

Pursuant to Articles 16 and 61(2) of the Administration Law (Official Gazette of BiH No 32/02 and 102/09) and Article 14(1) of the Bosnia and Herzegovina Aviation Law (Official Gazette of BiH No: 39/09) Director General of the Bosnia and Herzegovina Directorate of Civil Aviation hereby issues the following

RULEBOOK

ON NOTAM OFFICE OF BOSNIA AND HERZEGOVINA (NOF)

Article 1 (Subject)

This Rulebook defines functions and tasks of NOTAM Office of Bosnia and Herzegovina (hereinafter: 'NOF') in order to provide for flow of information significant for receipt, processing and distribution thereof in the NOTAM format, required for safe air traffic flow in FIR Sarajevo.

Article 2 (Objectives)

The objective of this Rulebook is, in the operations of NOF, to provide for implementation of ICAO standards and recommended practices and other relevant legislation that defines this field, ensuring the flow of information and data significant for safety.

Article 3 (Terms and Abbreviations)

(1) Terms used in this Rulebook shall have the following meaning:

- a) **Aerodrome:** means a defined area on land or water, (including any objects, installations and equipment) intended to be used either wholly or in part for landing, take off and movement of aircraft;
- b) **Aerodrome operator:** Natural or legal person, holder of certificate for use of airport, issued by the competent aviation authority.
- c) **AIP Amendment:** Contains permanent changes to the information contained in the AIP.
- d) **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 of aircraft operations.

Bosnia and Herzegovina Directorate of Civil Aviation: Competent Aviation Authority of Bosnia and Herzegovina;

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

g) **Integrated Aeronautical Information Package:** A package which consists of the following elements:

- 1) Aeronautical information publication, including amendment service;
- 2) AIP Supplements;
- 3) Notice to airmen - NOTAM and preflight information bulletin - PIB;
- 4) Aeronautical information circular (AIC);
- 5) Checklists and lists of valid NOTAM.

h) **Source of aeronautical data and information:** natural or legal person that signed a Service Level Agreement (SLA) with the provider of aeronautical information services.

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

j) **National Supervisory Authority:** means the Bosnia and Herzegovina Directorate of Civil Aviation.

k) **NOTAM** (*Notice to Airmen*): 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.

l) **Flight Information Region:** airspace of defined dimensions within which flight information service and alerting service are provided.

m) **Restricted Area:** airspace of defined dimensions within which the flight of aircraft is restricted and operated in accordance with certain specified conditions.

n) **Danger Area:** airspace of defined dimensions within which activities dangerous to the flight of aircraft may exist at specified times.

o) **Obstacle:** Indicates all fixed (whether temporary or permanent) and mobile objects, or parts thereof, that:

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

p) **Aeronautical information services provider:** Bosnia and Herzegovina Air Navigation Services Provider (BHANSA) or other organisation, holder of valid certificate for provision of aeronautical information services that is designated by the responsible aviation authority.

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

- s) **Runway:** A defined rectangular area on a land aerodrome prepared for the landing and takeoff of aircraft.
- t) **Aeronautical information, regulation and control (AIRAC):** A system aimed at advance notification based on common effective dates, of circumstances that necessitate significant changes in operating practices.
- u) **Raw data:** The term for data collected from sources that has not been processed or has not been subject to any other manipulation.
- v) **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.
- z) **Aeronautical Data:** A representation of aeronautical facts, concepts or instructions in a formalized manner suitable for communication, interpretation or processing.
- aa) **Aeronautical Information:** A presentation resulting from the assembly, analysis and formatting of aeronautical data.
- bb) **Aeronautical Information Circular:** A notice containing information that does not qualify for the origination of a NOTAM, but which relates to flight safety, air navigation, technical, administrative or legislative matters.
- cc) **Aeronautical Information Publication:** A publication issued by or with the authority of a State and containing aeronautical information of a lasting character essential to air navigation.
- dd) **Prohibited Area:** airspace of defined dimensions, above the land area or territorial waters of a state, within which the flight of aircraft is prohibited.

(2) Abbreviations used in this Rulebook shall have the following meaning:

- a) **AIC** -*Aeronautical Information Circular*;
- b) **AIP** - Aeronautical Information Publication;
- c) **AIRAC** -*Aeronautical Information Regulation and Control*;
- d) **AMD** -*Amend or Amended*;
- e) **AFTN** -*Aeronautical Fixed Telecommunication Network*;
- f) **AFS** -*Aeronautical Fixed Service*;
- g) **ATS** -*Air Traffic Services*;
- h) **ARO** -*Air Traffic Services Reporting Office*;
- i) **AD** -*Aerodrome*;

- j) **AGL** -*Above Ground Level*;
- k) **AMSL** -*Above Mean Sea Level*;
- BHDCA** -*Bosnia and Herzegovina Directorate of Civil Aviation*;
- m) **COM** -*Communication*;
- o) **EAD** - *European AIS Database*;
- p) **EST** -*Estimate or estimated*;
- r) **FIR** -*Flight Information Region*;
- s) **GNSS** -*Global Navigation Satellite System*;
- t) **H24** -*Continuous day and night service*;
- ICAO** -*International Civil Aviation Organisation*;
- v) **IFR** - *Instrument Flight Rules*;
- z) **List of valid NOTAM**;
- aa) **MET** -*Meteorological Services* ;
- bb) **NOF** -*International NOTAM Office*;
- cc) **NIL** -*None or I have nothing to send to you*;
- dd) **PERM** -*Permanent*;
- ee) **PIB** -*Pre-flight Information Bulletin*;
- ff) **RWY** -*Runway*;
- gg) **SAR** -*Search and Rescue*;
- hh) **SLA**-*Service Level Agreement*;
- ii) **SUP** -*AIP Supplement*;
- jj) **VFR** - *Visual Flight Rules*;
- kk) **VHF** - *Very high frequency*;
- ll) **UIR** - *Upper Flight Information Region*;
- mm) **UTC** - *Coordinated Universal Time*;

Article 4 (Tasks of NOF)

(1) Task of NOF is to ensure efficient and rational procedure for receiving and processing of data so that the received information could be distributed in the NOTAM format.

(2) Tasks of NOF consist of the following:

- a) receiving, control, editing, formatting of data and originating and archiving the aeronautical information in NOTAM format;
- b) development and originating of checklists and list of valid NOTAM;
- c) receiving and distribution of messages through AFTN (Aeronautical Fixed Telecommunication Network);
- d) coordination with other services and other States' NOFs;
- e) coordination between NOF and airport operator;
- f) development and optimisation of NOF operations and organisation.

(3) NOF shall be:

- a) functionally organised,
- b) equipped with all technical devices for receiving of data and forming information in the NOTAM format,
- c) staffed with trained personnel to ensure efficient and rational procedure for receiving and processing of data and forming of information in NOTAM format.

(4) Coordination procedures, manner of delivery, timelines, content, updating, storage and other data significant for safe aircraft operations and air navigation shall be regulated by mutual agreement between NOF and specific service, including the airport operator.

Article 5 (Responsibilities and functions)

(1) In accordance with Article 4(1) of this Rulebook, NOF shall be responsible for performance of tasks specified in Article 4 of this Rulebook.

(2) NOF shall be authorised for international and domestic distribution of NOTAM messages relating to FIR Sarajevo.

(3) Hours of service of NOF shall be throughout 24 hours.

Article 6

(Sources of aeronautical data and information)

(1) With the objective to achieve completeness, timeliness and quality of aeronautical data and information, provider of aeronautical information services shall conclude appropriate Service Level Agreements with all sources of aeronautical data and information.

(2) Responsibilities of sources of aeronautical data and information include delivery of raw data in the format specified by SLA for the purpose of publishing of aeronautical information and for constant monitoring of updates and delivery of all established changes.

Provider of aeronautical information services shall propose sources of aeronautical data and information for Aeronautical Information Publication (AIP), sources of aeronautical data and information for NOTAMs and sources of aeronautical data and information for Aeronautical Information Circular (AIC). Proposed sources of Aeronautical data shall be approved by the Bosnia and Herzegovina Directorate of Civil Aviation.

Article 7 (NOTAM - General specifications)

(1) Except as otherwise provided in paragraph 4 of this Article, NOTAM shall be published in the form provided in Annex 1 of this Rulebook.

(2) NOTAM text shall consist of default standardised abbreviated phraseology assigned to the ICAO NOTAM Code complemented by ICAO abbreviations, indicators, identifiers, call signs, frequencies, figures and plain language.

(3) When NOTAM is selected for international distribution, English text shall be included for those parts expressed in plain language.

(4) Information concerning snow, slush, ice and standing water on aerodrome/heliport pavements shall be reported by means of a SNOTAM in the Format provided in Annex 2 of this Rulebook.

(5) Information concerning an operationally significant change in volcanic activity, a volcanic eruption and/or volcanic ash cloud shall be reported by means of an ASHTAM in the Format provided in Annex 3 of this Rulebook.

(6) The NOTAM originator shall allocate to each NOTAM a series identified by a letter and a four-digit number followed by a stroke and a two-digit number for the year.

(7) The four-digit number under paragraph (6) of this Article shall be consecutive and based on the calendar year.

(8) Letters A to Z, with the exception of S and T, shall be used to identify a NOTAM series.

(9) When errors occur in a NOTAM, a NOTAM with a new number to replace the erroneous NOTAM shall be issued or the erroneous NOTAM shall be cancelled and a new NOTAM issued. Only one NOTAM shall be cancelled or replaced by a NOTAM.

(10) When a NOTAM is issued which cancels or replaces a previous NOTAM, the series and number of the previous NOTAM shall be indicated and the series, location indicator and subject of both NOTAM shall be the same.

(11) Each NOTAM shall be as brief as possible and so compiled that its meaning is clear without the need to refer to another document and shall be transmitted as a single telecommunication message and shall deal with only one subject and one condition of the subject.

(12) A NOTAM containing permanent or temporary information of long duration shall carry appropriate AIP or AIP Supplement references.

(13) At least seven days' advance NOTAM shall be issued for the activation or establishment of danger, restricted or prohibited areas and for activities requiring temporary airspace restrictions other than for emergency operations.

(14) NOTAM notifying unserviceability of aids to air navigation or communication services shall give an estimate of the period of unserviceability of navigation aids or communication services or the time at which restoration of service is expected.

(15) When, in accordance with AIRAC system, AIP Amendments or AIP Supplements are issued, a TRIGGER NOTAM shall be originated. Such NOTAM shall give a brief description of the contents, the effective date and time, and the reference number of the AIP amendment or supplement.

TRIGGER NOTAM shall come into force on the same effective date and time as the AIP amendment or supplement and shall remain valid in the pre-flight information bulletin for a period of fourteen days. When there is no information for originating at specific AIRAC date, the notification thereof shall be given through AIRAC NIL NOTAM.

Article 8 (Location indicators)

(1) Location indicators included in the text of a NOTAM shall be those contained in ICAO Doc 7910 – Location Indicators.

(2) Location indicators shall be used in a curtailed form.

(3) Where no ICAO location indicator is assigned to the location, its place name spelt in accordance with local use shall be entered in plain language.

Article 9 (NOTAM checklist)

(1) A checklist of valid NOTAM shall 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 Annex 1 of this Rulebook.

- (2) One NOTAM shall be issued for each series.
- (3) Omitting a NOTAM from the checklist does not serve to cancel a NOTAM.
- (4) A checklist of NOTAM shall refer to the latest AIP Amendments, AIP Supplements and at least the internationally distributed AIC.
- (5) A checklist of NOTAM shall have the same distribution as the actual message series to which they refer and shall be clearly identified as a NOTAM checklist.

Article 10
(Monthly list of valid NOTAM)

A monthly plain-language list of valid NOTAM, including indications of the latest AIP Amendments, Aeronautical Information Circular issued and a checklist of AIP Supplements, shall be prepared with a minimum of delay and forwarded by the most expeditious means to recipients of the Integrated Aeronautical Information Package.

Article 11
(Distribution of NOTAM)

- (1) NOTAM shall be prepared in conformity with the relevant provisions of the ICAO communication procedures and shall be distributed on the basis of a request, using the telecommunication systems.
- (2) When a NOTAM is sent by means other than the AFS, a six-digit date-time group indicating the date and time of NOTAM origination, and the identification of the originator shall be used, preceding the text.
- (3) Service provider determines whether NOTAM shall be included into international distribution, while selective distribution lists should be used when practicable and also predetermined distribution system for NOTAM transmitted on the AFS in accordance with Annex 4 of this Rulebook.

Article 12
(Telecommunication requirements)

- (1) International NOTAM office must be connected to the aeronautical fixed service (AFS), and to the following points within the territory for which it provides service:
 - 1) area control centres and flight information centres;
 - 2) aerodromes/heliports at which an pre-flight information service is established, where the connections must provide for printed communications.
- (3) The use of the public Internet is permitted for exchange of non-time-critical types of aeronautical information.

Article 13

(Information published in NOTAM)

(1) NOTAM shall be originated and issued in relation to the following information:

- a) establishment, closure or significant changes in operation of aerodrome(s)/heliport(s) or runways;
- b) establishment, withdrawal and significant changes in operation of aeronautical services (AGA, AIS, ATS, CNS, MET, SAR, etc.);
- c) establishment, withdrawal and significant changes in operational capability of radio navigation and air-ground communication services. This includes: interruption or return to operation, change of frequencies, change in notified hours of service, change of identification, change of orientation (directional aids), change of location, power increase or decrease amounting to 50 per cent or more, change in broadcast schedules or contents, or irregularity or unreliability of operation of any radio navigation and air-ground communication services;
- d) establishment, withdrawal or significant changes made to visual aids;
- e) interruption of or return to operation of major components of aerodrome lighting systems;
- f) establishment, withdrawal or significant changes made to procedures for air navigation services;
- g) occurrence or correction of major defects or impediments in the 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 obstacles, military exercises, displays, races and major parachuting events outside promulgated sites);
- m) erecting or removal of, or changes to, obstacles to air navigation in the take-off/climb, missed approach, approach areas and runway strip;
- n) establishment or discontinuance (including activation or deactivation) as applicable, or changes in the status of prohibited, restricted or danger areas;
- o) establishment or discontinuance of areas or routes or portions thereof where the possibility of interception exists and where the maintenance of guard on the VHF emergency frequency 121.5 MHz is required;
- p) allocation, cancellation or change of location indicators;

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

s) 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;

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

u) forecasts of solar cosmic radiation, where provided;

v) 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;

z) 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;

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

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

(2) The need for origination and issuing of a NOTAM should be considered in any other circumstance which may affect the operation of aircraft.

Article 14 (Information not be notified by NOTAM)

The following information shall 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 marshalling services;
- g) the unserviceability 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.

**Article 15
(Repeals)**

The Rulebook on NOTAM Office of Bosnia and Herzegovina (Official Gazette of BiH No 96/13 of 10.12.2013) shall cease to have effect by virtue of the entry into force of this Rulebook.

**Article 16
(Entry into force)**

This Rulebook shall enter into force on the eighth day following that of its publication in the Official Gazette of BiH.

No: 1-3-02-2-76-1/18
Banja Luka, 23.01.2018.

Djordje Ratkovic

Director General

Instruction for the completion of the NOTAM format

1. General

The qualifiers (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 as shown in the ICAO document 8126 (Aeronautical Information Services Manual (Doc 8126)). The definition of the field is as follows:

1) *FIR*

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 field of Item Q) shall contain the code for that 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 "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, the NOTAM Selection Criteria contained in Doc 8126 (Aeronautical Information Services Manual) shall be used or one of the following combinations shall be inserted, as appropriate:

a) If the subject is not listed in the NOTAM Code (Doc 8400) or in the NOTAM Selection Criteria (ICAO Doc 8126), insert “XX” as the second and third code letters QXXAK);

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

c) When a NOTAM containing operationally significant information is issued in accordance with Annex No 5 of this Rulebook 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;*

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 ICAO Doc 8126.

4) Purpose

N = *NOTAM selected for the immediate attention of flight crew members;*

B = *NOTAM of operational significance selected for PIB entry;*

O = *NOTAM concerning flight operations;*

M = *Miscellaneous NOTAM; not subject for a briefing, but it is 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 ICAO Doc 8126.*

5) Scope

A = Aerodrome;

E = En-route;

W = NAV Warning;

K = NOTAM is a checklist.

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 ICAO Doc 8126. If the subject is qualified AE, the aerodrome location indicator must be reported in Item A).

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 NOTAM 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. If the NOTAM affects the entire FIR/UIR or more than one FIR/UIR, enter the default value "999" for radius.

4. Item A)

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

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

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 ICAO 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.*

Note: For NOTAM examples see ICAO Doc 8126 and the PANS-ABC (ICAO Doc 8400).

Priority Indicator														→
Address														
														≡
Date and time of filing														→
Originator's Indicator														≡(
Message Series, Number and Identifier														
NOTAM containing new information NOTAMN (series and number/year)													
NOTAM replacing a previous NOTAM NOTAMR..... (series and number/year) (series and number/year of NOTAM to be replaced)													
NOTAM cancelling a previous NOTAM NOTAMC..... (series and number/year) (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														

NOTAM FORMAT

Instructions for the completion of the SNOWTAM format

1. General

- a) When reporting on more than one runway, repeat Items B to P inclusive.
- b) Where no information is to be included, those items together with their indicator must be dropped completely;
- c) Metric units must be used and the unit of measurement not reported;
- d) The maximum validity of SNOWTAM is 24 hours. New SNOWTAM must 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) any change in the height or distance from centre line when critical snow banks exist on one or both sides of the runway;
 - 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 “TTAAiiii CCCC MMYGGgg (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 (ICAO Doc 7910)*);

MMYYGGgg = date/time of observation/measure-ment, 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 1: Brackets in (BBB) are used to indicate that this group is optional.

Note 2: When reporting on more than one runway and when individual date/time of observation/measurement is entered by repeating Item B, enter the latest date/time of observation/measurement into abbreviated heading.

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

SWLQ0149 LSZH 11070620

Note: Groups of information are separated by space as shown above.

f) The text "SNOWTAM" in the SNOWTAM Format and the SNOWTAM serial number in a four-digit group shall be separated by a space. Example: *SNOWTAM 0124*.

g) For readability purposes for the SNOWTAM message, include a line feed after the SNOWTAM serial number, after Item A, after the last item referring to the runway (e.g. Item P) and after Item S.

2. Item A

Aerodrome location indicator (four-letter location indicator).

3. Item B

Date and time of assessment eight-figure date/time group giving time of observation as month, day, hour and minute in UTC; *This item must always be completed.*

4. Item C

Lower runway designator number.

5. Item D

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

6. 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 (RWY).

7. 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 should be reported in sequence from the top to the bottom (closest to the runway). 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. The values for each third of the runway shall be separated by an oblique stroke (/), without space between the deposit values and the oblique stroke. For example: 47/47/47.

Note: Definitions for the various types of snow are given at the end of this Annex.

8. Item G

Mean depth in millimetres 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. The values for each third of the runway shall be separated by an oblique stroke (/), without space between the deposit values and the oblique stroke. For example: 20/20/20.

9. Item H

Estimated surface friction on each third of the runway (single digit) in the order from the threshold having the lower runway designation number.

Friction measurement devices can be used as part of the overall runway surface assessment. Procedures for runway surface assessment, which may include the use of information obtained from friction measuring devices and the reporting of quantitative values, may be used. In such cases, these procedures should be published in the AIP and the reporting made in Item (T) of the SNOWTAM format. The values for each third of the runway are separated by an oblique stroke (/), without space between the values and the oblique stroke. For example: 5/5/5.

10. Item J

Critical snow banks. If present insert height in centimetres and distance from edge of runway in metres, followed (without space) by left ("L") or right ("R") side or both sides ("LR"), as viewed from the threshold having the lower runway designation number.

11. Item K

If runway lights are obscured, insert "YES" followed (without space) by "L", "R" or both "LR", as viewed from the threshold having the lower runway designation number.

12. Item L

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

13. Item M

Enter the anticipated time of completion in UTC.

14. **Item N**

The code (and combination of codes) for Item F may be used to describe taxiway conditions; enter “NO” if no taxiways serving the associated runway are available.

15. **Item P**

If snow banks are higher than 60 cm, enter “YES” followed by the lateral distance parting the snow banks (the distance between) in metres.

16. **Item R**

The code (and combination of codes) for Item F may be used to describe apron conditions; enter “NO” if the apron is unusable.

17. **Item S**

Enter the anticipated time of next observation/measurement in UTC.

18. **Item T**

Describe in plain language any operationally significant information but always report on length of uncleared 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 per cent — if 10% or less of runway contaminated;
Runway contamination 25 per cent — if 11–25% of runway contaminated;
Runway contamination 50 per cent — if 26–50% of runway contaminated;
Runway contamination 100 per cent — if 51–100% of runway contaminated.

Example of completed SNOWTAM format

GG EHAMZQZX EDDFZQZX EKCHZQZX
070645 LSZHNYX
SWLS0149 LSZH 11070700
(SNOWTAM0149
A) LSZH
B)11070620 C) 02 D)...P)
B) 11070600 C) 09 D)... P)
B) 11070700..C) 12 D)... P)
R) NO S)11070920
T) DEICING

Note: See the Aeronautical Information Services Manual (ICAO Doc 8126) for additional SNOWTAM examples incorporating different runway conditions.

Definitions of the various types of snow

Slush - water-saturated snow which with a heel-and-toe slap-down motion against the ground will be displaced with a splatter; specific gravity: 0.5 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.

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.

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

SNOWTAM	(Serial number)	<≡
(AERODROME LOCATION INDICATOR)	A)	<≡
(DATE-TIME OF OBSERVATION <i>(Time of completion of measurement in UTC)</i>)	B)	→
(RUNWAY DESIGNATOR)	C)	→
(CLEARED RUNWAY LENGTH, IF LESS THAN PUBLISHED LENGTH <i>(m)</i>)	D)	→
(CLEARED RUNWAY WIDTH, IF LESS THAN PUBLISHED WIDTH <i>(m)</i> ; if offset left or right of centre line add "L" or "R")	E)	→
(DEPOSITS OVER TOTAL RUNWAY LENGTH <i>(Observed on each third of the runway, starting from threshold having the lower runway designation number)</i> NIL — CLEAR AND DRY 1 — DAMP 2 — WET 3 — RIME OR FROST COVERED <i>(depth normally less than 1 mm)</i> 4 — DRY SNOW 5 — WET SNOW 6 — SLUSH 7 — ICE 8 — COMPACTED OR ROLLED SNOW 9 — FROZEN RUTS OR RIDGES)	F) ...J...J...	→
(MEAN DEPTH <i>(mm)</i> FOR EACH THIRD OF TOTAL RUNWAY LENGTH)	G) ...J...J...	→
(ESTIMATED SURFACE FRICTION ON EACH THIRD OF RUNWAY) ESTIMATED SURFACE FRICTION GOOD — 5 MEDIUM/GOOD — 4 MEDIUM — 3 MEDIUM/POOR — 2 POOR — 1 <i>(The intermediate values of "MEDIUM/GOOD" and "MEDIUM/POOR" provide for more precise information in the estimate when conditions are found to be between medium and either good or poor.)</i>	H) ...J...J...	→
(CRITICAL SNOWBANKS <i>(If present, insert height (cm)/distance from the edge of runway (m) followed by "L", "R" or "LR" if applicable)</i>)	J)	→
(RUNWAY LIGHTS <i>(If obscured, insert "YES" followed by "L", "R" or both "LR" if applicable)</i>)	K)	→
(FURTHER CLEARANCE <i>(If planned, insert length (m)/width (m) to be cleared or if to full dimensions, insert "TOTAL")</i>)	L)	→
(FURTHER CLEARANCE EXPECTED TO BE COMPLETED BY . . . <i>(UTC)</i>)	M)	→
(TAXIWAY <i>(If no appropriate taxiway is available, insert "NO")</i>)	N)	→
(TAXIWAY SNOWBANKS <i>(If higher than 60 cm, insert "YES" followed by the lateral distance apart, m)</i>)	P)	<≡
(APRON <i>(If unusable insert "NO")</i>)	R)	→
(NEXT PLANNED OBSERVATION/MEASUREMENT IS FOR) <i>(month/day/hour in UTC)</i>	S)	→
(PLAIN-LANGUAGE REMARKS <i>(Including contaminant coverage and other operationally significant information, e.g. sanding, de-icing, chemicals)</i>)	T)) <≡
NOTES: 1. *Enter ICAO nationality letters as given in ICAO Doc 7910, Part 2. 2. Information on other runways, repeat from B to P. 3. Words in brackets () not to be transmitted.		

SIGNATURE OF ORIGINATOR *(not for transmission)*

SNOWTAM FORMAT

Instructions for the completion of the ASHTAM format

1. General

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

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

1.3 Issuance of an ASHTAM giving information on a volcanic eruption, in accordance with Item 3 of this Annex, should not be delayed until complete information A) to K) is available but should be issued immediately following receipt of notification that an eruption has occurred or is expected to occur, or a change in the status of activity of a volcano of operational significance has occurred or is expected to occur, or an ash cloud is reported.

In the case of an expected eruption, and hence no ash cloud evident at that time, items A) to E) should be completed and items F) to I) indicated as “not applicable”. Similarly, if a volcanic ash cloud is reported, e.g. by special air-report, but the source volcano is not known at that time, the ASHTAM should be issued initially with items A) to E) indicated as “unknown”, and items F) to K) completed, as necessary, based on the special air-report, pending receipt of further information. In other circumstances, if information for a specific field A) to K) is not available indicate “NIL”.

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

2. Abbreviated heading

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

TT = data designator for ASHTAM = VA;

AA = geographical designator for States, e.g. NZ = New Zealand (see Location Indicators (ICAO Doc 7910), Part 2, Index to Nationality Letters for Location Indicators);

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

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

MMYYGGG = date/time of report, whereby:

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

YY = day of the month

GGgg = time in hours (GG) and minutes (gg) UTC;

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

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

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

VANZ0001 NZZO 11070620

3. Content of ASHTAM

3.1. Item A

Flight information region affected, plain-language equivalent of the location indicator given in the abbreviated heading.

3.2 Item B

Date and time (UTC) of first eruption.

3.3 Item C

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

3.4

Item D

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

3.5 Item E

Colour code for level of alert indicating volcanic activity.

3.6 Item F

If volcanic ash cloud of operational significance is reported, indicate the horizontal extent and base/top of the ash cloud using latitude/longitude (in whole degrees) and altitudes in thousands of metres (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 centre.

3.7 Item G

Indicate forecast direction of movement of the ash cloud at selected levels based on advice from the responsible meteorological watch office and/or volcanic ash advisory centre.

8. Item H

Indicate air routes and portions of air routes and flight levels affected, or expected to become affected.

9. Item I

Indicate closure of airspace, air routes or portions of air routes, and availability of alternative routes.

10. Item J

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

11. Item K

Include in plain language any operationally significant information additional to the foregoing.

Level of alert
colour code

Status of activity of volcano

**GREEN
ALERT**

Volcanic activity considered to have ceased, and volcano reverted to its normal, non-eruptive state..

or, *after a change from a higher alert level:*

Volcanic activity considered to have ceased, and volcano is in normal, non-eruptive state.

**YELLOW
ALERT**

Volcano is experiencing signs of elevated unrest above known background levels

or, *after a change from higher alert level:*

Volcanic activity has decreased significantly but continues to be closely monitored for possible renewed increase.

**ORANGE
ALERT**

Volcano is exhibiting heightened unrest with increased likelihood of eruption
or,

Volcanic eruption is underway with no or minor ash emission.

**RED
ALERT /**

Eruption is forecasted to be imminent with significant emission of ash into the atmosphere likely.

or

Eruption is underway with significant emission of ash into the atmosphere

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

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)		
<p>NOTES:</p> <ol style="list-style-type: none"> See also Appendix 5 regarding addressee indicators used in predetermined distribution systems. *Enter ICAO nationality letter as given in ICAO Doc 7910, Part 2. See paragraph 3.5 below. 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. Item titles in brackets () not to be transmitted. 														

SIGNATURE OF ORIGINATOR (not for transmission)

ASHTAM FORMAT

Predetermined distribution system for NOTAM

1. The predetermined distribution system provides for incoming NOTAM (including SNOWTAM) to be channelled through the AFS direct to designated addressees predetermined by the receiving country 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 country.

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").

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.

Information to be notified by AIRAC

PART 1

1. The establishment and withdrawal of, and premeditated significant changes (including operational trials) to:

1.1 Limits (horizontal and vertical), regulations and procedures applicable to:

1. flight information regions;
2. control areas;
3. *control zones;*
4. *advisory ares;*
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;*

1.2 *positions, frequencies, call signs, identifiers, know irregularities and maintenance periods of radio navigation aids and communication and surveillance facilities.*

1.3 *holding and approach procedures, arrival and departure procedures, noise abatement procedures and pertinent ATS procedures.*

1.4 *transition levels, transition altitudes and minimum sector altitudes.*

1.5 *meteorological facilities (including broadcast) and procedures.*

1.6 *runways and stopways.*

1.7 *taxiways and aprons.*

1.8 *aerodrome ground operating procedures (including low visibility procedures).*

1.9 *approach and runway lighting.*

1.10 *aerodrome operating minima if published by a State.*

PART 2

The establishment and withdrawal of, and premeditated significant changes to:

2.1 *position, height and lighting of navigational obstacles;*

2.2 *hours of service of aerodromes, facilities and services.*

2.3 customs, immigration and health services.

2.4 temporary danger, prohibited and restricted areas and navigational hazards, military exercises and mass movement of aircraft.

2.5 temporary areas or routes or portions thereof where the possibility of interception exists.

PART 3

3. The establishment and withdrawal of, and premeditated significant changes to:

3.1 new aerodromes for international IFR operations;

3.2 new runways for IFR operations at international aerodromes.

3.3 design and structure of the air traffic route network.

3.4 design and structure of a set of terminal procedures (including change of procedure bearings due to magnetic variation is required.

3.5 circumstances listed in Part 1 if the entire State or any significant portion thereof is affected or if cross-border coordination is required.