate or assemble, edit, format, publish/store and distribute aeronautical information/data within Kathmandu FIR for which CAAN is responsible for the provision of Air Traffic Services. Aeronautical information is published as Aeronautical Information Products which include AIP Nepal, AIP Amendments (AMDT) and Supplements (SUP), Aeronautical Information Circulars (AICs), NOTAM, and Aeronautical Charts.

3.3 Exchange of aeronautical data and aeronautical information

3.3.1 Under AIM Department, International NOTAM Office (NOF) is established at Tribhuvan International Airport, Kathmandu that is responsible for the issuance and cancellation of NOTAM for the airspace and all aerodromes within Kathmandu FIR. NOF exchanges A and B Series NOTAM with international NOTAM offices and other agencies as specified in Appendix S. Similarly, D-series NOTAM are published for activities carried out at domestic aerodromes and distributed nationally.

3.3.2 Adequate arrangements have been made to satisfy operational requirements for the issuance and receipt of NOTAM, by connecting international NOTAM offices and major aerodromes in Nepal with Aeronautical Fixed Telecommunication Network (AFTN/AMHS).

3.3.3 CAAN has designated AIM Department for corresponding and receiving aeronautical information products provided by other States.

3.3.4 One copy of each of the following aeronautical information products requested by the AIS of a Contracting State will be made available and provided in the mutually agreed form without charge:

a) Aeronautical Information Publication (AIP) including Amendments to AIP and AIP Supplements;

b) Aeronautical Information Circulars (AIC);

c) NOTAM; and

d) Aeronautical charts

3.4 Copyright

3.4.1 In order to protect investment in the AIS products and to ensure better control of their use, CAA Nepal has applied copyright to the AIS products in accordance with the national law.

3.4.2 Any AIS product which has been granted copyright protection by CAA Nepal and provided to another State in accordance with 3.3 should only be made available to a third party on the condition that the third party is made aware of the copyright and it is appropriately annotated that the product is subject to copyright by the CAA Nepal.

3.4.3 CAA Nepal may decide to apply copyright to their AIS products to ensure that aeronautical information/data released for use through a "second generation" information/data provider comes from an authorized source and has the appropriate quality system protection.

3.4.4 The application of copyright does not affect the requirement for States to ensure the free exchange of aeronautical information/data between States in accordance with Articles 28 c) and 37 of the Convention.

3.5 Cost Recovery

3.5.1 Although Annex 15, Civil Aviation Requirements for AIS (CAR 15) provides for the exchange of aeronautical information/data without charge between ICAO Contracting States, there may be occasions where other States or commercial entities seek to procure aeronautical information/data and other air navigation documents. In such cases, AIM Department may wish to enter into a separate agreement with the party concerned regarding the conditions and costs, if any, that will be applied to the provision of that information/data.

3.5.2 Operators may choose to procure their aeronautical information/data from the AIM Department, CAA Nepal. There are, however, considerable costs associated with the provision of aeronautical information/data such as the overhead costs associated with the ongoing operation of the AIS, the costs associated with collecting, verifying, compiling and collating the information/data, and the costs associated with the publication and distribution of the information/data.

3.5.3 CAA Nepal may decide to recover these costs by charging users for the aeronautical information/data provided. These costs are determined on basis of airport and air navigation services charges, in accordance with the principles contained in Doc 9082 — ICAO's Policies on Charges for Airports and Air Navigation Services.

3.5.4 AIP Nepal, Amendments to AIP, AIP Supplements and Aeronautical Chart scale 1:500,000 are priced for the cost of printing and production only and charged on a cost-recovery basis. Refer Appendix P - Standard Operating Procedure (SOP) For Distribution of Aeronautical Information Products.

Chapter 4
AERONAUTICAL INFORMATION MANAGEMENT

4.1 Introduction

4.1.1 The information management resources and processes established by an aeronautical information service (AIS) will be adequate to ensure the timely collection, processing, storing, integration, exchange and delivery of quality assured aeronautical data and aeronautical information within the air traffic management (ATM) system.

4.2 Data quality specifications

4.2.1 Data Accuracy

4.2.1.1 The order of accuracy for aeronautical data will be in accordance with its intended use.

Note: - Specifications concerning the order of accuracy (including confidence level) for aeronautical data are contained in the Procedures for Air Navigation Services — Aeronautical Information Management (PANS-AIM, Doc 10066), Appendix 1.

4.2.2 Data Resolution

4.2.2.1 The order of resolution of aeronautical data will be commensurate with the actual data accuracy. Specifications concerning the resolution of aeronautical data are contained in the Appendix H.

4.2.3 Data Integrity

4.2.3.1 The integrity of aeronautical data will be maintained throughout the data chain from origination to distribution to the next intended user. Specifications concerning the integrity classification related to aeronautical data are contained in Appendix H.

4.2.3.2 Corruption of aeronautical data integrity can lead to jeopardizing the safety of the aircraft operations.

4.2.3.3 Based on the applicable integrity classifications, the validation and verification procedures should:

a) **for routine data:** avoid corruption throughout the processing of the data;

b) **for essential data:** assure corruption does not occur at any stage of the entire process and may include additional processes as needed to address potential risks in the overall system architecture to further assure data integrity at this level; and

c) **for critical data:** assure corruption does not occur at any stage of the entire process and include additional integrity assurance processes to fully mitigate the effects of faults identified by thorough analysis of the overall system architecture as potential data integrity risks.

Note 1: - Error producing faults in the entire process may be mitigated by additional data quality assurance techniques as required. These may include application tests for critical

data (for example, by flight check); the use of security, logic, semantic, comparison, and redundancy checks; digital error detection; and the qualification of human resources and process tools such as hardware and software.

Note 2: - Distribution to the next intended user will differ in the delivery method applied which may either be:

- *Physical distribution: - The means by which aeronautical data and aeronautical information distribution is achieved through the delivery of a physical package, such as postal services. or*
- *Direct electronic distribution: - The means by which aeronautical data and aeronautical information distribution is achieved automatically through the use of a direct electronic connection between the AIS and the next intended user via email and website.*

Note 3: - Different delivery methods and data media may require different procedures to ensure the required data quality.

4.2.4 Data traceability

4.2.4.1 Traceability of aeronautical data is ensured and retained as long as the data is in use.

4.2.5 Data timeliness

4.2.5.1 Timeliness of aeronautical data is ensured by including limits on the effective period of the data elements.

Note 1: - These limits may be associated with individual data elements or data sets.

Note 2: - If the effective period is defined for a data set, it will account for the effective dates of all of the individual data elements.

4.2.6 Data completeness

4.2.6.1 Completeness of aeronautical data is ensured in order to support its intended use.

4.2.7 Data format

4.2.7.1 The format of delivered aeronautical data is adequate to ensure that the data is interpreted in a manner that is consistent with its intended use.

4.3 Aeronautical data and aeronautical information verification and validation

4.3.1 The information to be issued as part of an Aeronautical Information Product is thoroughly checked before it is submitted to the AIM Department, in order to make certain that all necessary information has been included and that it is correct in detail prior to distribution.

4.3.2 The AIM Department has established Quality Management System for the verification and validation of aeronautical data and information before publication to ensure fulfilment of required quality level of data.

Verification activities:

a) ensure that each step mentioned in 2.4 of Service Level Agreement between (AIM Department and Data Originators) are fulfilled;

b) comparison processes in which aeronautical data and information are compared with an independent source;

c) feedback processes in which data and information are compared between their input and output state;

d) processing through multiple independent and different systems, comparing the output of each; this includes performing alternative calculations; and

e) processes in which data and information are compared to the originator's request.

Validation activities:

a) Check the authenticity of the data originator. The data must be originated or endorsed by the point of contact (POC) mentioned in SLA between AIM Department and the Data Originator.

b) Data and information are compared to an expected range, value or other business rules.

Note: The data/information's final validation is done by the endorsement of the Director General CAAN.

4.3.3 Depending on the nature of aeronautical data, AIM Department, may request the regulatory departments in CAAN such as ANS Safety Standard Department, Aerodrome Safety Standard Department, Flight Safety standard Department for verification and validation.

4.4 Data error detection

4.4.1 Digital data error detection techniques will be used during the transmission and/or storage of aeronautical data and digital data sets in order to maintain the integrity levels as specified.

Note. — Detailed specifications concerning digital data error detection techniques are contained in the PANS-AIM (Doc 10066).

4.5 Use of automation

4.5.1 Automation will be applied in order to ensure the quality, efficiency and cost-effectiveness of aeronautical information services.

Note. — Guidance material on the development of databases and the establishment of data exchange services is contained in Doc 8126.

4.5.2 Due consideration to the integrity of data and information will be given when automated processes are implemented and mitigating steps taken where risks are identified.

Note. — Risks of altering the integrity of data and information may be introduced by automated processes in cases of unexpected systems behaviors.

4.5.3 In order to meet the data quality requirements, automation should:

a) enable digital aeronautical data exchange between the parties involved in the data processing chain; and

b) use aeronautical information exchange models and data exchange models designed to be globally interoperable.

4.6 Quality Management System

4.6.1 A Quality management system (QMS) is implemented and maintained encompassing all functions of AIS, as outlined in 3.2. The execution of quality management system is made demonstrable by the Quality Management Division in AIM Department for each function stage as specified in the AIM Quality Manual.

Note 1.— Detailed guidance can be found in the Manual on the Quality Management System for Aeronautical Information Management (Doc 9839).

4.6.2 The general requirements for the QMS include:

a) the scope and processes of QMS as applied to AIS processes;

b) criteria and methods required to ensure the effective operation and control of these processes;

c) the availability of information necessary to support the operation and monitoring of these processes;

d) measure, monitor and analyze these processes, and implement action necessary to achieve planned results and continual improvement; and

e) appropriate records that are necessary to provide confidence of conformity of the processes and resulting product.

Note 1.— The International Organization for Standardization (ISO) 9000 series of quality assurance standards provide a basic framework for the development of a quality assurance programme.

Note 2. — Service Level Agreement concerning data quality between the data originator and the AIM Department & between the AIM Department and the next intended user may be used to manage the aeronautical information data chain.

4.6.3 Within the context of the established QMS, the competencies and the associated knowledge, skills and abilities required for each function is identified, and personnel assigned to perform those functions will be appropriately trained according to Training plan and program.

4.6.4 Processes will be in place to ensure that personnel possess the competencies required to perform specific assigned functions.

4.6.5 Appropriate records are maintained so that the qualifications of personnel can be confirmed and training record of all AIS personnel is maintained by AIM Department.

4.6.6 Initial and periodic assessments will be established that require personnel to demonstrate the required competencies. Periodic assessments of personnel will be used as a means to detect and correct shortfalls in knowledge, skills and abilities.

4.6.7 The QMS includes 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. Record and files related to the data amendments are retained both in soft and hard copy for traceability.

4.6.8 The QMS provides users with the necessary assurance and confidence that distributed aeronautical data and information satisfy the aeronautical data quality requirements.

- An Online feedback form is available for AIS users in the CAAN website, *https://caanepal.gov.np/aeronautical-information-product-form.*

4.6.9 All necessary measures are taken to monitor compliance with the QMS. Demonstration of compliance of the QMS is ensured through audit. For nonconformities identified, initiating action to correct its cause are determined and taken without undue delay. All audit observations and remedial actions are evidenced and properly documented.

4.7 Human Factors Considerations

4.7.1 Human Factors principles are taken into consideration to facilitate their optimum utilization during the organization of aeronautical information services as well as design, contents, processing and distribution of aeronautical data and aeronautical information.

4.7.2 Due consideration is given to the integrity of information where human interaction is required and mitigating steps taken where risks are identified.

4.7.3 Some human errors of general nature can be predicted in advance. The human – machine interface mainly consists of human (liveware) – software and human (liveware) – hardware links. Most of the aeronautical information/data is conveyed from the human to the machine by means of input devices such as keyboard and mouse. Human error is possible while entering any given aeronautical information/data into the system. Visual error or misreading can be caused by alpha numeric characters or coordinates which look similar to each other, lines of data which can be mistaken for each other, blocks of data which look alike.

4.7.4 To overcome such human errors, a system of checking, verification and supervision over the entry of aeronautical information/data is exercised at every stage of production and distribution of the complete integrated aeronautical information package.

Note: - Guidance material on Human Factors concepts can be found in the Human Factors Training Manual (Doc 9683).

Chapter 5

SCOPE OF AERONAUTICAL DATA AND AERONAUTICAL INFORMATION

5.1 General

The scope of aeronautical data and aeronautical information provides the minimum requirement to support aeronautical information products and services, aeronautical navigation data bases, air navigation applications, and Air Traffic Management systems.

5.2 Scope of aeronautical data and aeronautical information

5.2.1 The aeronautical data and aeronautical information to be received and managed by the AIM Department includes at least the following subdomains:

a) national regulations, rules and procedures;
b) aerodromes and heliports;
c) airspace;
d) air traffic services (ATS) routes;
e) instrument flight procedures;
f) radio navigation aids/systems;
g) obstacles;
h) terrain; and
i) geographic information.

Note 1: - Detailed specifications concerning the content of each sub-domain are contained in the PANS-AIM (Doc 10066), Appendix 1.

Note 2: - Aeronautical data and aeronautical information in each sub-domain may be originated by more than one organization or authority.

5.2.2 Determination and reporting of aeronautical data will be in accordance with the accuracy and integrity classification required to meet the needs of the end-user of aeronautical data.

Note: - Specifications concerning the accuracy related to aeronautical data are contained in the PANS-AIM (Doc 10066), Appendix 1.

5.3 Metadata

5.3.1 Metadata is collected for aeronautical data processes and exchange points.

5.3.2 Metadata collection is applied throughout the aeronautical information data chain, from origination to distribution to the next intended user.

Note: - Detailed specifications concerning metadata are contained in the PANS-AIM (Doc 10066).

Chapter 6

AERONAUTICAL INFORMATION PRODUCTS AND SERVICES

6.1 Introduction

Aeronautical information is provided by AIM Department in the form of aeronautical information products and associated services. Aeronautical information product is provided in a standardized presentation that includes the Aeronautical Information Publication (AIP), Amendments to AIP, AIP Supplements, Aeronautical Information Circular (AIC), NOTAM and Aeronautical Charts.

6.2 Aeronautical Information Publication (AIP)

6.2.1 The AIP Nepal is issued as a book as well as in electronic form (pdf format) of eAIP Nepal which is available on CAAN website- *https//caanepal.gov.np* under Publication heading.

6.2.2 The AIP/eAIP Nepal constitutes the basic information source for permanent information and long duration temporary changes. Refer to Appendix D for the contents of AIP Nepal.

6.3 AIP Supplement and Amendment to AIP (AIP SUP & AMDT)

6.3.1 Temporary changes of long duration (3 months or longer) and information of short duration which contains extensive text and/or graphics is published as AIP Supplement.

6.3.2 AIP Supplement pages are of yellow color to make it conspicuous. Each AIP Supplement is allocated a serial number which is consecutive and based on the calendar year (e.g., 03/2025). Refer to Appendix K for the sample of AIP SUP.

6.3.4 The AIP Supplements issued as AIRAC are indicated as 'AIRAC AIP Supplements' and those not issued as AIRAC are indicated as 'AIP Supplements'. Refer to Appendix L for the sample of AIRAC AIP SUP.

6.3.5 A Checklist of valid AIP Supplements is issued every month through the medium of printed plain language list of valid NOTAMS (The Valid NOTAM List). Refer to Appendix R for the sample of List of Valid NOTAM.

6.3.6 Temporary changes anticipated to last for less than three months are considered to be information of short duration and distributed by means of NOTAM. When the duration exceeds and expected to last for an additional three months or more, an AIP Supplement is issued replacing the NOTAM. Each AIP Supplement issued in replacement of a NOTAM includes a reference to the serial number of the NOTAM.

6.3.7 AIP, Amendments to AIP and AIP Supplements are distributed to all aerodromes and operational field offices of CAA Nepal and to the subscribers of AIS Products. Amendments to AIP and AIP supplements are made available by the most expeditious means.

6.3.8 ICAO Standard format is used for publication of information published in AIP, Amendment to AIP and AIP Supplement. Refer to Appendix M for the sample of AIRAC AIP AMDT.

6.4 Aeronautical Information Circulars

6.4.1 The responsibility to issue and disseminate Aeronautical Information Circulars (AICs) has been entrusted to Director General of Civil Aviation Authority of Nepal under Rule 83 of the Civil Aviation Regulation, 1992. After getting approval from Director General CAAN the job is executed by AIM Department.

6.4.2 Correspondence for aeronautical information should be made with AIM Department at the following address:

Aeronautical Information Management (AIM) Department
Civil Aviation Authority of Nepal,
Sinamangal, Kathmandu
Email: caanais@caanepal.gov.np / caanais2016@gmail.com
Phone: +977 1 5718027

6.4.3 Origination

6.4.3.1 An AIC is originated whenever it is necessary to promulgate aeronautical information which does not qualify either for inclusion in AIP or for the origination of a NOTAM.

6.4.3.2 An AIC is originated whenever it is desirable to promulgate:

a) a long-term forecast of any major change in legislation, regulations, procedures or facilities;

b) information of a purely explanatory or advisory nature liable to affect flight safety;

c) information or notification of an explanatory; or

d) Legislative or purely administrative matters.

6.4.3.3 Information to be promulgated as AIC include:

1) forecasts of important changes in air navigation procedures, services and facilities provided (e.g., new layout of control sectors, implementation plan of 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 communication 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) advance information on the snow plan;

21) other information of a similar nature.

6.4.4 General Specifications

6.4.4.1 An AIC is issued in printed form and also uploaded on CAAN website: e-aip.caanepal.gov.np. The selected AIC are given international distribution.

6.4.4.2 Each AIC is allocated a serial number which is consecutive and based on the calendar year. Refer to Appendix J for the sample of AIC.

6.4.5 Annual Review and Checklist

6.4.5.1 Since AIC information is often effective for long periods and requires little amendment, it will usually be found that AIC can remain outstanding for several years without inconvenience, if necessary. AIC checklist is reviewed on a yearly basis.

6.4.5.2 A checklist of AIC currently in force is issued monthly, with distribution via NOTAM Checklist.

6.4.6 Distribution

6.4.6.1 All AIP, AIP Amendments and AIP Supplements is distributed to recipients by the most expeditious means available. The current most expeditious means to distribute aeronautical information products is the internet. NOTAM is distributed through AMHS.

6.5 Aeronautical charts

6.5.1 The aeronautical charts listed below either form part of the AIP or are provided separately to recipients of the AIP:

a) Aerodrome/Heliport Chart — ICAO;

b) Aerodrome Ground Movement Chart — ICAO;

c) Aerodrome Obstacle Chart — ICAO Type A;

d) Aerodrome Obstacle Chart — ICAO Type B (when available);

e) Aircraft Parking/Docking Chart — ICAO;

f) Instrument Approach Chart — ICAO;

g) Standard Arrival Chart — Instrument (STAR) — ICAO;

h) Standard Departure Chart — Instrument (SID) — ICAO; and

i) En-route Chart — ICAO.

6.5.2 The Aeronautical Chart — ICAO 1:500 000 is published and printed by AIM Department and updated as and when required through outsourcing cartographic service.

6.6 NOTAM

6.6.1 Origination

6.6.1.1 A NOTAM will be originated and issued promptly whenever the information to be distributed is of a temporary nature, unplanned 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.

Note: - Information of short duration containing extensive text and/or graphics is published as an AIP Supplement. NOTAM are therefore intended to supplement AIP and serve as a fast medium for distributing information whenever it is necessary to give due warning of any change or occurrence, at short notice.

6.6.1.2 Operationally significant changes concerning circumstances listed in Annex 15, Chapter 6, Para 6.2, are issued under the Aeronautical Information Regulation and Control (AIRAC) system.

6.6.1.3 The basic purpose of NOTAM is the distribution of information in advance of the event to which it relates, except in the case of un-serviceability that cannot be foreseen. Thus, to realize its purpose a NOTAM will be received by the addressee in sufficient time for any required action to be taken.

6.6.1.4 A NOTAM will be originated and issued concerning the following information:

a) establishment, closure or significant changes in operation of aerodromes/heliports or runways;

b) establishment, withdrawal and significant changes in the 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 or service, change of identification, change of orientation (directional aids), change of location, power increase or decrease amounting to 50 per cent or more, change in broadcast schedules or contents, or irregularity or unreliability of operation of any electronic aid to air 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 manoeuvring 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 obstacle, 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 121.5 MHz is required;

p) allocation, cancellation or change of location indicators;

q) significant changes in the level of protection normally available at an aerodrome/ heliport for rescue and firefighting purposes. NOTAM will be originated only when a change of category is involved and such change of category will be clearly stated; (see Annex 14, Volume I, Chapter 9, and Attachment A, Section 18);

r) presence or removal of, or significant changes in, hazardous conditions due to snow, slush, ice, radioactive material, toxic chemicals, volcanic ash deposition 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.

6.6.1.5 The need for origination of a NOTAM will be considered in any other circumstance which may affect the operations of aircraft.

6.6.1.6 The following information will 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 work, 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/ heliports that do not affect the safe operation of aircraft;

d) partial failure of aerodrome/heliport 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 marshaling services and road traffic control;

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

h) parachuting when in uncontrolled airspace under VFR, when controlled, at promulgated sites or within danger or prohibited areas;

i) other information of a similar temporary nature.

6.6.2 Duration of NOTAM

6.6.2.1 Although not explicitly specified in Annex 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 will 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 will be issued in accordance with the sample given in Appendix K.

6.6.3 At least seven days' advance notice should be given of the activation of established danger, restricted or prohibited areas and of activities requiring temporary airspace restrictions other than for emergency operations. Notice of any subsequent cancellation of the activities or any

reduction of the hours of activity or the dimensions of the airspace will be given as soon as possible.

Note. – Whenever possible, at least 24 hours' advance notice is desirable, to permit timely completion of the notification process and to facilitate airspace utilization planning.

6.6.4 NOTAM notifying un-serviceability of aids to air navigation, facilities or communication services should give an estimate of the period of un-serviceability or the time at which restoration of service is expected.

6.6.5 General Specifications

6.6.5.1 Except as provided in case of SNOWTAM and ASHTAM, each NOTAM should contain the information in the order shown in the NOTAM Format as specified in Appendix C.

6.6.5.2 Text of NOTAM will be composed of the significations/uniform abbreviated phraseology assigned to the ICAO NOTAM Code complemented by ICAO abbreviations, indicators, identifier, designators, call signs, frequencies, figures and plain language. English text will be included for those parts expressed in plain language.

Note: - The ICAO NOTAM Code together with significations/uniform abbreviated phraseology, and ICAO Abbreviations are those contained in the PANS-ABC (Doc 8400).

6.6.5.3 Information concerning snow, slush, ice and standing water on aerodrome/heliport pavements should, when reported by means of SNOWTAM, contain the information in the order shown in the SNOWTAM Format in Appendix E of this manual.

6.6.5.4 Information concerning an operationally significant change in volcanic activity, a volcanic eruption and/or volcanic ash clouds will, when reported by means of an ASHTAM contain the information in the order shown in the ASHTAM Format in Appendix F of this manual.

6.6.5.5 For issuance of NOTAM the data originator should submit to the NOF/AIM Department a filed NOTAM Request Form as specified in the Appendix B.

6.6.5.6 A NOTAM series identified by a letter and a four-digit number followed by a stroke and a two-digit number for the year is allocated to each NOTAM. The four-digit number will be consecutive and based on the calendar year, e.g., A0050/24. Letters A/B/D is used to identify a NOTAM series. NOF/AIM Department issues NOTAM in A, B and D series.

6.6.5.7 When error occurs, the erroneous NOTAM is cancelled and a new NOTAM is issued.

6.6.5.8 When a new NOTAM is issued which cancels or replaces a previous NOTAM, the series and number of the previous NOTAM is indicated. The series, location indicator and subject of both NOTAM is the same.

6.6.5.9 One of the following message identifiers is 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/number/year of the NOTAM replaced. i.e., A0125/24 NOTAMR A0123/24.

c) NOTAMC if it concerns a NOTAM cancelling a previous NOTAM, followed by the series/number/year of the cancelled NOTAM, e.g. A0460/24 NOTAMC A0456/24.

6.6.5.10 Each NOTAM is dealt with only one subject and one condition of the subject. A NOTAM is as brief as possible and so compiled that its meaning is clear.

Note: - Guidance concerning the combination of a subject and a condition of the subject in accordance with the NOTAM Selection Criteria is contained in the Aeronautical Information Services Manual (Doc 8126).

6.6.5.11 Each NOTAM is transmitted as a single telecommunication message.

6.6.5.12 A NOTAM containing permanent or temporary information of long duration carries appropriate AIP reference.

6.6.5.13 Location indicators included in the text of a NOTAM is those contained in ICAO Location Indicators (Doc 7910). Where no ICAO location indicator is assigned to the location, its place name is entered in plain language i.e., in item 'E' of NOTAM

6.6.5.14 A checklist of valid NOTAM will be issued as a NOTAM over the Aeronautical Fixed Service (AFS) at intervals of not more than one month using the NOTAM Format specified in Appendix C. Separate NOTAM is issued for each series.

i. A checklist of valid NOTAM contains the latest edition of AIP, latest AIP Amendments, and checklist of AIP Supplements and AIC,

ii. A checklist of valid NOTAM has the same distribution as the actual message series to which they refer and is clearly identified as checklist.

Note: - Omitting a NOTAM from the checklist does not serve to cancel a NOTAM.

6.6.5.15 A monthly printed plan-language list of valid NOTAMs (NOTAM List), including indications of the latest edition of AIP, latest AIP Amendments, a checklist of AIP Supplements and AIC issued is prepared on the 16th day of each month and distributed with a minimum of delay and forwarded by the most expeditious means to recipients of the Aeronautical Information Products.

6.6.6 General Instructions for origination and cancellation of NOTAM

6.6.6.1 NOTAM is prepared in conformity with the relevant provisions of the ICAO communication procedures.

6.6.6.2 NOTAM is distributed on the basis of a request via the Aeronautical Fixed Services (AFS) and other suitable means of digital communication. A predetermined distribution system for NOTAM transmitted on the AFS is in accordance with Appendix G. NOF will select the NOTAM that are to be given international/domestic distribution. Selective Distribution Lists will be used when practicable.

6.6.6.3 International exchange of NOTAM takes place as mutually agreed between the international NOTAM offices concerned. The exchange of NOTAM between international NOTAM offices as far as practicable, is limited to the requirements of the receiving States concerned.

6.6.6.4 For issuance of NOTAM data originators e.g., ATM Department, Air Transport Department, Aerodrome Engineering Department, Air Transport Capacity Enhancement Project (ATCEP), Rescue and Fire Fighting Department, Departments/Divisions/Sections of International/Domestic Airports, Nepali Army etc. are required to submit a filed NOTAM Request Form as specified in Appendix B to NOF. Static nature data for pre-planned work that need DGCA approval for publication are required to submit through AIM Department.

6.6.6.5 Request for issuance of NOTAM by airport, not connected on AMHS, will be sent by FAX, E-mail or SSB with the name and designation of the data originator.

6.6.6.6 Before publication the text in the NOTAM format is verified with the NOTAM Request Form to detect any discrepancy or mistake.

6.6.6.7 Factual/typing/printing errors, if any noticed in AIP, AIP Amendment and AIP Supplement will be brought to the notice of the AIM Department for rectification.

6.6.6.8 The data originator for a NOTAM is responsible to ensure that request for cancellation of NOTAM is made when the facility becomes serviceable or the condition no longer exists.

6.6.6.9 When establishing or withdrawing facilities by publishing NOTAM, AIM Department should be informed for proper amendment of the relevant section/pages of AIP Nepal.

6.6.7 Priorities

6.6.7.1 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.

6.6.8 Cross-reference to AIP/AIP Supplement

6.6.8.1 When a NOTAM contains information that renders necessary an AIP or AIP Supplement the text must include an appropriate cross-reference to the affected AIP or AIP Supplement and an annotation will 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 (e.g., REF. AIP Nepal, VNKT AD 2.19).

6.6.8.2 When a NOTAM contains temporary information of short duration that does not render necessary the consultation of an AIP 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.

6.6.9 Instructions for the completion of the NOTAM Format

6.6.9.1 **General**

6.6.9.1.1 The NOTAM Format (see Appendix C) 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/data users.

6.6.9.1.2 The NOTAM Format consists of two parts:

a) first part for the communication service handling the AFS message, containing the priority indicator, addressees, date and time of filing and the originator's indicator;

b) second part containing the NOTAM information as follows:

i) the NOTAM series (identified by a letter from A to Z, excluding letters S and T), the NOTAM number (a consecutive four-digit number based on the calendar year, followed by a stroke and a two-digit number for the year) and the type of NOTAM (i.e., NOTAMN, NOTAMR or NOTAMC)

ii) Item Q) encodes the information in a set of predefined qualifiers, namely:

1) Flight Information Region (FIR),

2) NOTAM Code,

3) Traffic,

4) Purpose,

5) Scope,

6) Lower and Upper Limits, and

7) Coordinates and Radius

iii) Item A) provides information about the affected area;

iv) Item B) provides information about the start of the activity;

v) Item C) provides information about the end of the activity;

vi) Item D) provides information about the time schedule of the activity, if needed;

vii) Item E) provides information about the NOTAM in plain language (i.e., uniform abbreviated phraseology and, where necessary, ICAO abbreviations, indicators, identifiers, designators, call signs, frequencies, digits and plain language);

viii) Item F) provides information about the lower limit of the affected area, if needed; and

ix) Item G) provides information about the upper limit of the affected area, if needed.

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

6.6.9.2 **NOTAM numbering**

6.6.9.2.1 Each NOTAM will 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 (e.g., A0023/25). Each series must start on 1 January with number 0001.

6.6.9.3 **Qualifiers (Item Q)**

6.6.9.3.1 Item Q) is divided into eight fields, each separated by a stroke. For an easier automatic production of the PIB, all fields of Item Q) will be given a value; default values will be used where appropriate. The definition of each field is as follows:

6.6.9.3.2 FIR

a) If the subject of the information is located geographically within one FIR, the ICAO location indicator of the FIR concerned. When an aerodrome is situated within the overlying FIR of another State, the first field of Item Q) must 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 will be composed of the ICAO nationality letters of the State originating the NOTAM, followed by "XX". (The location indicator of the overlying UIR must not be used.) The ICAO location indicators of the FIRs concerned must then be listed in Item A) or indicator of State or non-governmental agency which is responsible for provision of 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" will be included. The ICAO location indicators of the FIRs concerned should 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.

6.6.9.3.3 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. For combinations of second, third, fourth, and fifth letters, insert the ICAO NOTAM codes listed in Appendix G of ICAO Doc 8126 or insert one of the following combinations, as appropriate:

a) If the subject is not listed in the NOTAM Code list, insert "XX" as the second and third letters (e.g., QXXAK);

b) If the condition of the subject is not listed in the NOTAM Code list, insert "XX" as the fourth and fifth letters (e.g., QFAXX);

c) When a NOTAM containing operationally significant information is issued and when it is used to announce existence of AIRAC Publication, 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) One of the following fourth and fifth letters of the NOTAM Code will 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

6.6.9.3.4 TRAFFIC

I = IFR

V = VFR

IV= IFR and VFR

K = NOTAM is a checklist

Note: - Depending on the NOTAM subject and content, the qualifier field TRAFFIC may contain combined qualifiers.

6.6.9.3.5 PURPOSE

N = NOTAM selected for the immediate attention of flight crew

B = NOTAM of operational significance selected for PIB entry

O = NOTAM concerning flight operations

M = Miscellaneous NOTAM; not subject for entry in PIB, but available on request

K = NOTAM is a checklist

Note: - Depending on the NOTAM subject and content, the qualifier field PURPOSE may contain the following qualifiers: K, B, BO, NBO or M.

6.6.9.3.6 SCOPE

A = Aerodrome

AE = Aerodrome and En-route

E = En-route

AW = Aerodrome and Nav warning

W = Nav Warning

K = NOTAM is a checklist

Note: - Depending on the NOTAM subject and content, the qualifier field SCOPE may contain combined qualifiers.

6.6.9.3.7 LOWER/UPPER – LOWER and UPPER limits is only expressed in flight levels (FL) and should 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 will be consistent with those provided under Items F) and G). The lower and upper limits are expressed in thousands of feet below the transition altitude and flight levels (FLs) above it.

6.6.9.3.7.1 If the subject does not contain specific height information, insert "000" for LOWER and "999" for UPPER as default values. The values in the qualifier Lower and Upper Limit are rounded down to the nearest 100 ft increment.

6.6.9.3.8 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., 2700N 08540E 043). Coordinates present approximate center of circle whose radius encompasses the whole area of influence (e.g., coordinates of aerodrome reference point for NOTAM with Scope A). If the NOTAM affects the entire FIR enter the default value "999" for radius.

6.6.9.4 **Item A)**

6.6.9.4.1 Insert the ICAO location indicator as contained in 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.

6.6.9.4.2 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).

Note. - 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.)

6.6.9.5 **Item B)**

6.6.9.5.1 Item B) specifies the beginning of the occurrence or activity or, in the case of a facility/service which becomes unusable, the date-time at which the NOTAM is filed.

6.6.9.5.2 To indicate the date and time at which the NOTAM comes into effect a ten-digit date time group including the year, month, day, hours and minutes in UTC (e.g., B) 2501171230, meaning 17 January 2025 at 1230 UTC) is used. In the case of NOTAMR and NOTAMC, the date-time group is the actual date and time of the NOTAM origination. The start of a day will be indicated by "0000".

6.6.9.6 **Item C)**

6.6.9.6.1 Item C) specifies the end of the occurrence or activity in a ten-digit date-time group (year, month, day, hours, minutes) in UTC. The end of a day is specified by 2359.

6.6.9.6.2 If the information is of a permanent nature, the abbreviation PERM (permanent) is inserted instead of the ten-digit date-time group. PERM is solely for NOTAM information that will be incorporated in the AIP and must be entered in the AIP as soon as possible, but not later than within three months. Item C) is not applicable for NOTAMC

6.6.9.6.3 If the information on timing is uncertain, the approximate duration will be indicated using a date-time group followed by the abbreviation “EST”. Any NOTAM which includes an “EST” will be cancelled or replaced before the date time specified in Item C).

6.6.9.7 **Item D)**

6.6.9.7.1 If applicable, Item D) specifies the time schedule or period(s) during which an occurrence takes place between the date-time groups in Items B) and C). If Item D) exceeds 200 characters, such information should be provided in a separate, consecutive NOTAM.

6.6.9.7.2 A time indication for each period of activity should be inserted. The first-time schedule in Item D) should correspond to the one in Item B). The last-time schedule in Item D) should correspond to the one in Item C).

6.6.9.8 **Item E)**

6.6.9.8.1 Item E), also called NOTAM text, must contain the information on the hazard, status of operation or condition of the facilities reported on.

6.6.9.8.2 Item E) specifies text of NOTAM in plain language and composed of uniform abbreviated phraseology (decoded NOTAM Code), complemented where necessary by ICAO abbreviations, indicators, identifiers, designators, call signs, frequencies, digits and plain language. Frequencies indicated in MHz always display all seven characters e.g., 112.650MHz. Frequencies indicated in KHz display up to five characters. The ‘0’ after the dot may be omitted e.g., 312KHz, 310.5KHz.

a) If lateral limits of an area are not published in the AIP or AIP SUP, the coordinates must be expressed in accordance with the following to ensure readability,

b) The points defining lateral limits of an irregular shape area must be enumerated in the clockwise order separated by hyphen"_". The coordinates of the first point must be repeated and enumerated as the last point on the list. For example:

E) AIR DISPLAY WILL TAKE PLACE WI LATERAL LIMITS

270812N0853830E – 270908N0853455E - 270445N0853647E -

270412N0853724E - 270812N0853830E

c) A circular shape area is defined by the word "RADIUS" followed by the value of the radius and its abbreviated unit of measurement followed by the words “CENTRE" followed by coordinates of the center of the circle. For example:

E) AIR DISPLAY WILL TAKE PLACE RADIUS 5KM CENTRE 274146 N 0852138 E.

d) In Item E), the latitude is presented in DDMM(SS.s)H where DD denotes degrees; MM denotes minutes; SS optionally denotes seconds, s optionally denotes tenths of seconds; and H denotes hemisphere, N for North or S for South.

e) In item E) the longitude is presented in DDDMM[SS.s]H where DDD denotes degrees; MM denotes minutes; SS optionally denotes seconds; s optionally denotes tenth of seconds; and H denotes hemisphere, W for West or E for East.

f) Resolution for coordinates must confirm to aeronautical data quality requirements listed in Appendix 1 of PANS-AIM, e.g., tenth of a minute must not be used.

g) Cardinal directions (N, S, E, W) and ordinal directions (NE, SE, SW, NW) must not be abbreviated but spelled out (e.g., NORTH, NORTHEAST, SOUTHWEST) when used in combination with aeronautical features that have similar sounding designations when abbreviated, e.g., taxiways. For Example:

E) TWY A AND C SOUTHWEST OF RWY 10/28 CLSD

E) USE CAUTION WHEN TAXIING DUE TO WIP EAST OF TWY F

h) An e-mail address is inserted in Item E) with the @ symbol replaced by the string "(A)", e.g. AIS(A)DONC. XX.

i) Text in Item E) relates to one NOTAM subject only, except in case of a trigger NOTAM.

j) In the case of NOTAMC, a subject reference and status message should be included to enable accurate plausibility checks.

6.6.9.9 **Item F) and G)**

6.6.9.9.1 These items are normally applicable to navigation warnings or airspace restrictions, but can be used for any other applicable subjects, and are usually part of the PIB entry. Both lower and upper limits of activities or restrictions are inserted, clearly indicating the same reference datum and unit of measurement in both fields.

6.6.9.9.2 Item F) is the lower limit expressed as an altitude in feet above mean sea level (AMSL), height above ground level (AGL), flight level (FL), surface (SFC) or ground level (GND).

6.6.9.9.3 There is no space between the value and the unit of measurement (e.g., 3000FT). There is a space between the reference datum and the unit of measurement (e.g., 3000FT AMSL). Other characters (e.g., /, -...) must not be used. The value 000 is not to be used in item G (lower limit). For Example:

a) Altitudes in meters and feet above mean sea level: F) 2000M AMSL, F) 6500FT AMSL

b) A height above ground level F) 1000M AGL

c) A flight level F) FL100

6.6.10 The NOTAM Code and Abbreviations

6.6.10.1 Introduction: NOTAM Code is provided to enable the coding of information regarding establishment, condition or change of radio aids, aerodromes and lighting facilities, dangers to aircraft, or search and rescue facilities. The NOTAM Code is a comprehensive description of information contained in NOTAM. It serves as an important criterion for storage and retrieval of information, and for deciding whether an item is of operational significance or not. It also establishes the relevance of the NOTAM to various types of flight operations and determines whether it must be part of a pre-flight information bulletin. In addition, it assists in specifying those items which are subject to immediate notification processes. The NOTAM Code also standardizes presentation of the related plain-language text required in Item E) of NOTAM Format. Thus, NOTAM Code is the basis for determination of the qualifiers TRAFFIC, PURPOSE and SCOPE used in Q (Qualifiers) line and the related text to appear in Item E) of the NOTAM Format.

6.6.10.2 Procedures: Transmission of NOTAM over international aeronautical telecommunication service is governed by the appropriate sections of Annex 10, Volume II, Annex 15 and PANS-AIM.

6.6.10.3 Composition

6.6.10.3.1 All NOTAM Code groups contain a total five letters. The first letter of the code group is always 'Q' to indicate a code abbreviation for use in the composition of NOTAM. The letter Q has been chosen to avoid conflict with any assigned radio call sign.

6.6.10.3.2 The second and third letters identify the subject reported upon and the fourth and fifth letters denote its status of operation. The code identifying subject or denoting its status of operation is, whenever possible, self-evident. Whenever more than one subject needs to be identified by the same self-evident code, the most important subject is chosen.

6.6.10.3.3 If the subject of the NOTAM is not listed in NOTAM Code, “XX” is inserted as the second and third letters.

6.6.10.3.4 If the condition of the subject is not listed in NOTAM Code, “XX is inserted as the fourth and fifth letters.

6.6.10.3.5 When a NOTAM is issued containing a checklist of valid NOTAM, "KKKK" is used as the second, third, fourth and fifth letters. When a NOTAM containing operationally significant information is issued in accordance with AIRAC – Chapter 7 of the manual and when it is used to announce the existence of AIRAC AIP Supplements (trigger NOTAM), “TT” is inserted as the fourth and fifth letters.

6.6.10.4 **Classification by subject**

6.6.10.4.1 Facilities, services and other information which require coding have been classified by subject into sections and subsections. The second letter of the code group, which may be any letter of the alphabet except Q, indicates the subject subsections as follows:

- AGA (Aerodromes)
  - LIGHTING facilities --L
  - MOVEMENT and landing area --M
  - FACILITIES and services --F
- COM (Communications)
  - COMMUNICATION and SURVEILLANCE facilities --C
  - INSTRUMENT and microwave landing systems --I
  - GNSS services --G
  - Terminal and en-route NAVIGATION facilities --N
- ATM (Air Traffic Management)
  - AIRSPACE organization --A
  - Air traffic and VOLMET SERVICES --S
  - Air traffic PROCEDURES --P
- Navigation Warnings
  - Airspace RESTRICTIONS --R
  - WARNINGS --W
- Other information
  - OTHER information --O

6.6.10.5 **Classification by status (fourth and fifth letters)**

6.6.10.5.1 The fourth letter of the code group, which may be any letter of the alphabet except Q, indicates status subsections as follows:

A	AVAILABILITY
C	CHANGES
H	HAZARD conditions
L	LIMITATIONS
XX	Other

6.6.10.5.2 The following fourth and fifth letters of the NOTAM Code will be used in NOTAM cancellations:

AK:	RESUMED NORMAL OPERATION
AL:	OPERATIVE (OR REOPERATIVE) SUBJECT TO PREVIOUSLY PUBLISHED LIMITATIONS/ CONDITIONS
AO:	OPERATIONAL
CC:	COMPLETED
CN:	CANCELLED
HV:	WORK COMPLETED
XX:	PLAIN LANGUAGE

6.6.10.6 Significations/uniform abbreviated phraseology

6.6.10.6.1 In order to facilitate the dissemination of NOTAM by reducing the transmission time over telecommunication channels, eliminate translation and provide a suitable pre-flight information bulletin entry, the approved uniform abbreviated phraseology assigned to each signification of a two-letter combination in the NOTAM Code –Decode part is to be used in preference to significations wherever possible.

6.6.10.7 Text in parentheses

6.6.10.7.1 The information necessary to complete a signification/uniform abbreviated phraseology, as indicated between parentheses, will be given as applicable.

6.6.10.8 Amplification of significations/ uniform abbreviated phraseology

6.6.10.8.1 The following is applicable to amplification of significations/uniform abbreviated phraseology:

a) amplifications relating to significations/uniform abbreviated phraseology of the second and third letters (subject of the NOTAM) must precede signification/uniform abbreviated phraseology of the NOTAM Code;

b) amplifications relating to significations/uniform abbreviated phraseology of the fourth and fifth letters (status of operation) must follow signification/uniform abbreviated phraseology of the NOTAM Code.

Examples (as applicable to Item E) of the NOTAM Format)

a) The runway touchdown zone lights of RWY 09 are not available due to power failure.

E) RWY 09 RTZL NOT AVBL DUE PWR FAILURE

b) The taxiway lights of taxiway B are obscured by snow.

E) TWY B LGT OBSCURED BY SN

c) On the strip of RWY 09/27 snow banks to a height of 15 ft. exist.

E) RWY 09/27 STRIP SN BANKS HGT 15 FT.

d) The minimum sector altitude in the sector 255 degree to 050-degree KTM changed to 12000 ft. MSL.

E) 250 DEG TO 050 DEG KTM MSA CHANGED 3600 FT MSL.

6.6.10.9 Use of NOTAM Code groups

6.6.10.9.1 Five-letter NOTAM Code groups are to be used in conjunction with the NOTAM Format. They also constitute the basis for determination of the qualifiers Traffic, Purpose and Scope. Both NOTAM Code groups and NOTAM qualifiers are to be inserted in Q (Qualifiers) line of the NOTAM Format.

6.6.10.9.2 Five-letter NOTAM Code groups are formed in the following manner:

FIRST LETTER

The letter Q (See 6.6.10.3.1.1)

SECOND AND THIRD LETTERS

The appropriate combination of two letters selected from the "Second and Third Letters" section of the NOTAM Code to identify the facility, service or danger to aircraft being reported upon.

FOURTH AND FIFTH LETTERS

The appropriate combination of two letters selected from the "Fourth and Fifth Letters" section of the NOTAM Code to denote the status of operation of the facility, service or danger to aircraft reported upon.

Examples

Note: - In the examples of NOTAM below, the letters Q to G inclusive, each followed by a closing parenthesis, identify an item in the NOTAM Format.

a) The distance measuring equipment (DME), at Kathmandu/TIA, will not be available from the 31st day of June 2024 at 2359 UTC until the 1st day of July 2024 at 0600 UTC.

NOTAM N

Q) VNSM/QNDAU/IV/BO/AE/…

A) VNKT B) 2406312359 C) 2407010600

E) DME NOT AVBL

Meaning of NOTAM:

Item Q):

- VNSM: ICAO location indicator identifying Kathmandu FIR in which the facility reported on is located;

- QNDAU: The letter "Q" identifies the five-letter code group as the NOTAM Code group. Second and third letters "ND" identifying "distance measuring equipment" and fourth and fifth letters

"AU" denoting that the facility is "not available";

- IV: Letters identifying that the information affects both IFR and VFR traffic;
- BO: Letters identifying that NOTAM is selected for pre-flight information bulletins entry and that it is operationally significant information for IFR flights;

- AE: Letters identifying that facility is serving a dual purpose as Aerodrome and en-route aid.

Item A):

- VNKT: ICAO location indicator identifying Kathmandu/TIA, the location of the facility being reported on.

Item B):

- 2406312359: Date/time group beginning of period of validity in which the facility is not available.

Item C):

- 2407010600: Date/time group of the end of the period of validity in which the facility is not available.

Item E):

- DME NOT AVBL: Plain-language entry using ICAO abbreviations.

b) With immediate effect, the VHF omnidirectional radio range on frequency 113.2 MHz KTM will be out of service until approximately the 2nd day of July 2024 at 0900 UTC.

NOTAM N:

Q) VNSM/QNVAS/IV/BO/AE/…

A) VNKT B) 2407020615 C) 2407020900 EST

E) VOR KTM on 113.2 MHZ U/S

Note: - In the above example, the amplification (i.e., VOR frequency 113.2 MHz relating to the second and third letters precedes the NOTAM Code significations.

c) Runway 27 at Janakpur airport is permanently closed for IFR operations.

NOTAM N

Q) VNSM/QMRLC/I/NB/OA/…

A) VNJP B) 2410151430

C) PERM

E) RWY 27 CLSD FOR IFR OPS

d) In the Montreal FIR, gun firing will take place on the 21st day of February 2024 from 0800 UTC until 1100 UTC within an area of 10 NM radius around the location 45037' North, 74000' West from the surface up to an altitude of 6 100m (20 000 ft) MSL.

NOTAM N

Q) CZUL/QWMLW/IV/BO/W/000/200/ 4537N07400W010

A) CZUL

B) 2402210800 C) 2402211100

E) GUN FRNG WILL TAKE PLACE IN THE AREA OF A RADIUS OF 10 NM CENTERED AT 45037N 07400W

F) SFC

G) 20000 FT AMSL

6.6.11 **The NOTAM Code – Decode**

6.6.11.1 Second and Third Letters

Code	Signification	Uniform abbreviated Phraseology
AGA		
Lighting facilities (L)		
LA	Approach lighting system (specify runway and type)	als
LB	Aerodrome beacon	abn
LC	Runway center line lights (specify runway)	rcll
LD	Landing direction indicator lights	ldi lgt
LE	Runway edge lights (specify runway)	redl
LF	Sequenced flashing lights (specify runway) sequenced	flg lgt
LG	Pilot Controlling Lighting	pcl
LH	High intensity runway lights (specify runway)	high intst rwy lgt
LI	Runway end identifier lights (specify runway)	rwy end id lgt
LJ	Runway alignment indicator lights (specify runway)	rai lgt
LK	Category II components of approach lighting system (Specify RWY)	cat ii components als
LL	Low intensity runway lights (specify runway)	low intst rwy lgt
LM	Medium intensity runway lights (specify runway)	medium intst rwy lgt
LP	Precision approach path indicator (specify runway)	papi
LR	All landing area lighting facilities	ldg area lgt fac
LS	Stop way lights (specify runway)	stwl
LT	Threshold lights (specify runway)	thr lgt
LU	Helicopter approach path indicator	hapi
LV	Visual approach slope indicator system (specify type and runway)	vasis
LW	Heliport lighting	hlgt
LX	Taxiway center line lights (specify taxiway)	twy cl lgt
LY	Taxiway edge lights (specify taxiway)	twy edge lgt
LZ	Runway touchdown zone lights (specify runway)	rtzl
AGA		
Movement and landing area (M)		
MA	Movement area	mov area
MB	Bearing strength (specify part of landing area or movement area)	bearing strength
MC	Clearway (specify runway)	cwy
MD	Declared distances (specify runway)	declared dist
MG	Taxiing guidance system	tgs
MH	Runway arresting gear (specify runway)	rag
MK	Parking area	prkg area
MM	Daylight markings (specify threshold, center line, etc.)	day markings
MN	Apron	apron

MO	Stop Bar (specify Taxiway)	stop bar
MP	Aircraft stands (specify)	acft stand
MR	Runway (specify runway)	rwy
MS	Stop way (specify runway)	swy
MT	Threshold (specify runway)	thr
MU	Runway turning bay (specify runway)	rwy turning bay
MW	Strip/Shoulder (specify runway)	strip
MX	Taxiway(s) (specify)	twy
MY	Rapid Exit Taxiway (specify)	retwy

AGA
Facilities and services (F)

FA	Aerodrome	AD
FB	Friction measuring device (specify type)	friction measuring device
FC	Ceiling measurement equipment	ceiling measurement eqpt
FD	Docking system (specify AGNIS, BOLDS, etc.)	dckg system
FE	Oxygen (specify type)	oxygen
FF	Firefighting and rescue	fire and rescue
FG	Ground movement control	gnd mov ctl
FH	Helicopter alighting area/platform	hel alighting area
FJ	Oils (specify type)	oil
FL	Landing direction indicator	ldi
FM	Meteorological service (specify type)	met
FO	Fog dispersal system	fg dispersal
FP	Heliport	heliport
FS	Snow removal equipment	sn removal eqpt
FT	Trans-missometer (specify runway and, where applicable, Designator of trans-missometer(s)	transmissometer
FU	Fuel availability	fuel avbl
FW	Wind direction indicator	wdi
FZ	Customs/Immigration	cust/immigration

CNS
Communications and surveillance facilities (C)

CA	Air/ground facility (specify service and frequency)	a/g fac
CB	Automatic dependent surveillance – broadcast (details)	ads-b
CC	Automatic dependent surveillance – contract (details)	ads-c
CD	Controller-Pilot Data Link Communications and Automatic Dependent Surveillance (specify application)	cpdlc/ads
CE	En-route Surveillance Radar	rsr
CG	Ground Controlled Approach System	gca
CL	Selective Calling System	selcal
CM	Surface Movement Radar	smr
CP	Precision Approach Radar (specify runway)	par

CR	Surveillance Radar Element of precision approach radar System (specify wavelength)	sre
CS	Secondary Surveillance Radar	ssr
CT	Terminal Area Surveillance Radar	tar

CNS
GNSS services (G)

GA	GNSS airfield-specific operations (specify operation)	gnss airfield
GW	GNSS area -wide operations (specify operation)	gnss area

CNS
Instrument and microwave landing system (I)

IC	Instrument landing system (specify runway)	ils
ID	DME associated with ILS	ils dme
IG	Glide path (ILS) (specify runway)	ils gp
II	Inner Marker (ILS) (specify runway)	ils im
IL	Localizer (ILS) (specify runway)	ils llz
IM	Middle marker (ILS) (specify runway)	ils mm
IN	Localizer (not associated with ILS)	llz
IO	Outer marker (ILS) (specify runway)	ils om
IS	ILS Category I (specify runway)	ils cat i
IT	ILS Category II (specify runway)	ils cat ii
IU	ILS Category III (specify runway)	ils cat iii
IW	Microwave landing system (specify runway)	mls
IX	Locator, outer (ILS) (specify runway)	ils lo
IY	Locator, middle (ILS) (specify runway)	ils lm

CNS
Terminal and en-route navigation facilities (N)

NA	All radio navigation facilities (except …)	all rdo nav fac
NB	Non-directional radio beacon	ndb
ND	Distance measuring equipment	dme
NF	Fan marker	fan mkr
NL	Locator (specify identification)	l
NM	VOR/DME	vor/dme
NN	TACAN	tacan
NT	VORTAC	vortac
NV	VOR	vor
NX	Direction-finding station (specify type and frequency)	df

ATM
Airspace organization (A)

AA	Minimum altitude (specify en-route/crossing/safe)	mnm alt
AC	Control zone	ctr
AD	Air defense identification zone	adiz
AE	Control area	cta
AF	Flight information region	fir
AL	Minimum usable flight level	mnm usable fl
AN	Area navigation route	rnav rte
AO	Oceanic control area	oca
AP	Reporting point (specify name or coded designator)	rep
AR	ATS route (specify)	ats rte
AT	Terminal control area	tma
AX	Significant Point	sig point
AZ	Aerodrome traffic zone	atz

ATM
Air Traffic and VOLMET services (S)

SA	Automatic terminal information service	atis
SB	ATS reporting office	aro
SC	Area control center	acc
SE	Flight information service	fis
SF	Aerodrome flight information service	afis
SL	Flow control center	flow ctl centre
SO	Oceanic area control center	oac
SP	Approach control service	app
SS	Flight service station	fss
ST	Aerodrome control tower	twr
SV	VOLMET broadcast	volmet

ATM
Air traffic procedures (P)

PA	Standard instrument arrival (specify route designator)	star
PB	Standard VFR arrival	std vfr arr
PD	Standard instrument departure (specify route designator)	sid
PE	Standard VFR departure	std vfr dep
PF	Flow control procedure	flow ctl proc
PH	Holding procedure	hldg proc
PI	Instrument approach procedure (specify type of runway)	instr apch proc
PK	VFR approach procedure	vfr apch proc
PM	Aerodrome operating minima (Specify procedure and amended minimum)	opr minima
PO	Obstacle clearance altitude and height (specify procedure)	oca och
PR	Radio failure procedure	rdo failure proc

PT	Transition altitude or transition level (specify)	ta/tral
PU	Missed approach procedure (specify runway)	missed apch proc
PX	Minimum holding altitude (specify fix)	mnm hldg alt
PZ	ADIZ procedure	adiz proc

Navigation Warnings
Airspace restrictions (R)

RA	Airspace reservation (specify)	airspace reservation
RD	Danger area (specify national prefix and number)	d
RM	Military operating area	moa
RO	Overflying of …. (specify)	overflying
RP	Prohibited area (specify national prefix and number)	p
RR	Restricted area (specify national prefix and number)	r
RT	Temporary restricted area (specify area)	tempo restricted area

Navigation Warnings
Warnings (W)

WA	Air display	air display
WB	Aerobatics	aerobatics
WC	Captive balloon or kite	captive balloon/kite
WD	Demolition of explosives	demolition of explosives
WE	Exercises (specify)	exer
WF	Air refueling	air refueling
WG	Glider flying	gld fly
WJ	Banner/target towing	banner/target towing
WL	Ascent of free balloon	ascent of free balloon
WM	Missile, gun or rocket firing	missile/gun/rocket/frng
WP	Parachute jumping exercise	pje
WR	Radioactive materials or toxic chemicals (specify)	radioactive materials/toxic chemicals
WS	Burning or blowing gas	burning/blowing gas
WT	Mass movement of aircraft	mass mov of acft
WV	Formation flight	formation flt
WW	significant volcanic activity	significant volcanic act
WY	Aerial survey	aerial survey

Other Information (O)

OA	Aeronautical information service	ais
OB	Obstacle (specify details)	obst
OE	Aircraft entry requirements	acft entry rqmnts
OL	Obstacle lights on …. (specify)	obst lgt
OR	Rescue coordination center	rcc

6.6.11.2 FOURTH AND FIFTH LETTERS

Code	Signification	Uniform abbreviated phraseology
Availability (A)		
AC	Withdrawn for maintenance withdrawn	maint
AD	Available for daylight operation	avbl day ops
AF	Flight checked and found reliable	fltck okay
AG	Operating but ground checked only, awaiting flight check	opr but gnd ck only, awaiting fltck
AH	Hours of service are now … (specify)	hr ser
AK	resumed normal operation	okay
AL	Operative (or re-operative) subject to previously published Limitations/conditions	opr subj previous cond
AM	Military operations only	mil ops only
AN	Available for night operation	avbl ngt ops
AO	Operational	opr
AP	Available, prior permission required	avbl, ppr
AR	Available on request	avbl o/r
AS	Unserviceable	u/s
AU	Not available (specify reason if appropriate)	not avbl
AW	Completely withdrawn	withdrawn
AX	Previously promulgated shutdown has been cancelled	shutdown cnl promulgated
Changes (C)		
CA	Activated	act
CC	Completed	cmpl
CD	Deactivated	deactivated
CE	Erected	erected
CF	Operating frequency (ies) changed to	opr freq changed to
CG	Downgraded to	downgraded to
CH	Changed	changed
CI	Identification or radio call sign changed to	ident/rdo call sign changed to
CL	Realigned	realigned
CM	Displaced	displaced
CN	Cancelled	cnl
CO	Operating	opr
CP	Operating on reduced power	opr reduced pwr
CR	Temporarily replaced by	tempo rplcd by
CS	Installed	instl
CT	On test, do not use	on test, do not use

Hazard Conditions (H)

HA	Braking action is … 1) Poor 2) Medium/Poor 3) Medium 4) Medium/Good 5) Good	ba is…
HB	Friction coefficient is …(specify friction measuring device used)	friction coefficient is
HC	Covered by compacted snow to a depth of	cov compacted sn depth
HD	Covered by dry snow to a depth of	cov dry sn depth
HE	Covered by water to a depth of	cov water depth
HF	Totally free of snow and ice	free of sn and ice
HG	Grass cutting in progress	grass cutting inpr
HH	Hazard due to (specify)	hazard due
HI	Covered by ice	cov ice
HJ	Launch planned … (specify balloon flight identification or project code name, launc site, planned period of launch(es) – date/time, expected climb direction, estimated time to pass 18 000 m (60 000 ft), or reaching cruise level if at or below 18 000 m (60 000 ft), together with estimated location)	launch plan
HK	Bird migration in progress (specify direction)	bird migration inpr
HL	Snow clearance completed	sn clr cmpl
HM	Marked by	marked by
HN	Covered by wet snow or slush to a depth of	cov wet sn/slush depth
HO	Obscured by snow	obscured by sn
HP	Snow clearance in progress	sn clr inpr
HQ	Operation cancelled … (specify balloon flight identification or project code name)	opr cnl
HR	Standing water	standing water
HS	Sanding in progress	sanding inpr
HT	Approach according to signal area only	
HU	Launch in progress … (specify balloon flight identification or project code name, launch site, date/time of launch(es), estimated time passing 18 000 m (60 000 ft), or reaching cruising level if at or apch according signal below 18 000 m (60 000 ft), together with estimated location, estimated date/time of termination of the flight and planned location of ground contact, when applicable)	launch inpr
HV	Work completed	work cmpl
HW	Work in progress	wip
HX	Concentration of birds	bird concentration
HY	Snow banks exist (specify height)	sn banks hgt
HZ	Covered by frozen ruts and ridges	cov frozen ruts and ridges

Limitation (L)

LA	Operating on auxiliary power supply	opr aux pwr
LB	Reserved for aircraft based therein	reserved for acft based therein
LC	Closed	clsd
LD	Unsafe	unsafe
LE	Operating without auxiliary power supply	opr aux wo pwr
LF	Interference from	interference fm
LG	Operating without identification	opr wo ident
LH	Unserviceable for aircraft heavier than	u/s acft heavier than
LI	Closed to IFR operations	clsd ifr ops
LK	Operating as a fixed light	opr as f lgt
LL	Usable for length of … and width of …	usable len…/wid…
LN	Closed to all night operation	clsd to all ngt ops
LP	Prohibited to	prohibited to
LR	Aircraft restricted to runways and taxiways	acft restricted to rwy and twy
LS	subject to interruption	subj intrp
LT	Limited to	ltd to
LV	Closed to VFR operations	clsd vfr ops
LW	Will take place	will take place
LX	Operating but caution advised due to	opr but ctn advised due to

Other (XX)

XX	Plain language

6.6.12 Trigger NOTAM

6.6.12.1 When an AIP Amendment or an AIP Supplement is published in accordance with AIRAC procedures, a trigger NOTAM must be originated and promulgated. The intent of a trigger NOTAM is to serve as a reminder in the PIB that operationally significant permanent or temporary changes to the AIP are coming into effect, 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 the AIP to insert a new AIRAC AIP Amendment or AIRAC AIP Supplement in the affected AIP on the effective date.

6.6.12.2 A trigger NOTAM contains a brief description of the contents of the AIRAC AIP Amendment or supplement, the effective date and time and the reference number of the AIRAC AIP Amendment or supplement. A trigger NOTAM should be issued at least 28 days before the effective date, preferably on the publication date, and must come into force on the same effective date as the AIRAC AIP Amendment or supplement. It remains valid for a period of 14 days. This NOTAM must come into force on the same date as the supplement or amendment to which it refers. The text of the trigger NOTAM is included in the PIB and should remain valid for a period of fourteen days to ensure that pilots and operators are reminded that changes of operational significance will take place as of a given effective date

6.6.12.3 Information concerning any circumstances listed in chapter 7, para 7.2 is distributed using AIRAC procedures as an AIRAC AIP Supplement, AIRAC AIP Amendment.

6.6.12.4 Trigger NOTAM are issued:

a) A trigger NOTAM is issued at least 28 days before the effective date, preferably on the publication date, and must come into force on the same effective date as the AIRAC AIP Amendment or supplement. It remains valid for a period of 14 days.
b) in the appropriate NOTAM series, according to the information it contains;
c) 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;

Note: - In the case of multiple subjects, the qualifiers TRAFFIC, PURPOSE and SCOPE will be filled in according to the subject of highest operational importance.

6.6.12.5 Trigger NOTAM are issued in accordance with the same instructions as for any other NOTAM with the following exceptions:

Specification for trigger NOTAM
Qualifiers (Item Q)

Qualifiers NOTAM CODE

The second and third letters (subject) are selected from Appendix G (ICAO DOC 8126) and must never be the letters XX. If there is no suitable selection, then FA for aerodromes and AF for FIR must be used. In the case of multiple subjects for the same aerodrome or FIR, the second and third letters are selected according to the subject of highest operational importance

The fourth and fifth letters (condition) always contain the letters TT. This exclusive TT condition must be used in trigger NOTAM regardless of the subject of the NOTAM Code listed in Appendix G(ICAO DOC 8126)

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

Qualifier Traffic

The following are valid entries as published in NOTAM Selection Criteria: I = IFR
V = VFR

PURPOSE

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

Qualifier Scope

The following are valid entries as published in NOTAM Selection Criteria:
A = Aerodrome
E = En-route
W = Nav warning

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.

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) 2407271000 (AIRAC effective date-time)
C) 2407271000 (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 date-time 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.

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.

Note: - 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).

Trigger NOTAM relative to AIRAC AIP Amendments

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)EACC/QARTT/I/BO/E/245/999/5223N03156E999
A) EACC
B) 2503261000
C) 2504091000
E) TRIGGER NOTAM — PERM AIRAC AIP AMDT 32/25 WEF 26 MAR 2025 ···IMPLEMENTATION OF NEW ATS ROUTE UA15

Trigger NOTAM relative to AIRAC AIP Supplements

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 of an AIRAC AIP Supplement
A0118/20 NOTAMN Q) EACC/QFATT/IV/BO/A/000/999/5223N03156E005
A) EADA
B) 2504231000
C) 2505071000
E) TRIGGER NOTAM — AIRAC AIP SUP 11/20 WEF 23 APR 2025 UNTIL 07 MAY 2025 ···USE OF AD RESTRICTED DUE TO WI.

a) The Trigger NOTAM shall come into force on the same effective date and time as the amendment or supplement and shall remain valid in the pre-flight information bulletin for a period of fourteen days.

b) In the case of an AIP Supplement, the Trigger NOTAM shall remain valid for a period of fourteen days.

c) In the case of an AIP Supplement that is valid for less than fourteen days, the Trigger NOTAM shall remain valid for the complete validity period of the AIP Supplement.

d) In the case of an AIP Supplement that is valid for fourteen days or more, the Trigger NOTAM shall remain valid for at least fourteen days

6.6.12.6 AIP Supplements become effective at the date stated in the supplement. Information to be published using AIRAC procedures always start on an AIRAC cycle date (major works, large air exercises, etc.). The AIP Supplement and the trigger NOTAM must contain the effective date/time of the information.

6.6.12.7 AIP Supplements normally contain information of a temporary nature, the duration of the validity of which is known or unknown ("until approximately"). AIP Supplements of unknown duration will be replaced in due time by another supplement (if required).

6.6.12.8 Generally, changes to an AIRAC AIP Supplement are announced by replacing it with 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 NOTAM referring to the AIP SUP. Note that in Example 2, the end time in Item C) is the original expiration time of the AIRAC AIP SUP 11/20, namely 07 May 2020

6.6.12.9 Cancellation of AIP Supplements containing non-AIRAC information by NOTAM

6.6.12.9.1 For these AIP Supplements, normally no trigger NOTAM would have been issued. In case of cancellation before the end of their validity, a NOTAN may be issued. Such NOTAM must always contain the PURPOSE qualifier "M" (Miscellaneous NOTAM) and must remain in force for 24 hours in order to allow recipients to remove the cancelled data from the AIP.

6.6.12.10 Replacement of NOTAM by an AIP Supplement

6.6.12.10.1 Publication of an AIP Supplement to replace and modify information of an existing NOTAM may occur at any time. If the validity of the information published by NOTAM is extended more than three months, The NOTAM is replaced by AIP Supplement.

6.6.12.11 Cancellation/Replacement of trigger NOTAM

6.6.12.11.1 Basic cancellation rules for NOTAM apply. Trigger NOTAM relative to AIRAC AIP Amendments is self-canceling 14 days after the effective date of the amendment. Trigger NOTAM relative to AIP Supplements will be cancelled according to the following:

a) If Item C) is a fixed date, the trigger NOTAM will be automatically cancelled on this date. Exceptionally, the end date specified in the AIP Supplement may be brought forward by NOTAM. In this case, at the date of cancellation (new end of validity), a trigger NOTAMR is issued that remains in force a maximum of 14 days. It can be in force less than 14 days if the originally published end of validity of the supplement is reached within this 14day period. In this case, the Item C) date of the trigger NOTAMR will be identical to the end of validity date of the supplement. The text in Item E) must clearly indicate that the planned end date has been brought forward.

Example:
A0034/03 NOTAMN
Q) VNSM/QFATT/IV/OB/A/000/999/5739N01217E005
A) VNKT B)2404170001 C)2409042400

E) TRIGGER NOTAM – AIRAC AIP SUP 14/2024 USE OF AERODROME RESTRICTED DUE TO MAJOR CONSTRUCTION WORK.

A0126/03 NOTAMR A0034/03
Q) VNSM/QFATT/IV/OB/A/000/999/5739N01217E005

A) VNKT B) 2409040001 C) 2410302400

E) REF AIRAC AIP SUP 14/25 WORK HAS BEEN COMPLETED. THE RESTRICTIONS PUBLISHED IN SUP 14/25 ARE NO LONGER IN FORCE.

b) If Item C) is an estimated date (EST), a trigger NOTAMR will be published to replace the existing trigger NOTAM at the appropriate time (i.e. before the Item C) time has been reached). Such trigger NOTAMR must follow the same rules for origination as explained above. Trigger NOTAM with an estimated end date will be cancelled by the publication of a normal NOTAMC at the appropriate time (i.e. the time at which the issuing NOF is informed that the situation described in the AIP Supplement has ended).

6.6.12.12 Instructions for the Completion of The SNOWTAM Format

6.6.12.12.1 General

6.6.12.12.2 A special series of NOTAM, named SNOWTAM is used to notify the presence or removal of hazardous conditions on the movement area due to snow, slush, ice or water associated with these conditions. When the SNOWTAM Format is used in accordance with Appendix E, the information will be given in the order shown in the format.

a) When reporting on two or three runways, repeat Items C to P inclusive.
b) Items together with their indicator will be dropped completely, where no information is to be included.
c) Metric units will be used and the unit of measurement not reported.
d) The maximum validity of SNOWTAM is 24 hours. New SNOWTAM will be issued whenever there is a significant change in conditions. The following changes relating to runway conditions are considered as significant:

1) a change in the coefficient of friction of about 0.05;
2) changes in depth of deposit greater than the following: 20 mm for dry snow, 10 mm for wet snow, 3 mm for slush;
3) a change in the available length or width of a runway of 10 per cent or more;
4) any change in the type of deposit or extent of coverage which requires reclassification in Items F or T of the SNOWTAM;
5) when critical snow banks exist on one or both sides of the runway, any change in the height or distance from centre line;
6) any change in the conspicuity of runway lighting caused by obscuring of the lights;
7) any other conditions known to be significant according to experience or local circumstances

e) The abbreviated heading "TTCAANiii 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-figure 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 to SNOWTAM message previously disseminated with the same serial number = COR.

Note: - Brackets in (BBB) are used to indicate that this group is optional

Example: Abbreviated heading of SNOWTAM No. 149 from Zurich, measurement/observation of 07 October at 0620 UTC:

SWLS0149 LSZH 10070620

6.6.12.13 Item A – Aerodrome location indicator (four-letter location indicator).

6.6.12.14 Item B – eight-figure date/time group – giving time of observation as month, day, hour and minute in UTC; this item must always be completed.

6.6.12.15 Item C – Lower runway designator number.

6.6.12.16 Item D – Cleared runway length in metres, if less than published length (see Item T on reporting on part of runway not cleared).

6.6.12.17 Item E – Cleared runway width in metres, if less than published width; if offset left or right of centre line, add "L" or "R", as viewed from the threshold having the lower runway designation number.

6.6.12.18 Item F – Deposit over total runway length as explained in SNOWTAM Format. Suitable combinations of these numbers may be used to indicate varying conditions over runway segments. If more than one deposit is present on the same portion of the runway, they will be reported in sequence from the top to the bottom. Drifts, depths of deposit appreciably greater than the average values or other significant characteristics of the deposits may be reported under Item T in plain language.

6.6.12.19 Item G – Mean depth in millimeters deposit for each third of total runway length, or "XX" if not measurable or operationally not significant; the assessment to be made to an accuracy of 20 mm for dry snow, 10 mm for wet snow and 3 mm for slush.

6.6.12.20 Item H – Friction measurements on each third of the runway and friction measuring device. Measured or calculated coefficient (two digits) or, if not available, estimated surface friction (single digit) in the order from the threshold having the lower runway designation number. Insert a code 9 when surface conditions or available friction measuring device do not permit a reliable surface friction measurement to be made. Use the following abbreviations to indicate the type of friction measuring device used:

BRD	Brakemeter-Dynometer
GRT	Grip tester
MUM	Mumeter
RFT	Runway friction tester
SFH	Surface friction tester (high-pressure tire)
SFL	Surface friction tester (low- pressure tire)
SKH	Skiddometer (high- pressure tire)

SKL	Skiddometer (low- pressure tire)
TAP	Tapley meter

If other equipment is used, specify in plain language.

6.6.12.21 Item J - Critical snow banks. If present insert height in centimeters and distance from edge of runway in meters followed by left ("L") or right ("R") side or both sides ("LR"), as viewed from the threshold having the lower runway designation number.

6.6.12.22 Item K – If runway lights are obscured, insert "YES" followed by "L", "R" or both "LR", as viewed from the threshold having the lower runway designation number.

6.6.12.23 Item L – When further clearance will be undertaken, enter length and width of runway or "TOTAL" if runway will be cleared to full dimensions.

6.6.12.24 Item M – Enter the anticipated time of completion in UTC.

6.6.12.25 Item N – The code for Item F may be used to describe taxiway conditions; enter "NO" if no taxiways serving the associated runway are available.

6.6.12.26 Item P – If applicable, enter "YES" followed by the lateral distance in metres.

6.6.12.27 Item R – The code for Item F may be used to describe apron conditions; enter "NO" if the apron is unusable.

6.6.12.28 Item S – Enter the anticipated time of next observation/measurement in UTC.

6.6.12.29 Item T – Describe in plain language any operationally significant information but always report on length of un-cleared runway (Item D) and extent of runway contamination (Item F) for each third of the runway (if appropriate) in accordance with the following scale:

Runway contamination – 10% - if less than 10% of runway contaminated
Runway contamination – 25% - if 11- 25% of runway contaminated
Runway contamination – 50% - if 26- 50% of runway contaminated
Runway contamination – 100% - if 51-100% of runway contaminated.

6.6.12.30 Example of Completed SNOWTAM Format

GG EHAMZQZX EDDFZQZX EKCHZQZX

070645 LSZHYNYX

SWLS0149 LSZH 11070620

(SNOWTAM 0149

A) LSZH B) 11070620 C) 02 D)… P)

C) 09 D)… P)

C) 12 D)… P)

R) NO S) 11070920 T) DEICING)

6.6.12.31 Definitions of the various types of snow

6.6.12.31.1 **Slush.** Water-saturated snow which with a heel-and-and-toe slap-down motion against the ground will be displaced with a splatter; specific gravity: 0.5 up to 0.8.

Note: - Combinations of ice, snow and/or standing water may, especially when rain, rain and snow, or snow is falling, produce substances with specific gravities in excess of 0.8. These substances, due to their high water/ice content, will have a transparent rather than a cloudy appearance and, at the higher specific gravities, will be readily distinguishable from slush.

6.6.12.31.2 **Snow** (on the ground)

a) **Dry snow.** Snow which can be blown if loose or, if compacted by hand, will fall apart again upon release; specific gravity: up to but not including 0.35.

b) **Wet snow**. Snow which, if compacted by hand, will stick together and tend to or form a snowball; specific gravity: 0.35 up to but not including 0.5.

c) **Compacted snow**. Snow which has been compressed into a solid mass that resists further compression and will hold together or break up into lumps if picked up; specific gravity: 0.5 and over.

6.6.13 Instructions for the Completion of the ASHTAM Format

6.6.13.1 General

6.6.13.1.1 A special series of NOTAM called ASHTAM, is used to notify an operationally significant change in volcanic activity, the location, date & time of volcanic eruption and/or horizontal and vertical extent of volcanic ash clouds including direction of movement, flight levels and routes or portions of route which could be affected. A special Format is prescribed for this purpose. When the ASHTAM Format is used in accordance with Appendix F, the information will be given in the order shown in the Format.

6.6.13.1.2 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.

6.6.13.1.3 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.

6.6.13.1.4 Issuance of an ASHTAM giving information on a volcanic eruption, will not be delayed until complete information A) to K) is available but will 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) will 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 will 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".

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

6.6.13.2 Abbreviated heading

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

TT = designator for ASHTAM = VA

AA = geographical designator for States, e.g. NZ = New Zealand (see Location Indicators (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 (Doc 7910), Part 5, addresses of centres in charge of FIR;

MMYYGGgg = date/time of report, whereby:

MM = month, e.g. January = 01, December = 12

YY = date 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.

Note: - Brackets in (BBB) are used to indicate that this group is optional Example:
Abbreviated heading of ASHTAM for Auckland Oceanic FIR, report on 07th October at 0620 UTC:

VANZ0001 NZZO 10070620

6.6.13.3 Content of ASHTAM

Item A – Flight information region affected, plain-language equivalent of the location indicator given in the abbreviated heading, in this example "Auckland Oceanic FIR" (Refer Appendix F)

6.6.13.3.1 Item B – Date and time (UTC) of first eruption.

6.6.13.3.2 Item C – name of volcano, and number of volcano as listed in the ICAO Manual of Volcanic Ash, Radioactive Material and Toxic Chemical Clouds (Doc 9691), Appendix F, and on the World Map of Volcanoes and Principal Aeronautical Features). If an ASHTAM has to be created for a volcano not listed in ICAO Doc 9691, the "existence" of the volcano will be promulgated by NOTAM with Item C) containing the abbreviation PERM.

6.6.13.3.3 Item D – Latitude/Longitude of the volcano in whole degrees or radial and distance of volcano from NAVAID (as listed in the ICAO Manual on Volcanic Ash, Radioactive Material and Toxic Chemical Clouds (Doc 9691), Appendix F, and on the World Map of Volcanoes and Principal Aeronautical Features).

6.6.13.3.4 Item E – Color code for level of alert indicating volcanic activity, including any previous level of alert color code as follows:

Level of alert Color code	Status of activity of volcano
RED ALERT	Volcanic eruption in progress. Ash plume/cloud reported above FL 250. or Volcano dangerous, eruption likely, with ash plume/cloud expected to rise above FL 250
ORANGE ALERT	Volcanic eruption in progress but ash plume/cloud not reaching nor expected to reach FL 250. or Volcano dangerous, eruption likely but ash plume/cloud not expected to reach FL 250.
YELLOW ALERT	Volcano known to be active from time to time and volcanic activity has recently increased significantly, volcano not currently considered dangerous but caution will be exercised. or (After an eruption, i.e. change in alert to yellow from red or orange.) Volcanic activity has decreased significantly, volcano not currently considered dangerous but caution will be exercised.

GREEN ALERT Volcanic activity considered to have ceased and volcano reverted to its normal state.

Note. – The color code for the level of alert indicating the status of activity of the volcano and any change from a previous status of activity will be provided to the area control centre by the responsible vulcanological agency in the State concerned, e.g. "RED ALERT FOLLOWING YELLOW" OR "GREEN ALERT FOLLOWING ORANGE".

6.6.13.3.5 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.

6.6.13.3.6 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.

6.6.13.3.7 Item H – Indicate air routes and portions of air routes and flight levels affected, or expected to become affected.

6.6.13.3.8 Item I – Indicate closure of airspace, air routes or portions of air routes, and availability of alternative routes.

6.6.13.3.9 Item J – Source of information, e.g. "special air-report" or "volcanological agency", etc. The source of information should always be indicated, whether an eruption has actually occurred or ash cloud reported, or not.

6.6.13.3.10 Item K – Include in plain language any operationally significant information additional to the foregoing.

6.6.14 Distribution

6.6.14.1 NOTAMs are originated and distributed by the International NOTAM Offices (NOF) located at Tribhuvan International Airport. NOTAMs are distributed in three series identified by the letters A, B, D as follows:

Series A. Information on general rules, en-route navigation and communication facilities, airspace restrictions and activities taking place above FL245, including information concerning major international aerodromes.

Series B. Information on airspace restrictions, on activities taking place below FL245 and on other international aerodromes at which IFR flights are permitted.

Series D. Information on national aerodromes.

Note. – The NOTAM of each series are allocated a serial number by the respective NOTAM Offices, commencing with No.0001 preceded by the designated letter of the series A, B, and D as the case may be at 0000UTC on 1st January every year.

6.7 Digital data sets

6.7.1 General

6.7.1.1 Digital data will be in the form of the following data sets:

a) AIP data set;
b) Terrain data sets;
c) Obstacle data sets;
d) Aerodrome mapping data sets; and
e) Instrument flight procedure data sets.

Note: - Detailed specifications concerning the content of the digital data sets are contained in the PANS-AIM (Doc 10066).

6.7.1.2 Each data set will be provided to the next intended user together with at least the minimum set of metadata that ensures traceability.

Note: - Detailed specifications concerning metadata are contained in the PANSAIM (Doc 10066).

6.7.1.3 A checklist of valid data sets will be regularly provided.

6.7.2 AIP data set

6.7.2.1 An AIP data set will be provided covering the extent of information as provided in the AIP.

6.7.2.2 When it is not possible to provide a complete AIP data set, the data subset(s) that are available will be provided.

6.7.2.3 The AIP data set should contain the digital representation of aeronautical information of lasting character (permanent information and long duration temporary changes) essential to air navigation.

6.7.3 Terrain and obstacle data sets

Note 1: - Numerical requirements for terrain and obstacle data sets and requirements for terrain and obstacle data collection surfaces are contained in the Appendix I.

6.7.3.1 The coverage areas for terrain and obstacle data sets will be specified as:

— Area 1: the entire territory of a State;
— Area 2: within the vicinity of an aerodrome, subdivided as follows:
— Area 2a: a rectangular area around a runway that comprises the runway strip plus any clearway that exists;

Note: - See Annex 14, Volume I, Chapter 3, for dimensions for runway strips.

- Area 2b: an area extending from the ends of Area 2a in the direction of departure, with a length of 10 km and a splay of 15 per cent to each side;
- Area 2c: an area extending outside Area 2a and Area 2b at a distance of not more than 10 km from the boundary of Area 2a; and
- Area 2d: an area outside Areas 2a, 2b and 2c up to a distance of 45 km from the aerodrome reference point, or to an existing terminal control area (TMA) boundary, whichever is nearest;
- Area 3: the area bordering an aerodrome movement area that extends horizontally from the edge of a runway to 90 m from the runway center line and 50 m from the edge of all other parts of the aerodrome movement area; and
- Area 4: the area extending 900 m prior to the runway threshold and 60 m each side of the extended runway centre line in the direction of the approach on a precision approach runway, Category II or III.

6.7.3.2 Where the terrain at a distance greater than 900 m (3000 ft) from the runway threshold is mountainous or otherwise significant, the length of Area 4 will be extended to a distance not exceeding 2000 m (6500 ft) from the runway threshold.

6.7.3.3 **Terrain data sets**

6.7.3.3.1 Terrain data sets should contain the digital representation of the terrain surface in the form of continuous elevation values at all intersections (points) of a defined grid, referenced to common datum.

6.7.3.3.2 Terrain data will be provided for Area 1.

6.7.3.3.3 For aerodromes regularly used by international civil aviation, terrain data will be provided for:

a) Area 2a;
b) the take-off flight path area; and
c) an area bounded by the lateral extent of the aerodrome obstacle limitation surfaces.

6.7.3.3.4 For aerodromes regularly used by international civil aviation, additional terrain data will be provided within Area 2 as follows:

a) in the area extending to a 10-km radius from the ARP; and
b) within the area between 10 km and the TMA boundary or a 45-km radius (whichever is smaller), where terrain penetrates a horizontal terrain data collection surface specified as 120 m above the lowest runway elevation.

6.7.3.3.5 Arrangements will be made for coordinating the provision of terrain data for adjacent aerodromes where their respective coverage areas overlap to assure that the data for the same terrain is correct.

6.7.3.3.6 For those aerodromes located near territorial boundaries, arrangements will be made among States concerned to share terrain data.

6.7.3.3.7 For aerodromes regularly used by international civil aviation, terrain data will be provided for Area 3.

6.7.3.3.8 For aerodromes regularly used by international civil aviation, terrain data will be provided for Area 4 for all runways where precision approach Category II or III operations have been established and where detailed terrain information is required by operators to enable them to assess the effect of terrain on decision height determination by use of radio altimeters.

6.7.3.3.9 Where additional terrain data is collected to meet other aeronautical requirements, the terrain data sets will be expanded to include this additional data.

6.7.3.4 Obstacle data sets

6.7.3.4.1 Obstacle data sets should contain the digital representation of the vertical and horizontal extent of obstacles.

6.7.3.4.2 Obstacle data will not be included in terrain data sets.

6.7.3.4.3 Obstacle data will be provided for obstacles in Area 1 whose height is 100 m or higher above ground.

6.7.3.4.4 For aerodromes regularly used by international civil aviation, obstacle data will be provided for all obstacles within Area 2 that are assessed as being a hazard to air navigation.

6.7.3.4.5 For aerodromes regularly used by international civil aviation, obstacle data will be provided for:

a) Area 2a for those obstacles that penetrate an obstacle data collection surface outlined by a rectangular area around a runway that comprises the runway strip plus any clearway that exists. The Area 2a obstacle collection surface should have a height of 3 m above the nearest runway elevation measured along the runway centre line, and for those portions related to a clearway, if one exists, at the elevation of the nearest runway end;

b) objects in the take-off flight path area which project above a plane surface having a 1.2 per cent slope and having a common origin with the take-off flight path area; and

c) penetrations of the aerodrome obstacle limitation surfaces.

Note: - Take-off flight path areas are specified in Annex 4, 3.8.2. Aerodrome obstacle limitation surfaces are specified in Annex 14, Volume 1, Chapter 4.

6.7.3.4.6 For aerodromes regularly used by international civil aviation, obstacle data will be provided for Areas 2b, 2c and 2d for obstacles that penetrate the relevant obstacle data collection surface specified as follows:

a) Area 2b: an area extending from the ends of Area 2a in the direction of departure, with a length of 10 km and a splay of 15 per cent to each side. The Area 2b obstacle collection surface has a 1.2 per cent slope extending from the ends of Area 2a at the elevation of the runway end in the direction of departure, with a length of 10 km and a splay of 15 per cent to each side;
b) Area 2c: an area extending outside Area 2a and Area 2b at a distance of not more than 10 km from the boundary of Area 2a. The Area 2c obstacle collection surface has a 1.2 per cent slope extending outside Area 2a and Area 2b at a distance of not more than 10 km from the boundary of Area 2a. The initial elevation of Area 2c has the elevation of the point of Area 2a at which it commences; and

c) Area 2d: an area outside Areas 2a, 2b and 2c up to a distance of 45 km from the aerodrome reference point, or to an existing TMA boundary, whichever is nearest. The Area 2d obstacle collection surface has a height of 100 m above ground; except that data need not be collected for obstacles less than a height of 3 m above ground in Area 2b and less than a height of 15 m above ground in Area 2c.

6.7.3.4.7 Arrangements will be made for coordinating the provision of obstacle data for adjacent aerodromes where their respective coverage areas overlap to assure that the data for the same obstacle is correct.

6.7.3.4.8 For those aerodromes located near territorial boundaries, arrangements will be made among States concerned to share obstacle data.

6.7.3.4.9 For aerodromes regularly used by international civil aviation, obstacle data will be provided for Area 3 for obstacles that penetrate the relevant obstacle data collection surface extending a half-metre (0.5 m) above the horizontal plane passing through the nearest point on the aerodrome movement area.

6.7.3.4.10 For aerodromes regularly used by international civil aviation, obstacle data will be provided for Area 4 for all runways where precision approach Category II or III operations have been established.

6.7.3.4.11 Where additional obstacle data is collected to meet other aeronautical requirements, the obstacle data sets will be expanded to include this additional data.

6.7.4 Aerodrome mapping data sets

6.7.4.1 Aerodrome mapping data sets should contain the digital representation of aerodrome features.

Note: - Aerodrome features consist of attributes and geometries, which are characterized as points, lines or polygons. Examples include runway thresholds, taxiway guidance lines and parking stand areas.

6.7.4.2 Aerodrome mapping data sets will be made available for aerodromes regularly used by international civil aviation.

6.7.5 Instrument flight procedure data sets

6.7.5.1 Instrument flight procedure data sets should contain the digital representation of instrument flight procedures.

6.7.5.2 Instrument flight procedure data sets will be made available for aerodromes regularly used by international civil aviation.

CHAPTER 7

AERONAUTICAL INFORMATION UPDATES

7.1 Introduction

7.1.1 Aeronautical data and aeronautical information will be kept up to date.

7.1.2 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 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. AIP is also updated through Regular AIP Amendment published in April of every year. For this Amendment AIM Department correspondent the letter with the data originator for the submission of any amendment required data/ information in AIP Nepal.

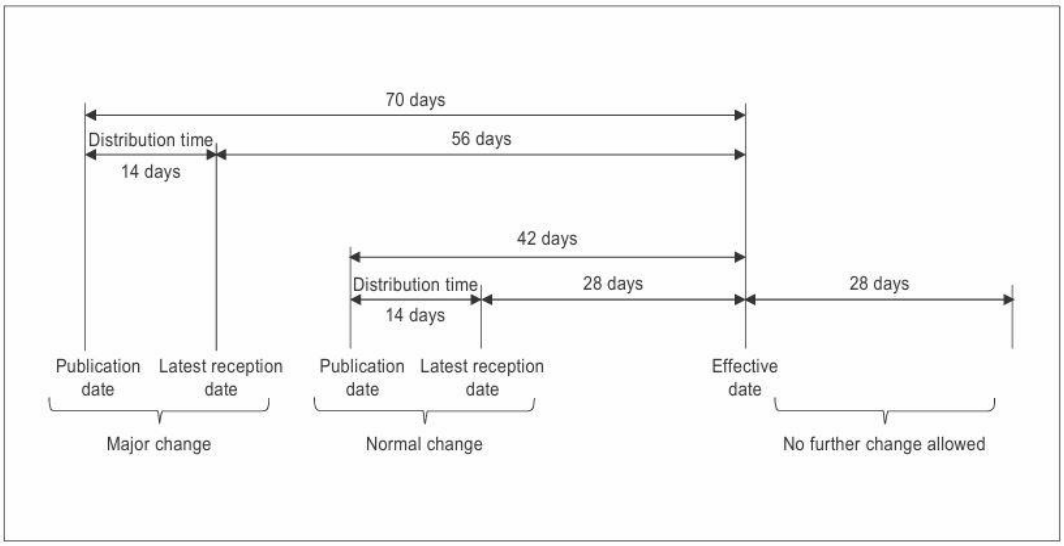
7.1.3 Since many of the changes to facilities, services and procedures can be anticipated and become effective in accordance with a predetermined schedule of effective dates specified in Appendix N.

7.1.4 ICAO recommends use of a regulated system (AIRAC) designed to ensure, unless operational considerations make it impracticable, that:

a) Information concerning circumstances listed in 7.2 is issued as AIRAC AIP Amendments/Supplements. These Amendment/supplements will be identified by the acronym “AIRAC” and distributed at least 42 days in advance of the effective date with the objective of reaching recipients at least 28 days in advance of the effective date;

b) the AIRAC effective dates is in accordance with the predetermined internationally agreed schedule of effective dates based on an interval of 28 days as stipulated in Appendix N;

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 temporary nature and would not persist for the full period.

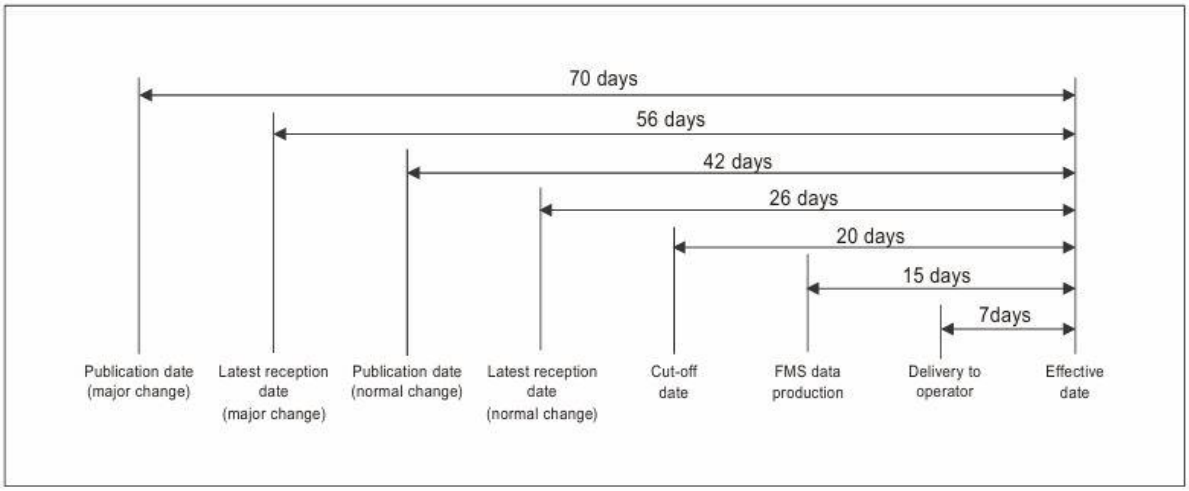


AIRAC significant dates

Note: Guidance material on the procedures applicable to the AIRAC system is contained in the Aeronautical Information Services Manual (Doc 8126).

7.1.5 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 data bases

7.1.6 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.



Processing cycle for airborne navigation databases

7.1.7 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. When an effective time other than 0000 UTC is used, the effective time will be included explicitly with the AIRAC information.

7.2 Information to be notified by AIRAC

7.2.1 Information concerning the following circumstances shall be distributed under the regulated system (AIRAC), i.e. basing establishment, withdrawal or significant changes upon a series of common effective dates at intervals of 28 days, in accordance with the Appendix L for AIRAC AIP SUP and Appendix M for AIRAC AIP AMDT:

a) Limits (horizontal and vertical), regulations and procedures applicable to:
   1) flight information regions;
   2) control areas;
   3) control zones;
   4) advisory areas;
   5) ATS routes;
   6) permanent danger, prohibited and restricted areas (including type and periods of activity when known) and ADIZ;
   7) permanent areas or routes or portions thereof where the possibility of interception exists.
b) Positions, frequencies, call signs, known irregularities and maintenance periods of radio navigation aids and communication and surveillance facilities.
c) Holding and approach procedures, arrival and departure procedures, noise abatement procedures and any other pertinent ATS procedures.
d) Transition levels, transition altitudes and minimum sector altitudes.
e) Meteorological facilities (including broadcasts) and procedures.
f) Runways and stop ways.
g) Taxiways and aprons.
h) Aerodrome ground operating procedures (including low visibility procedures).
i) Approach and runway lighting.
j) Aerodrome operating minima if published by a State.

7.2.2 The information notified therein under the AIRAC system will not be changed further for at least another 28 days after the effective date, unless the circumstance notified is of a temporary nature and would not persist for the full period.

7.2.3 Information provided under the AIRAC system in paper copy form will be made available by the AIM Department so as to reach recipients at least 28 days in advance of the effective date.

7.2.4 When information has not been submitted by the AIRAC date, a NIL notification will be no later than one cycle before the AIRAC effective date concerned.

7.2.5 Implementation dates other than AIRAC effective dates will not be used for pre-planned operationally significant changes requiring cartographic work and/or for updating of navigation databases.

7.3 Schedule of AIRAC effective dates

7.3.1 The schedule of predetermined internationally agreed AIRAC effective dates are specified in Appendix N:

7.3.2 AIP NEPAL GEN 3.1 may also be consulted for AIRAC effective dates.

7.4 Significant dates

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

a) the effective date;
b) the publication date; and
c) the latest date for aeronautical data and information to reach the AIS Data recipient,

7.4.2 There will 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 as specified in Appendix O.

CHAPTER 8

PRE - FLIGHT AND POST - FLIGHT INFORMATION/DATA

8.1 Introduction

8.1.1 Pre-flight Information Service is provided at for International Air Operations. Pre-flight Information Service will be organized and administered on the basis of the amount and type of traffic normally expected to use the aerodrome and, on the length, and number of air routes originating from there.

8.1.2 Aeronautical information required for a flight will be made readily available to pilots or airline operators. It is of utmost importance to present the information in such a way that it will facilitate self-briefing and provide a time saving method for the pilot to obtain the required information.

8.2 Detailed Information for the Coverage Zone

8.2.1 Current information relating to the aerodrome of departure will be provided concerning the following:

a) Air routes;
b) Regulations concerning entry and transit of civil aircraft on international flights;
c) Aerodromes/heliports available to international aviation;
d) Air navigation aids and mobile communication facilities;
e) Meteorological facilities;
f) Rules of the Air and Air Traffic Service procedures;
g) Controlled and Restricted Airspace;
h) Hazards to air navigation;
i) Search and rescue facilities;
j) Survival information;
k) Appropriate maps and charts;
l) A recapitulation of current NOTAM and other information of an urgent nature not contained in NOTAM, on aerodrome conditions, including the serviceability and operational status of visual ground aids, non-visual aids, and the manoeuvring area, e.g.
   i) Construction or maintenance work on or immediately adjacent to the manoeuvring area;
   ii) Rough portions of any part of the manoeuvring area, whether marked or not, e.g. broken parts on the surface of runways and taxiways.
   iii) Presence and depth of snow, ice or water on runways and taxiways, including their effect on braking action;
   iv) Parked aircraft or other objects on or immediately adjacent to taxiways;

v) Presence of other temporary hazards including those created by birds;

vi) Failure or irregular operation of part or all of the aerodrome/heliport lighting system including approach, threshold, runway, taxiway, obstruction and maneuvering area, lights and aerodrome/heliport power supply;

vii) Failure, irregular operation and changes in the operational status of landing or en-route navigation aids, VHF aero mobile channels, RVR observing system, and secondary power supply.

m) Presence and operations of humanitarian relief missions, such as those undertaken under the auspices of the UN, together with any associated procedures and/or limitations applied thereof.

8.3 Local provisions

8.3.1 Pre-flight Information Bulletin (PIB) service is provided at Tribhuvan International Airport (VNKT) in accordance with the format given in Appendix Q Sample of PIB.

8.3.2 Routine publication and distribution of PIB will be the responsibility of International NOTAM Office. Each PIB should combine all of its constituting elements which include area, route, aerodrome and FIR.

8.3.3 Each PIB will be published by collecting and analyzing the valid data/information contained in NOTAMs of Kathmandu FIR and following FIRs,
Bangkok's NOF,
Mumbai's NOF,
Kolkata's NOF,
Delhi's NOF
Bengaluru NOF
Dhaka NOF
Yangon NOF
Kunming NOF
Singapore NOF
Guangzhou NOF
Emirates NOF
Doha NOF and
Kathmandu's NOF

8.3.4 Pre-flight information bulletin (PIB) in NOF, TIA will be published at 0015 UTC on each day and distributed via paper form manually to all users' units located within the airport premises, uploaded in website: aip.caanepal.gov.np. and via email to other users. PIB will be displayed in NOF.

8.3.5 **Format of Pre-flight Information Bulletin (PIB)**

8.3.6 The area and route covered by PIB will be written at the top right corner of page while date and time will be in the middle on top of the page. (See appendix-Q for sample of PIB)

8.3.7 Each PIB has following two parts (First and second).

8.3.7.1 The first part of PIB includes navigation warning.

8.3.7.1.1 It has four columns namely FIR, Period/Time (UTC), Area and nature activity, and Upper limit/ Lower Limit sequentially from left to right.

- In first column the name of FIR will be entered in sequence from east to west directions. Under each FIR name, second letter of AFTN address followed by period or dot and number will be entered in chronological order.
- In second column the effective date and time will be entered.
- In third column NOTAM number with its text will be entered.
- In fourth column upper and lower level will be entered.

There may be different series of NOTAM associated with each FIR. NOTAMs coming under each alphabetically arranged NOTAM series will be written in chronological order. Similar rule applies to second part of PIB as well.

8.3.7.2 The Second part of PIB is related to FIR which generally includes NOTAMs of Aerodromes and routes.

8.3.7.2.1 It has three columns namely LOCATION, FACILITY and INFORMATION sequentially arranged from left to right.

a) In first column, name of FIR will be entered and under each FIR four letter designation of aerodromes or FIR will be entered. Sometimes both aerodrome and FIR designators are required to be entered.
b) In second column, the main subject of each NOTAM of respective Aerodromes/FIR will be entered.
c) In third column, NOTAM Series with number and text will be entered.

8.4 Facilitation of self-briefing

8.4.1 The main objective of a NOF is to make available to pilots the aeronautical information required for a flight. Often, a pilot may not have sufficient time to spend in the NOF and it is therefore important that information be presented in a manner that will facilitate self-briefing. Self-briefing facilities of an automated pre-flight information system will provide access to operational personnel, including flight crew members and other aeronautical personnel concerned, for consultation as necessary with the NOF by telephone or other suitable telecommunications means. The human/machine interface of such facilities will ensure easy access in a guided manner to all relevant information/data.

8.4.2 In order to provide this type of service, the main factors to be considered are:

a) the layout of the briefing room;
b) the format of the pre-flight information bulletins (PIB or “bulletins”);
c) the wall displays; and
d) the access to basic information.

8.4.3 In addition to providing a self-briefing service, verbal briefings, when required should also be available during the operational hours of the TIA.

8.5 Verbal Briefing

8.5.1 Verbal briefing will 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 will not be dependent upon the unaided memory of the briefing officer. The term to be included in such a checklist will vary according to the local situation. A list of items upon which the checklist may be based is given in Figure 8-1. 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.

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

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 8-1 Briefing checklist

8.6 Post-flight information

8.6.1 Purpose of post-flight information

8.6.1.1 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. Annex 6, Part I, Chapter 4, 4.1.2 and Part III, Section II, Chapter 2, 2.1.2 places on the operator the responsibility for reporting any inadequacy. Annex 15 requires States to ensure that arrangements are made at aerodromes/heliports to receive this information and to make it available to the NOF, TIA "for such distribution as the circumstances necessitate".

8.6.2 Collection and distribution of post-flight information

8.6.2.1 In most cases malfunctioning/ un-serviceability of facilities or the presence of birds is reported by the Pilot on the ATC frequency on which he is in contact. ATS unit concerned, then must pass this information to the Chief ATC/senior most Officer (in the shift) and to the NOF for further dissemination. Chief ATC/ senior most Officer in the shift shall in turn pass-on the information to the department/unit responsible for the facility or the services and also make log entry.

8.6.2.2 It is possible, in some cases that a Pilot may wish to confirm his observations in written by filling the Post Flight Information Report (Format is in appendix.....). The Pilot may be informed to send his report to the International NOTAM Office/ ARO for further required action in a prescribed format contained in Appendix "T" of this manual. The report must subsequently be made available to NOF for such distribution as necessary.

8.7 Location of NOF

8.7.1 International NOTAM Office (NOF) will be situated close to the 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), will be established in a group of sound proof offices located on the ground floor of the terminal building, preferably near the apron.

8.8 Layout of an NOF

8.8.1 The space available, the extent of the coverage zone and the demand for pre-flight information services (which reflects the type and volume of traffic using the aerodrome/heliport) will determine layout of NOF. However, some principles are considered to be generally applicable, namely:

a) briefing material relating to major facilities, ATS schemes and navigation warnings should also be displayed on maps and charts to the greatest extent possible;
b) AIS products will be readily available for examination with a minimum amount of contact with briefing personnel;
c) suitable space and work tables will be available for the study of documentary material, and for the plotting and planning of flight operations; and
d) the displays and other facilities in the briefing room should, as far as possible, be arranged in a logical sequence so that personnel using the facilities may proceed with a minimum of time and effort. (This would be facilitated by a separate entrance and exit.)

8.9 Wall displays

8.9.1 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 (1:1000000 to 1:3000000) 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;
b) a 1:500000 scale chart of the Nepal in which the aerodrome/heliport is located;
c) 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 will be as large as practicable);
d) an Aerodrome Obstacle Chart;
e) a large-scale chart (approximately 1:3000) 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
f) a large-scale diagram of the terminal area showing location of various offices and facilities of interest to visiting flight crews.

8.10 Updating of charts and wall displays

8.10.1 Due to the frequent changes in the ATS system, the information about the current situation can best be indicated by the use of colored 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.

8.11 Access to basic documents

8.11.1 Basic documents (such as up-to-date AIP Nepal, AIP Supplements, AIC and ICAO documents) will 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 will be such that it is immediately identifiable to the intended user and thereby help to promote self-briefing.

CHAPTER – 9

Working procedure of Aeronautical Information Management (AIM) Department

9.1 General

Aeronautical Information Management (AIM) Department collects, processes, publishes and distributes the aeronautical products like AIP, AIP SUP, AIP AMDT, AIC, and Aeronautical Charts. Whereas, NOTAM, PIB, AIS Products Checklists and List of Valid NOTAM are published and distributed by the NOF located at TIA.

Aeronautical Information Management (AIM) Department has three divisions:

a) Information Division (Quality Control/Assurance Division)

b) Publication Division

c) International NOTAM Office

9.2 Working procedure of Information Division

9.2.1 Information Division collects aeronautical data/information from data originators in accordance with the PANS AIM ICAO doc 10066. The major Data Originator (DO) are as follows:

a. Different Departments of Civil Aviation Authority of Nepal
   - Aerodrome Engineering Department (AED), CAAN
   - Air Traffic Management Department (ATMD), CAAN
   - Communication, Navigation AID Department (CNAD) CAAN
   - Electromechanical Department (EMD), CAAN
   - Rescue & Fire Fighting Department (RFFD), CAAN
   -Domestic facilitation Department, CAAN
   -Communication Navigation Surveillance Department (CNSD), CAAN
   - TIACAO including domestic airports.
   -Air Transport Capacity Enhancement Project (ATCEP), CAAN
   - National Pride Project (NPP), CAAN
   - Air Navigation Service Safety Standard Department (ANSSSD), CAAN
   - Flight Safety Standard Department (FSSD), CAAN
   - Aerodrome Safety Standard Department (ASSD), CAAN
   - Air Transport Department (ATD), CAAN

b. Armed Police Force (APF) and Nepali Army (NA).

c. Meteorological Forecasting Division, DHM

9.2.2 Collected data is verified and validated for compliance with the data quality requirements in accordance with the Appendix 1 of PANS AIM Doc 10066, AIS Product format of ICAO DOC 8126,

9.2.3 Quality checks is implemented to ensure compliance with the specifications of AIS product.

9.2.4 Check the authenticity of data like NOTAM Request Form (NRF) is checked for the authenticity of data originator for NOTAM.

9.2.5 the Publication Division is advised the kind of product to be published such as AIP, AIP SUP (AIRAC or Non – AIRAC), AIP AMDT, AIC or NOTAM. In the case of publication of NOTAM, it will be sent to NOF.

9.2.6 All process mentioned above is followed by paper work and is stored as records. This process aids in data traceability of the published AIS products

9.3 Working Procedure of Publication Division

9.3.1 Processing of Aeronautical data/information

Publication Division will process the Aeronautical data/information received from Information Division. Processing includes the verification and validation including quality check as specified in 9.2.2 and 9.2.3.

9.3.2 Approval from DGCA for publication (Data Validation Process)

After processing the aeronautical data/ information on appropriate format, submit the final draft of the product to the Director AIM department then finally to Director General of Civil Aviation Authority of Nepal through Aviation Services Directorate, CAAN for the approval. Only DGCA approved data is published as AIS products.

9.3.3 Distribution

(a) Once the AIS product approved and promulgated. The published/promulgated AIS product is distributed in accordance with the 3.3.4 to the concerned, and

(b) The soft copy of all the AIS product published by AIMD is uploaded in CAAN website and send to all AIS users (who has subscription) through email.

9.4 Working Procedure of International NOTAM office

9.4.1 Operation Hour

9.4.1.1 NOF will be manned for 24 hours. Officers collect, process, publish and distribute NOTAM, PIB within operation hours as specified in the AIP Nepal and work as whole night duty until the beginning of operation hour in the morning next day. Basically, they work in three regular shifts until ends the operation hour as given below.

Shift Duty	Time Period (Local Time)
1st Shift	06:00 am -12:30 pm
2nd Shift	12:30 pm-19:00 pm
3rd Shift	19:00 pm-01:00 am (next day)
Whole night duty time starts at 01:00 am and ends at 06:00 am.	

9.4.1.2 Normal administrative duty time will be as shown in the following table.

Day	Month	Time period
Sunday to Thursday	16 Magh to 15 Kartik	10:00 am - 5:00 pm
	16 Kartik to 15 Magh	10:00 am - 4:00 pm
Friday	Baishakh to Chaitra	10:00 am – 3:00 pm
Saturday is weekly holiday.		

9.4.2 **Tasks/Duties**

First Shift (6:00 am to 12:30 pm)

9.4.2.1 Check inbox in AMHS if any pending incoming NOTAMs or messages are to be acknowledged; count each of them and log in 'RECORD OF MSG ' form and if required record their NOTAM series number or time in respective addressee column in 'INCOMING NOTAM REGISTER' form. Count and log in the total number of previous day incoming NOTAMs received from each addressee in 'MESSAGE RECEIVED/TRANSMITTED DATA' form.

9.4.2.2 Prepare new 'RECORD OF MSG RECEIVED FROM MSC' form by carrying over the previous day last message sequence number. (Note: All required forms are available in computer)

9.4.2.3 Check for firing exercise or any other NOTAM requests. Take necessary actions to issue NOTAM after completing proper verification and validation process in accordance with PANS AIM ICAO Doc 10066 so as to avoid error in the message.

9.4.2.4 NOTAM related to Dynamic nature will be issued by NOF upon receipt of NOTAM Request Form specified in Appendix B from the data originators. However, NOTAM related to Static nature requires CAAN decision for the publication. After issuance of NOTAMs, prepare distribution form and attach hard copy of each NOTAM with it for final distribution.

9.4.2.5 Prepare and issue monthly NOTAM checklist on the 1st day of each month.

9.4.2.6 On the 1st day of each month, check all the hard copy of NOTAMs received from different addressees and withdraw those NOTAMs whose activity times have expired. And also verify and update NOTAMs from different addresses against the NOTAM checklist. These invalid NOTAMs are to be kept as record for three months and disposed them off after three months.

9.4.2.7 On 16th day of each month prepare List of Valid NOTAM (NOTAM List). The list of valid NOTAM must include the following:

- All NOTAM series A, and D;
- Checklist issued on 1st day of same month;
- All valid NOTAMs with number and text valid till 0000 UTC on 16th of each month.

9.4.2.8 After issuance of NOTAM list it will be distributed in printed form to all AIS users located within the TIA premises and through email to all relevant departments and domestic airports of CAAN. It should also be uploaded in CAAN website. Full distribution record should also be maintained.

9.4.2.9 Out of all incoming NOTAMs received from different addresses, only important NOTAMs will be printed and kept in record file. Each hardcopy of originating NOTAM will be kept in Originating NOTAM Record file in the form of master copy. A separate record file will be maintained for valid originating NOTAMs and will be updated on daily basis. The invalid NOTAMs will be kept separately for three months and will be disposed of after that period.

9.4.2.10 The duty officer should take appropriate actions (screen/acknowledge/sort out/record etc.) on all incoming NOTAM received till time 0545 UTC.

9.4.2.11 Check the PIB issued and makes necessary verification and validation before distribution. Upload regularly the published PIB to CAAN website.

2ndShift (12:30 pm to 19:00 pm)

9.4.2.12 The duty officer should record incoming NOTAMs and messages on respective forms from time 0546 UTC to 1145 UTC.

9.4.2.13 Check if any NOTAM is to be issued.

9.4.2.14 If there is a NOTAM request regarding firing exercise or for airspace reservation (activation of restricted, danger or prohibited areas), make necessary sorting and establish information sequence number based on the date of activity in chronological order for further action (verification/ publication/issuance/distribution).

3rd shift (19:00 pm to 01:00 am of following day)

9.4.2.15 The duty officer should record incoming NOTAMs and messages on respective forms from time 1146 UTC to 2045 UTC.

9.4.2.16 Check if any NOTAM is to be issued.

9.4.2.17 **Prepare Pre-flight Information Bulletin (PIB)** (see Chapter 8 for format of PIB and Appendix Q for sample PIB)

Following steps will be considered while publishing PIB:

a. For both the first and second part of PIB, validity period of each NOTAM will be reviewed carefully to ensure that expired NOTAMs are not included in PIB. The NOTAMs received from different NOFs or FIRs will be checked thoroughly for inclusion in PIB. Those NOTAMs which are already active on the day when PIB is being prepared, or is going to be active throughout the day or is going to be active anytime on the next day are included in PIB.

b. The duty officer of the third shift should verify the NOTAMs for its validity in accordance with new NOTAM checklist to update PIB.

c. After receiving NOTAM checklist, it is placed in respective clipboard established for each NOFs and makes all necessary updates accordingly.

d. If replace or cancel NOTAM is received, it will be checked on respective clipboard and update accordingly.

e. For any incoming NOTAMs, for which there is no available associated clipboard, will be kept in a separate clipboard so that duty officer can make reference while preparing PIB.

Whole Night (01:00 am to 06:00 am)

9.4.2.18 The duty officer should record incoming NOTAMs and messages on respective forms from time 2046 UTC to 2345 UTC.

9.4.2.19 Check if any NOTAM is to be issued.

9.4.2.20 Update, finalize, and publish Pre-flight Information Bulletin (PIB).

9.4.2.21 It is distributed in printed form to all AIS users located within the airport premises. Full distribution record should also be maintained.

9.5 Procedure for the Production, Maintenance & Amendment of Aeronautical Charts.

9.5.1 Following steps will be taken to develop Aeronautical Charts.

9.5.1.1 Collect the aeronautical data and aeronautical information with initial verification for chart resolution according to aeronautical data catalogue (PANS-AIM 10066 Appendix 1.) from the data originator to be included in the Aeronautical Chart.

9.5.1.2 The Aeronautical chart is verified and check for the CAR 4 (Aeronautical Chart) standard compliance verification (Checklist Appendix T…).

9.5.1.3 However, during the non-availability of trained AIS personnel on cartography function for the production maintenance & Amendment of Aeronautical Charts which are responsibility of AIM Department to publish, the Aeronautical Chart will be produced through outsourcing of the qualified firm/company/person having experience in the production of maps and charts. The following criteria should be meet by such company:

a) The Consulting firm should be registered in CAAN head office.
b) The company should have manpower with following qualifications:

Position	Activities	Qualification
Team Leader / Survey Officer	➢ Responsible for overall coordination of consultant team and liaise with the client for successful accomplishment of the assignment. ➢ Responsible for gathering information from client. ➢ Coordinate with others to produce all required study/Survey reports.	➢ Bachelor of Engineering in GIS and Survey. ➢ Preferably, have training/academic course in at least one of the Civil Aviation related disciplines ➢ Involved as Survey Specialist
GIS Expert	➢ Responsible for collection and update of Aeronautical GIS database.	➢ Bachelor of Engineering in GIS ➢ Involved as GIS Specialist
Senior Cartographer	➢ Basically responsible for collection and update of all kinds of Aeronautical charts contained in the AIP Nepal 8th Edition are required to amend as and when required basis.	➢ Bachelor of Engineering in Cartography.
Computer Operator	➢ Support Team Member/Management of Documentation & other necessary jobs.	➢ Diploma in Computer

9.5.1.4 Aeronautical charts will be published after verification according to Chart Verification Checklist. (Appendix T).

9.6 Procedure for the Elimination of Deficiency identified during Audit Process.

9.6.1 Following steps will be taken to eliminate the deficiency in AIM Department identified during Audit process:

9.6.1.1 Call upon a meeting of the staffs of AIM Department to determine the way of resolving the findings or deficiency including timeline of elimination.

9.6.1.2 Prepare the Corrective Action Plan (CAP) in an available format and submit to the ANS Safety Standards Department (ANSSSD) within stipulated date specified in the Audit Report.

9.6.1.3 Take action based on the timeline of the elimination specified in the CAP. If unable to meet the deadline specified in the CAP, review it and forward to the ANSSS department.

9.6.1.4 Review the submitted CAP every three months in order to check the timeline of the elimination period when necessary.

CHAPTER – 10

Training Policy, Program and Plan

10.1 Training Policy

The Training Policy for AIS Personnel is according to CAAN, Human Resource Development Policy, 2076 and Civil Aviation Academy Training Procedure Manual, 2022. The Training Program and Plan for AIS Personnel is aimed at enhancing qualifications and competencies of the AIS Personnel of the department especially with regards to the delivery of AIS Functions.

10.2 Training Program.

- AIM Department has approved training program to be provided to AIS Personnel according to which AIS personnel is trained.
- The training program has details like what type of training, subject of the training and its contents, period of training, priority of the training etc.

10.2.1 Type of Training.

a) Initial Training

- **Introduction**

  Initial training is the first phase of training where specific AIS topics and criteria are covered per Annex 15 – Aeronautical Information Services, PANS-AIM and related documents.

- **Objectives**

  To provide basic knowledge and skills to newly hired individuals or those who have been recruited or transferred from non-AIS positions.

b) Functional Training

- **Introduction**

  Functional training will be conducted during or after initial training to ensure the acquired KSA are understood and applied. The functional training curriculum will be developed from the competency standards and learning objectives.

- **Objectives**

  To provide subject matter content based on the AIS function, through OTJ training, theoretical training and continual feedback.

c) Specialized Training

- **Introduction**

  Specialized training will be conducted in accordance with the training programmes for personal development.

— **Objectives**

To provide AIS technical personnel with advanced KSA to perform complex and unique functions. Examples of specialized training include aeronautical cartography and digital data set preparation.

d) Refresher Training

— **Introduction**

The aviation operational environment involves development of new technologies. These technologies come with new standards, equipment, procedures, and practices. Refresher Training for AIS Personnel is important for effective and continuous AIS Functions.

— **Objectives**

To ensure existing competencies and KSA of personnel who perform AIS functions are reinforced or maintained, and to ensure new (or changed) regulations or requirements are being addressed.

10.3 Training Plan.

AIM Department will develop bi-yearly training plan for AIS Personnel and submit it for approval and implementation. The plan should be developed with all details like person participating in the training, type of the training, contents of the training, period of the training, priority of the training, etc. (Sample of Training Plan is Appendix U)

10.4 Training Record

Training record of all AIS Personnel will be retained in AIM Department. It is the responsibility of individual AIS Personnel and other officials to make the record up to date and complete in accordance with Appendix V.

10.5 Competency

Competency check of AIS Personnel will be performed annually. The Check list of competence check is in Appendix W.

APPENDIX A

Formal Arrangements

(Service Level Agreements, SLA)

Formal Arrangements (Service Level Agreement between Data Originator and AIM Department)

SERVICE LEVEL AGREEMENT (SLA)

BETWEEN

AERONAUTICAL INFORMATION MANAGEMENT (AIM) DEPARTMENT,

CIVIL AVIATION AUTHORITY OF NEPAL (CAAN)

AND

Data Originator

On the supply of aeronautical data and aeronautical information for the provision of Aeronautical Information services (AIS)

Effective date: …….

TABLE OF CONTENTS

Abbreviation

AIC	Aeronautical Information Circulars
AIM	Aeronautical Information Management
AIMD	Aeronautical Information Management Department
AIP	Aeronautical Information Publication
AIS	Aeronautical Information Services
AMDT	Amendment
CAAN	Civil Aviation Authority of Nepal
CAR	Civil Aviation Requirement
FIR	Flight Information Region
NOF	International NOTAM Office
NRF	NOTAM Request Form
PANS	Procedure for Air Navigation Services
QMS	Quality Management System
SARPs	Standards and Recommended Practices
SUP	Supplement

1. General Overview

1.1. Objectives

1.1.1. This Service Level Agreement (Agreement) between **Aeronautical Information Management (AIM) Department,** CAAN and **Data Originator** aims to achieve the following objectives:

i. **Strengthen the coordination** on the supply and publication of aeronautical data and aeronautical information within Nepal;

ii. **Give assurance** on the accuracy, integrity, resolution, traceability and timeliness of aeronautical data and aeronautical information, in accordance to ICAO Annex 15requirements and Civil Aviation Requirements (CAR 15), originating from Data Originator for publication in the AIP Nepal and in NOTAM.

iii. **Establish a framework** for key operational Service Standards and Performance Measurements to meet user's needs;

iv. **Deliver consistent levels of service** for the provision of aeronautical data and aeronautical information; and

v. **Establish clear roles and responsibility** of the parties in the provision and dissemination of aeronautical data and aeronautical information.

1.2. Scope

1.2.1. This Agreement documents the agreed provision of service for the supply of aeronautical data and aeronautical information by Data Originator to the AIM Department and the agreed standards to which the said information shall be published by the AIM Department/International NOTAM Office (NOF).

1.2.2. This Agreement shall be in line with the requirements set forth in ICAO Annex 15and CAR 15, paragraph 2.1.5, which states that:

*"Each Contracting State shall ensure that **formal arrangements** are established between originators of aeronautical data and aeronautical information service in relation to the timely and complete provision of aeronautical data and aeronautical information."*

1.3. Reference Documents

1.3.1. This Agreement, including the definition of the terms used, is established to fulfill the other relevant requirements in the following ICAO Standards and Recommended Practices (SARPs), manuals and national regulations:

i. ICAO Annex 15 – Aeronautical Information Services
ii. CAR 15 – Civil Aviation Requirements for Aeronautical Information Services
iii. ICAO Doc 8400 – PANS ICAO Abbreviations and Codes
iv. ICAO Doc 10066 – PANS AIM (Procedure for Air Navigation Services Aeronautical Information Management)
v. ICAO Doc 7910 – Location Indicators
vi. ICAO Annex 4 – Aeronautical Charts
vii. ICAO Doc 8126 – Manual on Aeronautical Information Services
viii. ICAO Doc 9674 – World Geodetic System – 1984 (WGS-84) Manual
ix. ICAO Doc 9839 –Manual on the Quality Management System for Aeronautical Information Services

1.4. Validity Period

1.4.1. This Agreement shall be effective from the date it is duly signed by the both parties and shall continue to be valid until such time when either party initiates to terminate the Agreement.

1.4.2. This Agreement shall be reviewed every 2 years to ensure compliance to ICAO SARPs and international best practices.

1.4.3. Updates or changes to this Agreement, if required before the periodic review, could be initiated by either party.

1.4.4. The **Civil Aviation Safety Regulation (CASR) Directorate** shall be the authority to approve updates, changes and review to this Agreement.

2. Quality Management

2.1. Overview

2.1.1. Quality management gives the assurance that the aeronautical data and aeronautical information supplied by the Data Originator provides the confidence that quality requirements will be fulfilled.

This includes establishing the data quality attributes and service standards of the parties to this Agreement.

2.2. **Data Quality Attributes**

2.2.1. The integrity of the aeronautical data shall be maintained throughout the data chain from the Data Originator to AIM Department and subsequently to the end users (pilots, ATC etc).

2.2.2. Data integrity classifications used within this Agreement is based on PANS – AIM (ICAO Doc 10066), Appendix 1.

2.2.3. The validation and verification procedures shall be based on the applicable integrity classifications as follows:

i. **Routine data:** avoid corruption throughout the processing of the data. The permitted maximum error rate is 1 in 1000, providing an integrity level of $1x10^{-3}$, QMS Manual (ICAO Doc 9674).

ii. **Essential data:** assure corruption does not occur at any stage of the entire process and include additional processes as needed to address potential risks in the overall system architecture to further assure data integrity at this level. The permitted maximum error rate is 1 in 100,000, providing an integrity level of $1x10^{-5}$ QMS Manual(ICAO Doc 9674).

iii. **Critical data:** assure corruption does not occur at any stage of the entire process and include additional integrity assurance processes to fully mitigate the effects of faults identified by thorough analysis of the overall system architecture as potential data integrity risks. The permitted maximum error rate is 1 in 100,000,000, providing an integrity level of$1x10^{-8}$,QMS Manual (ICAO Doc 9674).

2.3. **Service Standards of Data Originator**

2.3.1. The established service standards aim to outline the responsibilities of the Data Originator as part of the quality management process of the aeronautical information data chain. Data Originator, as the Originator shall:

i. Supply and update AIM Department with the list of coordinates of the locations of Firing Exercises to be taken place within Kathmandu FIR for the publication in AIP Nepal or NOTAM or AIP SUP or AMDT.

ii. Supply AIM Department//Int'L NOTAM Office with aeronautical data and aeronautical information by filing the NOTAM Request Form (NRF) available in CAAN website for the publication of NOTAM.

iii. Provide AIM Department with aeronautical data and aeronautical information for the publication

of NOTAM at least 7 days before the effective date.

iv. Ensure that the submission of NOTAM Request Form (NRF) to AIM Department includes the name of person who issues, checks and approves, indicating that the information submitted is verified, and a declaration that the information submitted is accurate, updated and complete.

v. Ensure that the submission of NOTAM Request Form (NRF) is duly filed in accordance with the ICAO Doc 8126 AIS Manual. NRF may be submitted to AIM Department/NOF through Email, Fax or other means as applicable.

vi. Ensure that accurate, updated and complete aeronautical data and aeronautical information is provided to AIM Department in sufficient time.

vii. Ensure that personnel performing the role of Data Originator and checker are appropriately trained with the requisite knowledge, skills and abilities to prepare the draft aeronautical publications and submit NOTAM proposals to AIM Department/NOF for promulgation within the context of the established quality management system.

2.4. Service Standards of AIM Department

2.4.1. AIM Department is the entity responsible for the provision of aeronautical information services within the Kathmandu Flight Information Region (FIR). The timely availability of accurate, updated and complete aeronautical data and aeronautical information is necessary to ensure the safety, regularity and efficiency of air navigation. AIM Department shall:

i. Publish, update and change to aeronautical data and aeronautical information through the most appropriate means (that is, AMDT, AIP SUP, AIC or NOTAM) taking into consideration the accuracy and timeliness of aeronautical data and aeronautical information submitted by Data Originator.

ii. Publish permanent changes to AIP Nepal in accordance to the schedule of AMDT publication dates published in AIP Nepal and AIC.

iii. Check the submission date of the **NOTAM Request Form (NRF)** against the effective date of the NOTAM so that sufficient time available to reach the intended users. **NRF** should be submitted to AIM department/NOF at least 10 days prior to effective date of the NOTAM

iv. Check the submission date of the aeronautical data and aeronautical information against the AIP AMDT publication schedule on receipt of the aeronautical data and aeronautical information. If the aeronautical data and aeronautical information is received before 31st March the aeronautical data and

aeronautical information received will be checked for completeness and compliance with the aeronautical data and aeronautical information quality requirements for publication resolution, integrity classification stipulated in ICAO doc 10066 Appendix 1.

v. Track the aeronautical data and aeronautical information submitted by Data Originator for errors and non-adherence to the specified timeline. Results of the tracking will be shared through a formal dialogue with Data Originator for compliance and to improve subsequent data submissions to AIM Department.

vi. Review, develop and implement work processes which include ICAO Annex 15 requirements on the submissions of aeronautical data and aeronautical information for publication.

vii. Assess the ‒Requests for NOTAM promulgation‖ to ensure that they are unambiguous and complete before the NOTAMs are promulgated.

viii. Conduct training on new ICAO provision on request by the originator.

2.5. Service Level Indicators

2.5.1. In order to fulfill the requirements for quality management, AIM Department shall be tracking errors detected / observed before and after publication of the aeronautical data and aeronautical information provided by Data Originator. These errors shall be communicated to Data Originator for follow up remedial actions.

2.5.2. The **Civil Aviation Safety Regulation Directorate**, as the authority to monitor the effectiveness of coordination between Data Originator and AIM Department, shall oversee the relevant compliance targets on timeliness and accuracy:

AERONAUTICAL PUBLICATIONS	COMPLIANCE TARGET
NOTAM	
Aeronautical Data and Aeronautical Information from Originator to NOTAM Office	100%
Aeronautical Data and Aeronautical Information from NOTAM Office to End Users	100%
AIP AMDT/ AIP SUP/ / AIC	
Aeronautical Data and Aeronautical Information from Originator to AIS Provider	100%
Aeronautical Data and Aeronautical Information from AIS Provider to End Users	100%

3. Amendments and Mediation

3.1. Amendments

3.1.1. Either party can propose amendments and modifications to this Agreement through formal notification to the Aviation Services Directorate.

3.1.2. The Director General, CAAN shall be the approving authority of such amendments and modifications to this Agreement.

3.2. **Dispute Management**

3.2.1. Disputes between the parties relating to this Agreement and its interpretation shall be arbitrated by the Aviation Services Directorate.

3.3. **Point Of Contact**

3.3.1. Data Originator and AIM Department shall each appoint a point of contact to manage issues pertaining to the provisions in this Agreement.

3.3.2. All communications relating to this Agreement shall be jointly coordinated by the appointed point of contact.

3.3.3. The details of the appointed point of contact are in **Annex A** of this Agreement. Both parties agree to ensure that the point of contact details is updated. Amendments to the details of the point of contact do not require the review of the overall Agreement.

4. **Agreement**

4.1. This Agreement is concluded on **……**by the following signatories:

Name:	**Name:**
Designation:	**Designation:**
Organization:	**Organization:**
Department:	**Date:**
Date:	

Annex A

Point of Contact

Organization	Primary Contact	Secondary Contact
AIM Department	**Name:** …… **Designation:** …… Email: …… **Tel:** …….	**Name:** …… **Designation:** …… Email: …… **Tel:** …….
Data Originator	**Name:** …… **Designation:** …… Email: …… **Tel:** …….	**Name:** …… **Designation:** …… Email: …… **Tel:** …….

APPENDIX B

Civil Aviation Authority of Nepal
Aeronautical Information Management (AIM) Department

NOTAM REQUEST FORM

(6.6.5.5, 6.6.6.4)

TO: INTERNATIONAL NOTAM OFFICE TRIBHUVAN INTERNATIONAL AIRPORT OPERATION BUILDING TELPHONE: +977-1-4113315 Email: notamtia@gmail.com	Reporting office : TEL NO.……,…… Email: ……
NOTAMN ☐ NOTAMR ☐ NOTAMC ☐	
LOCATION: A)	
START TIME: B)	UTC
FINISH TIME: C)	UTC
PERIODS OF ACTIVITY (If applicable) D)	
TEXT OF NOTAM: E)	
LOWER LEVEL F)	
UPPER LEVEL G)	
Please fax back a copy of the NOTAM to the originator (By NOTAM office).	
REPORTING OFFICER: Mr./Ms. …….. SIGNATURE: ……. DATE/TIME:…….	

Notes:

1. Letter N, R & C suffixed in word NOTAM represents, New, Replacement or Revised & Cancel or Cancellation respectively.
2. Please put √ in the small box, if it is NOTAMN.
3. Please mention the last NOTAM series and number in the box NOTAMR or NOTAMC if it is replacement or cancellation of the NOTAM.
4. NOTAM request for firing (Navigation warning) exercise, by Nepal Army and Armed Police Force: coordinates and name of the place of activities along with district name of activities to be mentioned in the field "E" as the text of NOTAM.
5. Elevation and danger height in feet to be mentioned in the field "G"

APPENDIX C

Civil Aviation Authority of Nepal
Aeronautical Information Management (AIM) Department
International NOTAM Office

NOTAM FORMAT

(6.6.5.1, 6.6.5.14, 6.6.9.1.1)

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

Note.— For NOTAM examples see the Aeronautical Information Services Manual *(Doc 8126) and the* Procedures for Air Navigation Services — ICAO Abbreviations and Codes *(PANS-ABC, Doc 8400).*

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 two-digit 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. Examples of how fields are to be filled are shown in the *Aeronautical Information Services Manual* (Doc 8126). 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 contained in Doc 8126 or insert one of the following combinations, as appropriate:

a) If the subject is not listed in the NOTAM Code (PANS-ABC, Doc 8400) or in the NOTAM Selection Criteria (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 (Doc 8400) or in the NOTAM Selection Criteria (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 Annex 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

Note 1.— 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.

Note 2.— 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

Note.— 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 is contained in 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

Note.— 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 is contained in 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).

Note.— 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 is contained in 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 centre 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 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).

Note.— 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 date-time 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.

Note.— Guidance concerning a harmonized definition of Item D) content is provided in Doc 8126.

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. Items 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.

APPENDIX D

CONTENTS OF THE
AERONAUTICAL INFORMATION PUBLICATION (AIP)

(6.2.2)

1.1. AIP Nepal is published in three parts. Part 1 – General (GEN), Part 2 – Enroute (ENR) and Part 3 – Aerodromes (AD).

1.2. The information content of the AIP and the structure of chapters, sections and subsections follow the content and structure of the ICAO Doc 10066 PANS – AIM.

1.3. The AIP Nepal includes files that allow for printing a paper AIP.

1.4. The AIP Nepal is distributed to the subscribers on a physical medium (CD), paper AIP and online on the internet through CAAN website (https://caanepal.gov.np)

1.5. The AIP Nepal is self-contained and includes a table of contents.

1.6. Each page of AIP Nepal is dated. The date consists of day, month (by name) and year.

1.7. Each page of AIP Nepal contains identity of the issuing authority, i.e., Civil Aviation Authority of Nepal.

1.8. All changes to the AIP or new information are identified by a change bar (a thick black vertical line).

1.9. The spelling of place names conforms to local usage.

1.10. Hours of operation of various facilities and services should be given in terms of coordinated universal time (UTC) or by use of one of the following abbreviations:

HJ – Sunrise to sunset

HN – Sunset to sunrise

HO – Service available to meet operational requirements

HS – Service available during hours of scheduled operations

HX – No specific working hours

H24 – Continuous day and night service.

1.11. Permanent changes to the AIP are published as AIP Amendments. AIP Amendments are issued whenever new information necessitates a permanent change or addition to the information already contained in the AIP.

1.12. The AIP is amended by GM (AIS) under the authority of Executive Director (ATM) and/or Member (ANS).

1.13. Each AIP Amendment is allocated a serial number, which shall be consecutive, along with the year of publication.

1.14. When an AIP Amendment is issued, it includes reference to the serial number of the AIP Supplements and NOTAMs which have been incorporated into the Amendment.

1.15. When an AIP Amendment will not be published at the established interval or publication date, a NIL notification shall be originated and distributed by the monthly plain-language list of valid NOTAM required by NOTAM checklist.

1.16. The contents of each part of AIP Nepal are detailed as follows: -

Part 1 – GENERAL (GEN)

GEN 0.1 Preface

GEN 0.2 Records of AIP Amendments

GEN 0.3 Records of AIP Supplements

GEN 0.4 Checklist of AIP pages

GEN 0.5 List of hand amendments to the AIP

GEN 0.6 Table of contents to Part 1

GEN 1. NATIONAL REGULATIONS AND REQUIREMENTS

GEN 1.1 Designated authorities

GEN 1.2 Entry, transit and departure of aircraft

GEN 1.3 Entry, transit and departure of passengers and crew

GEN 1.4 Entry, transit and departure of cargo

GEN 1.5 Aircraft instruments, equipment and flight documents

GEN 1.6 Summary of national regulations and international agreements/conventions

GEN 1.7 Differences from ICAO Standards, Recommended Practices and Procedures

GEN 2. TABLES AND CODES

GEN 2.1 Measuring system, aircraft markings and holidays

GEN 2.1.1 Units of measurement

GEN 2.1.2 Temporal reference system

GEN 2.1.3 Horizontal reference system

GEN 2.1.4 Vertical reference system

GEN 2.1.5 Aircraft nationality and registration marks

GEN 2.1.6 Public holidays

GEN 2.2 Abbreviations used in AIS publications

GEN 2.3 Chart symbols

GEN 2.4 Location Indicators

GEN 2.5 List of radio navigation aids

GEN 2.6 Conversion tables

GEN 2.7 Sunrise/sunset tables

GEN 3. SERVICES

GEN 3.1 Aeronautical information services

GEN 3.1.1 Responsible service

GEN 3.1.2 Area of responsibility

GEN 3.1.3 Aeronautical publications

GEN 3.1.4 AIRAC system

GEN 3.1.5 Pre-flight information service at aerodromes

GEN 3.1.6 Electronic terrain and obstacle data

GEN 3.2 Aeronautical charts

GEN 3.2.1 Responsible service(s)

GEN 3.2.2 Maintenance of charts

GEN 3.2.3 Purchase arrangements

GEN 3.2.4 Aeronautical chart series available

GEN 3.2.5 List of aeronautical charts available

GEN 3.2.6 Index to the World Aeronautical Chart (WAC) – ICAO 1:1 000 000

GEN 3.2.7 Topographical charts

GEN 3.2.8 Corrections to charts not contained in the AIP

GEN 3.3 Air traffic services

GEN 3.3.1 Responsible service

GEN 3.3.2 Area of responsibility

GEN 3.3.3 Types of services

GEN 3.3.4 Coordination between the operator and ATS

GEN 3.3.5 Minimum flight altitude

GEN 3.3.6 ATS units address list

GEN 3.4 Communication Services

GEN 3.4.1 Responsible service

GEN 3.4.2 Area of responsibility

GEN 3.4.3 Types of service

GEN 3.4.4 Requirements and conditions

GEN 3.4.5 Miscellaneous

GEN 3.5 Meteorological services

GEN 3.5.1 Responsible service

GEN 3.5.2 Area of Responsibility

GEN 3.5.3 Meteorological observations and reports

GEN 3.5.4 Types of services

GEN 3.5.5 Notification required from operators

GEN 3.5.6 Aircraft reports

GEN 3.5.7 VOLMET service

GEN 3.5.8 SIGMET and AIRMET service

GEN 3.5.9 Other automated meteorological services

GEN 3.6 Search and rescue

GEN 3.6.1 Responsible service(s)

GEN 3.6.2 Area of responsibility

GEN 3.6.3 Types of service

GEN 3.6.4 SAR agreements

GEN 3.6.5 Conditions of availability

GEN 3.6.6 Procedures and signals used

GEN 4. CHARGES FOR AERODROMES AND AIR NAVIGATION

SERVICES GEN 4.1 Aerodrome charges

GEN 4.2 Air Navigation services charges

PART 2 – EN-ROUTE

(ENR) ENR 0.1 Table of contents to Part 2

ENR 2. AIR TRAFFIC SERVICES AIRSPACE ENR 2.1 FIR, TMA and CTA

ENR 2.2 Other regulated airspace

ENR 3. ATS ROUTES

ENR 3.1 Lower ATS routes

ENR 3.2 Upper ATS routes

ENR 3.3 Area navigation routes

ENR 3.4 Helicopter routes

ENR 3.5 Other routes

ENR 3.6 En-route holding

ENR 4. RADIO NAVIGATION AIDS/SYSTEMS

ENR 4.1 Radio navigation aids – en-route

ENR 4.2 Special navigation systems

ENR 4.3 Global navigation satellite system (GNSS)

ENR 4.4 Name-code designators for significant points

ENR 4.5 Aeronautical ground lights – en-route

ENR 5. NAVIGATION WARNINGS

ENR 5.1 Prohibited, restricted and danger areas

ENR 5.2 Military exercise and training areas and air defence identification zone (ADIZ)

ENR 5.3 Other activities of a dangerous nature and other potential hazards

ENR 5.3.1 Other activities of a dangerous nature

ENR 5.3.2 Other potential hazards

ENR 5.4 Air Navigation obstacles

ENR 5.5 Aerial sporting and recreational activities

ENR 5.6 Bird migration and areas with sensitive fauna

ENR 6. EN-ROUTE CHARTS

PART 3 – AERODROMES (AD)

AD 2 AERODROMES

**** AD 2.15 Other lighting and secondary power supply

**** AD 2.16 Helicopter landing area

**** AD 2.17 Air traffic services airspace

**** AD 2.18 Air traffic services communication facilities

**** AD 2.19 Radio navigation and landing aids

**** AD 2.20 Local aerodrome regulations

**** AD 2.21 Noise abatement procedures

**** AD 2.22 Flight procedures

**** AD 2.23 Additional information

**** AD 2.24 Charts related to an aerodrome

*Note: **** is to be replaced by the relevant ICAO location Indicator of each Aerodrome*

AD 3. HELIPORTS

APPENDIX E

SNOWTAM FORMAT

(6.6.5.3, 6.6.12.12.2)

(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

Note.— 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.

Note 1.— Brackets in (BBB) are used to indicate that this group is optional.

Note 2.— 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

Note.— The information groups are separated by a space, as illustrated above.

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]).

Note.— 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).

Note 1.— 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.

Note 2.— 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).

Note 1.— 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.*

Note 2.— 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)

Note.— 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*

Note 1.— Elements in the situational awareness section end with a full stop.

Note 2.— 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).

Note.— 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.

Note.— 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.

EXAMPLE 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
02170135 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

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.)

APPENDIX F

ASHTAM FORMT

(6.6.5.4, 6.6.13.1.1, 6.6.13.3)

(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 5 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)*

APPENDIX G

Predetermined Distribution System for NOTAM

(6.6.6.2,6.6.9.3.3)

1. The predetermined distribution system provides for incoming NOTAM (including SNOWTAM and ASHTAM) to be channeled through the aeronautical fixed service (AFS) direct to designated addressees predetermined by the receiving State concerned while concurrently being routed to the international NOTAM office for checking and control purposes.

2. The addressee indicators for those designated addressees are constituted as follows:

   1) *First and second letters:*

      The first two letters of the location indicator for the AFS communication centre associated with the relevant international NOTAM office of the receiving State.

   2) *Third and fourth letters:*

      The letters ―ZZ‖ indicating a requirement for special distribution.

   3) *Fifth letter:*

      The fifth letter differentiating between NOTAM (letter ―N‖), SNOWTAM (letter ―S‖), and ASHTAM (letter ―V‖).

   4) *Sixth and seventh letters:*

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

      Note.— The fifth, sixth and seventh letters replace the three-letter designator YNY which, in the normal distribution system, denotes an international NOTAM office.

   5) *Eighth letter:*

      The eighth position letter shall be the filler letter ―X‖ to complete the eight-letter addressee indicator.

3. States are to inform the States from which they receive NOTAM of the sixth and seventh letters to be used under different circumstances to ensure proper routing.

APPENDIX H

AERONAUTICAL DATA PUBLICATION RESOLUTION

AND
INTEGRETY CLASSIFICATION

(4.2.2.1, 4.2.3.1)

a. Latitude and longitude

Latitude and longitude	Publication resolution	Integrity classification
Flight information region boundary points	1 min	routine
P, R, D area boundary points (outside CTA/CTR boundaries)	1 min	routine
P, R, D area boundary points (inside CTA/CTR boundaries)	1 sec	essential
CTA/CTR boundary points	1 sec	essential
En-route NAVAIDS, intersections and waypoints, and holding, and STAR/SID points	1 sec	essential
Obstacles in Area 1 (the entire State territory)	1 sec	routine
Aerodrome/heliport reference point	1 sec	routine
NAVAIDS located at the aerodrome/heliport	1/10 sec	essential
Obstacles in Area 3	1/10 sec	essential
Obstacles in Area 2	1/10 sec	essential
Final approach fixes/points and other essential fixes/points comprising the instrument approach procedure	1/10 sec	essential
Runway threshold	1/100 sec	critical
Runway end	1/100 sec	critical
Runway holding position	1/100 sec	critical
Taxiway centre line/parking guidance line points	1/100 sec	essential
Taxiway intersection marking line	1/100 sec	essential
Exit guidance line	1/100 sec	essential
Aircraft stand points/INS checkpoints	1/100 sec	routine
Geometric centre of TLOF or FATO thresholds, heliports	1/100 sec	critical
Apron boundaries (polygon)	1/10 sec	routine
De-icing/anti-icing facility (polygon)	1/10 sec	routine

Note.— See Appendix 8 for graphical illustrations of obstacle data collection surfaces and criteria used to identify obstacles in the defined areas.

b. Elevation/altitude/height

Elevation/altitude/height	Publication resolution	Integrity classification
Aerodrome/heliport elevation	1 m or 1 ft	essential
WGS-84 geoid undulation at aerodrome/heliport elevation position	1 m or 1 ft	essential
GBAS reference point		1 m or 1 ft
essential Heliport crossing height, PinS approaches		1 m or 1 ft
essential Runway or FATO threshold, non-precision approaches		1 m or 1 ft
essential		
WGS-84 geoid undulation at runway or FATO threshold, TLOF geometric centre, non-precision approaches	1 m or 1 ft	essential
Runway or FATO threshold, precision approaches	0.1 m or 0.1 ft	critical
WGS-84 geoid undulation at runway or FATO threshold, TLOF geometric centre, precision approaches	0.1 m or 0.1 ft	critical
Threshold crossing height (reference datum height), precision approaches	0.1 m or 0.1 ft	critical
Obstacles in Area 2	1 m or 1 ft	
essential Obstacles in Area 3	0.1 m or 0.1 ft	
essential Obstacles in Area 1 (the entire State territory)	1 m or 1 ft	
routine Distance measuring equipment/precision (DME/P)	3 m (10 ft)	
essential Distance measuring equipment (DME)	30 m (100 ft)	
essential		
Minimum altitudes	50 m or 100 ft	routine

Note.— See Appendix 8 for graphical illustrations of obstacle data collection surfaces and criteria used to identify obstacles in the defined areas.

c. Declination and magnetic variation

Declination/variation	Publication resolution	Integrity classification
VHF NAVAID station declination used for technical line-up	1 degree	essential
NDB NAVAID magnetic variation	1 degree	routine
Aerodrome/heliport magnetic variation	1 degree	
essential ILS localizer antenna magnetic variation	1 degree	
essential		
MLS azimuth antenna magnetic variation	1 degree	essential

d. Bearing

Bearing	Publication resolution	Integrity classification
Airway segments	1 degree	routine
Bearing used for the formation of an en-route and a terminal fix	1/10 degree	routine
Terminal arrival/departure route segments	1 degree	routine
Bearing used for the formation of an instrument approach procedure fix	1/100 degree	essential
ILS localizer alignment (True)	1/100 degree	
essential MLS zero azimuth alignment (True)	1/100 degree	
essential		
Runway and FATO bearing (True)	1/100 degree	routine

e. Length/distance/dimension

Length/distance/dimension	Publication resolution	Integrity classification
Airway segment length	1/10 km or 1/10 NM	routine
Distance used for the formation of an en-route fix	1/10 km or 1/10 NM	routine
Terminal arrival/departure route segment length	1/100 km or 1/100 NM	essential
Distance used for the formation of a terminal and instrument approach procedure fix	1/100 km or 1/100 NM	essential
Runway and FATO length, TLOF dimensions	1 m or 1 ft	critical
Runway width	1 m or 1 ft	essential
Displaced threshold distance	1 m or 1 ft	routine
Clearway length and width	1 m or 1 ft	
essential Stopway length and width	1 m or 1 ft	
critical Landing distance available	1 m or 1 ft	
critical Take-off run available	1 m or 1 ft	
critical Take-off distance available	1 m or 1 ft	
critical Accelerate-stop distance available	1 m or 1 ft	
critical Runway shoulder width	1 m or 1 ft	
essential Taxiway width	1 m or 1 ft	
essential		
Taxiway shoulder width	1 m or 1 ft	essential

Length/distance/dimension	Publication resolution	Integrity classification
ILS localizer antenna-runway end, distance	1 m or 1 ft	routine
ILS glide slope antenna-threshold, distance along centre line	1 m or 1 ft	routine
ILS marker-threshold distance	1 m or 1 ft	
essential ILS DME antenna-threshold, distance along centre line	1 m or 1 ft	
essential MLS azimuth antenna-runway end, distance	1 m or 1 ft	
routine MLS elevation antenna-threshold, distance along centre line	1 m or 1 ft	
routine MLS DME/P antenna-threshold, distance along centre line	1 m or 1 ft	

essential

APPENDIX I

TERRAIN AND OBSTACLE DATA REQUIREMENTS

(6.7.3)

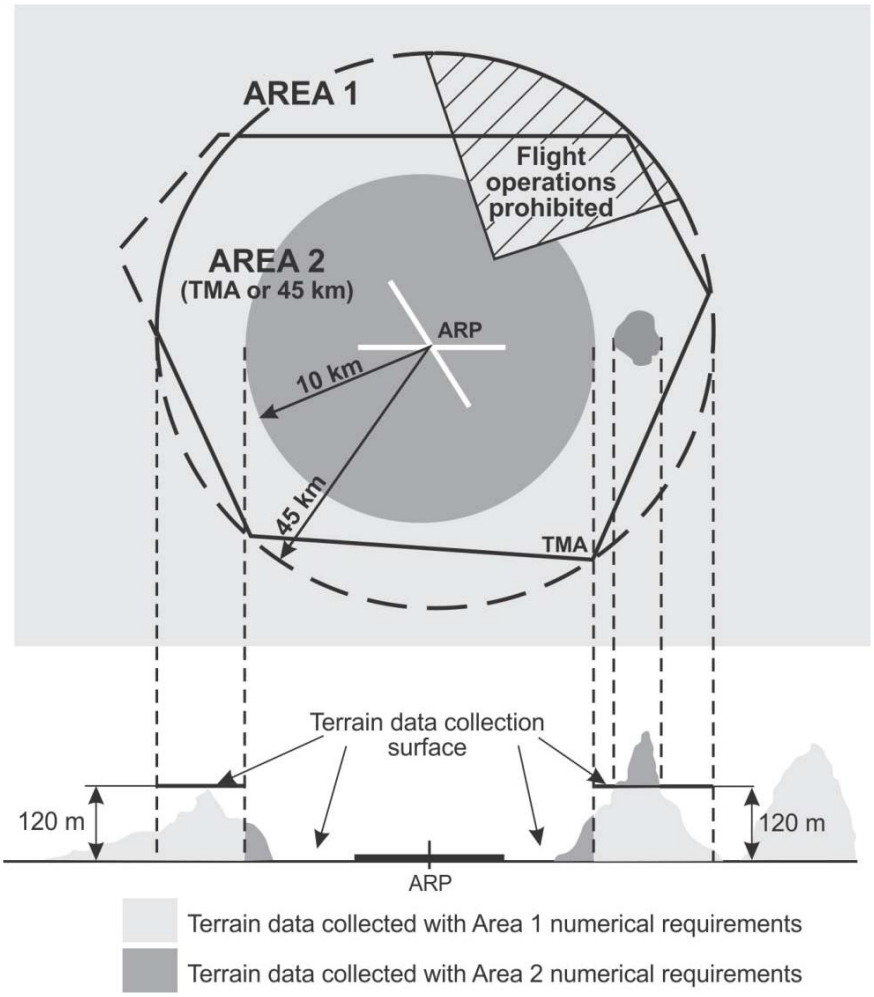


Figure A8-1. Terrain data collection surfaces — Area 1 and Area 2

1. Within the area covered by a 10-km radius from the aerodrome reference point (ARP), terrain data shall comply with the Area 2 numerical requirements.

2. In the area between 10 km and the terminal control area (TMA) boundary or 45-km radius (whichever is smaller), data on terrain that penetrates the horizontal plane 120 m above the lowest runway elevation shall comply with the Area 2 numerical requirements.

3. In the area between 10 km and the TMA boundary or 45-km radius (whichever is smaller), data on terrain that does not penetrate the horizontal plane 120 m above the lowest runway elevation shall comply with the Area 1 numerical requirements.

4. In those portions of Area 2 where flight operations are prohibited due to very high terrain or other local restrictions and/or regulations, terrain data shall comply with the Area 1 numerical requirements.

Note.— Terrain data numerical requirements for Areas 1 and 2 are specified in Appendix 1.

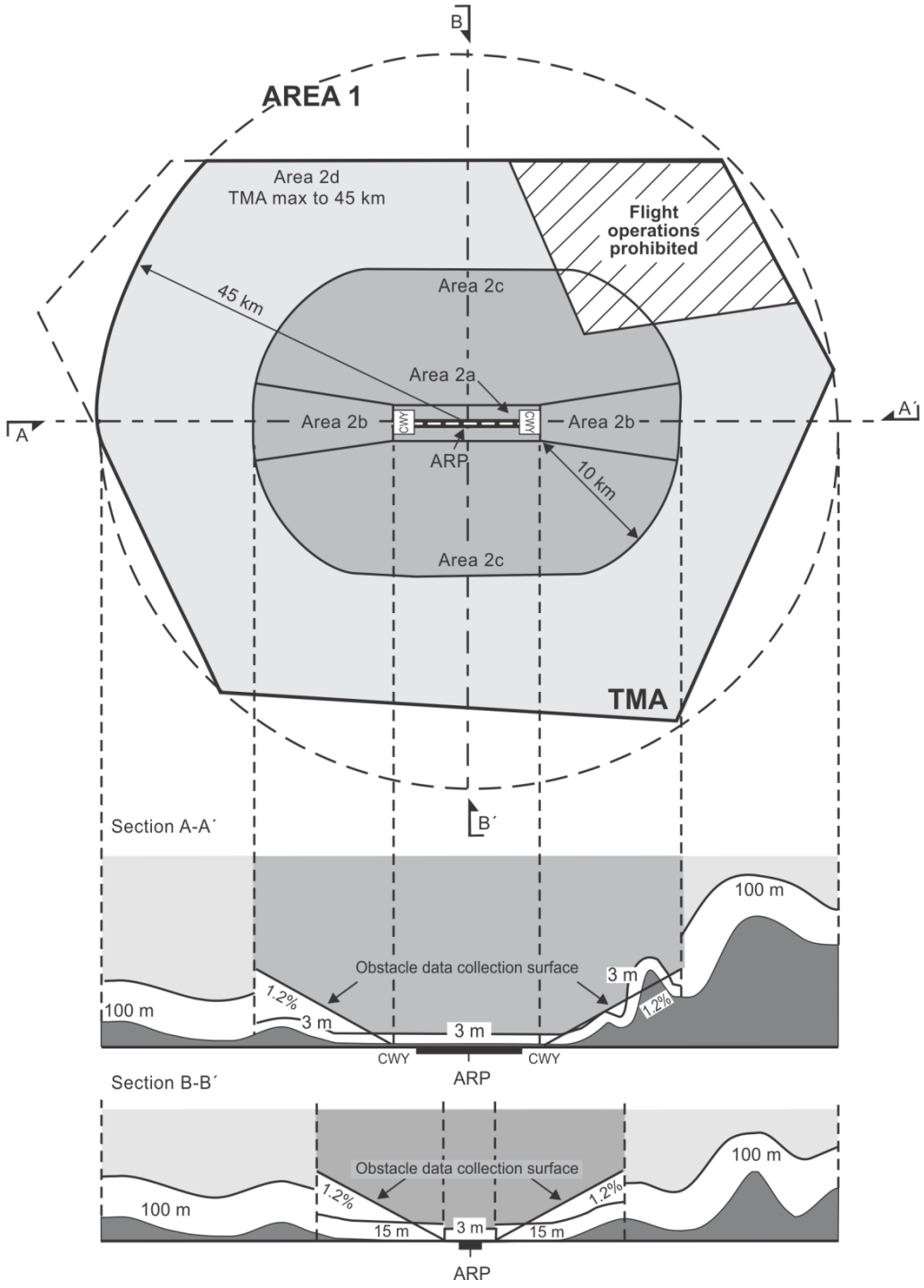


Figure A8-2. Obstacle data collection surfaces — Area 1 and Area 2

1. Obstacle data shall be collected and recorded in accordance with the Area 2 numerical requirements specified in Appendix 1.

2. In those portions of Area 2 where flight operations are prohibited due to very high terrain or other local restrictions and/or regulations, obstacle data shall be collected and recorded in accordance with the Area 1 requirements.

3. Data on every obstacle within Area 1 whose height above the ground is 100 m or higher shall be collected and recorded in the database in accordance with the Area 1 numerical requirements specified in Appendix 1.

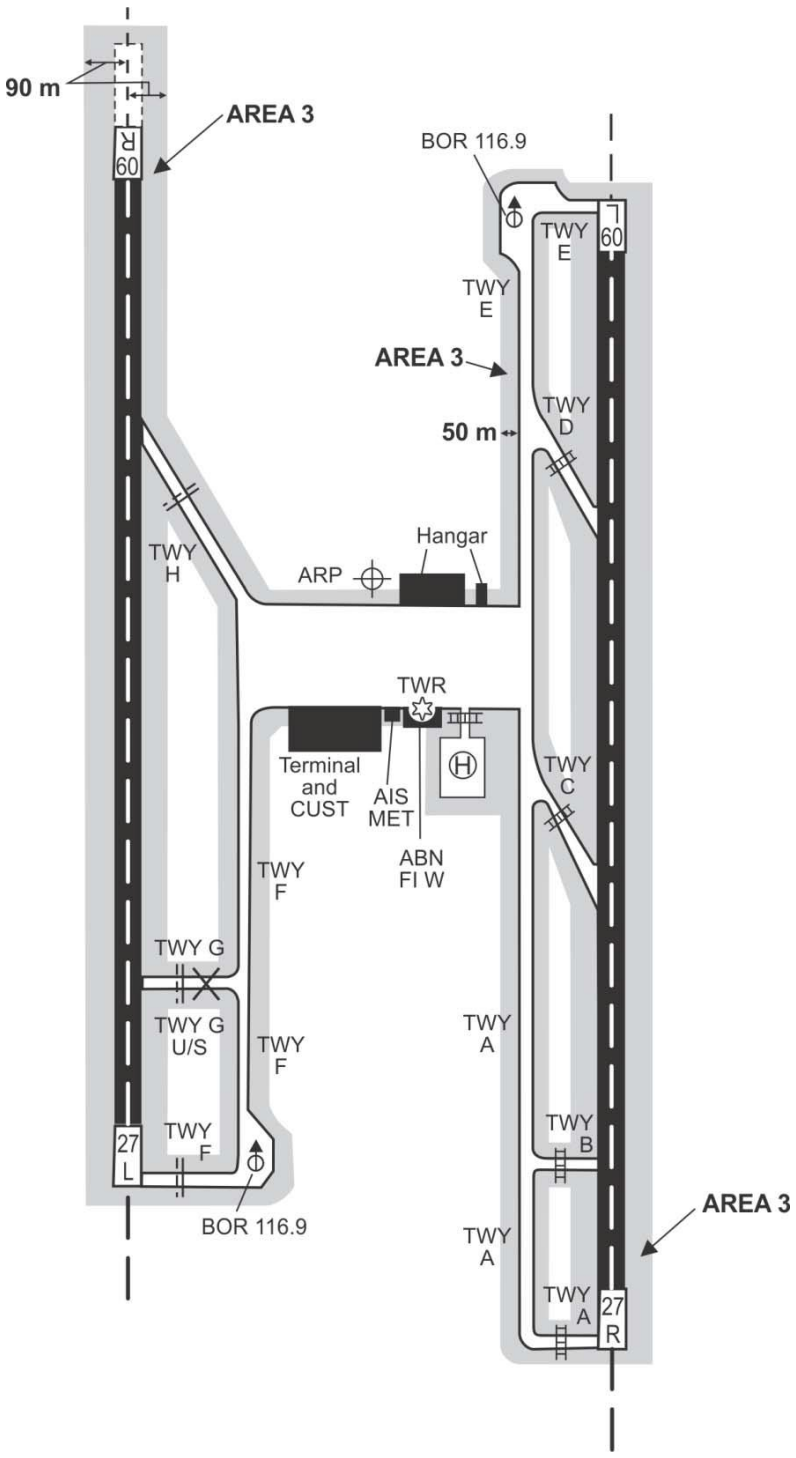


Figure A8-3. Terrain and obstacle data collection surface — Area 3

Terrain and obstacle data in Area 3 shall comply with the numerical requirements specified in Appendix 1.

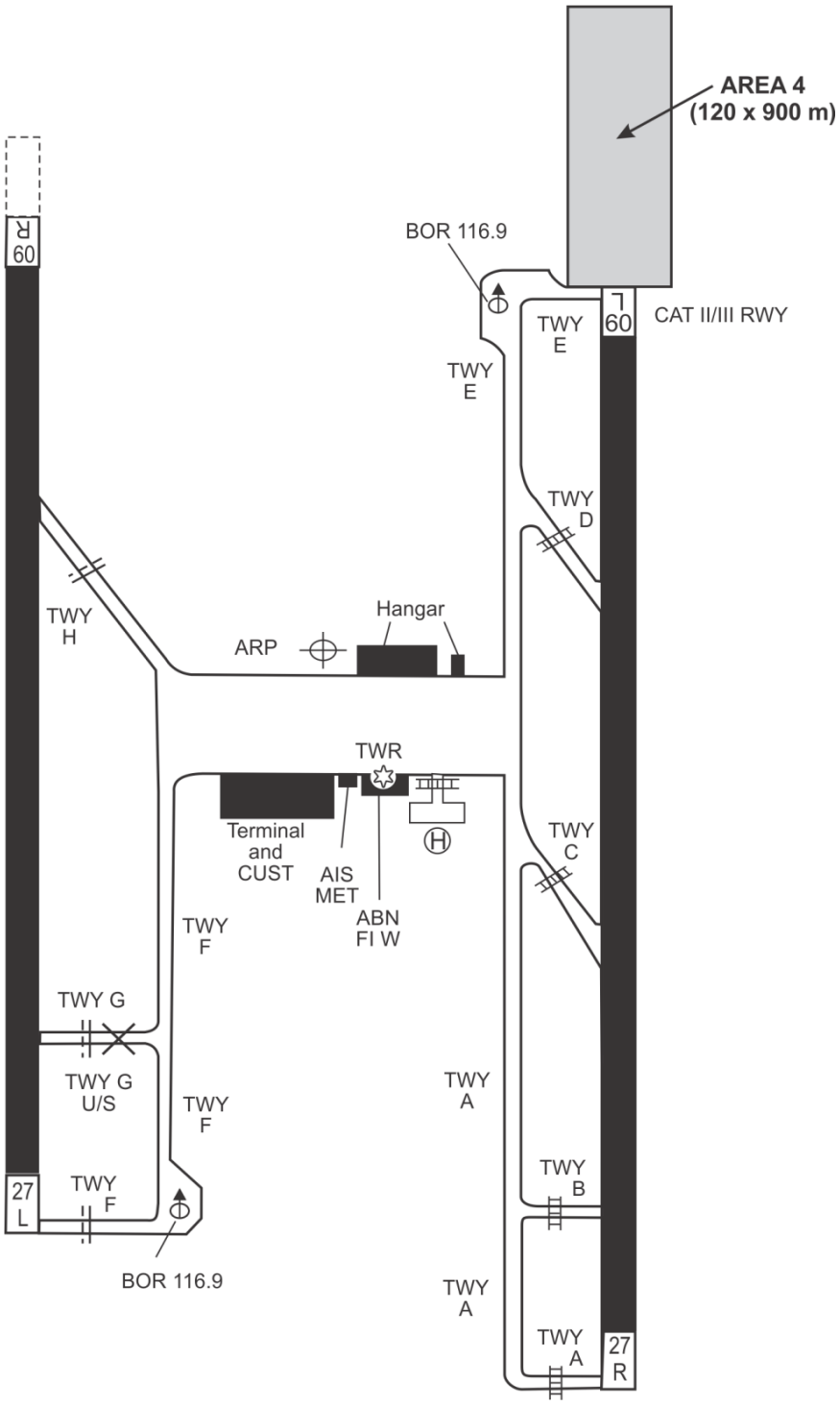


Figure A8-4. Terrain and obstacle data collection surface — Area 4

Terrain and obstacle data in Area 4 shall comply with the numerical requirements specified in Appendix 1.

APPENDIX J

AERONAUTICAL INFORMATION CIRCULAR (AIC) (SAMPLE)

(6.4.4.2)

TEL: 977-015718027 **977-015718014** **AFTN : VNKTYOYX** **Email: caanais@caanepal.gov.np** **caanais20216@gmail.com** **Website : www.caanepal.gov.np**	**NEPAL** **AERONAUTICAL INFORMATION MANAGEMENT DEPARTMENT** **CIVIL AVIATION AUTHORITY OF NEPAL** **SINAMANGAL, KATHMANDU, NEPAL**	**AIC** **(Serial No.)/Year** **DD/MM/YY**
Subject …….		

APPENDIX K

AIP SUPPLEMENT (SAMPLE)

(6.3.2, 6.6.2.1)

TEL: 977-015718027 **977-015718014** **AFTN : VNKTYOYX** **Email: caanais@caanepal.gov.np** **Website : www.caanepal.gov.np**	**NEPAL** **AERONAUTICAL INFORMATION MANAGEMENT DEPARTMENT** **CIVIL AVIATION AUTHORITY OF NEPAL** **SINAMANGAL, KATHAMNDU**	**AIP** **SUPPLEMENT (Serial No.)/Year DD/MM/YY**

(WITH IMMEDIATE EFFECT)

Subject …….

APPENDIX L

AIRCA AIP SUPPLEMENT (SAMPLE)

(6.3.4, 7.2.1)

TEL: 977-015718027 **977-015718014** **AFTN : VNKTYOYX** **Email: caanais@caanepal.gov.np** **caanais20216@gmail.com** **Website : www.caanepal.gov.np**	**NEPAL** **AERONAUTICAL INFORMATION MANAGEMENT DEPARTMENT** **CIVIL AVIATION AUTHORITY OF NEPAL** **SINAMANGAL, KATHMANDU**	**AIRAC AIP SUPPLEMENT** **(Serial No.)/Year** **DD/MM/YY**
This AIRAC AIP supplement is issued for information, guidance and necessary action.		

(EFFECTIVE FROM : DD/MM/YY)

Subject: …… …….

APPENDIX M

AIRCA AIP AMENDMENT (SAMPLE)

(6.3.8, 7.2.1)

TEL: 977-015718027 **977-015718014** **AFTN : VNKTYOYX** **Email: caanais@caanepal.gov.np** **caanais20216@gmail.com** **Website : www.caanepal.gov.np**	**NEPAL** **AERONAUTICAL INFORMATION MANAGEMENT DEPARTMENT** **CIVIL AVIATION AUTHORITY OF NEPAL** **SINAMANGAL, KATHMANDU**	**AIRAC AIP AMENDMENT Serial No./Year** **DD/MM/YY**
EFFECTIVE DATE : DD/MM/YY		

1. Contents

APPENDIX N

SHCEDULE OF AIRAC EFFECTIVE DATES

(7.1.3, 7.3.1)

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

APPENDIX O

AIRAC Predetermined Distribution Date 2025

(7.4.2)

Cycle Number	Latest Date for information to reach AIM Dept. for Normal changes	Publication Date for Normal changes *(42 days in prior)*	Effective Date
01/25	05 DEC 2024	12 DEC 2024	23 JAN 2025
02/25	02 JAN 2025	09 JAN 2025	20 FEB 2025
03/25	31 JAN 2025	06 FEB 2025	20 MAR 2025
04/25	27 FEB 2025	06 MAR 2025	17 APR 2025
05/25	27 MAR 2025	03 APR 2025	15 MAY 2025
06/25	24 APR 2025	01 MAY 2025	12 JUN 2025
07/25	22 MAY 2025	29 MAY 2025	10 JUL 2025
08/25	19 JUN 2025	26 JUN 2025	07 AUG 2025
09/25	17 JUL 2025	24 JUL 2025	04 SEP 2025
10/25	14 AUG 2025	21 AUG 2025	02 OCT 2025
11/25	11 SEP 2025	18 SEP 2025	30 OCT 2025
12/25	09 OCT 2025	16 OCT 2025	27 NOV 2025
13/25	06 NOV 2025	13 NOV 2025	25 DEC 2025

APPENDIX P
Standard Operating Procedure (SOP) For Distribution of Aeronautical Information Products
(3.5.4)

1. Aeronautical Information (AI) Products include:
   (a) Aeronautical Information Publication (AIP) Nepal, including Amendments and Supplements
   (b) Aeronautical Information Circular (AIC)
   (c) Aeronautical information Charts
   (d) NOTAM: and
   (e) Digital data sets (to be developed)

2. One copy of AI Product will be made available when requested by the AIS of Contracting State without charge, in mutually agreed form.

3. CAAN will provide AI Products free of cost to the International Agencies/Organizations which also provides AI Products free of cost to CAAN.

4. National AI Products users (Person/Organization) who are intended to buy AI Products are required to submit the Bank voucher to AIM Department of deposition of allotted charges in either of the following Banks as specified in Pro-Forma invoice attached in Annex-1 of this SOP.

NMB Bank Head Office	**Rastriya Banijya Bank**
Babarmahal, Kathmandu, Nepal	Main Branch, Bishalbazzar, Kathmandu, Nepal
Account No.: 0010012611500043	Account No.: 1090100064917001
Swift Code: NMBBNPKA	Swift Code : RBBANPKA

5. International AI Products user who are interested to buy AI Products are required to submit the bank voucher of deposition of allotted charges in either of the Bank mention in item 4 as specified in Pro-forma Invoice attached in the Annex – 1 of this SOP.

6. AI Products will be made available to the subscribers on regular basis by AIM Department based on payment of annual subscription charges.

7. National and International subscribers of AI Products will be made available with the list of valid NOTAM by International NOTAM Office.

8. Store Section should made available AI products to the AIM Department after the approval of AIM Department Chief. AIM Department will keep the records of person (Name, Address, Date, Price, Organization/Agency) who received AI Products.

9. Finance Department will verify Bank Statement related to the AI Products charges and keep record of it.

10. For further information and quarries AI Products users may contact AIM Department in the following address.

Civil Aviation Authority of Nepal
Aeronautical Information Management (AIM) Department,
Sinamangal, Kathmandu
TEL: **977-015718027**
AFS: VNKTYOYX
Email: caanais@caanepal.gov.np

Standard Operating Procedure for Distribution of AI Products - Annex 1

CIVIL AVATION AUTHORITY OF NEPAL

Sinamangal
Kathmandu, Nepal
Phone: 977-1-5718027
Email: caanais@caanepal.gov.np

PRO-FORMA INVOICE

Ref. No.: Date:

M/S ……..
……
…….

S.N.	Particulars	Qty.	Rate US $	Amount US $
1.	AIP Nepal (Including Tax)	1 set	100.00	100.00
	Postal Charge		20.00	20.00
	Total :			**120.00**
2.	Annual Subscription for AIP Amendment(s)/Supplements (Including Tax)		20.00	20.00
	Postal Charge		10.00	10.00
	Total :			**30.00**
3.	Aeronautical Charts.	1 set	10	**10**
Amount in words: ……..……..				

Our Bank :

NMB Bank Head Office
Babarmahal, Kathmandu, Nepal
Account No.: 0010012611500043
Swift Code: NMBBNPKA

Rastriya Banijya Bank
Main Branch, Bishalbazzar, Kathmandu, Nepal
Account No.: 1090100064917001
Swift Code : RBBANPKA

- Payment should be made by Telegraphic Transfer/ Swift Code at the given bank address in favor of Civil Aviation Authority of Nepal
- After completing the bank formalities please inform Civil Aviation Authority of Nepal along with your bank receipt (Bank Note) by in email.
- Necessary Bank Commission will be borne by subscriber.

APPENDIX Q

Civil Aviation Authority of Nepal
AIM Department
International NOTAM Office, TIA

Preflight Information Bulletin (PIB) Sample

(*8.3.1,9.4.2.17*)

Pre-flight Information bulletin	**CIVIL AVIATION AUTHORITY OF NEPAL AIM DEPARTMENT, HEAD OFFICE INTERNATIONAL NOTAM OFFICE TIA**	**Date and time of issue** DD/MM/YY 0000 UTC	**Route and Area Coverage** **1)** VNKT/R325/R344/CEA/BGO/G463/L507/BKK **2)**VNKT/B345/LLK/R460/L626/DPN/G336/SMR/G590/IID/W10/BBB **3)** KATHMANDU FIR (VNSM)

NAVIGATION WARNINGS			
FIR/UIR Ref.	**Period Time (UTC)**	**Area and nature of activity**	**Upper limit Lower limit**
KATHMANDU FIR **A.1** **A.2** **KOLKATA FIR** **A.1**			

GENERAL (FIR/ Routes/ Aerodromes)		
LOCATION	**FACILITY**	**INFORMATION**
KATHMANDU FIR VNKT **DELHI** **FIR** VIDP **MUMBAI FIR** VABB		

APPENDIX R

Civil Aviation Authority of Nepal
AIM Department
International NOTAM Office, TIA

List of Valid NOTAM (sample)

(6.3.5)

TEL: +977-1-4113315, +977-1-4113033 AFS: VNKTYNYX E-mail: notamtia@gmail.com	**NEPAL** CIVIL AVIATION AUTHORITY OF NEPAL INTERNATIONAL NOTAM OFFICE TRIBHUVAN INTERNATIONAL AIRPORT KATHMANDU	**NOTAM LIST** Series A, B and D DD/MM/YY

THE FOLLOWING NOTAM SERIES A, B AND D PERTAINING TO KATHMANDU FIR WERE STILL VALID AT 0000 UTC ON DD/MM/YY. NOTAM NOT INCLUDED HAVE EITHER BEEN CANCELLED OR TIME EXPIRED OR SUPERSEDED BY AIP SUPPLEMENT OR INCORPORATED IN THE AIP NEPAL.

SERIES A, B AND D	EFFECTIVE DATE AND TEXT	SUBJECT
KATHMANDU FIR **AERODROME**		
Latest Publications (available in www.caanepal.gov.np) **;** AIP NEPAL: AIRAC AIP AMDT : AIRAC AIP SUP : AIC : **AIP Supplements in force**:	**AIC in force:**	

APPENDIX S

INTERNATIONAL NOTAM OFFICES WITH WHICH NOTAMS ARE EXCHANGED

(3.3.1)

Putrajaya Malaysia	Frankfurt, Germany	Middlesex, United Kingdom	Rome, Italy
Russia	Republic of South Korea	Manama Bahrain	Ireland
Singapore	Washington D.C. USA	Abu-Dhabi	Doha, Qatar
Canada	Pakistan	Tokyo, Japan	China
Hongkong	Switzerland	Paris, France	Subang, Malaysia
Austrailia	Denmark	Indonesia	Netherlands
UAE	Macau	Vietnam	India

OTHER AGENCIES WITH WHICH NOTAMS ARE EXCHANGED

JEPPESEN, Germany	Group EAD, Germany	AeroStratos pte Ltd, Singapore	Flygrestanda AB, Sweden
Cathy Pacific Airways Ltd, Hongkong, China	Hersham Place Technology Park, United Kingdom	JAL Maintenance Services Co. Ltd. Tokyo, Japan	
Brussels Airlines, Belgium	Salangor, Malaysia	Lufthansa Systems Flight Nav Inc. Switzerland	Koran Air, Seoul, S. Korea
Soudi Arabian Airlines, Saudi Arabia	DMAAC Pacific Officer, USA	Minisere Destransport, Paris, France	Boin commercial Airplane group USA
Pacific Consultants, Tokyo, Japan	AIB, United Kingdom	FAA, Washington D.C. USA	Paul Aquino Evans & Sutherland UK
Airways International ltd. Newzealand	Int'L Air Transport Association, Canada	Chris Brown, Flight Operation Technical Manager, United Kingdom	ZAO Transas Russia
Gulf Air, Kingdom of Baharain	SITA-AIS Department, UK	Roshni Gurung, Hongkong	

Appendix T

(9.5.1.2, 9.5.1.4)

CIVIL AVIATION AUTHORITY OF NEPAL
AERONAUTICAL INFORMATION MANAGEMENT DEPARTMENT

CHART VERIFICATION CHECKLIST

APRIL 2022

BACKGROUND

Instrument flight procedure charts based on conventional navigation aids have always demanded a quality control mechanism. After the implementation of PBN and associated airborne database navigation systems, the need for even higher level of quality system deemed necessary because the small errors in chart data could lead to catastrophic results. So, as part of QMS in AIS, this checklist is more focused on ensuring the quality of chart data received from data originator before publication such charts.

Verification of the maps & charts data is the necessary and most vital quality control mechanism. The purpose of verification is to confirm that the requirements of CAR-4 are met before publication of the charts.

The checklist in the following pages will assist in executing effectively the verification process, and will act as a tool that helps to ensure the quality of the received Aeronautical charts in a harmonized way between the chart verifying personnel of AIM Department.

Chart Verification Checklist

Chart Title: ----------

Y= Satisfactory, N= Not Satisfactory, P= Partially Satisfactory, N/A= Not Applicable

	Chart Title/ Identification	Symbols used				
		Aerodrome/RWY/TWY	NAVAID/WP/ Fixes	Airspace	IFP/Holdings	Obstacle/Terrain
CAR-4 Compliance						
Remarks						

.	Culture/ Topography	Units of Measurement	Coverage/ Scale/ Projection	BRG/ TR/ RAD	Charting Resolution	Chart Readability
CAR-4 Compliance						
Remarks						

	Format	Spelling/Text	Abbreviation	Aeronautical Data	Common Reference System	MAGVAR
CAR-4 Compliance						
Remarks						

Checked By:

Signature:

Name:

Designation:

Date :

Verified By:

Signature:

Name:

Designation:

Date :

Appendix U

(10.3)

Sample of AIM Department Training Plan

S.N.	Type of Training	Training Area	Training Objective	Training Details	To whom	Training Year, duration, priority				Cost (Estimated)	Training Location	Remarks.
						FY		FY				
						Duration	Priority	Duration	Priority			

Appendix V

(10.4)

Sample of AIS Personnel Training Record

Name
Designation
Department
Address
Email
Phone

Qualification	Trainings/Seminars/Workshops				Experience		
	In-country		Abroad				
	Training Course	Date	Training Course	Date	Position	Date from	Date to

Appendix W
(10.5)

Aeronautical Information Management Department
Civil Aviation Authority of Nepal

AIS COMPETENCY CHECKLIST

S.N.	COMPETENCY	DESCRIPTION	OBSERVABLE BEHAVIOUR (OB)	Fully Satisfied	Satisfied	Partially Satisfied	Dis Satisfied
1	Aeronautical data and aeronautical information awareness	Comprehends aeronautical data and aeronautical information requirements, monitors the aeronautical data and aeronautical information process(es) and detects anomalies and potential threats that can degrade the flow and the quality of data and information and affect its use.	1. Maintains awareness of the aeronautical data and aeronautical information requirements based on the intended use of aeronautical data and aeronautical information. 2. Validates and verifies upon receipt of the aeronautical data that it is compliant with quality requirements (accuracy, resolution, completeness,format, and timeliness). 3. Monitors the quality of aeronautical data and aeronautical information throughout the aeronautical data process from origination to distribution, to internal and external stakeholders (integrity, timeliness, traceability). 4. Uses the available tools to gather, monitor and comprehend aeronauticaldata and aeronautical information in its different stages (collection, storage, processing, distribution) 5. Manages the aeronautical data and aeronautical information based on user requirements. 6. Identifies and manages potential threats that can cause the degradation of aeronautical data and aeronautical information flow (e.g., interruption of aeronautical data process) or degradation of the quality of the aeronautical data and aeronautical information. 7. Develops effective contingency plans based on potential threats. 8. Maintains awareness of the latest international standards, recommended practices and procedures in aeronautical information management (AIM).				

S.N.	COMPETENCY	DESCRIPTION	OBSERVABLE BEHAVIOUR (OB)	Fully Satisfied	Satisfied	Partially Satisfied	Dis Satisfied
2	Coordination	Comprehends and adheres to applicable formal arrangements and, if required, coordinates with originators, personnel in different operational positions, and with otheraffected stakeholders to meet the agreed requirements.	1. Maintains awareness of the entities accountable for data or information origination and/or from which aeronautical data and aeronautical information is received, as defined in the formal arrangement (aeronautical data and aeronautical information originators). 2. Adheres to the applicable formal arrangement with originators, operational units and other affected stakeholders. 3. Monitors the requirements agreed to in the formal arrangements and initiates appropriate action or improvement to achieve the agreed requirements. 4. Coordinates with aeronautical data originators, personnel in different operational positions, and with other affected stakeholders if anomalies in performance are detected. 5. Uses available tools to monitor and analyse the performance achieved and generate performance reports as required.				
3	Application of procedures	Identifies and applies data procedures in accordance with published operating instructions and applicable regulations and standards.	1. Identifies the source of operating instructions. 2. Follows the operating instructions in a timely manner. 3. Performs the required quality procedures and proposes improvements ifrequired. 4. Correctly operates information systems and associated equipment. 5. Complies with applicable regulations, standards and procedures. 6. Applies relevant procedural knowledge.				

S.N.	COMPETENCY	DESCRIPTION	OBSERVABLE BEHAVIOUR (OB)	Fully Satisfied	Satisfied	Partially Satisfied	Dis Satisfied
4	Communication	Communicates effectively (in oral and written form) with all stakeholders involved in the aeronautical data process.	1. Accurately interprets and processes the aeronautical data andaeronautical information received. 2. Asks relevant and effective questions to understand the content ofaeronautical data and aeronautical information if it is ambiguous. 3. Uses appropriate vocabulary and expressions for clear communication with stakeholders. 4. Presents appropriate and accurate information in a clear and concise manner in all media (paper, electronic, digital). 5. Ensures the recipient is ready and able to receive the information in verbal briefings. 6. Actively listens and demonstrates understanding when receivingquestions from internal or external stakeholders. 7. Manages non-standard situations by communicating effectively. 8. Notifies internal and external stakeholders of the errors in the data andproducts effectively.				

S.N.	COMPETENCY	DESCRIPTION	OBSERVABLE BEHAVIOUR (OB)	Fully Satisfied	Satisfied	Partially Satisfied	Dis Satisfied
5	Workload management	Manages available resources efficiently to prioritize and perform all assigned information tasks in a timely manner under allcircumstances.	1. Plans, prioritizes and schedules all assigned information taskseffectively. 2. Manages time efficiently when carrying out assigned informationtasks. 3. Reviews, monitors and cross-checks actions. 4. Verifies that information tasks are completed to the expectedoutcome. 5. Manages and recovers from interruptions, distractions, variations and failures. 6. Offers and accepts assistance, delegates when necessary, and asksfor help when needed. 7. Maintains self-control in all encountered situations. 8. Manages stress in an appropriate manner and adapts to the demandsof a situation as needed.				

S.N.	COMPETENCY	DESCRIPTION	OBSERVABLE BEHAVIOUR (OB)	Fully Satisfied	Satisfied	Partially Satisfied	Dis Satisfied
6	Team work	Operates effectively as a team member.	1. Carries out assigned actions and duties in such a manner thatsupports a team environment. 2. Encourages team participation and cooperation. 3. Addresses and resolves conflicts and disagreements in a constructivemanner. 4. Shows respect and tolerance towards other people. 5. Uses team member feedback to improve overall team performance. 6. Provides and accepts feedback constructively. 7. Fosters an atmosphere of open communication. 8. Shares experiences with the objective to continuously improve theaeronautical information process.				
7	Information management expertise	Applies and improves technical knowledge and skills related to the collection, processing, management, integration and provision of aeronautical data and aeronautical information.	1. Demonstrates knowledge of information systems and technology to ensure integration of aeronautical data and aeronautical information. 2. Understands and applies aeronautical data and aeronautical information lifecycle management policies, processes and procedures. 3. Chooses the most appropriate and cost-effective infrastructure basedon the operational criticality of the information. 4. Selects the appropriate tools, systems and resources to support the efficient management of aeronautical data and aeronautical information. 5. Develops information requirements for AIM systems 6. Ensures that the data and information are accurately represented in the systems.				

S.N.	COMPETENCY	DESCRIPTION	OBSERVABLE BEHAVIOUR (OB)	Fully Satisfied	Satisfied	Partially Satisfied	Dis Satisfied
8	Self-management and continuous learning	Demonstrates personal attributes that improve performance and maintains active involvement in self-learning and self-development.	1. Improves own job performance through self-evaluation. 2. Seeks and accepts feedback to improve own job performance. 3. Uses feedback to improve own job performance. 4. Takes responsibility for own job performance by detecting and resolving own errors in the context of the quality management system(QMS). 5. Engages in continuous improvement throughout the process. 6. Improves own job performance from received training. 7. Keeps up to date on specialized technical knowledge and skills. 8. Recognizes trends in own technical area and anticipates changes.				

Checked By

Name :

Designation :

Signature :

Date :

Duty Officer

Name :

Designation :