

NOTAM DATA QUALITY REQUIREMENTS FOR BUREAU OF METEOROLOGY (BOM)

ATS Document Change Summary

Document name	Document number
NOTAM Data Quality Requirements for Bureau of Meteorology	C-MAN0279

Quality assurance (QA) review - refer ANS Group ATS Documentation Procedures (ATS-PROC		OC-0039)		
	Has the entire document been QA reviewed?	Yes		

Location of change	Change description	
Throughout	Minor grammatical corrections	
	 Expanded titles for CASR Part 175 – Aeronautical Information Management (and subsections where relevant), 	
	 Expanded titles for ICAO documents 10066 – PANS-AIM and Annex 15 – Aeronautical Information Services 	
	 Expanded titles for Designated Airspace Handbook (DAH), En Route Supplement Australia (ERSA), Departure and Approach Procedures (DAP) and relevant AIP sections 	
2.1, 4, 4.1, 4.3, 5.1, 7.5, 7.7.3, 9.2, 10.2, 10.3,	Minor amendments for clarity	
3	NOTAM definition changed from Doc 8126 – Aeronautical Information Services Manual to Doc 10066 – Procedures for Air Navigation Services – Aeronautical Information Management (PANS-AIM)	
3.3	Inclusion of 'is not of direct operational significance'	
4	New chapter describing the AIRAC cycle and permanent changes to aeronautical data and information	
5.2	 Inclusion of CASR Part 175.D requirements for ADO Minor amendments 	
6	Section rewritten	
6.2	Removal of incorrect information	
6.3	Changed 'originating NOTAM authorised person' to 'ADO'	
7.1	Section rewritten	
7.7.1	Section rewritten to reflect time format as per Doc 8126	
7.7.2	New section describing difference between an 'active' NOTAM and a 'valid' NOTAM	
8	Inclusion of NOTAM type examples	
8.2	Amended to reflect Item B) requirements as per ICAO Doc 8126	
8.3	Amended to reflect Item C) requirements as per ICAO Doc 8126	

9.1.2	Amended to reflect current practices regarding NOTAM promulgation for uncertified aerodromes	
9.3, 9.4	New note inserted	
10	 Section rewritten Inclusion of link to NOTAM Web Service User Guide for assistance promulgating NOTAM via the NWS 	
10.4	New section to align with current requirements	
10.5	Included note to include NOTAM number for NOTAMR and NOTAMC	
10.7	Amended to align with Item B) requirements per ICAO Doc 8126 – Aeronautical Information Services Manual	
10.8	Amended to align with Item C) requirements per ICAO Doc 8126 – Aeronautical Information Services Manual	
10.9	Section rewritten	
10.10	 Amended to align with Item D) requirements per ICAO Doc 8126 – Aeronautical Information Services Manual 	
	Additional example included for combination of various days of the week	
10.11	Amended to align with Item E) requirements per ICAO Doc 8126 – Aeronautical Information Services Manual	
10.12	Amended to align with Item F) and Item G) requirements per ICAO Doc 8126 – Aeronautical Information Services Manual	
11	 Previous information incorporated into Chapter 12 Updated examples for both NOTAM formats presented on NIS 	
12.1	Inclusion of table displaying the NOTAM subject and status for MET NOTAM	
12.5-12.12	NOTAM examples amended to reflect NOTAM subject and status	



NOTAM Data Quality Requirements for Bureau of Meteorology

C-MAN0279

Version 4

Effective 12 September 2022

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Change summary

Version	Date	Change description	
4	12 September 2022	Nil change bars applied due to extent of changes	

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1 Purpose

The purpose of this document is to establish the aeronautical data and information exchange protocols between *NOTAM Authorised Persons* and the *NOTAM Office* (*NOF*) for the issuance, replacement, and cancellation of NOTAM as part of the Integrated Aeronautical Information Package (IAIP).

This document forms part of the *Data Product Specification (DPS)* that Airservices must provide to all *Aeronautical Data Originators (ADO)* under *CASR Part 175 – Aeronautical Information Management* and is designed to assist NOTAM Authorised Persons to provide aeronautical data and information that is published via NOTAM in a controlled and standardised manner.

2 NOTAM Office contact details

2.1 Advice of errors

Notify the NOTAM Office of corrections or suggestions to this specification via email to: nof@airservicesaustralia.com.

2.2 Email, telephone, and fax

Email (preferred): nof@airservicesaustralia.com

Telephone: 02 6268 5063 Fax: 02 6268 5044

2.3 Mailing address

ATTN: NOTAM Office

Airservices Australia Network Coordination Centre

GPO BOX 367

Canberra ACT 2601

3 NOTAM issuance

As per ICAO Doc 10066 – Procedures for Air Navigation Services Aeronautical Information Management (PANS-AIM) and ICAO Annex 15 – Aeronautical Information Services, a NOTAM is a notice distributed by means of telecommunications 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.

NOTAM should be originated, issued, and distributed promptly when:

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

Information that is of short duration, but which contains extensive text and/or graphics, is to be published as an AIP Supplement (AIP SUP).

As per CASR Part 175.B Aeronautical Information Management – AIS Providers, the NOTAM Office is required to promulgate NOTAM on behalf of Aeronautical Data Originators in the following circumstances:

- the request meets any of the circumstances mentioned in *Annex 15 Aeronautical Information Services* (refer 3.1 NOTAM promulgation criteria)
- it is required by Australian law
- it is deemed necessary in the interest of aviation safety.

3.1 NOTAM promulgation criteria

As per *Annex 15 – Aeronautical Information Services*, NOTAM should be originated and issued when concerning the following information:

- establishment, withdrawal, or significant changes in operation of aeronautical services (meteorology etc.)
- establishment, withdrawal, or significant changes in operational capability of radio navigation and air-ground communication services. This includes: interruption or return to operation, change of frequencies, change in notified hours of service, change of identification, change of orientation (directional aids), change of location, power increase of decrease amounting to 50 per cent or more, change in broadcast schedules or contents, or irregularity or unreliability of operation of any radio navigation and air-ground communication services or limitations of relay stations including operational impact, affected service, frequency and area
- unavailability of back-up and secondary systems, having a direct operational impact
- erecting or removal of, or changes to, obstacles to air navigation in the takeoff/climb, missed approach, approach areas and runway strip
- presence or removal or, or significant changes in, hazardous conditions due to snow, slush, ice, radioactive material, toxic chemicals, volcanic ash deposition or water on the movement area
- observations or forecasts of space weather phenomena, the date and time of their occurrence, the flight levels where provided and portions of the airspace which may be affected by the phenomena

- an operationally significant change in volcanic activity, the location, date, and time
 of volcanic eruptions and/or horizontal and vertical extent of volcanic ash cloud,
 including direction of movement, flight levels and routes or portions of routes which
 could be affected
- implementation of short-term contingency measures in cases of disruption, or partial disruption, of ATS and relayed supporting services.

3.2 Non-NOTAMable circumstances

As per *Annex 15 – Aeronautical Information Services*, the following information shall not be notified by a NOTAM:

- partial temporary failure of air-ground communications when suitable alternative frequencies are known to be available and are operative
- unavailability of back-up and secondary systems if these do not have an operational impact
- announcement or warning about possible/potential limitations, without any operational impact
- general reminders on already published information
- availability of equipment for ground units without containing information on the operational impact for airspace and facility users
- other non-operational information of a similarly temporary nature.

3.3 Information not to be included in NOTAM

A NOTAM should not contain information that:

- relates to an aerodrome or heliport and its vicinity, but does not affect its operational status
- is not of direct operational significance
- does not impact the safe operation of aircraft
- is not likely to influence a pilot's or operator's decision to divert a flight.

4 Aeronautical Information Regulation and Control

As specified in the DPS, aeronautical data and information is managed and published in a controlled manner through the internationally adopted Aeronautical Information Regulation and Control (AIRAC) system to determine a series of common dates and associated publication procedures for effective coordination of amendments.

Airservices utilises a quarterly amendment calendar for the updating and production of the IAIP and aeronautical chart products. This requires that aeronautical data and information is submitted to Airservices in a timely manner to ensure that changes can be processed and published in the appropriate products for the required effective date.

Cut-off dates for the submission of data or information for each production cycle can be found at the following link: https://www.airservicesaustralia.com/industry-info/aeronautical-information-management/document-amendment-calendar/.

4.1 Permanent Changes

As per *ICAO Doc 8126 – Aeronautical Information Services Manual*, operationally significant changes to published aeronautical information and data are to be made using the AIRAC system.

Permanent changes that are deemed to be operationally significant must be published as an AIRAC AIP amendment (either as a permanent NOTAM or AIP SUP).

Permanent changes that are not considered to be significant to flight operations are to be processed as an AIP amendment only, which is published on the next available AIRAC date, and is not subject to NOTAM promulgation.

4.2 Permanent NOTAM

When information to be disseminated is of permanent nature and is considered operationally significant (refer <u>3.1 NOTAM promulgation criteria</u>), the AIP Responsible Person should issue a permanent (PERM) NOTAM to notify industry that the content is to be incorporated into the IAIP.

PERM NOTAM must only be requested by the AIP Responsible Person or AIP Nominee for the listed Subject Owner (refer to the <u>Data Originators Custodians</u> document and the Data Product Specification issued for your organisation).

PERM NOTAM will remain valid until it is incorporated into the appropriate documentation, after which it will be cancelled by the NOTAM Office. No further notification from the originator is required.

PERM NOTAM should not be issued with an immediate start time (exceptions apply) and should instead provide sufficient notification to industry (refer <u>6.1 Notification times</u>).

For further guidance on the issuance of permanent NOTAM, refer to the <u>Data</u> Originators Custodians document or contact the NOTAM Office.

4.3 Permanent NOTAM and Data Change Requests (DCR)

As per the DPS, Aeronautical Data Originators should not use permanent NOTAM to initiate changes to aeronautical data and information published in the IAIP. Instead, a Data Change Request (DCR) should be submitted to Airservices AIS Data team at docs.amend@airservicesaustralia.com, and a separate PERM NOTAM request submitted to the NOTAM Office.

Note: Exceptions apply to the above, such as unanticipated/unavoidable circumstances.

5 NOTAM originators

5.1 NOTAM Authorised Persons

NOTAM requests which meet the criteria specified in <u>3.1 NOTAM promulgation criteria</u> may be requested by a NOTAM Authorised Person.

NOTAM that permanently amends aeronautical data or information published in the IAIP may only be requested by an AIP Responsible Person or AIP Nominee (refer <u>4.2</u> Permanent NOTAM).

5.2 NOTAM Authorised Persons verification

NAIPS Internet Service (NIS) NOTAM Group management has been established as a method for the NOTAM Office to confirm that a NOTAM request has been submitted by a NOTAM Authorised Person.

Under CASR Part 175.D – Aeronautical Information Management – Aeronautical Data Originators, an ADO has a responsibility to advise Airservices of the names of all nominated NOTAM Authorised Persons for the ADO.

All individuals who are to be listed as NIS NOTAM Group Managers for BoM NOTAM Groups are required to register a NIS username which must be notified to Airservices.

The Bureau of Meteorology may use Generic NIS usernames (one per Graphical Area Forecast desk and one for the Hazardous Weather Unit) for the NOTAM Web Services (NWS). The generic NIS usernames will be linked to the relevant NOTAM Group(s) by the NOTAM Group Manager. The individual submitting a NOTAM request via NWS shall record their name and contact details in the NOTAM request form. NOTAM Group Managers shall ensure that only NOTAM Authorised Persons have access to the Generic NIS User accounts.

NOTAM submitted via the NWS are automatically linked to the NOTAM Group from which it was submitted, however, the contact details of the originating NOTAM Authorised Person must be recorded in the Originating Authority section.

When the NWS is not available, the NIS username and NOTAM Group name must be recorded on all NOTAM Request Forms emailed to the NOTAM Office.

For additional information regarding NOTAM Groups, contact the NOTAM Office.

6 Requesting a NOTAM

NOTAM requests are to be submitted via the NWS (preferred method), or on the latest version of the NOTAM Request Form available on the Airservices website: http://www.airservicesaustralia.com/wp-content/uploads/NOTAM-Request-Form.pdf.

NOTAM will only be accepted over the phone when the matter is urgent, or in an emergency.

6.1 Notification times

When requesting a NOTAM, the following times should be allowed (where practicable) for the NOTAM to be processed and issued by the NOTAM Office:

- immediately in emergency situations
- eight hours for airspace published in *Designated Airspace Handbook* (DAH) and by AIP Sup e.g., military exercises
- 48 hours from receipt by the NOTAM Office for information regarding scheduled maintenance or changes to a facility, service, or aerodrome.

Non-urgent NOTAM will be processed in order of effective time (see <u>10.7 Item B) – start period</u>). This may at times result in delays during periods of high workload in the NOTAM Office.

6.2 Verifying information

The NOTAM Office will contact the originating NOTAM Authorised Person in the following situations:

- if a NOTAM is to be published with substantive differences from the way it was requested. This does not include minor changes such as abbreviations or changing the order of the information for standardisation purposes.
- where the information or the intent of a NOTAM request differs from or cannot be verified within an official document
- when the request comes from an unauthorised originator
- when there are errors in the NOTAM request, including but not limited to: incorrect abbreviations, lack of detail, mismatched time periods, duplicated information, and typos.

Note: It is the responsibility of the ADO to ensure a NOTAM Authorised Person is available to verify the above information if required.

6.3 Checking NOTAM

It is the responsibility of the ADO, to ensure that information promulgated by the NOTAM Office is correct. All NOTAM will be available via NIS after publication and any discrepancies must be raised with the NOTAM Office by phone as soon as the error has been discovered.

6.4 NOTAM duplication or confliction

It is the responsibility of the originating NOTAM Authorised Person to ensure that NOTAM requests do not cause duplication or confliction of already published NOTAM.

Active NOTAM can be viewed via NIS, either in the Active NOTAM Directory (for users with access to the NWS) or via a Location Briefing.

Location Briefings will only provide NOTAM that are active during the specified validity period (maximum of 336 hours).

The NOTAM Office can provide guidance on published NOTAM commencing more than 14 days (336 hours) in the future.

7 NOTAM conventions

7.1 Meteorological service unavailable

The convention used to advise that a meteorological service is temporarily unavailable is the use of the phrase 'NOT AVBL' (not available).

For a facility that is permanently withdrawn from service (refer <u>4.2 Permanent NOTAM</u>), the phrase 'DECOMMISSIONED' is to be used vice 'NOT AVBL'.

7.2 Abbreviations

A list of permitted abbreviations to be used in NOTAM is available in the AIP GEN 2.2 General and Meteorological Abbreviations.

Abbreviations marked with '•' must not be used in NOTAM which are promulgated internationally. If you are unsure of your aerodrome's distribution status, please contact the NOTAM Office.

The list of abbreviations is updated every three months and should be checked on a regular basis.

7.3 Latitude and Longitude

Any latitude and longitude positions used in a temporary or permanent NOTAM are required in degrees, minutes and if required, seconds, followed by a cardinal point.

Example: 324620S 1382405E.

If more precision is required, such as for ICAO data accuracy and resolution requirements, seconds will be followed be a decimal and tenths or hundredths of seconds.

Example: 324620.2S 1382405.1E or 324620.27S 1382405.15E.

7.4 Units of measurement

Units of Measurement commonly required in NOTAM are as follows:

- Horizontal Distance:
 - Nautical Miles (NM) usually used for distances greater than 2NM
 - Shorter distances: meters (M)
- Vertical distance (altitudes, elevations, and heights): feet (FT)
- Bearings (from an AD or navaid): degrees magnetic (MAG)
- Weight (Mass): Metric tonnes or kilograms (KG).

7.5 Cross referencing

To avoid the publication of erroneous information, a NOTAM will not be issued containing a reference to another NOTAM number. This is to avoid situations where the original NOTAM is reviewed or cancelled, which amends the original NOTAM number, resulting in the associated NOTAM referencing an incorrect NOTAM number.

Where cross-referencing between NOTAM is deemed necessary, the phrase 'SEPARATE NOTAM REFERS' will be used.

NOTAM will not be issued containing a reference to a date and/or page number of *En Route Supplement Australia (ERSA)* or *Designated Airspace Handbook (DAH)* as these documents are replaced in full when an updated version is published, so date/page references will no longer be accurate.

NOTAM may be issued with date and/or page reference for *Departure and Approach Procedures (DAP)* and *Aeronautical Information Publication (AIP)* as these are updated on a page-by-page basis.

7.6 Distribution criteria

All domestic NOTAM issued will be held in the Australian NOTAM database and can be accessed via NIS.

Some NOTAM will also be distributed to international NOTAM offices and accessed by international pilots flying to or through Australian airspace.

NOTAM will be sent internationally if the operations affect:

- international aerodromes or international alternate aerodromes (as per AIP GEN 2.
 Designated International Airports Australia)
- international aerodromes or international alternate aerodromes or controlled airspace or airspace within 10NM of an international aerodrome or international alternate aerodromes (as per AIP GEN 2. Designated International Airports Australia).

7.7 Timing conventions

All NOTAM are published in UTC (Zulu) time. UTC is the preferred convention as it decreases the likelihood of errors during the conversion process.

UTC is the only time convention available in the NWS. Local time can be converted to UTC using the Time Zone Converter, available within the NOTAM form on the NWS.

If an emailed NOTAM request is submitted using local time (not preferred), this must be clearly marked on the NOTAM Request Form, including which time zone has been used. If a different time convention has been used on the form, the NOTAM Office will convert it to UTC before issuing.

Note: Extra care should be taken during daylight savings periods (refer <u>Appendix A – Time conversion chart</u>).

7.7.1 Time format

The ICAO NOTAM format specifies that the timing convention used to indicate Item B) and Item C) (refer 10 NOTAM request form) is a ten-digit date-time group in 24-hour format (year, month, day, hours, and minutes i.e., YYMMDDHHMM).

For ease of use, NOTAM requests submitted via NIS are presented with spaces between elements as follows:

YY MM DD HHMM

There are multiple time formats that may be used for Item D) (refer 10.10 Item D) – activation times).

Days of the week are referenced in Australian NOTAM as the 'Local Day using UTC Time' e.g., MON-WED 2300-0900 means the NOTAM is active for three days (MON, TUE, and WED) from 2300 UTC in the morning until 0900 UTC in the afternoon on each day.

The beginning of the day is specified as 0000 UTC and the use of the times xx59 and xx01 in NOTAM can create an anomaly within the Air Traffic Control systems.

For example, a NOTAM that finishes at 2359 UTC will be removed from the ATC systems at 2359 and 01 second, not at 2359 and 59 seconds. Where possible, the times xx59 and xx01 should be avoided, and rounded up/down to xx00.

7.7.2 NOTAM validity

A NOTAM is valid when it is published (i.e., date and time of NOTAM origination), whereas it is active and comes into force at the date-time specified in Item B) (refer 10.7 Item B) – start period).

7.7.3 NOTAM duration

A temporary NOTAM must never be active for more than three months.

NOTAM with an estimated end time that unexpectedly exceeds the maximum threemonth period may be extended for a further period of up to three months.

If it is expected that the extension is to exceed a period of three months, an AIP SUP shall be issued instead.

Temporary changes of long duration (exceeding three months) must be published as an AIP SUP. When required, a temporary NOTAM may be issued to bridge the period between required notification and AIP SUP publication.

Permanent changes require the relevant IAIP section to be amended, with an appropriate permanent NOTAM to bridge the period between notification and incorporation into the IAIP (refer <u>4.2 Permanent NOTAM</u>).

7.7.4 Daylight Saving Time

Daylight Saving Time is observed in the Australian summer in some Eastern and Central time zones.

Care must be taken to ensure that times are correct for NOTAM that will be active over the time change.

8 NOTAM types

NOTAM types are identified by the following suffixes: 'N' (New), 'R' (Replacement) and 'C' (Cancellation) and the resulting identifier appears after the reference number as follows:

- NOTAMN (New NOTAM)
- NOTAMR (Replacement NOTAM)
- NOTAMC (Cancellation NOTAM)

Example: C0123/22 NOTAMN

C0124/22 NOTAMR C0123/22 C0125/22 NOTAMC C0124/22.

8.1 NOTAMN

A NOTAMN is when a NOTAM is first issued. A NOTAMN should be requested if the NOTAM is regarding an event for which there is no current NOTAM.

8.2 NOTAMR

A NOTAMR allows an existing NOTAM to be amended. A NOTAMR immediately replaces the previous NOTAM.

Item B) of a NOTAMR must be the actual date-time group that the NOTAMR is created. The NOTAMR will take effect immediately, and no future coming into force is permitted. This is to avoid potential misinterpretation about further changes or existence of multiple NOTAM.

When requesting a NOTAMR, the following conditions apply:

- if the condition described in an active NOTAM 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. 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).
- if the NOTAM to be replaced is not active at the time of replacement, the NOTAM
 is to be cancelled WIE and a NOTAMN is to be issued with amended information
 and commencement time.

For further guidance, refer to 8.4. Determining NOTAM type.

8.3 NOTAMC

NOTAMC allows an existing NOTAM to be cancelled. Any NOTAM which is no longer required must be cancelled with a NOTAMC.

A NOTAM can only be cancelled with immediate effect and no future cancellation of NOTAM is permitted.

If you require a NOTAM to finish at a future end period, the NOTAM should instead be replaced (NOTAMR) with a confirmed finish time in Item C).

8.4 Determining NOTAM type

The below table should be used to determine the correct procedure and NOTAM type required for the following circumstances:

Circumstances	Required action
NOTAM is currently active with the conditions to cease now and resume in the future	The current NOTAM is to be cancelled with immediate effect and a new NOTAM issued with the amended start time
NOTAM is currently active with conditions to stay in effect but change in the future	The current NOTAM is to be reviewed to amend the finish time and a new NOTAM is to be issued specifying the new conditions
NOTAM is not yet in effect, but conditions are now commencing at a different time (including WIE)	The current NOTAM is to be cancelled and a new NOTAM issued with the amended commencement time
NOTAM not yet in effect, subject and start time remain the same but conditions change (e.g., RWY WIP changes to RWY NOT AVBL)	The current NOTAM is to be cancelled and a new NOTAM issued with the new conditions
NOTAM within the current period of activity, conditions to cease now and resume in the future	The current NOTAM is to be cancelled and a new NOTAM issued with the amended start time
Any changes to a NOTAM which has already been in effect but is outside of a period of activity	The current NOTAM is to be cancelled and a new NOTAM issued with the amended conditions or timings
Changes to a NOTAM that is outside a period of activity and has not yet been in effect	The current NOTAM is to be cancelled and a new NOTAM issued with the amended conditions or timings
NOTAM is currently active with the conditions to cease now and resume in the future	The current NOTAM is to be cancelled with immediate effect and a new NOTAM issued with the amended start time

9 NOTAM locations

NOTAM will be issued for locations listed in the BoM Aeronautical Services Handbook (ASH) where a TAF service is provided, plus additional sites where METAR/SPECI are available in NAIPS.

9.1 Aerodromes

NOTAM regarding aerodrome facilities, or events and hazards that have a direct impact on aerodrome operations, are issued by the NOTAM Authorised Persons nominated by the ADO for the aerodrome.

9.1.1 Certified aerodromes

A NOTAM service is provided for certified aerodromes, military aerodromes, certain other aerodromes regulated under *CASR Part 139 – Aerodromes*, and specialised helicopter operations with published terminal instrument flight procedures under *CASR Part 173 – Instrument Flight Procedure Design*.

A NOTAM will be issued on an aerodrome if it is about a facility, event or hazard that has a direct effect on aerodrome operations (within 5NM of an aerodrome with a NOTAM service), on the ground or within the airspace associated with that aerodrome.

9.1.2 Uncertified aerodromes

Limited information is published in *En Route Supplement Australia (ERSA)* for some aircraft landing areas (ALAs) and a NOTAM service is not provided except for the following circumstances:

Subject	Events or Hazards	Responsible entity
Aerodrome	 Certification status changes Contact detail - limited to phone number change Closure – permanent 	 CASA Aerodrome * CASA
Aerial works	AerobaticsAir displaysFlight inspectionsOcular hazardsSurveying	CASA, or approved NOTAM originators
Flight procedures	Limited to circuit direction changes for safety reasons	CASA
Communication	Limited to frequency changes (CTAF with or without an AFRU) UNICOM	 CASA Aerodrome *
Instrument Flight Procedures	Any changes to instrument flight procedure	Certified Procedure Designers, under CASR Part 173
Lighting facilities	Limited to frequency changes (PAL)	Aerodrome *
Meteorological services	Limited to TAF changes	ВоМ
Navaid	Unserviceable or frequency changes	Airservices, or navaid owner
Sports aviation	BalloonsGlidersModel rocketsParachuting	CASA
Unmanned aircraft activities	 Model aircraft RPAS 	 CASA CASA, or approved NOTAM originators

Subject	Events or Hazards	Responsible entity
Other activities	 Blasting Fireworks Gas plumes Laser light displays 	 CASA CASA, or approved NOTAM originators CASA CASA, or approved NOTAM originators

 * Only for those Aerodromes with a Data Product Specification (DPS) in place with Airservices AIS.

9.2 FIR (YBBB or YMMM)

A NOTAM will be issued on a single FIR if it refers to a:

- location (aerodrome or navigational aid) without an ERSA FAC page but which is listed in the Aeronautical Services Handbook (ASH)
- hazard occurring more than 5NM from an aerodrome
- hazard for which an aerodrome NOTAM has already been issued, but the hazard extends to a height or distance from the aerodrome which may affect pilots overhead or nearby not using the aerodrome. This need is determined by CASA or Airservices.

9.3 Dual FIR (YMMM/YBBB)

A NOTAM will be issued as a dual FIR NOTAM if:

- the conditions for an FIR NOTAM are fulfilled
- the hazard or facility extends across the FIR boundary
- the affected QNH Areas are shared by the boundary.

Note: If required, contact the NOTAM Office for guidance on QNH areas and FIR boundaries.

9.4 Multiple FIR (YMMM and YBBB)

A NOTAM will be issued on both FIR if:

- the conditions for an FIR NOTAM are fulfilled
- the hazard or facility extends across the FIR boundary
- the affected QNH Areas are not shared by the boundary.

Note: If required, contact the NOTAM Office for guidance on QNH areas and FIR boundaries.

10 NOTAM request form

Refer below for detailed instructions on completing the NOTAM Request Form. Where applicable, instructions relevant to the NWS or emailed NOTAM Request Form has been identified.

Refer to the <u>NOTAM Web Service User Guide</u> for detailed guidance on NOTAM submission using the NWS.

10.1 Mandatory fields

NOTAM type	Mandatory fields
NOTAMN	Items A), B), C) and E)
NOTAMR	Items A), B), C) and E)
NOTAMC	Items A), B) - WIE, and E)

10.2 Group name

Select the required NOTAM group for the ADO from the drop-down box on the NWS or annotate the Group Name and NIS username of the originating NOTAM Authorised Person at the bottom of the NOTAM Request PDF form.

Refer to <u>5.2 NOTAM Authorised Person verification</u> for more information regarding NOTAM Groups.

10.3 Contact details

Provide the name and contact number of the originating NOTAM Authorised Person.

Contact details are essential as the NOTAM Office may need to contact the originator prior to issuing a NOTAM.

Refer to <u>6.2 Verifying information</u> and <u>5 NOTAM originators</u> for further information.

10.4 NOTAM summary (NWS only)

Provide a short (maximum fifty characters) summary of the purpose of the NOTAM.

NOTAM summaries are to be as concise as possible as certain briefing products available via NIS (e.g., SPFIB and AVFAX) will only display the summary line for any NOTAM that has been active for more than seven days (i.e., commencement DTG is more than seven days in the past).

If unable to specify the exact contents of the NOTAM in the summary, provide a general description. This must include a general location of the subject of the NOTAM if issued under the FIR.

Ensure that the summary line contains enough information so pilots can easily determine if the NOTAM is relevant to their operations.

Examples of NOTAM Summary can be found in 12 NOTAM examples.

10.5 NOTAM type (PDF only)

NOTAMN, NOTAMR or NOTAMC.

Refer <u>8 NOTAM types</u> for more information on which type of NOTAM you require depending on what you need to achieve.

Note: If NOTAMR or NOTAMC is selected, include the NOTAM number that is to be replaced or cancelled.

10.6 Item A) – location

This is the location under which the NOTAM will be issued. Refer <u>9 NOTAM locations</u> for more information.

10.7 Item B) – start period

Item B) specifies the beginning of the occurrence or activity in a ten-digit date-time group (YYMMDDHHMM). The time in Item B) must be WIE or in the future. NOTAM cannot be issued retrospectively.

If a NOTAM is required immediately or as soon as possible, WIE may be selected instead of specifying a start period. In this instance the NOTAM Office will process the NOTAM request as soon as practicable, and the published NOTAM will list the publication time in Item B).

Care must be taken to ensure that NOTAM requests do not cause duplication or confliction of currently published NOTAM (refer to <u>6.4 NOTAM duplication or confliction</u>).

Note: Item B) for NOTAMC will have a default time stamp of the date and time that the NOTAMC was created and cannot be amended (refer <u>8.3 NOTAMC</u>).

10.8 Item C) - end period

Item C) specifies the end of the occurrence or activity in a ten-digit date-time group (YYMMDDHHMM).

If the information is of a permanent nature (refer <u>4.2 Permanent NOTAM</u>), then the abbreviation PERM is inserted instead of the ten-digit date-time group.

If the end time of the NOTAM is uncertain, or the NOTAM duration is for a period exceeding three months, an approximate end period within three months must be indicated, followed by the abbreviation EST (refer 7.7.3 NOTAM duration).

Refer <u>10.9 Item C</u>) - <u>estimated end period</u> for more information regarding NOTAM with an estimated finish time.

10.9 Item C) – estimated end period

NOTAM with an estimated (EST) end period must be replaced or cancelled prior to the end period. It is the responsibility of the ADO to ensure that a nominated NOTAM Authorised Person contacts the NOTAM Office to extend or cancel an EST NOTAM, and a minimum of one hour notice is appreciated.

If a NOTAM is not replaced or cancelled prior to the estimated end period, the details of the originating ADO will be forwarded to CASA for record of non-compliance.

Refer below to determine if the dates specified in Item D) are permitted to have an EST finish time:

- If there are specific dates in Item D) (i.e., 1808150100 to 1808150200), an EST finish time is not permitted.
- If there are daily periods in Item D) (i.e., DAILY 0100/0200, HJ, HN), an EST finish time is permitted.

10.10 Item D) - activation times

This field should only be used if the NOTAM will not be active continuously from the start period to the end period e.g., if the NOTAM will only apply during daylight hours.

The first date-time group in Item D) should correspond to the date-time group in Item B). The last date-time group in Item D) should correspond to the date-time group in Item C).

These periods of activity could be in any of the following formats:

- date/time periods in the format YYMMDDHHMM e.g., 1808020200 to 1808021400
- the same time each day e.g., DAILY 0200/0400 for the period of the NOTAM
- combination of several time frames on various days of the week. e.g., MON TUE FRI 0900/1300 1400/1430, WED THU 1000/1100 1230/1300 or MON-FRI 2000/2200, SAT SUN 2300/0500
- night-time hours (HN) for the period of the NOTAM
- daytime hours (HJ) for the period of the NOTAM.

10.11 Item E) – **NOTAM** text

Item E) specifies the text of NOTAM, including the Subject, Status, and any additional information, in plain language complemented, where necessary, by ICAO abbreviations, indicators, identifiers, designators, call signs, frequencies, and digits.

The text in Item E) should be kept as short as possible, containing all the essential information needed for the safe conduct of flight.

For guidance on NOTAM formatting requirements, refer to 12 NOTAM examples.

Refer to <u>3 NOTAM issuance</u> for guidance on circumstances that can and cannot be notified by NOTAM.

10.12 Item F) - lower limit and Item G) - upper limit

These fields are used to indicate the lower and upper limits of airspace affected by the activity and are mandatory for NOTAM regarding navigation warnings and airspace restrictions.

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

Item G) is the upper limit expressed as an altitude either in M, AMSL, AGL, FL, or as unlimited (UNL) if applicable.

Item F) and Item G) are not required for MET NOTAM, except for meteorological balloon releases.

11 NOTAM format

NOTAM are presented in NIS in either the ICAO format or the NAIPS briefing format.

11.1 ICAO format

The ICAO format presents all fields with the corresponding letter (as outlined in 10 NOTAM request form).

Item A) YSCO

Item B) 2105182333

Item C) 2105190515

Item E) METAR/SPECI AND AWIS CLOUD AND VISIBILITY DATA NOT AVBL

11.2 Briefing format

The NAIPS briefing format presents NOTAM in the following format:

SCONE (YSCO) C0040/21

METAR/SPECI AND AWIS CLOUD AND VISIBILITY DATA NOT AVBL FROM 05 182333 TO 05 190515

12 NOTAM examples

The following are examples of how to compose Item E) of NOTAM.

These examples are provided as a guide only. Contact the NOTAM Office if additional examples are required.

12.1 NOTAM subject and status

The subject and status of a NOTAM refer to the subject for the which the NOTAM is required and the status and/or condition of that subject (refer 3.1 NOTAM promulgation criteria and 10.11 Item E) – NOTAM text).

The NOTAM examples below do not form an exhaustive list of NOTAM Subjects and Statuses. For further guidance, contact the NOTAM Office.

Subjects	Statuses
 METAR/SPECI METAR/SPECI AND AWIS METAR/SPECI AND AWIS [insert affected WEATHER DATA] TAF/TAF3 MET BALLOON RELEASE RVR 	 NOT AVBL DATA CORRUPT, DO NOT USE INTERMITTENT WILL TAKE PLACE

Note: The wording 'INFORMATION UNRELIABLE' should not be used in a NOTAM.

12.2 Origination

MET NOTAM can only be accepted from individuals contained within the appropriate NOTAM Group, except in the following circumstances:

- for equipment owned by the aerodrome or a third-party operator who is not the BoM, the AD operator is responsible for NOTAM origination
- for a frequency by which a service is accessed becomes unavailable (e.g., during a power failure), but the equipment itself is still working, the AD operator is responsible for NOTAM origination
- VOLMET and AERIS are weather provision services, however they fall under the ATS category NOTAM. Airservices are the only originators for VOLMET/AERIS NOTAM.

NOTAM requirements for MET services are listed in the NOTAM Requirements section of the Aeronautical Services Handbook (ASH).

BoM Weather Radar outages will not be notified by NOTAM.

12.3 NOTAM requirements

12.4 Permanent NOTAM format

Permanent NOTAM must be submitted in the following format:

TEMPLATE

E) [HEADING OF IAIP SECTION] AMD

INFORMATION TO BE ADDED, CHANGED OR REMOVED USING ONE OF THE FOLLOWING:

- AMD TO READ:
- ADD/REMOVE NOTE* (insert number associated with note e.g., note 4)

AMD INTEGRATED AERONAUTICAL INFORMATION PACKAGE

EXAMPLE

E) METEOROLOGICAL INFORMATION PROVIDED

ADD NEW NOTE: TAF CAT C, METAR/SPECI

AMD INTEGRATED AERONAUTICAL INFORMATION PACKAGE

12.5 Aerodrome Forecast (TAF)

TAF SERVICE NOT AVBL	
Subject	TAF SERVICE
Status	NOT AVBL
Additional Info	*if applicable
Summary	TAF SERVICE NOT AVBL

TAF SERVICE REDUCED	
Subject	TAF SERVICE
Status	NOT AVBL
Item D)	MON-FRI 2000-2200 0830-1400 SAT-SUN 2000-2300 0630-1400
Summary	TAF SERVICE HOURS OF OPERATION REDUCED

12.6 Aerodrome Weather Information Service/Broadcast (AWIS/AWIB)

AWIS provides a facility to access real time meteorological observations from AWS sites. The observations can be accessed via phone (AWIS) or, at selected locations, via radio transmissions (AWIB). However, for NOTAM purposes, both will be referred to as AWIS.

When there are multiple ways to access the AWIS and only one is affected, the status of the other must be referred to in the NOTAM.

If a service is not available, but this is indicated by solidi (///) in the text of a weather product and/or by the words 'currently not available' in a spoken weather product, a NOTAM is not required.

12.7 Automatic Weather Station (AWS) equipment

NOTAM will refer to the service/product that is not available, rather than the equipment that is not available. For example, AWIS (Aerodrome Weather Information Service) NOT AVBL rather than AWS (Automatic Weather Station) U/S, or AIR TEMPERATURE DATA NOT AVBL rather than AIR TEMPERATURE SENSOR U/S.

Use the following table to determine what information is affected by an outage:

Equipment	Measures
Air Temperature Sensor	Air Temperature
Anemometer	Wind speed
Wind vane	Wind direction
Relative Humidity Sensor	Dew Point Temperature
Barometer	QNH (Atmospheric pressure)
Ceilometer	Cloud height
Visibility sensor	Visibility
Present Weather sensor	Present Weather
Rain gauge	Rainfall

	AWS NOT AVBL	
Subject	METAR/SPECI AND AD WX INFO SERVICE (AWIS)	
Status	NOT AVBL	
Additional Info	*if applicable	
Summary	METAR/SPECI AND AWIS NOT AVBL	

12.8 METAR/SPECI

A NOTAM is required when a METAR/SPECI is expected to be completely or partially (i.e., missing one or more of wind, cloud, visibility, QNH, air temperature, dewpoint temperature, rainfall) unavailable for at least one hour.

However, if during the outage, the METAR/SPECI is being issued with solidi in lieu of missing elements, there is no need for a NOTAM.

METAR/SPECI NOT AVBL	
Subject	METAR/SPECI
Status	NOT AVBL
Additional Info	*if applicable
Summary	METAR/SPECI NOT AVBL

MET DATA CORRUPT	
Subject	METAR/SPECI AND AD WX INFO SERVICE (AWIS) CLOUD DATA
Status	CORRUPT, DO NOT USE
Additional Info	*if applicable
Summary	METAR/SPECI AND AWIS CLOUD DATA CORRUPT

12.9 Aerodrome Weather Information Service (AWIS)

A NOTAM is required when a BoM managed AWIS is expected to be completely or partially unavailable for at least one hour.

However, if during the outage, the AWIS is broadcasting 'CURRENTLY NOT AVAILABLE' for the missing element(s), there is no need for a NOTAM.

AWIS TEL NOT AVBL	
Subject	AD WX INFO SERVICE (AWIS) TEL: 02 8302 7504
Status	NOT AVBL
Additional Info	AVBL VIA FREQ 133.25
Summary	AWIS TEL 02 8302 7504 NOT AVBL

12.10 Runway Visual Range (RVR)

Runway Visual Range (RVR) equipment supports higher category ILS equipment at some airports. The equipment is owned by the Aerodrome Operator. If the RVR equipment is not available, or the data is corrupt, the Aerodrome Reporting Officer will raise a NOTAM.

If, however, the equipment is available, but the information is not supplied to the BoM for SPECI purposes, the Bureau of Meteorology shall raise a NOTAM on RVR DATA NOT AVBL IN SPECI.

RVR DATA NOT AVBL IN SPECI	
Subject	RVR DATA IN SPECI
Status	NOT AVBL
Additional Info	*if applicable
Summary	RVR DATA IN SPECI NOT AVBL

12.11 Significant service disruption

SIGNIFICANT SERVICE DISRUPTION	
Location	FIR (YMMM OR YBBB)
Subject	FCST AND WRNG SERVICES WI AREAS 20, 21 AND 22
Status	LTD
Additional Info	ESSENTIAL MET PRODUCTS AND SERVICES MONITORED AND ISSUED AS NORMAL. REQ FOR URGENT FCST (SUCH AS DITCHING AND SAR) CTC 07 3229 1854
Summary	FCST AND WRNG SERVICES WI AREA 20,21,22 LTD

CONTINGENCY	
Location	FIR (YMMM, YBBB OR YMMM/YBBB)
Subject	MET PRODUCTS
Status	NOT AVBL
Additional Info	FOR THE FOLLOWING AD: YMMM – [AD NAME] (Y***), [AD NAME] (Y***), [AD NAME] (Y***), [AD NAME] (Y***)
Summary	MET PRODUCTS NOT AVBL FOR MULTIPLE AD

12.12 Meteorological balloon release

MET BALLOON RELEASE	
Subject	METEOROLOGICAL BALLOON RELEASE
Status	WILL TAKE PLACE
Additional Info	FM PSN S36 13.3 E148 06.5 (KHANCOBAN, NEW S WALES) APRX BRG 090 MAG 10.9NM FM CORRYONG AD (YCRG). SINGLE BALLOONS WILL BE RELEASED AT 3 HOUR INTERVALS. CTC OPR *** TEL: ****
Item F)	SFC
Item G)	UNL
Summary	MET BALLOON RELEASE BRG 090 MAG 10.9NM FM YCRG

13 Definitions

Within this document, the following abbreviations will be used:

Term	Definition
AD	Aerodrome
ADO	Aeronautical Data Originator
AERIS	Automatic En Route Information Service
AGL	Above Ground Level
AIP	Aeronautical Information Publication
AIP SUP	Aeronautical Information Publication Supplement
AIRAC	Aeronautical Information Regulation and Control
ALA	Aircraft Landing Area
AMSL	Above Mean Sea Level
ATS	Air Traffic Services
AWIB	Aerodrome Weather Information Broadcast
AWIS	Aerodrome Weather Information Service
AWS	Automatic Weather Station
ВоМ	Bureau of Meteorology
CASA	Civil Aviation Safety Authority
CASR	Civil Aviation Safety Regulations
CTAF	Common Traffic Advisory Frequency
DAH	Designated Airspace Handbook
DCR	Data Change Request
DPS	Data Product Specification

Term	Definition
ERSA	En Route Supplement Australia
FAC	Facility/Facilities
EST	Estimated
FIR	Flight Information Region
FT	Feet
HJ	Hours of day
HN	Hours of night
IAIP	Integrated Aeronautical Information Package
ICAO	International Civil Aviation Organization
MAG	Degrees magnetic
MET	Meteorological
METAR	Aviation Routine Weather Report
NAIPS	National Aeronautical Information Processing System
NAVAID	Navigation Aid
NIS	NAIPS Internet Service
NM	Nautical Miles
NOF	NOTAM Office
NOT AVBL	Not Available
NOTAM	Notice to Airmen
NOTAMC	Cancellation NOTAM
NOTAMN	New NOTAM
NOTAMR	Replacement NOTAM
NWS	NOTAM Web Service
PERM	Permanent
QNH	Mean Sea Level Pressure
SPECI	Aviation Special Weather
TAF	Aerodrome Forecast
U/S	Unserviceable
UTC	Coordinated Universal Time
VOLMET	Meteorological Information for Aircraft in Flight
WEF	With Effect From
WIE	With Immediate Effect

Appendix A Time conversion chart

STANDARD TIME				DAYLIGHT SAVINGS		
	EST	CST	WST		EDT	CDT
итс	QLD, NSW VIC, ACT TAS	NT, SA	WA	UTC	NSW, VIC, ACT, TAS	SA
0000	1000	0930	0800	0000	1100	1030
0100	1100	1030	0900	0100	1200	1130
0200	1200	1130	1000	0200	1300	1230
0300	1300	1230	1100	0300	1400	1330
0400	1400	1330	1200	0400	1500	1430
0500	1500	1430	1300	0500	1600	1530
0600	1600	1530	1400	0600	1700	1630
0700	1700	1630	1500	0700	1800	1730
0800	1800	1730	1600	0800	1900	1830
0900	1900	1830	1700	0900	2000	1930
1000	2000	1930	1800	1000	2100	2030
1100	2100	2030	1900	1100	2200	2130
1200	2200	2130	2000	1200	2300	2230
1300	2300	2230	2100	1300	0000	2330
1400	0000	2330	2200	1400	0100	0030
1500	0100	0030	2300	1500	0200	0130
1600	0200	0130	0000	1600	0300	0230
1700	0300	0230	0100	1700	0400	0330
1800	0400	0330	0200	1800	0500	0430
1900	0500	0430	0300	1900	0600	0530
2000	0600	0530	0400	2000	0700	0630
2100	0700	0630	0500	2100	0800	0730
2200	0800	0730	0600	2200	0900	0830
2300	0900	0830	0700	2300	1000	0930