NOTAM & SNOWTAM FORMAT AND PROCEDURES

MANUAL

VERSION	**:**	**2.0**
DATE OF IMPLEMENTATION	**:**	**04-11-2021**
OFFICE OF PRIME INTEREST	**:**	**Technical Standards Branch (Directorate of Airspace & Aerodrome Regulations)**

	NAME	DESIGNATION	SIGNATURE
PREPARED BY	SOHAIL AHMED	Senior Assistant Director Technical Standards (Com. Ops.)	
REVIEWED BY	Engr. SYED IRFAN HAIDER GARDEZI	Additional Director Technical Standards	
VERIFIED BY	NAEEM IQBAL QURESHI	Director SQMS / Management Representative (MR)	
APPROVED BY	IFTIKHAR AHMED	Director Airspace & Aerodrome Regulations	
TYPE OF DOCUMENT	MANUAL (MNL)		
STATUS OF DOCUMENT	CONTROLLED		

RECORDS OF AMENDMENTS AND CORRIGENDA

AMENDMENTS			
No.	Date Applicable	Date Entered	Entered by

CORRIGENDA			
No.	Date of Issue	Date Entered	Entered by

TABLE OF CONTENTS

FOREWORD

Manual on "NOTAM Format and Procedures" version 1.0 was issued in 2014 as guidance for the preparation, issuance and automation of NOTAMs on the recommendation of AIS-AIM Implementation Task Force (AAITF) of Asia Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG).

ICAO has issued circular No. 355 to provide broad understanding, fundamental concepts and guidance to support maintenance of surface friction characteristics and the global reporting format and system for assessing and reporting runway surface conditions. In 2017, ICAO's Global Runway Safety Action Plan called for the widespread deployment of the ICAO format for assessing and reporting runway surface conditions as an effective mitigation. This new methodology, commonly known as the Global Reporting Format (GRF) has to be applicable from 5th November 2020, but due to COVID pandemic, the same is now became applicable w.e.f. 4th November 2021.

Now in order to address the GRF and incorporate amendment-41 dated: 5th November 2020 and subsequent amendment in Doc 8126, 7th Edition 2021 regarding NOTAM and SNOWTAM, the manual has been revised as version 2.0. It will provide a guide line to Pakistan International NOTAM Office (NOF) established at Jinnah International Airport (JIAP) Karachi, responsible of issuing NOTAM's related to the Airports / locations within Pakistan FIR's and SNOWTAMs related to runway condition.

Date: November, 2021

(IFTIKHAR AHMED)
Director
Airspace & Aerodrome Regulations

GLOSSARY OF TERMS AND ABBREVIATIONS & ACRONYMS

ACRONYMS & ABBREVIATIONS

ACC	AREA CONTROL CENTRE
AD	AERODROME
AFTN	AERONAUTICAL FIXED TELECOMMUNICATION NETWORK
AGL	ABOVE GROUND LEVEL
AMDT	AMENDMENT
AMHS	ATS MESSAGE HANDLING SYSTEM
AMSL	ABOVE MEAN SEA LEVEL
APP	APPROACH CONTROL
AIC	AERONAUTICAL INFORMATION CIRCULAR
AIM	AERONAUTICAL INFORMATION MANAGEMENT
AIP	AERONAUTICAL INFORMATION PUBLICATIONS
AIRAC	AERONAUTICAL INFORMATION REGULATIONS AND CONTROL
AIS	AERONAUTICAL INFORMATION SERVICE
APPRX	APPROXIMATELY
ATM	AIR TRAFFIC MANAGEMENT
CADAS	COMSOFT AERONAUTICAL DATA ACCESS SYSTEM
DUR	DURATION
EST	ESTIMATED
EXC	EXCEPT
FIC	FLIGHT INFORMATION CENTRE
FIR	FLIGHT INFORMATION REGION
GIS	GEOGRAPHIC INFORMATION SYSTEM
GND	GROUND
NSC	NOTAM SELECTION CRITERIA
NOF	INTERNATIONAL NOTAM OFFICE
NPU	NOTAM PROCESSING UNIT
PERM	PERMANENT
PIB	PRE-FLIGHT INFORMATION BULLETIN
LAT	LATTITUDE
LONG	LONGITUDE
SARPS	STANDARDS AND RECOMMENDED PRACTICES
SFC	SURFACE
UFN	UNTIL FURTHER NOTICE

Chapter 1

NOTAM CREATION

1.1 INTRODUCTION:

1.1.1 NOTAM is 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.

1.1.2 The basic purpose of NOTAM is the distribution of information in advance of the event to which relates except in cases of unserviceable facilities or services, volcanic activity or the release of radioactive material and toxic chemicals that cannot be foreseen. Thus, the end user, e.g. flight crew or airline, must receive a NOTAM in sufficient time to take any required action to realize its purpose. The value of a NOTAM lies in its up-to-date content.

1.1.3 NOTAM is intended to supplement AIP and serves as a fast medium for distributing aeronautical information at short notice. NOTAM is originated, issued and distributed:

a) when the information is of a temporary nature, unplanned and of short duration; or
b) when operationally significant permanent changes, or temporary changes of long duration are made at short notice.

1.2 NOTAM FORMAT:

1.2.1 The international standard NOTAM format is contained in ANO-007-DRAN (ICAO Annex 15). It is the reference format for NOTAM and forms the baseline on which this document is being developed.

1.2.2 The NOTAM format consists of two parts:

a) the part for the communication service handling the AFS message, i.e. the part containing the priority indicator, addresses, date and time of filing and the originator's indicator
b) the part containing the NOTAM information.

1.2.3 The part containing the NOTAM information consists of the following:

a) message series, number and identifier which provide information about 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);
b) item Q) encodes the information in a set of predefined qualifiers, namely:
   i) FIR;
   ii) NOTAM Code;
   iii) Traffic;
   iv) Purpose;
   v) Scope;
   vi) Lower and Upper Limits; and
   vii) Coordinates and Radius.
c) Item A) provides information about the affected area;
d) Item B) provides information about the start of the activity;
e) Item C) provides information about the end of the activity;
f) Item D) provides information about the time schedule of the activity, if needed;
g) Item E) provides information about a NOTAM in plain language (i.e. uniform abbreviated phraseology and, where necessary, ICAO abbreviations, indicators, identifiers, designators, call signs, frequencies, digits and plain language);

h) Item F) provides information about the lower limit of the affected area, if needed; and
i) Item G) provides information about the upper limit of the affected area, if needed.

1.2.4 The different types of NOTAM are identified by suffix letters N, R and C.

S. No.	SUFFIX LETTER	TYPE OF NOTAM	APPEARANCE
1.	N	New NOTAM	NOTAMN
2.	R	Replacement NOTAM	NOTAMR
3.	C	Cancellation NOTAM	NOTAMC

Example: A0123/14 NOTAMN

1.2.5 However, there are some particulars specific to NOTAMR and NOTAMC creation.

1.3 BASIC RULES FOR NOTAM CREATION:

1.3.1 The ICAO NOTAM format shall be strictly adhered to and the only NOTAM types mentioned in 1.2.3 are allowed.

1.3.2 NOTAM shall include English text.

1.3.3 Each NOTAM shall be translated as s single telecommunication message.

1.3.4 A NOTAM shall deal only with one subject and condition of that subject except Trigger NOTAM.

1.3.5 The ICAO NOTAM format shall be strictly adhered to and the only NOTAM types mentioned in 1.2.3 are allowed.

1.3.6 Terms such as planned alternative date or alternative dates shall not be used in a NOTAM. Such dates shall be published as any normal date of activity (NOTAMR refers)

1.3.7 Erroneous NOTAM shall be replaced; or they may be cancelled and a new NOTAM issued. No "Correct Version" NOTAM shall be issued.

1.3.8 Renumbering of existing NOTAM (containing identical information, but with a new number) is not allowed. Renumbering at the beginning of each year is therefore also not permitted.

1.3.9 NOTAM are basically qualified according to the NOTAM Selection Criteria (NSC) are published in ICAO Doc 8126.

1.3.10 For NOTAMR and NOTAMC, the date/time in item B) shall be equal to the actual date/time of creation of that NOTAMR and NOTAMC.

1.3.11 Item C) shall contain 'PERM' solely for NOTAM information that will be incorporated in the AIP. These NOTAMs shall be cancelled according to the rules described in 4.1 when the AIP is updated.

1.3.12 Item E) should be composed by the publishing NOF in such a way that it will serve for direct Pre-flight Information Bulletin entry without requiring additional processing by the receiving unit.

1.3.13 The following table shows the necessary data items for each NOTAM type and for the Checklist:

	NOTAMN	NOTAMR	NOTAMC	Checklist
Series/Nr/Type	Yes	Yes	Yes	Yes
Ref to Series/Nr	No	Yes	Yes	Yes
FIR	Yes	Yes	Yes	Yes
NOTAM Code	Yes	Yes	Yes	Yes
'Traffic'	Yes	Yes	Yes	Yes
'Purpose'	Yes	Yes	Yes	Yes
'Scope'	Yes	Yes	Yes	Yes
Lower/Upper	Yes	Yes	Yes	Yes
Lat/Long/Radius	Yes	Yes	Yes	Yes
Item A)	Yes	Yes	Yes	Yes
Item B)	Yes	Yes	Yes	Yes
Item C)	Yes	Yes	No	Yes
Item D)	Optional	Optional	No	No
Item E)	Yes	Yes	Yes	Yes
Items F) & G)	Optional	Optional	No	No

Yes = Entry in Item is compulsory.

No = Entry in Item is not allowed.

Optional = Entry depending on the NOTAM contents.

1.4 DETAILED PROCEDURES:

1.4.1 NOTAM SERIES ALLOCATION:

Each NOTAM must be allocated a series identified by a letter (A to Z except letters S and T). Each series starts on 1st January of every calendar year. In Pakistan, only letters A, C and P (1 character) are allowed:

1.4.1.1 Letter 'A' is used for the Airports where International flights operate.

1.4.1.2 Letter 'C' is used for the Airports where Domestic flights operate.

1.4.1.3 Letter 'P' is used for the Airports where Military/PAF/Civil flights operate.

1.4.2 NOTAM IDENTIFIER:

NOTAM Identifier consists of four-digit number followed by a stroke and a two-digits number for the year so that addresses may check continuity.

1.4.2.1 Each series will start on January 1st of each year with number 0001.

1.4.2.2 The NOTAM are issued in ascending and continuous sequence in each and every series.

1.4.3 NOTAM TYPE:

Following Letters are added as a suffix to the designator 'NOTAM' to indicate the NOTAM type or function.

N = New
R = Replace and
C = Cancel

Examples:

```
A0123/21 NOTAMN;
A0124/21 NOTAMR A0123/21
A0125/21 NOTAMC A0124/21
```

1.4.4 NOTAM QUALIFICATION ITEM Q) – GENERAL RULES

All fields of the Item Q) qualifier must be given a value for easy filtering for Pre-flight Information service; default values should be used where appropriate.

1.4.4.1 QUALIFIER 'FIR':

Qualifier FIR specifies the location in which NOTAM event occurs; valid entries are as follows:

1.4.4.1.1 If the subject of the information is located geographically within one FIR, then ICAO location indicator must be used that of FIR concerned.

1.4.4.1.2 If and aerodrome is situated within the overflying FIR of another State, then the first field of Item Q) must contain the code for that overflying FIR followed by location indicator of that location.

1.4.4.1.3 If the subject of the information is located geographically within more than one FIR, then the qualifier FIR must be composed of the ICAO nationality letters of the State originating NOTAM, followed by "XX",

1.4.4.1.4 In Pakistan, there are two FIRs Karachi and Lahore, hence their location indicators may be used in Qualifier FIR i.e.

OPKR = Karachi FIR
OPLR = Lahore FIR
OPXX = Karachi / Lahore both FIRs

1.4.4.2 QUALIFIER 'NOTAM CODE':

Qualifier NOTAM code describes the most important status or condition to be promulgated:

1.4.4.2.1 NOTAM Code contains five (5) letters:

1st Letter	=	Always 'Q'
2nd & 3rd Letters	=	Subject / Facility
4th & 5th Letters	=	Conditions / Status

NOTE: *The possible combination of NOTAM Code is given in Appendix-A.*

1.4.4.2.2 In case an appropriate NOTAM code does not exist for the information then the letters "XX" shall be used for the subject and the condition of the subject.

Examples:

When condition or status is unknown

`Q)OPKC/QNVXX` (Karachi Navaids, status not known)

When subject or facility is unknown

`Q)OPLA/QXXAS` (Lahore subject/facility is unserviceable)

When subject and condition are unknown

`Q)OPLA/QXXXX` (Lahore facility and status are unknown)

1.4.4.2.3 NOTAMR and NOTAMC deal with the same subject as the

NOTAM to be replaced or cancelled. Therefore, the 2nd and 3rd letters of the NOTAM code are the same as those in the NOTAM to be replaced or cancelled.

1.4.4.3 **QUALIFIER 'TRAFFIC':**

This qualifier relates the NOTAM to a type of traffic. Following are valid entries:

I = IFR Traffic
V = VFR Traffic
IV = IFR and VFR Traffic
K = Checklist of NOTAM

Example:

```
Q)OPKC/QNVXX/IV/
```

1.4.4.4 **QUALIFIER 'PURPOSE':**

This qualifier relates a NOTAM to certain purposes (intentions) and thus allows retrieval according to the user's requirements.

1.4.4.4.1 'PURPOSE' entries:

N = NOTAM selected for the immediate attention of aircraft operators
B = NOTAM selected for PIB entry
O = NOTAM concerning flight operations
M = Miscellaneous NOTAM; not for a briefing, but available on request
K = NOTAM is a checklist

1.4.4.4.2 'PURPOSE' combinations:

The following combinations of one to three letters are permissible K, M, B, MB, BO, NBO depending upon NOTAM subject and content. Where the order in the list reflects the grading in terms of operational significance from the lowest to the highest.

1.4.4.4.3 As trigger NOTAM are issued relative only to information of operational significance, the qualifier purpose must be BO.

1.4.4.5 **QUALIFIER 'SCOPE':**

This qualifier relates the NOTAM subject (2nd and 3rd letters) to a specific scope. This qualifier is used to determine under which category a NOTAM is presented in a Pre-flight Information Bulletin.

1.4.4.5.1 The following entries are permissible:

LETTER	QUALIFIER SCOPE	ITEM A) CONTENTS
A	Aerodrome	Aerodrome
E	En-route	FIR(s)
AE	Aerodrome & En-route	Aerodrome
W	Warning	FIR(s)
AW	Aerodrome Navigational Warning	Aerodrome
K	Checklist	FIR(s)

1.4.4.5.2 All NOTAMs with scope A must have the Aerodrome Reference Point (ARP) as geographical coordinates.

1.4.4.5.3 If a navigation facility is serving two or more aerodromes, then only one NOTAM must be published with scope AE. NOTAM for the other aerodromes concerned must be published only with scope A to prevent duplication in the en-route part of the PIB.

1.4.4.5.4 If the navigation facility coverage affects more than one FIR, then NOTAM for affected aerodromes are issued with scope A and with ARP as geographical coordinates. A separate NOTAM is issued with only scope E and item A) contains all affected FIRs.

1.4.4.5.5 If the navigation warning affects two or more aerodromes, then only one NOTAM must be published with scope AW in order to prevent duplicated information in the navigation warnings section of the en-route part of the PIB. NOTAM for the other aerodromes concerned must be published with scope A only, with ARP as geographical coordinates and NOTAM code QFALT (aerodrome limited) and without items F) and G). If required, the vertical limits are inserted in item E).

1.4.4.5.6 If the area concerned affects one or several aerodromes and more than one FIR, then one NOTAM is issued with Scope W, while Item A) contains all affected FIRs. For every affected aerodrome, a separate NOTAM with only Scope A is published in order to provide correct information in all PIB sections for all concerned FIRs and aerodrome and to avoid duplications. All Scope A NOTAM are to contain the ARP as geographical coordinates and NOTAM Code QFALT (aerodrome limited) without Items F) and G). If required, the vertical limits are inserted in Item E).

1.4.4.6 **QUALIFIER 'LOWER / UPPER LIMIT':**

1.4.4.6.1 These qualifiers specify the vertical limits of airspace. The lower and upper limits are expressed in thousands of feet below the transition altitude and flight levels (FL) above it.

1.4.4.6.2 The lower limit must be less than the upper limit. If the subject does not contain specific height information, the default values 000 for lower and 999 for upper limits are inserted.

Example: The subject contains no specific height information

```
Q)OPKC/QNVAS/IV/BO/AE/000/999
```

1.4.4.6.3 In case of navigation warnings and airspace restrictions, the values are consistent with those entered under items F) and G). In case of airspace organization management (NOTAM related to structure of ATS routes, TMA, CTR, ATZ etc.) the specified lower and upper values are corresponding to the vertical limits of the concerned airspace. The use of default vales 000/999 should be avoided whenever possible.

Example-1: For lower limit F090 to upper limit F330

```
Q)OPKC/QWELW/IV/BO/W/090/330
```

Example-2:

```
Q) OPKR/QARLC/IV/NBO/E/000/240/
A) OPKC B) 2109260400 C) 2109281330
D) 26-28 SEP 2021 BTN 0400-1330
E) FOLLOWING ROUTE SEGMENTS OF INTERNATIONAL
```

```
ATS ROUTES WITHIN KARACHI FIR WILL NOT BE AVBL
AT OR BELOW FL240
INTERNATIONAL ATS ROUTE   ROUTE SEGMENT
      A791                JIWANI-CAPE MONZE (KA)
      G216                ALPOR-CAPE MONZE (KA)
      N894                LAKIV-TELEM
ALTERNATE ROUTE
JIWANI-PARET-MELOM-BEGIM-KARACHI
F)GND G)FL240
```

1.4.4.6.4 The values in the qualifier lower limit are rounded down to the nearest 100 ft increment, while the values in the qualifier upper limit are rounded up to the nearest 100 ft increment. Addition to these qualifiers should be avoided as it increases the airspace considered for PIB purposes.

Example-1: rounded is not needed 1100 ft/ 1720 ft

```
…011/017
```

Example-2: the lower limit 1150 is rounded down to 1100 ft

```
…011/017
```

Example-3: the lower limit 1150 is rounded down to 1100 ft and upper limit 1720 ft is rounded up to 1800 ft

```
…011/018
```

1.4.4.6.5 If the values in F) and G) are expressed as 'flight levels' (FL), then the same FL values are entered respectively as the 'Lower/Upper' values in Item Q).

1.4.4.6.6 If the values in F) and G) are expressed as an 'altitude' (AMSL), then the corresponding FL values are entered (based on the standard atmosphere) as the 'Lower/Upper' values in Item Q).

Example:

```
F) 2000FT AMSL G) 7500FT AMSL
```

=> 'Lower/Upper' = '020/075'

1.4.4.6.7 If the values in F) and G) are expressed as a 'height' (AGL), and when the corresponding altitude can be calculated based on the terrain elevation of the affected area, then the corresponding FL values are entered (based on the standard atmosphere and AMSL values) as the 'Lower/Upper' values in Item Q).

Example:

```
F) 2000FT AGL
G) 7500FT AGL
```

Lowest terrain elevation = 500FT AMSL
Upper terrain elevation = 1000FT AMSL

Lowest height = 500FT AMSL + 2000 FT AGL = 2500 FT
Upper height = 1000FT AMSL + 7500 FT AGL = 8500 FT

=> 'Lower/Upper' = '025/085'.

1.4.4.6.8 When the values in F) and G) are expressed as a 'height' (AGL), and no corresponding flight levels can be defined i.e. the terrain elevation of the affected area is unknown, despite all possible action taken to obtain the data, then the highest terrain elevation of the Pakistan, or of the FIR, or the region concerned,

is added to the value in Item G) for calculating the qualifier 'Upper' in Item Q) and enter the default value '000' in the qualifier 'Lower' in Item Q).

Example: F) 2000FT AGL
G) 7500FT AGL

Highest terrain elevation = 9000 FT (supposed)
Maximum height = 9000 FT + 7500 FT AGL = 16500 FT

=> 'Lower/Upper': 000/165.

1.4.4.7 **QUALIFIER 'COORDINATES & RADIUS':**

1.4.4.7.1 This qualifier allows the geographical association of a NOTAM to a facility, service or area that corresponds to the aerodrome or FIR(s) given in Item A), and is composed of two elements.

a) The first element contains one set of co-ordinates comprising 11 characters rounded up or down to the nearest minute; i.e. Latitude (N/S) in 5 characters; Longitude (E/W) in 6 characters.
b) The second element contains a radius of influence comprising 3 figures rounded up to the next higher whole Nautical Mile encompassing the total area of influence; e.g. 5.2NM shall be indicated as 006.

Example:

Q)OPKR/QRRCA/IV/BO/000/340/2511N06645E006

1.4.4.7.2 For NOTAM with 'Scope' 'A' the Aerodrome Reference Point (ARP) co-ordinates are inserted.

1.4.4.7.3 For NOTAM with 'Scope' 'AE' or 'AW' the appropriate co-ordinates are inserted. These co-ordinates may be different from the ARP, e.g. a VOR situated at an aerodrome will not necessarily have the same co- ordinates as the ARP.

1.4.4.7.4 For NOTAM with 'Scope' 'E' or 'W' the coordinates referring to a given/known point (Nav-aid, Reporting point, City, etc.) these co-ordinates are inserted.

1.4.4.7.5 If a NOTAM with 'Scope' 'E' or 'W' the coordinates of the centre of a circle whose radius encompasses the whole area of influence (FIR, Country, Danger Area etc.) are inserted.

1.4.4.7.6 If NOTAM with 'Scope' 'E' or 'W' containing information that cannot be allocated a specific geographical position (e.g. VOLMET, Entry requirements, Communication failure, SRS publications etc.) affecting entire FIR or UIR, or more than one FIR or UIR then default value :999" is used for the radius.

1.4.4.7.7 For certain specific NOTAM subjects, the radius should be standardized for the sake of uniformity and simplicity. A list of default radius per NOTAM Code is given in the following table.

Table of Default Radius Indicators for NOTAM Creation

NOTAM Code	Plain Language	Radius (NM)
Q - - - -	All Aerodrome-related NOTAM and Navigation Aids with 'Scope A' only. Use default value also for 'Scope' 'AE'/'AW', if precise values cannot be defined.	005
QN - - -	All Navigation Aids (VOR/DME, NDB ...) except for Long range navigation systems. In dense network of grounded-based navigation aids, to avoid overload in PIB. Otherwise insert full coverage.	025
QOB - -	Obstacle	001
QOL - -	Obstacle light	001
QPH - -	Holding Procedure	025
QAP - -	Reporting Point	001
QAX - -	Significant Point	001

1.4.5 ITEM "A)":

1.4.5.1 Item A) identifies the ICAO location indicator of the aerodrome or FIR in which the facility, airspace or condition reported on is located.

1.4.5.2 Only one aerodrome may be indicated. If more than one aerodrome is involved, separate NOTAM must be issued. More than one FIR may be indicated when appropriate.

1.4.5.3 The location indicator of the FIR to be included is that of the area control centre (ACC) or flight information centre (FIC) providing air traffic services within the FIR. e.g. NOTAM for OPIS shall have OPLR in Item Q).

1.4.5.4 The number of FIRs in item A) is restricted to seven by the length of an AFTN line. If more than seven FIRs are affected, then a unique and unambiguous location indicator should be used that serves the purpose of publication of NOTAM information related to more than seven FIRs (e.g. UUUU). If no such unique location indicator exists, then additional NOTAM are to be published.

1.4.5.5 If information concerns the global navigation satellite system (GNSS) then the appropriate ICAO location indicator allocated for a GNSS element or the common location indicator allocated for all elements of GNSS (except GBAS) should be inserted.

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

1.4.5.6 If an ICAO location indicator is not available, then Item A) should contain either the two ICAO nationality letters + XX (OPXX) or the single ICAO nationality letter + XXX (OXXX). The name of the location has to be mentioned in the first line of Item E) in plain language.

Example: Multiple FIRs in one country:

Item `Q) OPXX`
Item `A) OPKR OPLR`

1.4.5.7 NOTAMR and NOTAMC have the same Item A) contents as the NOTAM to be replaced or cancelled.

1.4.6 ITEM "B" START OF ACTIVITY:

1.4.6.1 Item B) specifies the beginning of the occurrence or activity in ten-figure date-time group giving year, month, day, hour and minutes in UTC. The beginning of a day is specified by 0000.

1.4.6.2 If the NOTAM is published because of a facility or service has become unusable, then the date-time at which the NOTAM is filed should be used.

Example: `B) 2108011200` (1st of August 2021, 12:00 UTC)

1.4.6.3 A NOTAM is valid when it is published, i.e. date and time of NOTAM origination, where as it is active and comes into force at the date-time group specified in Item B).

1.4.6.4 Item B) is equal to or later than the actual date-time of creation of the NOTAM.

1.4.6.5 Abbreviations such as 'WIE' or 'WEF' are not to be used.

1.4.6.6 For NOTAMR and NOTAMC, the Item B) is the actual date/time of the NOTAM origination. Future cancellation or replacement of a NOTAM is not to be issued to avoid possible misinterpretation about further changes or existence of multiple NOTAM, with the same subject, at the same time.

1.4.7 ITEM "C" END OF ACTIVITY:

1.4.7.1 Item C) specifies the end of the occurrence or activity in a ten-figure date-time group giving year, month, day, hour and minute in UTC.

1.4.7.2 This date and time shall be later than that given in Item B).

Example: `C) 2108022030`

1.4.7.3 The end of a day shall be indicated by '2359' (i.e. do not use '2400').

1.4.7.4 If the information on time is uncertain, then the approximate duration should be indicated by the date-time group shall be followed by abbreviation 'EST' (estimated) without blank space. Any NOTAM using EST must be cancelled or replaced before the date-time specified in item C). Failure to cancel or replace a NOTAM using EST implies that the NOTAM will continue to be promulgated for an indefinite period of time.

Example: `C) 0807031230EST`

1.4.7.5 Abbreviations such as 'UFN' (Until Further Notice) or 'APRX DUR' (Approximate Duration) are not permitted.

1.4.7.6 If the information is of a permanent nature, then 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 three months.

Example: `C) PERM`

1.4.7.7 Item C) is not applicable for NOTAMC.

1.4.8 ITEM "D" DAY / TIME SCHEDULE:

1.4.8.1 This Item needs to be inserted only when the information contained in a NOTAM is relevant for users only at certain periods within the overall 'in force' period, i.e. between the dates and times given in Items B) and C). In these cases, Item D) will detail the actual periods of activation.

1.4.8.2 Standardized abbreviations and punctuation shall be used in Item D) having meanings as described in the following:

SYNTAX / ABBREVIATIONS	DESCRIPTION	REMARKS
---	Year	Not to be mentioned in item D)
JAN	January	Months in 3 figures
FEB	February	-do-
MAR	March	-do-
APR	April	-do-
MAY	May	-do-
JUN	June	-do-
JUL	July	-do-
AUG	August	-do-
SEP	September	-do-
OCT	October	-do-
NOV	November	-do-
DEC	December	-do-
xx	Dates e.g. 01, 02, 30, 31 etc.	Dates in 2 figures
MON	Monday	Days in 3 figures
TUE	Tuesday	-do-
WED	Wednesday	-do-
THU	Thursday	-do-
FRI	Friday	-do-
SAT	Saturday	-do-
SUN	Sunday	-do-
xxxx	Time e.g. 1030, 0900, 2359 etc.	Time in 4 figures
EXC	Except (for which NOTAM is inactive)	
HJ	From sunrise to sunset	Operation hours
HN	From sunset to sunrise	
H24	For whole day (24-Hours)	
Comma (,)	For separation of scheduled days, dates & time periods	Use of comma for enumeration is not allowed
Hyphen (-)	Means TO i.e. FROM-TO	
Blank ( )	Means AND except in last entry	Word AND be used before last entry
Oblique (/)	----	Not allowed in D)

1.4.8.3 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).

Note: This period may not always be listed as the final entry in item D)

Example-1: A hazard will exist on 19 and 21 April 2020 between 0730 and 1500 UTC. This may be illustrated as:

```
B)2004190730     C)2004211500
D)19 21 0730-1500
```

Example-2: The date in item B) may be a Wednesday e.g. the first schedule period starts on Wed 5th August 2020 and ends on Friday 21st August 2020. The periods run from MON to FRI then this may be illustrated as:

```
B)2008050000     C)2008212359
D)MON-FRI
```

1.4.8.4 A time indication for each period of activity should be inserted. H24 should be inserted after the date(s) when the activity covers a full day and date should not be repeated. The following examples show to structure permissible time schedules:

Examples:

a) Combination of day-periods and time-periods

```
B) 2002082000 C) 2003052200
D) FEB 08-28 2000-2200 MAR 01-05 1800-2200
```

b) Combination of whole day-periods (H24) with part day periods, activity from 0600 to 1700 on WED and FRI, and H24 on SUN

```
B) 2002030700 C) 2002281700
D) 16 23 H24 19 21 26 28 0600-1700
```

c) Day-period and time-period with specific exceptions

```
B) 2002030700 C) 2002281800
D) MON-FRI 0700-1800 EXC FEB
```

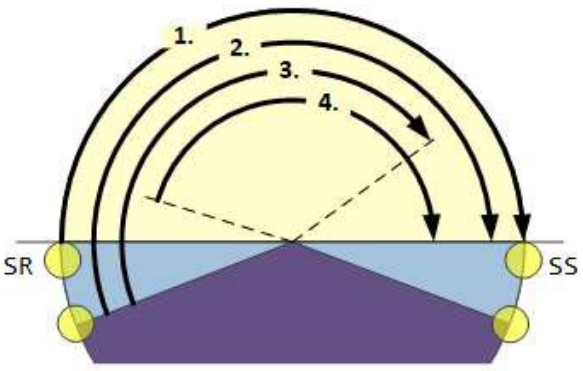
d) The activity takes place every day between 2200 and 0500. The periods start on 3 February at 2200 and ends on 6 February at 0500

```
B) 2002032200 C) 2002060500
D) 2200-0500
```

e) Activity relative to Sunrise (SR) and Sunset (SS)

i. `D) SR-SS`
ii. `D) SR MINUS30-SS`
iii. `D) SR MINUS30-1500`
iv. `D) 1000-SS`

Note: A pictorial representation of above example is illustrated as:



1.4.9 ITEM "E" NOTAM TEXT:

1.4.9.1 Item E) specifies text of NOTAM in plain language. It is composed of uniform

abbreviated phraseology (decoded NOTAM code), complemented where necessary by ICAO abbreviation (Doc 8400), indicators, identifiers, designators, call signs, frequencies, digits and plain language.

1.4.9.2 If NOTAM is distributed internationally, then English text must be used for those parts expressed in plain language. This requirement is to assist the majority of those engaged in Civil Aviation.

1.4.9.3 Essential information should be given at the beginning of Item E). The text is kept as short as possible, containing all the essential information and ready for inclusion in PIB.

Examples:

```
E) RWY NOT AVBL DUE PAF C-130 TECHNICAL ON THE RWY
E) ILS RWY 18 U/S
E) RWY 07/25 CLSD
```

1.4.9.4 Item E) may contain abbreviations used for units of measurements and reference datum (e.g. FT, GND, AMSL, NM, DEG etc.). There shall be no blank between the value and the unit of measurement (e.g. 3000FT). But a reference datum shall be separated from the unit of measurement by a blank (e.g. 3000FT AMSL).

1.4.9.5 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.

Examples:

```
E) GLIDE SLOPE FREQ 332.000MHZ NOT AVBL DUE FLOOD WATER
   SEEPAGE
E) KARACHI ACC WEST MAIN FREQ 128.350MHZ AND SECONDARY
   FREQ 133.025MHZ AVBL
```

1.4.9.6 Other abbreviations, including abbreviations listed in AIP GEN 2.2 but marked as 'not included in Doc 8400' shall not be used.

1.4.9.7 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.

Example:

```
E) CRANE ERECTED PSN 395117N1044053E 1.7NM NORTH OF THR
   RWY 35R ELEV 5546FT HGT 171FT AGL
```

1.4.9.8 The lateral limits of an area published in the AIP or AIP SUP are not be repeated in item E); instead, use the name of that area.

1.4.9.9 If lateral limits are not published the AIP or AIP SUP, the coordinates must be expressed in accordance with the following to ensure readability:

a) The points defining lateral limits of an irregular shape area must be enumerated in clockwise order separated by a hyphen "-". The last point on the list must be the same as the first point.

Example:

```
E) AIR DISPLAY WILL TAKE PLACE WI LATERAL LIMITS
   301500N0694400E  - 291743N0712523E -
   292049N0714241E - 300500N0724600E - 302001N0722759E
   - 301500N0694400E
```

b) 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 centre of the circle.

Example:

```
E)AIR DISPLAY WILL TAKE PLACE RADIUS 20KM CENTRE
  301139N0712458E (MULTAN TMA)
```

c) 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.

d) 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.

e) The resolution used for coordinates must conform to the aeronautical data quality requirements listed in Appendix 1 of PANS-AIM, e.g. tenth of a minute must not be used.

1.4.9.10 If an e-mail address is inserted in the Item E) text, the @ symbol shall be replaced the string “(A)”

Example:

```
E)  E-MAIL ADDRESS OF COM CENTRE JIAP KARACHI IS
    COM.JIAP(A)CAAPAKISTAN.COM.PK
```

1.4.9.11 Item E) text relates to one NOTAM subject only. (Except in case of a Trigger NOTAM. Unclear and/or incomplete NOTAM Text shall be avoided.

1.4.9.12 Item E) should be composed by the Publishing NOF in such a way that it will serve for direct PIB entry without requiring additional processing by the receiving Unit.

1.4.10 ITEM “F” LOWER LIMIT AND “G” UPPER LIMIT:

1.4.10.1 Lower and Upper limits (Items F) and G)) are applicable to navigation warnings or airspace restrictions, but can be used for any other applicable subjects, and are usually part of the PIB entry.

1.4.10.2 Both lower and upper limits of activities or restrictions should be inserted clearly indicating the same reference datum and unit of measurement in both fields. Using different units of measurement (i.e. metres and feet) is discouraged as this may lead to confusion.

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

1.4.10.4 The value and the unit of measurement (M or FT) must be consecutive without a blank space. The reference indication (AGL, AMSL) must follow the unit of

measurement and be separated by a blank space. The value 000 is not to be used.

Example-1: altitudes in metres and feet above mean sea level.

```
F) 2000M AMSL
F) 6500FT AMSL
```

Example-2: a height above ground level.

```
F) 1000M AGL
```

Example-3: a flight level

```
F) FL100
```

1.4.10.5 Item G) is the upper limit expressed as an altitude either in metres or feet above mean sea level, a height above the ground, a flight level, or as unlimited (UNL) if applicable.

1.4.10.6 The value and the unit of measurement (M or FT) must be consecutive without a blank space. The reference indication (AGL, AMSL) must follow the unit of measurement and be separated by a blank space. The value 999 is not to be used.

Example: A ground level up to an altitude of 30 000 ft above mean sea level.

```
F) GND
F) 30000FT AMSL
```

Chapter 2

CREATION OF NOTAMR AND NOTAMC

2.1 GENERAL PROCEDURES:

2.1.1 NOTAMR and NOTAMC are issued in the same series as the NOTAM to be replaced or cancelled.

2.1.2 NOTAMR and NOTAMC respectively replace and cancel only one NOTAMN or NOTAMR.

Example 1: `A0124/21 NOTAMR A0106/21`

Example 2: `A0234/21 NOTAMC A4567/21`

2.1.3 NOTAMR and NOTAMC deal with precisely the same subject as the NOTAM to be replaced or cancelled. Therefore the 2nd and 3rd letters of the NOTAM Code in Item Q) shall be the same as those in the NOTAM to be replaced or cancelled.

2.1.4 NOTAMR and NOTAMC have the same Item A) contents as the NOTAM to be replaced or cancelled.

2.1.5 The date-time group in Item B) of a NOTAMR or NOTAMC shall be the actual date and time that this NOTAMR or NOTAMC is created i.e. NOTAMR and NOTAMC shall take effect immediately and no future start of coming in force is permitted. The replaced or cancelled NOTAM cease to be valid from the very moment their replacing NOTAMR or NOTAMC are issued. This is done to assure the correct processing in all systems no matter their design.

2.1.6 One of the following procedures shall be applied instead of issuing a NOTAMR or NOTAMC with Item B) in the future

2.1.7 If the condition described in a NOTAM to be replaced is to remain valid for a period before being changed, then a NOTAMR shall be issued for the period up to the intended date and time of the change provided the NOTAM to be replaced is in force at the time of replacement. This NOTAMR shall immediately replace the existing NOTAM and shall notify the same conditions but with a changed Item C). A NOTAMN detailing the intended change in condition shall then be issued with a future date and time in Item B).

2.1.8 If the NOTAM to be replaced is not in force at the time of replacement, 2.1.9 applies.

2.1.9 If the condition described in a NOTAM to be cancelled is to remain valid for a period before Item C) is reached, then a NOTAMR shall be issued with the new end time in Item C).

2.1.10 If the condition described in a NOTAM to be replaced is a postponement, a correction of Item B), an interruption or a temporary suspension (taking place immediately) of the present situation, then a NOTAMC shall be issued to immediately cancel the NOTAM. This shall be followed by a NOTAMN dealing with the new situation and a new Item B).

Example:

A NOTAM issued on September 5 regarding activation of anti aircraft range activation

```
(A0948/21 NOTAMN
Q) OPKR/QRRCA/IV/BO/W/000/340/2511N06645E006
A) OPKR B) 2109050200 C) 2109111830
D) FM SEP 05-09 BTN 0200-1700
```

```
   FM SEP 10-11 BTN 0200-1830
E) OP/R-122 (ANTI ACFT RANGE)ACT.
F) SFC
G) FL340)
```

On September 11 it is deactivated immediately and will be active again on September 12. NOTAM are issued as follows:

```
(A0996/21 NOTAMC A0948/21
Q) OPKR/QRRCA/IV/BO/W/000/340/
A) OPKR B) 2109110000
E) NOTAM CANCELLED)

(A0997/21 NOTAMN
Q) OPKR/QRRCA/IV/BO/W/000/260/2511N06645E006
A) OPKR B) 2109120400 C) 2109121830
D) FM SEP 12 BTN 0400-1830
E) OP/R-122 ANTI ACFT RANGE)ACT.
F) SFC
G) FL260)
```

2.1.11 If the condition described in a NOTAM to be replaced is a temporary suspension or change of the present situation for a certain period in the future, then a NOTAMR shall be issued to immediately replace the NOTAM. This shall be followed by a NOTAMN dealing with the temporary change. NOTAMR to specify the dates/times of activation for the periods the situation is as in the replaced NOTAM and NOTAMN to cover dates/times dealing with the different situation.

2.1.12 No NOTAMN is issued in the case of a temporary 'back to normal' situation.

Note: Depending on how well the situation is known, NOTAMR may deal only with the situation until the change occurs, followed by two NOTAMN. One to cover the period for the changed situation and one for the period afterwards

2.1.13 Any NOTAM which includes an 'EST' shall be replaced by NOTAMR or cancelled by NOTAMC before the 'estimated' end date specified in Item C).

2.2 SPECIFIC PROCEDURES RELATED TO NOTAMR CREATION:

2.2.1 NOTAMR are Replacement NOTAMs.

2.2.2 NOTAM which are to become invalid before their given End of Validity, or did not have a defined End of Validity (i.e. have 'EST' or 'PERM' in Item C) may be replaced, provided they are 'in force' at the time of replacement.

2.3 SPECIFIC PROCEDURES RELATED TO NOTAMC CREATION:

2.3.1 NOTAMC are cancellation NOTAMs.

2.3.2 NOTAM which are to become invalid before their given End of Validity, or did not have a defined End of Validity (i.e. have 'EST' or 'PERM' in Item C) may be cancelled at any time.

2.3.3 NOTAMC shall be published whenever NOTAM are incorporated in an AIP AMDT.

2.3.4 NOTAMC Qualifier 'NOTAM Code' shall be as follows:

Subject: 2nd and 3rd letters shall be identical to the original NOTAM (ref para 2.1.3)

Condition: permitted 4th and 5th letters are as follows:

Q - - AK = RESUMED NORMAL OPS

Q - - AL = OPERATIVE SUBJECT PREVIOUS CONDITION

Q - - AO = OPERATIONAL

Q - - CC = COMPLETED

Q - - XX = OTHER (Plain Language – ref para 2.3.8)

2.3.5 NOTAMC Qualifiers 'Traffic', 'Purpose', 'Scope', 'Lower/Upper' and 'Coordinates / Radius' shall be identical to the cancelled NOTAM. Maintaining the original qualifiers allows additional use of NOTAMC for the preparation of 'Updates' to Pre-flight Information Bulletins

2.3.6 NOTAMC shall not contain Items C), D), F) and G).

2.3.7 For all NOTAMC, the text of the decoded NOTAM Code shall be inserted in Item E) together with details of the NOTAM subject.

Example: NOTAM Code = QNVAK

```
Item E) = VOR DKB RESUMED NORMAL OPS.
```

2.3.8 In order to facilitate work in manual environments, NOTAMC, which are to be followed immediately by a NOTAMN (instead of using a NOTAMR), shall contain XX as 4th and 5th letters of the NOTAM Code and, at the end of the text in Item E), the remark: 'NEW NOTAM TO FOLLOW'.

Example: NOTAM Code = QMRXX

```
Item E) = RWY 07L/25R NEW NOTAM TO FOLLOW.
```

2.3.9 Once the immediate cancellation has been effected, the cancelling NOTAMC ceases to have validity.

Chapter 3

CHECKLISTS PRODUCTION

3.1 GENERAL RULES:

3.1.1 Checklists are issued as a NOTAM in the series that they refer to.

3.1.2 A separate Checklist shall be issued for each NOTAM Series.

3.1.3 The first Checklist in a new NOTAM series shall be issued as a NOTAMN.

3.1.4 Subsequent Checklists shall be issued as NOTAMR, replacing the previous Checklist with immediate effect. Consequently Item B) is the issuing time of the Checklist and supersedes the previous one immediately.

3.1.5 Item A) shall contain the FIR, or a list of all FIR, covered by the Checklist or the location indicator of the issuing non-governmental agency. Third and fourth letters 'XX' shall not be used.

3.1.6 Item C) shall contain the estimated (EST) end of validity, normally not more than one month after the Checklist is issued.

3.1.7 Checklists shall contain the numbers of the NOTAM incorporated in a normal AIP AMDT or AIP SUP until the time that these NOTAM are specifically cancelled by the publication of a NOTAMC.

3.2 CHECKLIST QUALIFICATION – ITEM Q):

3.2.1 Qualifier 'FIR' shall be either:

3.2.1.1 the location indicator of the FIR; or

3.2.1.2 the nationality letters of the state originating the NOTAM followed by 'XX' or 'XXX' if there is more than one FIR in a state; or

3.2.1.3 the nationality letters of the issuing AIS followed by 'XX' or 'XXX' if publishing for FIR in different states.

3.2.2 Qualifier 'NOTAM Code' shall be the special dedicated code 'QKKKK'.

3.2.3 Qualifiers 'Traffic', 'Purpose' and 'Scope' shall be given the artificial value 'K'.

3.2.4 Qualifiers 'Lower'/'Upper' shall be the default values '000/999'.

3.2.5 Qualifier 'Coordinates and Radius' shall always contain the geographical co- ordinates of the centre of the FIR(s) listed in Item A), followed by the default radius '999'.

Example: `Q) OPXX/QKKKK/K/K/K/000/999`

NOTE: *Qualifiers 'QKKKK' (NOTAM Code) and 'K' ('Traffic', 'Purpose', 'Scope') are used to allow selective retrieval of the Checklist. This also prevents the Checklist from appearing in a Pre-flight Information Bulletin.*

3.3 CHECKLIST FORMAT – ITEM A) TO E):

3.3.1 Item A) specifies the location indicator of the FIR or a list of FIRs to which the checklists relates.

3.3.2 Item B) specifies the actual date and time of the origination of the NOTAM checklist in a ten-

digit date-time group in UTC.

3.3.3 Item C) specifies the estimated validity of the NOTAM checklist in a ten-digit date-time group in UTC. It is indicated as one month after the date of issue and is followed, without blank space, by EST.

3.3.4 Item E) contains information in plain language text. It is divided into three sections:

3.3.4.1 First Section:

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

NOTE-1: *The list must not contain the NOTAM number of the replaced NOTAM checklist or its own NOTAM checklist number.*

NOTE-2: *Each NOTAM number (always four digits) is separated by a blank space with no other punctuation mark.*

c) groups NOTAM by year using the word 'YEAR' and the '=' sign, followed by the four-digit year of publication without blanks (e.g. YEAR=2020);

NOTE-1: *Each indicator of a different year must start on a new line.*

NOTE-2: *Checklists must contain the numbers of the NOTAM incorporated in a normal AIP amendment or AIP supplement until the time that these NOTAM are cancelled by the publication of a NOTAMC.*

3.3.4.2 Second section:

a) begins with the keyword 'LATEST AIP AMENDMENTS'; and
b) contains the list of the latest AIP amendments

NOTE: *Whenever the numbering of AIP amendments take place on a yearly basis, a reference to the year of publication must be added to the number.*

3.3.4.3 Third section:

a) begins with the words 'CHECKLIST OF AIP SUP'; and
b) contains the list of valid AIP supplements.

Example:

```
(A0324/21 NOTAMR A0322/21
Q) OPXX/QKKKK/K/K/K/000/999/
A) OPKR OPLR
B) 2104011025 C) 2104302359 EST
E) CHECKLIST
YEAR=2020 0523 0524 0768 0798 0807 0866 0877 0906 0959 0977
          0992 1016 1018 1030 1031
YEAR=2021 0013 0025 0033 0042 0044 0059 0061 0066 0067 0069
          0071 0076 0085 0109 0115 0130 0136 0143 0153 0158
          0166 0171 0175 0176 0184 0185 0195 0201 0209 0217
          0218 0220 0228 0229 0230 0265 0266 0288 0289 0290
          0291 0293 0294 0298 0299 0301 0302 0303 0304 0305
          0308 0310 0311 0312 0315 0316 0318 0319

LATEST PUBLICATIONS:
```

AIC-02/21 : PUBLISHED DATE: 04TH MAR'2021.
AIRAC AIP SUP S-01/21-S-02/21 PUBLISHED DATE: 11TH MAR'2021.
AIRAC AIP AMDT-01/21 EFFECTIVE DATE: 25TH MAR'2021.)

NOTE: *Whenever the numbering of AIP AMDT takes place on a yearly basis, a reference to the year of publication will be added to the number.*

3.4 ERRONEOUS NOTAM CHECKLISTS:

3.4.1 When the published NOTAM checklist contains an error, namely, a valid NOTAM number was not inserted in the NOTAM checklist, the following procedures apply:

a) If the omitted NOTAM is in force, a NOTAMR must be issued replacing the omitted NOTAM with the new number;
b) if the omitted NOTAM is not yet in force, a NOTAMC and NOTAMN shall be issued.

3.4.2 On the other hand, if an invalid NOTAM number was erroneously inserted in the Checklist, a revised Checklist (NOTAMR replacing the erroneous Checklist) will be published without the invalid NOTAM number (no correct version).

3.4.3 This procedure will allow consistency of the data in the database of all recipients, whatever the method used to process NOTAM checklists.

Chapter 4

PUBLICATION OF PERMANENT INFORMATION

4.1 PUBLICATION OF INFORMATION:

4.1.1 Information can be distributed by means of:

4.1.1.1 NOTAM
4.1.1.2 AIP Amendment
4.1.1.3 AIP Supplement

4.1.2 Permanent information shall not be distributed by means of a NOTAM only. This information shall be incorporated in an AIP Amendment.

4.2 PUBLICATION OF PERMANENT INFORMATION BY NOTAM:

4.2.1 When a NOTAM contains permanent or temporary information of long duration, the text must include an appropriate cross-reference to the affected AIP or AIP supplement and an annotation must be made accordingly. This informs the user of the AIP or AIP supplement that there is information outstanding against a particular entry (e.g. REF AIP OPKC AD 2.1.5).

4.2.2 PERM is solely for NOTAM information that will be incorporated in the AIP, and must be entered in AIP as soon as possible, but not later than within three months.

4.2.3 When a NOTAM contains temporary information of short duration, AIP references should not be annotated in the NOTAM. This informs the users of the NOTAM that the text of the NOTAM is conveying the totality of the information.

Note: AIP references shall include AIP section/sub-section/paragraph numbers, not the page number(s) alone.

4.2.4 In cases where a NOTAM is issued to correct a mistake in an AIP AMDT, Item E) shall remind the operational content of the AMDT and not only of the mistake.

Example:

```
E) RWY 08/26 EXTENSION, AIRAC AIP AMDT 10/20 PART AD: EGNX 2-12
RWY 08 READ 1850M INSTEAD OF 1805M.
```

NOTE: *This allows users to be aware of the subject when reading the PIB and to refer to the AIP AMDT content only if necessary.*

4.3 INCORPORATION OF NOTAM INFORMATION IN AIP AMENDMENT:

4.3.1 Permanent information should be incorporated in AIP within 3 months after NOTAM publication. As re-issuing of NOTAM with the same contents is not permitted, the interim use of an AIP SUP should be considered.

4.3.2 When permanent (PERM) information has been published in a NOTAM, the NOTAM will require cancellation after an appropriate AIP Amendment has been issued to formally amend the AIP.

In this case, the NOF shall issue a NOTAMC which cancels the NOTAM 'PERM', 15 days after the effective date of the AIP Amendment that contains the 'PERM' information

NOTE 1: *'Effective date' in this instance can be equal to an AIP Amendment publication date. This broadens the Annex 15 use of this expression which relates currently to AIRAC AIP Amendments only.*

NOTE 2: *It is assumed that the AIP Amendments will be available at all receiving units by the time the NOTAMC is sent.*

4.3.3 The NOTAMC shall contain in Item E) a reference to the AIP Amendment that incorporates the originally published NOTAM.

Example:

INFORMATION INCORPORATED IN AIP AMDT 4/20 WEF 14 APR 2020

4.3.4 The numbers of the NOTAM incorporated in the AIP Amendment shall be published on the cover page of the AIP Amendment.

4.3.5 The date on which NOTAMC will be issued to cancel NOTAM incorporated in the AIP Amendment shall be published on the cover page of the AIP Amendment.

Example: 'NOTAM incorporated to this AMDT will be cancelled by NOTAMC

4.4 INCORPORATION OF NOTAM INFORMATION IN AIP SUPPLEMENT:

4.4.1 Publication of an AIP Supplement to replace and/or modify information in an existing NOTAM may occur at any time. A Trigger NOTAMN shall be published to refer to this AIP Supplement.

4.4.2 The previously published NOTAM containing the affected information shall be cancelled by a NOTAMC.

Chapter 5

TRIGGER NOTAM

5. 1 ORIGINATION AND USE OF TRIGGER NOTAM:

5.1.1 NOTAM used to announce the existence and subject contents of AIRAC AIP Amendments or AIP Supplements of operational significance are referred to as 'Trigger NOTAM'.

5.1.2 The intent of a Trigger NOTAM is to serve as a reminder in the Pre-flight Information Bulletins (PIB) that operationally significant permanent or temporary changed to the AIP are coming into effect, thus ensuring users are aware of changes that may affect their flights. It also serves as a reminder to AIS officers responsible for uploading the AIP to insert a new AIRAC AIP amendment or AIRAC AIP supplement in the affected AIP on the effective date.

5.1.3 A trigger NOTAM contains a brief description of the contents of the AIRAC AIP amendment or supplement, the effective date & time and the reference number of the AIRAC AIP amendment or supplement.

5.1.4 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.

5. 2 SPECIFICATION FOR TRIGGER NOTAM:

5.2.1 A trigger NOTAM follows, for the most part, the same instructions as any other NOTAM, but with a few exceptions as outlined below. A trigger NOTAM is issued:

a) In the appropriate NOTAM series, according to the information it contains:

NOTE: *Trigger NOTAM are never published in series T which is reserved for NOTAM processing units in cases when basic operational information was not "triggered" by the issuing AIS / NOF office.*

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

5.2.2 **ITEM Q):**

5.2.2.1 The second and third letters (subject) of Qualifier NOTAM code are selected from Appendix "A" and never be letters "XX". If there is no suitable selection, then FA for aerodromes and AF for FIR must be used. In 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.

5.2.2.2 The fourth and fifth letters (condition) of Qualifier NOTAM code always contain letters "TT". This exclusive TT condition must be used in trigger NOTAM regardless of the subject of NOTAM code listed in Appendix "A".

NOTE: *condition "TT" may be used to retrieve specific trigger NOTAM from any issuing AIS or NOF and can also be used to include or exclude trigger NOTAM*

in or from PIB at a specific time before their effective date.

5.2.2.3 The valid entries of Qualifier Traffic are as follows:

I = IFR
V = VFR

5.2.2.4 As trigger NOTAM are issued relative only to information of operational significance, the qualifier purpose must be BO.

5.2.2.5 The valid entries of Qualifier Scope are as follows:

A = Aerodrome
E = En-route
W = Nav. Warning

5.2.2.6 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.

5.2.3 **ITEM A):**

The Item A) must be FIR(s) or aerodrome(s) of operationally significant.

5.2.4 **ITEM B):**

Item B) of a Trigger NOTAM must be the effective date and time (ten-digit date-time) of AIRAC AIP amendment or AIRAC AIP supplement. If the effective time is defined to be the beginning of the day then 0000 (first minute of the day) is used.

Example:

`B) 2102060000` (AIRAC effective date and time)

5.2.5 **ITEM C):**

5.2.5.1 A trigger NOTAM remains valid for 14 days. Item C) must contain the AIRAC effective date and time plus 14 days. Use 2359 as end-time of the 14-day period.

Example:

`C) 2102192359` (AIRAC effective date and time + 14 days)

5.2.5.2 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.

5.2.5.3 A trigger NOTAM expires at the date-time specified in item C). In case where the information contained in an AIRAC AIP supplement is not valid anymore prior to this date, the trigger NOTAM may be cancelled or replaced.

5.2.6 **ITEM E):**

The text in Item E) should not exceed 300 characters and must always start with the words “TRIGGER NOTAM” (in the case of an AIP amendment, followed 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 as end date as per Item C).

5. 3 TRIGGER NOTAM RELATIVE TO AIRAC AIP AMENDMENT:

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:

```
(A0707/21 NOTAMN
Q) OPXX/QOATT/IV/BO/AE/000/999/2945N06905E005
A) OPKR OPLR
B) 2109090001 C) 2109222359
E) TRIGGER NOTAM - AIRAC AIP SUPPLEMENT S-84/21
W.E.F 09TH SEP'2021 REGARDING REVISED INSTRUMENT
APPROACH PROCEDURES FOR RWY-18/36 OF D.G.KHAN
/FAROOQ AHMED KHAN LEGHARI INTL AIRPORT (OPDG)
```

NOTE: *that the term 'PERM' is inserted in Item E) to stress that Item C) contains an artificial end-date and that the information is of a permanent nature.*

5. 4 TRIGGER NOTAM RELATIVE TO AIRAC AIP SUPPLEMENT:

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

5.4.2 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 notices 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.

Example-1: Original Trigger:

```
(A0034/14 NOTAMN
Q) OPKR/QFATT/IV/BO/A/000/999/5739N01217E005
A) OPKC B) 1404100600 C) 1404240600
E) TRIGGER NOTAM – AIRAC AIP SUP 14/08 WEF 10 APR 2008 TIL
11 MAY 2014. USE OF AERODROME RESTRICTED DUE TO MAJOR
CONSTRUCTION WORKS.)
```

New end of SUP: after 24 April 2014: Trigger not affected.
New end of SUP: before 24 April 2014: Trigger replaced or cancelled

Example-2: Notification about early cancellation received 15 APR 2014, SUP cancelled as of 22 APR 2014 2359.

Replacement:

```
(A0126/14 NOTAMR A0034/14
Q) OPKR/QFATT/IV/BO/A/000/999/5739N01217E005
A) OPKC B) 1404151828 C) 1404222359
E) TRIGGER NOTAM – AIRAC AIP SUP 14/08 WEF 10 APR 2008. USE
OF AERODROME RESTRICTED DUE TO MAJOR CONSTRUCTION WORKS.
AIP SUP VALID TIL 22 APR 2008.)
```

5. 5 "NIL" NOTIFICATION:

5.5.1 A NIL Notification to announce that an AIRAC AIP Amendment will not be published at the established interval or publication date, shall be distributed by Trigger NOTAM or by NOTAM checklist or by both.

5.5.2 The distribution of a NIL Notification shall be done at least 42 days in advance of the AIRAC date.

5.5.3 If the use of a Trigger NOTAM for the distribution of a NIL notification is preferred, this NOTAM shall use:

5.5.3.1 NOTAM Code 2nd and 3rd letters 'OA'

5.5.3.2 NOTAM Code 4th and 5th letters 'TT' to identify that it relates to information about the announcement of availability (in this case non-availability) of printed publication; and

5.5.3.3 Purpose 'M' to ensure that it will not be included in the pre-flight information bulletin unless specifically required; and

5.5.3.4 Scope 'E'; and

5.5.3.5 Item B) shall contain the AIRAC effective date; and

5.5.3.6 Duration shall be 14 days like for the regular Trigger NOTAM.

NOTE: *The use of scope E for subject OA as well as purpose M for this type of message is an intentional deviation from the NSC for the benefit of PIB retrieval.*

Example:

```
(A0759/21 NOTAMN
Q) OPXX/QOATT/IV/BO/AE/000/999/2945N06905E005
A) OPKR OPLR
B) 2110070001 C) 2110202359
E) TRIGGER NOTAM - NIL AIRAC AIP SUPPLEMENT / AIP AMENDMENT
DATED 7TH OCTOBER 2021.)
```

5.5.4 If the use of a NOTAM checklist for the announcement of a NIL notification is preferred, this notification shall be included into NOTAM checklist with following guidance:

5.5.4.1 be published at least 42 days before AIRAC effective date; and

5.5.4.2 The text will clearly identify which AIRAC effective dates are affected by the NIL notification

Example:

```
(A0324/21 NOTAMR A0322/21
Q) OPXX/QKKKK/K/K/K/000/999/
A) OPKR OPLR
B) 2104011025 C) 2104302359 EST
E) CHECKLIST
YEAR=2020 0523 0524 0768 0798 0807 0866 0877 0906 0959 0977
          0992 1016 1018 1030 1031
YEAR=2021 0013 0025 0033 0042 0044 0059 0061 0066 0067 0069
```

0071 0076 0085 0109 0115 0130 0136 0143 0153 0158
0166 0171 0175 0176 0184 0185 0195 0201 0209 0217
0218 0220 0228 0229 0230 0265 0266 0288 0289 0290
0291 0293 0294 0298 0299 0301 0302 0303 0304 0305
0308 0310 0311 0312 0315 0316 0318 0319

LATEST PUBLICATIONS:
AIC-02/21 : PUBLISHED DATE: 04TH MAR'2021.
AIRAC AIP SUP S-01/21-S-02/21 PUBLISHED DATE: 11TH MAR'2021.
AIRAC AIP AMDT-01/21 EFFECTIVE DATE: 25TH MAR'2021.)

Chapter 6

NOTAM PROCESSING

6. 1 OBJECTIVE:

6.1.1 The goal of NOTAM processing, is to process all received NOTAM in accordance with the procedures laid down in Chapter 1 of this Manual on NOTAM creation, so as to allow their storage in automated systems in order to provide correct and harmonized PIB output for the benefit of the end user.

6.1.2 Processed NOTAM shall be distributed or made available to all concerned as soon as possible after receipt of the original NOTAM by the NOF office.

6.1.3 NOTAM processing should result in a standardized level of service, regardless of which Unit was responsible for the processing.

6. 2 GENERAL PRINCIPLES:

6.2.1 NOF shall be able to make the original version available in accordance with the requirements of its Clients.

6.2.2 NOF shall keep track of any message (free text or 'correct version' NOTAM) which is related to the original NOTAM.

6.2.3 NOTAM processing functions are as follows:

6.2.3.1 **conversion** into the standard format;

6.2.3.2 **triggering** of information of operational significance;

6.2.3.3 **translation** into English (if other than English language)

6.2.3.4 **syntax correction** of obvious detected mistakes in syntax;

6.2.3.5 **data correction** of detected mistakes in data;

6.2.3.6 **editing** text in order to clarify it;

6.2.4 NOF shall perform all of the above listed functions.

6. 3 PROCEDURE FOR ISSUANCE NOTAMS:

6.3.1 The information or messages received from location or units regarding issuance of NOTAMs are first sorted out and carefully be handled in accordance with its importance.

6.3.2 The NOTAMs of series 'A' and 'C' shall be issued on the authority of following officers:

6.3.3.1 Director Operations

6.3.3.2 Director CNS Engineering

6.3.3.3 Senior Additional / Additional Director ATS

6.3.3.4 Senior Additional / Additional Director Com-Ops

6.3.3.5 Senior Additional / Additional Director Telecom & Electronics

6.3.3.6 Senior Additional / Additional Director Nav. Aids

6.3.3.7 Senior Additional / Additional Director Radar

6.3.3.8 Senior Additional / Additional Director Air Transport

6.3.3.9 Senior Additional / Additional Director APS

6.3.3.10 All Airport Managers / Chief Operating Officers

6.3.3.11 All AdID ANS / Chief Operation Officers of major locations

6.3.3.12 All AdID CNS / Chief Technical Officers of major locations

6.3.3.13 All Manager Airsides

6.3.3.14 Radar Facility Chief / Team Leader ACC JIAP, AIIAP & IIAP

6.3.3 The NOTAMs of "P" series are issued on the authority of Armed forces (i.e. Military / Air force / Navy Authorities).

6.3.4 NOTAM shall be prepared on ICAO format / template prescribed in Annex-15 (Appendix-B).

6.3.5 The soft copy of all issued NOTAMs shall be up-loaded electronically over the website of CAA Pakistan. i.e. www.caapakistan.com.pk.

6.3.6 The hard copies of all issued NOTAMs shall be distributed as per distribution list.

6.3.7 Separate lists for the estimated NOTAMS of A & C series shall be maintained for those NOTAMs which are going be expired on various dates of up-coming month.

6.3.8 The coordination / service message shall be issued to the concerned OPI at least 48 hours before the expiry of estimated NOTAM so that extension of validity / replacement / cancellation and action shall be made accordingly.

Chapter 7

SNOWTAM

7.1 SNOWTAM:

7.1.1 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.

7.1.2 SNOWTAM will be used to disseminate the complete information in the runway condition report (RCR) with the integrity of all its information intact. The information must be given in the order shown in the SNOWTAM format.

7.1.3 A new SNOWTAM is issued whenever there is new RCR. Appraisal of the situation should be made at least once every eight hours, but preferably before the commencement of a major traffic movement. A new SNOWTAM is required whenever there is significant change in conditions.

7.2 PROCESSING AND MEANS OF SNOWTAM:

7.2.1 Arrangements may be made between aerodrome authority and Int'l NOTAM office is required for submission of Runway Condition Report (RCR) and initiation of SNOWTAM.

7.2.2 Following officers (GRF Qualified) will perform runway inspection for compilation of RCR on behalf of Aerodrome Authority / Airport Manager:

7.2.2.1 Manager Airside
7.2.2.2 Airside Inspector
7.2.2.3 Runway Inspector
7.2.2.4 Air Traffic Controller
7.2.2.5 Airport Services (APS) officer
7.2.2.6 Any authorized person

7.2.3 RCR will be submitted to the Duty Controller (Tower / ACC etc.) for initiation of SNOWTAM either on format given in Appendix B3 and B4 or through radiotelephony.

7.2.4 Duty Controller will prepare SNOWTAM and disseminate to Int'l NOTAM office through AFS and Pilot and other agencies through AMS.

7.2.5 Int'l NOTAM office after receiving authority will assign SNOWTAM number and disseminate to all concerned (as per distribution list) through AFS.

7.2.6 SNOWTAM has a validity of 8-hours. If Runway conditions changes or resumes to normal operation, a new SNOWTAM needs to be issued. This SNOWTAM automatically cancel the previous SNOWTAM issued on previous runway condition of the same aerodrome / location.

7.3 SNOWTAM PARTS:

The SNOWTAM format essentially consists of the following parts:

7.3.1 the first part of interest to the communication service handling the aeronautical fixed service (AFS) message, the COM heading, i.e. the priority indicator, addresses, date and time of filing and the originator's indicator;

7.3.2 the second part for automatic processing in computer data banks, the abbreviated heading, i.e. the SNOWTAM serial number, location, date and time of observation; and

7.3.3 the third part containing the RCR information – origin; aerodrome operator.

NOTE: *The SNOWTAM format is specified in the* Procedures for Air Navigation Services — Aeronautical Information Management *(PANS-AIM,* Doc 10066)*, and given at Appendix B2.*

7.4 SNOWTAM CONTENTS:

7.4.1 COM HEADING:

COM heading will be inserted by concerned Communication Centre / Int'l NOTAM office.

7.4.2 ABBREVIATED HEADING:

The abbreviated heading in the form of "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 = OP (for Pakistan only)
iiii = SNOWTAM serial number in a four-digit group = 0001 (for example)
CCCC = four-letter location indicator of the location = OPKC (for Karachi)
MM = month
YY = date /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.0001 from Karachi, measurement / observation of 21st August at 0745 UTC)

```
SWOP0001 OPKC 08210745
```

7.4.3 AEROPLANE PERFORMANCE CALCULATION SECTION:

7.4.3.1 **Item A:**

Aerodrome location indicator (four –letter location indicator)

7.4.3.2 **Item B:**

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

7.4.3.3 **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.*

7.4.3.4 **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).

7.4.3.5 **Item E:**

Percent 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).

7.4.3.6 **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: *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.

7.4.3.7 **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).

7.4.3.8 **Item H:**

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

7.4.4 SITUATION AWARENESSECTION:

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.*

7.4.4.1 **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.*

7.4.4.2 **Item J:**

Drifting snow on the runway, when reported, insert “DRIFTING SNOW”.

7.4.4.3 **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).

7.4.4.4 **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).

7.4.4.5 **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[R] SNOW BANK Lnn or Rnn or LRnn FM CL).

7.4.4.6 **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).

7.4.4.7 **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).

7.4.4.8 **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).

7.4.4.9 **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).

7.4.4.10 **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 program of runway friction measurement using a State-approved friction measuring device.*

7.4.4.11 **Item M:**

Plain language remarks.

EXAMPLES OF COMPLETED SNOWTAM

Example SNOWTAM 1

```
      GG OPKCZQZX OPLAZQZX OPISZQZX
      120755 OPKCYNYS
      SWOP0001 OPKC 08120745
      (SNOWTAM 0001
OPKC
08120745 07L 5/5/5 100/100/100 NR/NR/03 WET/WET/WET SNOW)
```

Example SNOWTAM 2

```
      GG OPKCZQZX OPLAZQZX OPISZQZX
      121800 OPKCYNYS
      SWOP0014 OPKC 04121710
      (SNOWTAM 0014
OPKC
04121710 07L 3/3/3 100/100/100 10/10/10 STANDING WATER /
STANDING WATER / STANDING WATER)
```

Example SNOWTAM 3

```
      GG OPKCZQZX OPLAZQZX OPISZQZX
      131000 OPKCYNYS
      SWOP0040 OPSD 04130930
      (SNOWTAM 0040
OPSD
04130930 14 3/3/3 100/100/100 NR/NR/NR DRY SNOW / DRY SNOW
/ DRY SNOW)
```

Example SNOWTAM 4

```
      GG OPKCZQZX OPLAZQZX OPISZQZX
      131600 OPKCYNYS
      SWOP0142 OPSD 04151530
      (SNOWTAM 0142
OPSD
04151530 14 2/3/3 75/100/100 06/12/12 SLUSH / WET SNOW /
WET SNOW)
```

NOTE: *AFTN address 'OPKCYNYS' is designated for SNWOTAM.*

Chapter 8

DATABASE COMPLETENESS AND COHERENCE MESSAGES

8. 1 GENERAL PRINCIPLES:

8.1.1 The maintenance of dynamic data is essential for the efficient operation of a Publishing NOF or for an aeronautical database administrator. The application of 'query messages' is required to ensure the database completeness and coherence. Query messages based upon the use of AFTN (but not restricted to AFTN).

8.1.2 The basic requirements for messages destined for the maintenance of the dynamic data are:

8.1.2.1 request for one or more NOTAM(s);
8.1.2.2 request for the original version of a NOTAM;
8.1.2.3 request for an intermediate Checklist of valid NOTAM.

8.1.3 In order to facilitate automatic processing, the requests and the replies to the requests are identified by means of 3–letter identifiers.

8.1.3.1	Request for NOTAM:	'RQN'
8.1.3.2	Request for 'original version' NOTAM:	'RQO'
8.1.3.3	Request for an intermediate Checklist:	'RQL'
8.1.3.4	Reply to these requests:	'RQR'

8.1.4 For the avoidance of network overload, the number of requested NOTAM in a single request message shall be limited in 'RQN' or in 'RQO'. It is recommended that the maximum is set to 100.

8.1.5 Request shall include the 4-letter indicator of the Publishing NOF or any other location indicator to which the numbering of the required NOTAM.

8.1.6 A reply message shall contain only one NOTAM (or several messages in case of a multi-part NOTAM), or a status text regarding the requested NOTAM, normally followed by the requested NOTAM.

8.1.7 Request shall refer to only one Publishing NOF.

8.1.8 If a request contains a syntax error, the recipient of the request will inform the originator that an error has been detected in the request message

8. 2 REQUEST FOR THE REPETITION OF NOTAM (RQN)

8.2.1 CODES AND SYMBOLS USED:

8.2.1.1 Note that no brackets will be used when transmitting a 'Request NOTAM' message. The following codes and symbols are used in requests for repetition:

'RQN'	is the designator for 'Request NOTAM'.
'OPKC'	4-letter indicator of the Publishing NOF or other location indicator to which the numbering of the NOTAM refers.
'A0123/00'	NOTAM Series Identifier and NOTAM Number
' - '	(hyphen) is used to indicate 'TO' or 'FROM-TO'.
' '	(blank) is interpreted as 'AND'.

'RQR' is the designator for the reply.

8.2.1.2 REQUEST FOR SINGLE NOTAM:

Example 1: French NOF requests from Italian NOF the Italian NOTAM A0123/08.

Request:
```
ZCZC ...
GG LIIAYNYX
160830 LFFAYNYX
RQN LIIA A0123/21
```

Reply:
```
ZCZC ...
GG LFFAYNYX
160835 LIIAYNYX
RQR LIIA A0123/21
(A0123/21 NOTAMN      Etc.)
```

Example 2: French NOF requests from Karachi NOF for the NOTAM A0833/21.

Request:
```
ZCZC ...
GG OPKCYNYD
270900 LFFAYNYX
RQN OPKC A0833/21
```

Reply:
```
ZCZC ...
GG LFFAYNYX
270905 OPKCYNYD
RQR OPKC A0833/21
(A0833/21 NOTAMN      Etc.)
```

Note: *AFTN address 'OPKCYNYD' is designated to NOTAM database.*

8.2.1.3 REQUEST FOR SEVERAL NOTAMS WITH CONTINUOUS NUMBERS:

Example 3: French NOF requests from German NOF the Cypriot NOTAM between A0199/21 and A0210/21.

Request:
```
ZCZC...
GG EDDZYNYX
281030 LFFAYNYX
RQN LCNC A0199/21-A0210/21
```

Reply:
```
ZCZC...
GG LFFAYNYX
281035 EDDZYNYX
RQR LCNC A0199/21
(A0199/08 NOTAMN
Q) .../..../...   etc.)
```

NOTE: *The full Reply consists of 12 messages containing one NOTAM each.*

8.2.1.4 REQUEST OF SEVERAL NOTAM WITH DISCONTINUOUS NUMBERING:

Example 4: French NOF requests from German NOF the Russian Federation NOTAM A0400/21, A0410/21 and NOTAM between A0420/21 and A0425/21.

Request:
```
ZCZC
GG EDDZYNYX
```

```
281530 LFFAYNYX
RQN UUUU A0400/21 A0410/21 A0420/21-
A0425/21
```

Reply:

```
ZCZC
GG LFFAYNYX
281540 EDDZYNYX
RQR UUUU A0400/21
(A0400/21 NOTAMN
Q) .../..../....  etc.)
```

NOTE: *The full Reply consists of 8 messages containing one NOTAM each.*

8. 3 REQUEST FOR THE ORIGINAL NOTAM (RQO):

8.3.1 CODES AND SYMBOLS USED:

8.3.1.1 The following Codes and Symbols are used in requests for the original version:

'RQO'	is the designator for 'Request Original NOTAM'
'LFFA'	4-letter indicator of the Publishing NOF or other location indicator to which the numbering of the NOTAM refers.
'A0123/00'	NOTAM Series Identifier and NOTAM Number
' - '	(hyphen) is used to indicate 'TO' or 'FROM-TO'.
' '	(blank) is interpreted as 'AND'.
'RQR'	is the designator for the reply.

8.3.1.2 **EXAMPLE OF THE REQUEST FOR ORIGINAL NOTAM:**

Example 5: French NOF requests from German NOF the Original NOTAM KJFK A0553/21.

Request:

```
ZCZC
GG EDDZYNYX
160900 LFFAYNYX
RQO KJFK A0553/21
```

Reply:

```
ZCZC ..
GG LFFAYNYX
160910 EDDZYNYX
RQR KJFK A0553/21
ORIGINAL NOTAM
052255 KDZZNAXX
(A0553/21 NOTAMN
A) KJFK B) WIE C) UFN
E) ...etc.
```

8. 4 CONTENT OF THE REPLY MESSAGES (RQR):

8.4.1 GENERAL SPECIFICATION:

8.4.1.1 A Reply message to RQN and RQO contains only one NOTAM (or one part of a Multi-part NOTAM).

8.4.1.2 A single 'RQN' or 'RQO' request for multiple NOTAM shall result in multiple reply messages unless the requested NOTAM are not available for a reply (exception refers).

8.4.1.3 In reply to a RQO, the status line with the status expression 'ORIGINAL NOTAM' shall precede the original NOTAM. No additional information about the current status/validity of this NOTAM shall be provided.

8.4.1.4 If the queried NOTAM is no longer valid or not available, this status will be communicated through the reply as follows:

8.4.1.4.1 if the NOTAM is no longer valid, a 'Status line' will precede the transmission of the requested NOTAM.

8.4.1.4.2 if the NOTAM is not available, only a relevant 'Status line' will be transmitted.

8.4.1.5 Only one 'Status line' shall be included in the reply and it shall contain only one status expression.

8.4.1.6 In order to limit the number of RQR messages in reply to a RQN for more than one NOTAM and when these NOTAM are not available in the NOTAM's database, the RQR shall contain all NOTAM numbers concerned by the same reply: 'NOTAM REQUESTED' or 'NOTAM NO LONGER IN DATABASE' or 'NOTAM NOT ISSUED'.

8.4.1.7 For example, instead of 99 RQR messages with 'NOTAM NOT ISSUED', only one RQR shall be sent Database should allow repetition of no longer valid NOTAM for a period of 3 months.

8.4.2 STANDARD EXPRESSIONS IN REPLY MESSAGES:

8.4.2.1 The following mandatory statements shall be mentioned in the reply when appropriate:

'NOTAM EXPIRED'	Item C time was reached
'NOTAM REQUESTED'	The NOTAM Processing Unit has requested the requested NOTAM but not yet received it.
'NOTAM CANCELLED BY A1324/21'	NOTAM was cancelled by a NOTAMC
'NOTAM DELETED'	NOTAM was deleted by the NOTAM Processing Unit. Reasons for deletion might be for example that the NOTAM was omitted from Checklist, deleted by printed publication, or other information received from publishing NOF.
'NOTAM NO LONGER IN DATABASE'	NOTAM was either expired, replaced, cancelled or deleted since more than 3 months
'NOTAM NOT ISSUED'	The Publishing NOF has not issued the requested NOTAM
'NOTAM REPLACED BY C3042/08'	NOTAM was replaced by a NOTAMR
'ORIGINAL NOTAM'	Original version of the NOTAM
'NO VALID NOTAM IN DATABASE'	for reply on a RQL if no valid NOTAM

is available.

8.4.2.2 **EXAMPLES FOR STATUS OF NOTAM:**

Example 9: The requested Egyptian NOTAM A0400/21 is expired.

Reply:

```
ZCZC
GG LFFAYNYX
281600 LIIAYNYX
RQR HECA A0400/21
NOTAM EXPIRED
(A0400/21 NOTAMN
Q) .../.../... etc.)
```

Example 10: The requested Senegal NOTAM A0213/21 was not received at the NOTAM Processing Unit.

Reply: If a gap in the NOTAM numbers is detected :

```
ZCZC ...
GG EDDZYNYX
091430 LFFAYNYX
RQR GOOO A0213/21
NOTAM REQUESTED
```

or if the NOTAM number is greater than the last one received :

```
ZCZC
GG EDDZYNYX
091430 LFFAYNYX
RQR GOOO A0213/21
NOTAM NOT ISSUED
```

or if the NOTAM was cancelled, replaced or deleted

```
ZCZC
GG EDDZYNYX
091430 LFFAYNYX
RQR GOOO A0213/21
NOTAM CANCELLED BY A0222/21 or
NOTAM REPLACED BY A0233/21   or
NOTAM DELETED
```

Example 11: The requested Tahiti NOTAM A0021/21 was cancelled.

Reply:

```
ZCZC
GG LIIAYNYX
301235 LFFAYNYX
RQR NTAA A0021/21
NOTAM CANCELLED BY A0023/21
(A0021/08 NOTAMR A0017/21
Q) .../.../.../ etc
```

Example 12: The requested Cuban NOTAM A1577/21 was not issued.

Reply:

```
ZCZC
GG EDDZYNYX
110925 LEANYNYX
RQR MUHA A1577/21
NOTAM NOT ISSUED
```

Example 13: The requested Korean NOTAM A0449/21 was replaced.

Reply:

```
ZCZC
GG LFFAYNYX
282055 LIIAYNYX
RQR RKRR A0449/21
NOTAM REPLACED BY A0452/21
(A0449/08 NOTAMN
Q. /. ../../ etc.)
```

Note: *The importance of transmitting the requested NOTAM is emphasised, even when it is already cancelled, replaced or deleted. Otherwise, there might be inconsistencies in the database, as NOTAM could not be removed then, (NOTAM A0017/21 in Example 8).*

In the exceptional case that a cancelled, replaced or deleted NOTAM was not received the RQR shall contain the status line only.
Example 14: The requested (RQO) United States NOTAM A0092/21 is an Original NOTAM.

Reply:

```
ZCZC ...
GG LIIAYNYX
031755 EDDZYNYX
RQR KJFK A0092/21
ORIGINAL NOTAM
010025 KDZZNAXX
(A0092/21 NOTAMN
A) KJFK B) ...C) ...  etc.)
```

8. 5 REQUEST FOR A LIST OF VALID NOTAM (RQL):

8.5.1 GENERAL SPECIFICATION:

8.5.1.1 The 'List of valid NOTAM' is a free text message. Contrary to the regular checklist, this intermediate checklist is not a NOTAM itself, as it does not receive a number of the series it refers to.

8.5.1.2 Note that the last regular checklist is a valid NOTAM and therefore, its number shall appear in the RQL.

8.5.1.3 Multiple series of the same Publishing NOF may be requested in one message.

8.5.1.4 A reply message shall contain the checklist of only one NOTAM Series.

8.5.1.5 A request for multiple NOTAM series shall result in multiple reply messages each containing one series checklist.

8.5.1.6 The reply message is identified by the unique 4-letter indicator and the NOTAM series identifier. The 'List of valid NOTAM' according to the NOTAM Processing Unit database content is provided in a way similar to the structure of Item E of a regular NOTAM checklist, without the latest publication part.

8.5.1.7 Whenever the regularly published NOTAM checklist is requested, the Client should use the RQN procedure, clearly indicating both NOTAM series and number.

8.5.2 CODES AND SYMBOL USED:

8.5.2.1 The following Codes and Symbols are used in requests for a list of valid NOTAM:

'RQL'	is the designator for 'request list'.
'LFFA'	4-letter indicator of the Publishing NOF or other location indicator to which the numbering of the NOTAM refers to.
'A'	NOTAM Series Identifier
' '	(blank) is interpreted as 'AND'.
'RQR'	is the designator for the reply.

8.5.3 EXAMPLES OF THE REQUEST FOR A LIST OF VALID NOTAM:

8.5.3.1 REQUEST OF A SINGLE NOTAM SERIES:

Example 15: French NOF requests from Italian NOF the list of valid Cypriot NOTAM in series Alpha:

Request:
```
ZCZC
GG LIIAYNYX
281040 LFFAYNYX
RQL LCNC A
```

Reply:
```
ZCZC
GG LFFAYNYX
281055 LIIAYNYX
RQR LCNC A
YEAR=2019 0322 0452
YEAR=2020 0001 0006 0010 0015 0016 0021 0035
0039
```

or

Reply:
```
ZCZC.
GG LFFAYNYX
281055 LIIAYNYX
RQR LCNC A
NOT VALID NOTAM IN DATABAS
```

Example 16: French NOF requests from Italian NOF the list of valid Guyana NOTAM in series Alpha, but last Checklist A0011/08 is the only valid NOTAM.

Request:
```
ZCZC
GG LIIAYNYX
281040 LFFAYNYX
RQL SYCJ A
```

Reply:
```
ZCZC
GG LFFAYNYX
281055 LIIAYNYX
RQR SYCJ A
YEAR=2020 0011
```

8.5.3.2 REQUEST OF MULTIPLE NOTAM SERIES:

Example 17: Italian NOF requests from German NOF the list of valid NOTAM from the United Kingdom in series Bravo and Golf:

Request:
```
ZCZC
GG EDDZYNYX
310840 LIIAYNYX
RQL EGGN B G
```

Reply:

```
ZCZC.
GG LIIAYNYX
310850 EDDZYNYX
RQR EGGN B
YEAR=2019 1678 1789
YEAR=2020 0012 0022 0056 0057 0058 0123 0124 0125
```

Note: *The full Reply consists of 2 Messages containing one NOTAM Series in each.*

Chapter 9

FUTURE PLANS – IMPLEMENTATION OF AIM

9.1 INTRODUCTION:

9.1.1 The *Global Air Navigation Plan* (Doc 9750) was developed as a strategic document to guide the implementation of CNS/ATM systems with respect to the *Global Air Traffic Management Operational Concept* (Doc 9854) and the Strategic Objectives of ICAO. The *Global Air Navigation Plan* (Doc 9750) for the future development of aeronautical information contains guidance on air navigation system improvements necessary to support a uniform transition to air traffic management (ATM) system. The changes foreseen are such that this development is being referred to as the transition from aeronautical information services (AIS) to aeronautical information management (AIM).

9.1.2 The initiative was taken to drive the continuing improvement of aeronautical information services in terms of quality, timeliness and the identification of new services and products to better serve aeronautical users. It sets a baseline for establishing strategies and other initiatives to advance the AIM objectives globally and should place the future AIM in a position to better serve airspace users and ATM in terms of their information management requirements.

9.1.3 The expectations are that the transition to AIM will not require many changes in terms of the scope of aeronautical information to be distributed. The major change will be the introduction of new products and services and an increased emphasis on better data distribution in terms of quality and timeliness in order to meet user requirements and contribute to improved safety, increased efficiency and greater cost-effectiveness of the air navigation system.

9.2 AERONAUTICAL INFORMATION MANAGEMENT (AIM):

9.2.1 The dynamic, integrated management of aeronautical information services — safely, economically and efficiently — through the provision and exchange of quality-assured digital aeronautical data in collaboration with all parties is called Aeronautical Information Management.

9.3 INFORMATION MANAGEMENT (IM):

9.3.1 The processes defined to ensure the collection, utilization and transmission of quality data that are tailored to the needs of each component of the air traffic management (ATM) system.

9.4 OBJECTIVE FOR TRANSITION OF AIS TO AIM:

9.4.1 The objective for global aeronautical information is as follows:

"That ICAO, when developing ATM requirements, define corresponding requirements for safe and efficient global aeronautical information management that would support a digital, real-time, accredited and secure aeronautical information environment."

9.4.2 Present and future navigation systems and other air traffic management systems are data-dependent. All require access to global, broad-based aeronautical information of a considerably higher quality and in a more timely manner than is generally available today. The provision of aeronautical information is a core element of air navigation services.

9.4.3 To satisfy new requirements arising from the Global Air Traffic Management Operational Concept, aeronautical information services (AIS) must transition to a broader concept of aeronautical information management (AIM), with a different method of information provision and management given its data-centric nature as opposed to the product-centric nature of AIS. Roles and responsibilities may need to be adapted as the transition progresses.

9.5 FUTURE CHANGES:

9.5.1 USERS:

The provision of aeronautical information today is mainly focused on the requirements of pre-flight briefing. The provision of aeronautical information tomorrow will address the requirements of all components of the ATM system shown below for all phases of flight:

9.5.1.1. Airspace Organization and Management (AOM)
9.5.1.2. Aerodrome Operations (AO)
9.5.1.3. Demand and Capacity Balancing (DCB)
9.5.1.4. Traffic Synchronization (TS)
9.5.1.5. Conflict Management (CM)
9.5.1.6. Airspace User Operations (AUO)
9.5.1.7. ATM Service Delivery Management (SDM)

9.5.2 DATA:

9.5.2.1 The shift from standardizing products to standardizing data will enable more freedom in the definition of future products while maintaining a high degree of quality, integrity and coherency of the information contained in these new products.

9.5.2.2 The biggest change in the transition to AIM will be the increased use of computer technology in the management of information, with an increased emphasis on the digital form of data that will drive all processes for the management of information.

9.5.2.3 Both graphical and text products will be based on the same underlying, standard definition of geo-referenced atomic data. This will enable the definition of new services where the same information will be made available in the decision support tools for all ATM components.

9.5.2.4 The current Standard in Annex 15 — *Aeronautical Information Services* is centered on products and does not provide specifications required for digital data exchange. A central element in the transition to AIM will be the precise standardization of atomic data elements in terms of field names, field types and field definitions.

9.5.2.5 By using this approach, the definition of the data products is decoupled from the definition of the end-products. The end-user applications, which make use of the information transferred in the form of data sets, do not rely exclusively on the structure and format of the messages but are free to transform the data and combine it with other data to construct the final view appropriate for the end-user.

9.5.3 PRODUCTS:

9.5.3.1 Pre-flight information bulletins are often loaded with information not relevant to the flight because of the limited filtering capabilities that the current NOTAM format has. Pre-flight bulletins are often also difficult to read and interpret

because of the lack of graphical capabilities of the current NOTAM format. New products combining textual and graphical information will need to be specified.

9.5.3.2 Electronic chart displays are becoming easier and cheaper to install in the cockpit and their functionality is increasing. It is likely that they will progressively complement some paper charts and will replace others, which will require updated Standards and symbols for electronic display capabilities.

9.5.3.3 The future capabilities of transferring digital data between the air and the ground will be used for providing new products such as in-flight information bulletins by uploading aeronautical and meteorological information directly aboard aircraft during all phases of flight.

9.5.3.4 The AIM concept requires that all aeronautical information, including that currently held in aeronautical information publications (AIPs), be stored as individual standardized data sets to be accessed by user applications. The distribution of these data sets will define the new services provided by the future AIM. This will constitute the future integrated aeronautical information package that will contain the minimum regulatory requirement to ensure the flow of information necessary for the safety, regularity and efficiency of international air navigation.

9.6 GUIDING PRINCIPLES FOR TRANSITION TO AIM:

The transition from AIS to AIM is undertaken to achieve the steps identified in the roadmap must be specified and conducted in accordance with the following eight guiding principles:

9.6.1 To comply with the process for amendments to the Annexes to the Convention on International Civil Aviation;

9.6.2 To support or facilitate the generation and distribution of aeronautical information which serves to improve the safe and cost-effective accessibility of air traffic services in the world;

9.6.3 To provide a foundation for measuring performance and outcomes linked to the distribution of quality assured aeronautical information and a better understanding of the determinants of ATM, safety and effectiveness not related to the distribution of the information;

9.6.4 To assist States in making informed choices about their aeronautical information services and the future of AIM;

9.6.5 To build upon developments in States, international organizations and industry and acknowledge that the transition to AIM is a natural evolution rather than a revolution;

9.6.6 To provide over-arching and mature Standards that apply to a wide range of aeronautical information products, services and technologies;

9.6.7 To be guided by the *Global Air Navigation Plan* (Doc 9750) and ensure that all development is aimed at achieving the ATM system envisaged in the *Global Air Traffic Management Operational Concept* (Doc 9854); and

9.6.8 To ensure, to the greatest extent possible, that solutions are internationally harmonized and integrated and do not unnecessarily impose multiple equipment carriage requirements for aircraft or multiple systems on the ground.

9.7 DIGITAL NOTAM:

One of the most innovative data products that will be based on the Standard for an aeronautical data exchange model will be a digital NOTAM that will provide dynamic aeronautical information to all stakeholders with an accurate and up-to-date common representation of the aeronautical environment in which flights are operated. The digital NOTAM will be defined as:

"A data set made available through digital services containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to systems and automated equipment used by personnel concerned with flight operations."

9.8 FEATURES OF DIGITAL NOTAM:

Digital NOTAM will have following features:

9.9.1 DATA QUALITY:

Information provided as Digital NOTAM is suitable for automatic checks, which should ensure improved coherence and correctness of NOTAMs.

9.9.2 GEOGRAPHICAL REPRESENTATION:

Digital Aeronautical Information can be easily visualized on GIS platforms, enabling visual checks by human operators and eliminating the risk of mistyped or missing data

9.9.3 DIGITAL SERVICES:

The ultimate goal is a fully graphical, continuous briefing process including:

9.9.3.1 Flight Planning
9.9.3.2 Pre-Flight Briefing
9.9.3.3 In-Flight Updates
9.9.3.4 Post-Flight De-Briefing

Note: *The same information package will be available on the ground and in the air, continuously updated.*

9.9.4 ENHANCED PIBs:

Digital NOTAM allows applying critical human factors aspects in the design of the PIB:

9.9.4.1 Prioritize critical information;
9.9.4.2 Organize information by item concerned (runway, gate, etc.);
9.9.4.3 Embed graphics where appropriate ("a picture is a thousand words");
9.9.4.4 Filter out irrelevant information, which can represent more than 50% of the current bulletins;
9.9.4.5 Reduce the risk of information overload, which is a growing problem because of the significant increase in the number of NOTAM in force world-wide.

9.9.5 FULLY COMPUTER READABLE:

The characteristics of a digital NOTAM which is fully computer readable include:

9.9.5.1 Geo-referenced - the information can be automatically plotted on a chart;

9.9.5.2 Temporal - the effective time can be computer interpreted;

9.9.5.3 Linked to static data - the change is cross-referenced to the baseline information;

9.9.5.4 Transformable – the information can be converted into any graphical or textual output, including the existing ICAO NOTAM format;

9.9.5.5 Query Enabled - a computer system can use complex queries to select temporary and last minute updates of interest based on user-specified criteria;

9.9.5.6 Electronically distributable – the information can be directly transmitted and incorporated into other computer systems without manual intervention.

APPENDICES

APPENDIX – "A"

THE NOTAM CODE — DECODE

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 centre 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-controlled 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 runway)* 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	Stopway 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 heliport lgt
LX	Taxiway centre 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, centre line, etc.)* day markings
MN	Apron apron
MO	Stopbar *(specify taxiway)* stopbar
MP	Aircraft stands *(specify)* acft stand
MR	Runway *(specify runway)* rwy
MS	Stopway *(specify runway)* swy
MT	Threshold *(specify runway)* thr
MU	Runway turning bay *(specify runway)* rwy turning bay
MW	Strip/shoulder *(specify runway)* strip/shoulder
MX	Taxiway(s) *(specify)* twy
MY	Rapid exit taxiway *(specify)* rapid exit twy

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
FI	Aircraft de-icing *(specify)* acft de-ice
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	Transmissometer *(specify runway and, where applicable, designator(s) of transmissometer(s))*
FU	Fuel availability fuel avbl
FW	Wind direction indicator wdi
FZ	Customs/immigration cust/immigration

ATM - Airspace organization (A)

AA	Minimum altitude *(specify en-route/crossing/safe)* mnm alt
AC	Control zone ctr
AD	Air defence identification zone adiz
AE	Control area cta
AF	Flight information region fir
AH	Upper control area uta
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
AU	Upper flight information region uir
AV	Upper advisory area uda
AX	Significant point sig
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 centre acc
SE	Flight information service fis
SF	Aerodrome flight information service afis
SL	Flow control centre flow ctl centre
SO	Oceanic area control centre oac
SP	Approach control service app
SS	Flight service station fss
ST	Aerodrome control tower twr
SU	Upper area control centre uac
SV	VOLMET broadcast volmet
SY	Upper advisory service *(specify)* upper advisory ser

ATM - Air traffic procedures (P)

PA	Standard instrument arrival *(specify route designator)* star
PB	Standard VFR arrival std vfr arr
PC	Contingency procedures contingency proc
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
PII	Instrument approach procedure *(specify type and runway)* instr apch proc
PK	VFR approach procedure vfr apch proc
PL	Flight plan processing, filing and related contingency fpl
PM	Aerodrome operating minima *(specify procedure and amended minimum)* opr minima
PN	Noise operating restrictions noise opr restrictions
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/trl
PU	Missed approach procedure *(specify runway)* missed apch proc
PX	Minimum holding altitude *(specify fix)* mnm hldg alt
PZ	ADIZ procedure adiz proc

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 *(details)* cpdlc
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 - Instrument and microwave landing systems (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 - GNSS services (G)

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

CNS - Terminal and en-route navigation facilities (N)

NA	All radio navigation facilities (except . . .) all rdo nav fac
NB	Non-directional radio beacon ndb
NC	DECCA decca
ND	Distance measuring equipment dme
NF	Fan marker fan mkr
NL	Locator *(specify identification)* 1
NM	VOR/DME vor/dme
NN	TACAN tacan
NO	OMEGA omega
NT	VORTAC vortac
NV	VOR vor
NX	Direction-finding station *(specify type and frequency)* df

Navigation Warnings - Airspace restrictions (R)

RA	Airspace reservation *(specify)* airspace reservation
RD	Danger area *(specify)* . . d . .
RM	Military operating area moa
RO	Overflying of . . . *(specify)* overflying
RP	Prohibited area *(specify)* . . p . .
RR	Restricted area . . 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 refuelling air refuelling
WG	Glider flying gld fly
WH	Blasting blasting
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, paragliding or hang gliding pje/ paragliding/hang gliding
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
WU	Unmanned aircraft ua
WV	Formation flight formation flt
WW	Significant volcanic activity significant volcanic act
WY	Aerial survey aerial survey
WZ	Model flying model fly

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 centre rcc

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 reoperative)* 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 promulgated shutdown cnl
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, launch 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 apch according signal
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 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

Limitations (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 operations 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

APPENDIX – "B"

NOTAM FORMAT

Priority Indicator	→
Address	
Date and time of filing	→
Originator's Indicator	(

Message Series, Number and Identifier

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

Qualifiers

	FIR	NOTAM Code	Traffic	Purpose	Scope	Lower Limit	Upper Limit	Coordinates, Radius
Q)	/	Q /	/	/	/	/	/	

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

Period of Validity

From *(date-time group)*	B)		→
To *(PERM or date-time group)*	C)		EST* PERM*
Time Schedule *(if applicable)*	D)		→

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

E)	
Lower Limit	F) →
Upper Limit	G))
Signature	

*Delete as appropriate

SNOWTAM FORMAT

(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 ASSESSMENT / (OPTIONAL GROUP) ≪≡(
SNOWTAM	(Serial number) <<≡		

Aero plane performance section		
(AERODROME LOCATION INDICATOR)	M	A)
(DATE/TIME OF ASSESSMENT *(Time of completion of assessment in UTC)*)	M	B)
(LOWER RUNWAY DESIGNATORS)	M	C)
RUNWAY CONDITION CODE ON EACH THIRD OF RUNWAY (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 THIRD OF RUNWAY)	C	F) / /
(CONDITION DESCRIPTION OVER TOTAL RUNWAY LENGTH (Observed on each third of the runway, starting from threshold having the lower runway designation number) DRY WET ICE WATER ON TOP OF COMPACTED SNOW DRY SNOW DRY SNOW ON TOP OF ICE WET SNOW ON TOP OF ICE ICE SLUSH STANDING WATER COMPACTED SNOW WET SNOW DRY SNOW ON TOP OF COMPACTED SNOW WET SNOW ON TOP OF COMPACTED SNOW WET FROST	M	G) / /
(WIDTH OF RUNWAY TO WHICH THE RWYCCs 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 RUNWAYT	O	J)
LOOSE SAND ON THE RUNWAY	O	K)
CHEMICAL TREATMENT ON RUNWAY	O	L)
(SNOWBANKS ON THE RUNWAY (If present, distance from runway centerline (m) followed by "L", "R" or "LR" as applicable))	O	M)
(SNOWBANKS ON A TAXIWAY(If present, distance from the edge of runway (m) followed by "L", "R" or "LR" as applicable))	O	N)
SNOWBANKS ADJACENT TO THE RUNWAY	O	O)
(TAXIWAY CONDITIONS)	O	P)
(APRON CONDITIONS)	O	R)
(STATE APPROVED AND PUBLISHED USE OF MEASURED FRICTION COEFFICIENT)	O	S)
(PLAIN-LANGUAGE REMARKS (Including contaminant coverage and other operationally significant information, e.g. sanding, de-icing))	O	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)