



**Civil Aviation
Advisory Publication
November 2000**

Publishing aerodrome information and reporting changes

This publication is advisory only. It gives the preferred method for complying with the Civil Aviation Regulations. It is not the only method, but experience has shown that if you follow this method you will comply with the CARs.

Read this advice together with the appropriate regulation and Civil Aviation Order.

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The relevant regulations

- CAR 89O
- also CARs 89I, 89V, 89X and 92A

Who this CAAP applies to

- Operators of licensed aerodromes;
- operators of unlicensed aerodromes used for regular public transport operations;
- operators of aerodromes included in Aeronautical Information Publication (AIP) Enroute supplement Australia (ERSA);
- operators and pilots of aircraft used for regular public transport operations; and
- aerodrome reporting officers.

Why this publication was written

The advice contained in the previous publication about published aerodrome information in ERSA and reporting changes is applicable to licensed aerodromes. A significant number of operators of aerodromes previously listed as licensed have opted for their aerodromes to become unlicensed. This CAAP is amended to provide advice on publishing aerodrome information and reporting changes in respect of both licensed and unlicensed aerodromes that are included in ERSA.

Status of this CAAP

This is the second amendment of CAAP No. 89O-1(0)

For further information

Contact the CASA District Office closest to you.

**Aerodromes that may
be included in ERSA**

The Aeronautical Information Publication (AIP) titled “Enroute Supplement Australia (ERSA)”, which is widely distributed to airlines and pilots, is a convenient way to disseminate aerodrome information. This document is published by the Aeronautical Information Service (AIS), a part of Airservices Australia (AA).

Licensed aerodromes. In applying for an aerodrome licence, applicants are required under CAR 89I to provide aerodrome particulars to CASA for notification in AIP. Full aerodrome information will be published.

Defence aerodromes. ERSA is a joint AA/RAAF publication. Full aerodrome information may be published.

Unlicensed aerodromes. Unlicensed aerodromes are not required, under the regulations, to provide aerodrome information to AIS or CASA and to have their aerodromes included in ERSA.

However, on request of the aerodrome operator, an unlicensed aerodrome used by aircraft with 10 or more passenger seats and engaged in regular public transport operations will be accepted in ERSA with full aerodrome information similar to that of a licensed aerodrome.

Other unlicensed aerodromes may also be included in ERSA, on request of the aerodrome operators. However, the aerodrome information published will be of a limited format, being of a non-operational nature.

In addition, an unlicensed aerodrome may be included in ERSA if there are navigational aids, on or in the vicinity of the aerodrome, for which an instrument approach procedure has been published. In this case, only the navigation aids details will be published.

**What is aerodrome
information?**

Aerodrome information refers to the data on aerodromes and their environs (also known as aerodrome particulars in the Regulations).

The information comprises aerodrome details provided by aerodrome operators in accordance with Part 3 of Schedule 10 of the regulations, navigation aids, air traffic control, rescue and fire fighting information provided by Airservices Australia, and any special procedures on aircraft operations.

WHERE IS AERODROME INFORMATION PUBLISHED?

AIP — Enroute Supplement Australia (ERSA) contains aerodrome information of a lasting character, in two separate sections. The Facilities Section sets out all the facilities available at an aerodrome. The Runway Distances Supplement Section sets out in detail runway declared distances information.

Notices to Airmen (NOTAM), in relation to an aerodrome, advise pilots of changes in the serviceability of the aerodrome, usually with safety implications. They are designed for rapid promulgation.

AIP Supplement is issued when time is available to provide the information as printed matter or when the information requires a diagram.

ADDITIONAL AERODROME INFORMATION PROVIDED DIRECTLY BY AERODROME OPERATORS

Aerodrome Obstruction Charts — ICAO Type A Charts contain detailed obstacle data within a runway take-off climb area. These charts are prepared and provided directly by operators of international aerodromes to airlines. Type A charts may also be provided by major aerodromes. Where a Type A chart is available and is updated from time to time, the current edition of the chart is to be listed in the ERSA.

ERSA, NOTAM AND AIP SUPPLEMENT

Where aerodrome operational information is published in ERSA, the importance of providing and maintaining accurate information cannot be overemphasised. The ERSA is updated quarterly. In between updates, the published information may be changed temporarily or permanently due to weather, aerodrome development, or occurrences at or around the aerodrome. When a change affects immediately the safety of aircraft using the aerodrome, the NOTAM system is used to promptly advise airlines and pilots of the changes. When advance notification of a planned change is necessary, the notification may be issued as an AIP supplement.

Full aerodrome information in ERSA

For a licensed aerodrome the ERSA Facilities Section presents full aerodrome information in the following manner. Full aerodrome information may also be published on request, for an unlicensed aerodrome used by aircraft with 10 or more passenger seats and engaged in regular public transport

operations. Aerodrome operators should obtain a copy of the section of ERSA pertaining to their aerodromes. An example of an aerodrome entry in ERSA is provided in Attachment A.

Aerodrome diagram. An aerodrome diagram illustrates:

- the layout of runways, taxiways and apron;
- the nature of the runway surface — sealed or unsealed;
- the designations and length of the runways;
- the designations of the taxiways, where applicable;
- the location of the illuminated and non-illuminated wind direction indicators;
- the location of the aerodrome reference point; and
- the direction and distance to the nearest town.

Aerodrome location and administration. Aerodrome location and administration data include:

- name of aerodrome
- State or Territory of Australia;
- World Aeronautical Chart number;
- latitude and longitude;
- magnetic variation;
- time conversion — universal time co-ordinated (UTC) plus local time difference;
- AVFAX and “Y” location code indicator;
- aerodrome elevation;
- aerodrome usage — public, private, military or unlicensed;
- name, address, telephone and facsimile numbers of aerodrome operator;
- aerodrome charges, where notification is desired;
- aerodrome rescue and fire-fighting category;
- currency of Type A chart, if applicable.

Movement area data. The movement area data provided will include:

- runway designation;
- runway bearing — in degrees magnetic;
- runway length and surface runway length in abbreviated multiples of 100 feet and surface shown as either a (asphalt or bitumen), b (concrete) and c (others).
- runway pavement strength rating under the ACN-PCN system; and
- runway width.

Lighting data. Lighting is listed by the abbreviations shown below. Unless otherwise specified, runway lights include runway edge, threshold and runway end lights, and stopway lights where stopways are provided.

SDBY PWR	Standby power available
AVBL	
PTBL	Portable or temporary lights (flares or battery)
LIRL	Low intensity runway lights (single stage of intensity)
MIRL	Medium intensity runway lights (three stages of intensity)
HIRL	High intensity runway lights (5 or 6 stages of intensity)
RTIL	Runway threshold identification lights (flashing white)
RCLL	Runway centre line lights
RTZL	Runway touchdown zone lights
AL	Approach lights (other than high intensity approach lights)
HIAL - CAT I	High intensity approach lights - CAT I
HIAL - CAT II	High intensity approach lights - CAT II
SFL	Sequenced flashing lights
T - VASIS	T pattern visual approach slope indicator system
AT-VASIS	Abbreviated (singled side) T pattern visual approach slope indicator system
PAPI	PAPI visual approach slope indicator system
PAPI#	PAPI commissioned by ground survey (Not AVBL to RPT jets. Report any anomalies to AD OPR.)
HSL	Hold short lights (used in conjunction with land and hold short operations (LAHSO))
PAL (frequency)	Pilot activated aerodrome lighting (with dedicated frequency)
ABN	Aerodrome beacon
HIOL	High intensity obstacle lights (flashing white)
MIOL	Medium intensity obstacle lights (flashing red)
LIOL	Low intensity obstacle lights (steady red)
Taxiways	Centreline lights are green and edge lights are blue

Navigation Aids data. The navigation aids data will include details of the aids like VOR, NDB, DME, ILS and ABN;

Air Traffic Services. The radio frequencies of contact to Control Tower or Flight Information Services;

Traffic advisory frequency. The common traffic advisory frequency (CTAF) or mandatory broadcast zone (MBZ) where established;

Ground services. Fuel suppliers and replenishment facilities and the contact telephone numbers for all hours;

Unicom. If provided .

Special procedures. Where there are restrictions to operations on any part of the aerodrome or in particular directions of flight;

Notices. Information provided of a cautionary or administrative nature.

Runway distances supplement. Declared distances in metres with feet equivalent shown in brackets are tabulated for each runway. They are:

- Take-off run available (TORA);

- Take-off distance available (TODA);
- Accelerate-stop distance available (ASDA);
- Landing distance available (LDA);
- Supplementary take-off distance available (STODA), provided when the obstacle clear take-off gradient for TODA is more than 1.6%.

More information on declared distances is provided at Attachment B.

Aerodrome reference code number. The aerodrome reference code number, defined in RPA Chapter 7, is to be determined for each runway and provided in the runway distance supplement information of ERSA, as shown in the example at Attachment A. The code number is used to determine the applicable standards of obstacle-clear approach and take-off gradients and take-off survey area for the runway, set out in RPA Chapter 10.

From the runway code an aircraft operator is able to determine the standard to which the approach and take-off areas have been surveyed to for obstacles and this allows them to better plan their flight.

Obstacle-clear take-off gradients (expressed in percent gradient) are shown in brackets following the TODA distances. This is the gradient from the end of TODA to the top of the critical obstacle within the take-off climb area. There is no need to publish information about the critical obstacle. Where there is no obstacle, a value of 1.2% is shown.

If a fence is located so close to a runway strip end such that a take-off gradient which takes account of the fence is so large as to be meaningless, the take-off gradient can be based on the next obstacle within the take-off area. In this case, a note is to be inserted providing information on the location and height of the fence and that the fence has not been taken into account in the calculation of TODA and STODA gradients .

One direction runways. Where a runway direction cannot be used for take-off, or for landing, or both, for example, due to excessive gradient to the critical obstacle, the appropriate declared distance(s) will be shown as “Nil” in the Runway Distances Supplement to ERSA with a note to that effect, e.g. “TKOF 14 and LAND 32 not AVBL due surrounding terrain”.

Survey of take-off area. The selection of the critical obstacle is to be based on the survey of the full take-off area in accordance with the applicable take-off OLS standards. The take-off OLS

standards should be based on the aerodrome reference code number of the most critical aeroplane that uses the runway on a regular basis. If the take-off survey is not in full compliance with relevant standards, or the runway may, on occasions, be used by a larger aeroplane (e.g. A code 2 runway being used by a code 3 aeroplane) then an appropriate note should be provided in the runway distances supplement of ERSA. Examples include: length of TKOF area surveyed to 8500m instead of 15000m, and TKOF area surveyed to code 2 standards instead of code 3 standards.

Where the location of the critical obstacle is some distance from the take-off inner edge and results in a take-off gradient that requires a change of direction (curved departure), an additional lower take-off gradient may be declared based on a shorter length of TKOF area surveyed. Aerodrome operators are advised to consult with the appropriate CASA office if this is applicable to their aerodrome.

Supplementary take-off distances available (STODA) are shown for obstacle-clear take-off gradients of 1.6%, 1.9%, 2.2%, 2.5%, 3.3% and 5% if the end of TODA gradient to the critical obstacle exceeds these figures and the resultant STODA is greater than 800 metres.

Discrete obstacle data. At aerodromes which do not provide a Type A Chart, besides the obstacle gradient information published in conjunction with TODA, airlines may request additional discrete obstacle data in the form of obstacle height and distances from start of TORA, for take-off performance purposes. Aerodrome operators are advised to liaise with airlines direct in regard to providing this obstacle survey information.

Taxiway intersection declared distances are the runway declared distances originating from an adjoining taxiway provided where taxiway intersection departures are conducted. The remaining length of runway and the reduction of all declared distances are provided .

Runway slope quoted is the difference between the maximum and minimum elevation along the runway centreline divided by its length and expressed as a percentage to the nearest one tenth of a percent. The “down” slope and its direction are tabulated in all cases, e.g., “0.8% down to SE”. Where significant slope variations occur, additional data may be shown, e.g., “E end level, centre section 0.5% down to W, W end 0.1% down to E” .

Runway strip width (RWS) is the total width of an area which contains the runway, and the graded and ungraded portions of the runway strip. RWS width is shown in metres. The graded portion of the RWS, which is also declared, is defined by boundary markers and is graded to alleviate damage to an aircraft in the event that it runs off the runway. The ungraded portion of the RWS is known as the fly-over area. Within the fly-over area, the ground surface and any object on it must not project above a plane surface, originating from the outer edge of the graded runway strip, and sloping upwards and outwards, at a gradient of 5%.

Limited Aerodrome Information in ERSA

On request from the aerodrome operator, an unlicensed aerodrome may also be included in ERSA. In this case LIMITED INFORMATION will be published and only in the ERSA Facilities Section, which may include the following:

- Aerodrome diagram showing only runway headings and runways in dotted lines;
- Aerodrome name “UNLICENSED”;
- Notice that “Full NOTAM service not available”*;
- Elevation (where known);
- State or Territory of Australia;
- WAC chart number;
- Local time zone;
- “Y” location code indicator (where given);
- Magnetic variation;
- Latitude and Longitude;
- Name, address and telephone/fax number of aerodrome operator and fuel supplier;
- Operating hours (where provided);
- PAL frequency (where provided)
- Navigation aids;
- Air Traffic services;
- MBZ, CTAF and Special Procedures;
- Notices.

* The status of aerodrome serviceability is not notified by NOTAM. Aerodrome operators should follow reporting procedures agreed with the aircraft operator(s) concerned.

What is aerodrome reporting?

Aerodrome reporting is the notification of changes to the published aerodrome information or of any other occurrence or emergency affecting the safety of aircraft using the aerodrome and availability of the aerodrome .

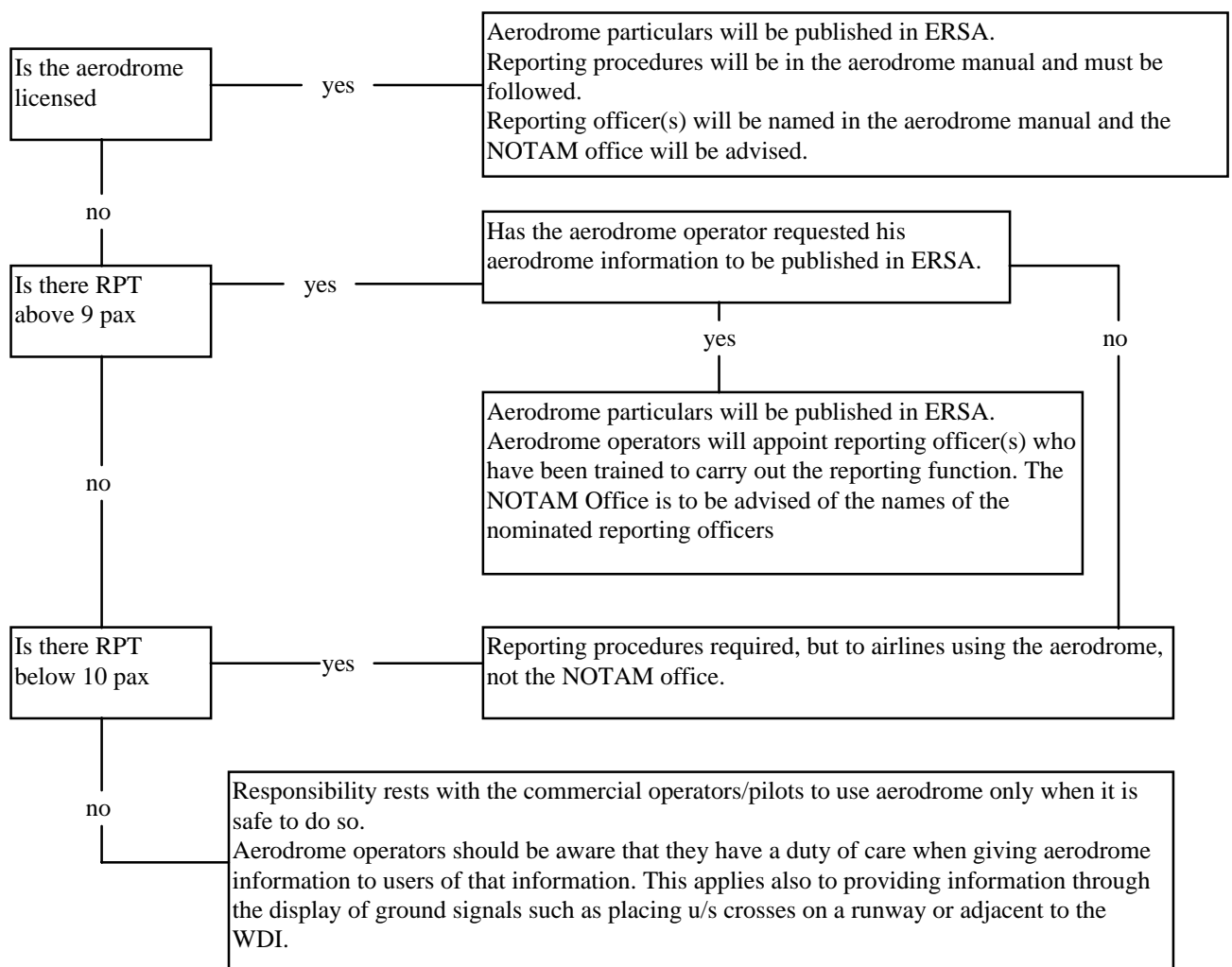
The occurrences may be known beforehand, as in planned aerodrome works, or discovered during an inspection of the aerodrome or obstacle limitation surfaces.

The earlier the reporting is done, the most useful and most able to be effective it will be for the airlines.

Correct and current information is important to commercial operators to allow them to maximise the operational benefits provided by the aerodrome facilities.

PROCEDURES FOR REPORTING

Aerodrome reporting procedures differ depending on the aerodrome status and type of operations. The reporting procedures are shown in the following diagram.



Note: Aerodromes with limited information published in ERSA do not report to NOTAM Office. Aerodrome information is to be provided directly by aerodrome operator to users .

WHO MAY ORIGINATE OR CANCEL NOTAM

At an aerodrome where full information is published in ERSA:

- for aerodrome serviceability and changes to published aerodrome information, NOTAM may be originated and cancelled by the nominated reporting officer or a relevant Airservices or CASA officer;
- for changes to navigation aids, MBZ/CTAF frequencies or special procedures, NOTAM may be originated by relevant Airservices or CASA officer. Where a navigation aid is owned and maintained by the aerodrome operator, NOTAM to notify changes to its status may be originated by the nominated reporting officer.

At aerodromes where limited information is published in ERSA:

- changes to aerodrome facilities are not matters for NOTAM. However, in emergency situations when notification is deemed desirable, e.g. aerodrome closed due flooding, NOTAM may be originated by the aerodrome operator;
- changes to navigation aids, MBZ/CTAF or special procedures, NOTAM are to be originated by a relevant CASA or Airservices officer.

Reporting procedures for aerodromes with full information in ERSA

APPOINTMENT OF REPORTING OFFICERS

The operator of an aerodrome with full information published in ERSA will need to appoint a person(s) who has been suitably trained as the nominated reporting officer(s) and notifies the appropriate CASA District Office and NOTAM office in writing. For licensed aerodromes, the details of the reporting officers are to be included in the aerodrome manual. The appropriate CASA District Office is the CASA Office which has surveillance role over the aerodrome.

Persons other than employees of the aerodrome operator (e.g. airline staff) may also be appointed as aerodrome reporting officers.

It is usually necessary to appoint at least two reporting officers to cover period of absences.

Reporting officer qualifications. Aerodrome operators should ensure that any person carrying out the reporting function has been suitably trained and has the following attributes:

- a sound knowledge of the physical characteristics of the aerodrome movement area, the aerodrome obstacle limitation surfaces, aerodrome markings, lighting and ground signals and essential aerodrome safety equipment;
- an understanding of the aerodrome information included in AIP;
- the ability to carry out a serviceability inspection of the aerodrome;
- a knowledge of the aerodrome's emergency procedures; and
- a knowledge of the NOTAM system and the ability to carry out aerodrome reporting procedures.

WHAT AND WHEN TO REPORT

Aerodrome operators need to advise the Australian NOTAM Office (NOF) of the following occurrences:

- changes (temporary or permanent) in the published aerodrome information including current permanent NOTAM which affect aircraft operations: origination of a PERM NOTAM should be referred to AIS;
- aerodrome works affecting runways or the obstacle limitation surfaces including time limited works that require more than 10 minutes to restore normal safety standards;
- unserviceable portions of the runway or failures in aerodrome lighting or obstacle lighting;
- temporary obstacles to aircraft operations;
- a significant increase in, or concentration of birds or animals on or near the aerodrome which poses a danger to aircraft;
- changes of 0.05% or greater of the published gradient data;
- changes to supplementary TKOF distances to the extent of 10m decreases and 30m increases;
- emergence of new obstacles;
- when a radio navigation aid owned by the aerodrome operator, or landing aid is unserviceable or returned to service;
- when an Aerodrome Frequency Response Unit (AFRU) owned by the aerodrome operator is unserviceable or returned to service;
- any other event which affects the safety of aircraft using the aerodrome.

Reporting should be carried out as soon as possible after a reportable occurrence is observed, giving as much detail as is

available. Where necessary, subsequent additional detail can be reported as it becomes available for further NOTAM to be issued. At an aerodrome with an air traffic service, the AIS should be advised of the unserviceability and the intention to initiate NOTAM.

Runway strip condition is not normally reported. Similarly, if a section of taxiway or apron is unserviceable, it should be appropriately marked and lit, but the unserviceability does not normally need to be reported for NOTAM action.

Advance notice of aerodrome works. Airlines should be given as much notice as possible (up to three months) of aerodrome works which will affect airline schedules. Requirements relating to aerodrome works are contained in RPA Chapter 13.

Early warning of obstacles, or interference with navigational aids. Aerodrome operators should arrange with state and local planning authorities and organisations which put up tall structures, to enable them to be given early warning of any proposed development which may create obstacles or otherwise pose a threat to aircraft safety. Aviation safety implications of any such developments should be referred to the appropriate CASA Area Office.

Any proposed installation which may interfere with signals from navigation aids should be reported to Airservices Australia.

Bird or animal hazard warning. At aerodromes where a standing caution is included in ERSA for a bird or animal hazard, NOTAM should only be initiated where there is a significant increase of birds or animals. Where initiated, the NOTAM should provide specific information relating to bird species, period of concentration, likely location or flight path etc.

WHERE AND HOW TO REPORT

Changes reported to Australian NOTAM Office. Where a change in the aerodrome condition requires a NOTAM to be issued, the notification is to be sent by the nominated reporting officer to the NOF by FAX or phone. Phone advice is to be confirmed in writing as soon as possible.

The telephone number and address of the NOF is:

Tel: 07-3866 3647
FAX: 07-3866 3553

Australian NOTAM Office
Airservices Australia
PO Box 10023
BRISBANE QLD 4000

In reporting changes for NOTAM action the aerodrome operator should submit a report which includes:

- aerodrome name;
- the aerodrome facility affected and details of unserviceability;
- reason;
- start time and expected end time of the unserviceability;
- daily duration or time schedule (if applicable) of the unserviceability.

Use of a form with standard headings will make the task of notifying the changes much easier. A suggested format for reporting is at Attachment C.

After making a request to the NOF for a NOTAM, the reporting officer must get hold of a copy of the subsequent NOTAM, both to check the accuracy of the detail and to keep record.

At Attachment D are some guidelines for wording of texts of reports, some examples of NOTAM and a list of abbreviations which may be used in the preparation of concise reports.

Changes reported to Aeronautical Information Service (AIS).

The aerodrome operator should advise the AIS in writing when any information published in the AIP in respect of the aerodrome is or will be changed but the changes will not have an immediate effect on aircraft safety. The advice should be sent to the following address:

The Manager
Aeronautical Information Service
Airservices Australia
GPO Box 367
CANBERRA ACT 2601

Tel: 02-6268 4515 – 02-6268 5667
FAX: 02-6268 5689

A PERM NOTAM which is originated in respect to permanent changes to AIP should be referred to AIS. If AIS is not readily available and the change will have an immediate effect on aircraft safety, the PERM NOTAM may be referred to the NOTAM office before it is referred to AIS .

New or upgraded visual aids. This is applicable to aerodromes with full information published in ERSA. An ERSA amendment which introduces a new visual aid, or the upgrading of an existing aid, should be referred to the appropriate CASA Area Office before it is sent to the AIS, for clearance purposes. Certain visual aids have to be flight checked (commissioned) before they are brought into use .

Changes to Type A Chart information. Changes to Type A Chart information are not notified through NOTAM. However, ERSA should refer to the latest edition of the Type A Chart. Aerodrome operators need to provide an amendment service for the Type A Chart information directly to the holders of the Type A Charts.

Copy of report to be given to the CASA Area Office. Whenever a report of ERSA changes is sent to the NOTAM Office or to the AIS, a copy of the report is also to be sent to the appropriate CASA Area Office. The operator should also ensure that the Aerodrome Manual is amended to reflect changes, other than temporary changes.

At Attachment E is a list of CASA Area Office addresses.

Keeping a record of report. Aerodrome operators should maintain a logbook showing details of all reports, check any subsequent NOTAM or changes to AIP ERSA for accuracy and keep a copy of reports and NOTAM with the logbook.

Also, as for any published aerodrome information, current NOTAM must be continually checked for accuracy and any changes reported.

Reporting procedures for aerodromes with limited information in ERSA

For aerodromes where LIMITED INFORMATION is published, changes to published information, e.g. address or telephone numbers are to be sent direct to the AIS.

Pilots and operators are advised to contact the aerodrome operators to ascertain current aerodrome information. In effect these aerodromes require competent reporting officers to inspect and monitor changes and respond to requests for up to date

aerodrome information, but do not need to notify the NOTAM office of changes.

Reporting procedures for aerodromes with RPT operations not included in ERSA

In the case of unlicensed aerodromes which are not included in ERSA, but are used in RPT operations, the onus is on the aircraft operator or pilot in command to ensure that the aerodrome operator has arranged to inform them of reportable aerodrome occurrences. CAR 89V requires such aerodromes to have trained reporting officers, but their appointment is not nominated to the NOTAM office. Aerodrome operators report changes directly to the relevant airlines .

List of attachments

Attachment A — Sample of ERSA entry

Attachment B — Information on declared distances

Attachment C — Typical form for aerodrome reporting

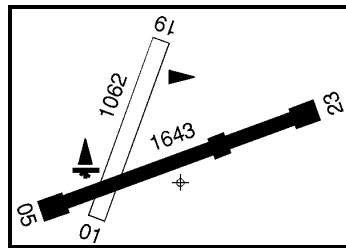
Attachment D — Some guidelines for text of reports

Attachment E — Addresses of CASA Area Offices

ERSA information

NYNGAN

ELEV 569



New South Wales (WAC 3356, 3357)
 UTC + 10
 NYN
 31 33" 11" S 147 12' 11" E
 VAR 10 DEG E PUBLIC
 AD OPR: Bogan Shire Council,
 PO Box 221, Nyngan 2825:
 Phone 068-321503, 321604

MOVEMENT AREA

01/19 008 39c Unrated Grass.
 05/23 052 54a PCN 20 F/A/700 (101 PSI)/T
 RWY 01/19 WID 30
 RWY 05/23 WID 30

LIGHTING

RWY 05/23. LIRL PAL 122.3

NAVIGATION AIDS — Pilot Monitored

NDB NYN 404 S31 33.2'Ee147 12.2' — Range 40.

AIR TRAFFIC SERVICES

FIS Sydney 120.0

CTAF

126.7

GROUND SERVICES

REPLEN Shell: D. Phone 068-321164, AH 068-321133. FAX 068-321532.
 UHF CH 13
 F18, F35. 0125.

NOTICES

1. CAUTION: Animal and Bird hazard exists.
2. CAUTION: MAST 1000 SW of THR RWY 05, 715 FT AMSL. Lit.

Runway distances supplemental information

NYNGAN

RWY (CN)	TORA	TODA	ASDA	LDA
01 (2)	1062(3483)	1122(3681)(1.8%)	1062(3484)	1062(3484)
19	1062(3484)	1122(3681)(2.89%)	1062(3484)	1062(3484)
Slope Level: RWY WID 30, RWS WID 90				
05 (3)	1643(5390)	1703(5587)(3.14%)	1643(5390)	1643(5390)
23	1643(5390)	1703(5587)(3.19%)	1643(5390)	1643(5390)
Slope Level: RWY WID 30, RWS WID 150, Graded 90				

SUPPLEMENTARY TKOF DIST :

RWY 01-	957(3140)(1.6%)		
RWY 19-	809(2654)(1.9%)	927(3041)(2.2%)	1028(3372)(2.5%)
RWY 05-	1373(4504)(1.6%)	1481(4858)(1.9%)	1555(5101)(2.2%)
	1612((5288)(2.5%)		
RWY 23-	1186(3891)(1.6%)	1358(4455)(1.9%)	1481(4858)(2.2%)
	1569(5147)(2.5%)		

INFORMATION ON DECLARED DISTANCES

What are declared distances?

Declared distances are the available operational distances notified to a pilot for take-off, landing or safely aborting a take-off. These distances are used to determine whether the runway is adequate for the proposed landing or take-off or to determine the maximum payload permissible for a landing or take-off.

Composition

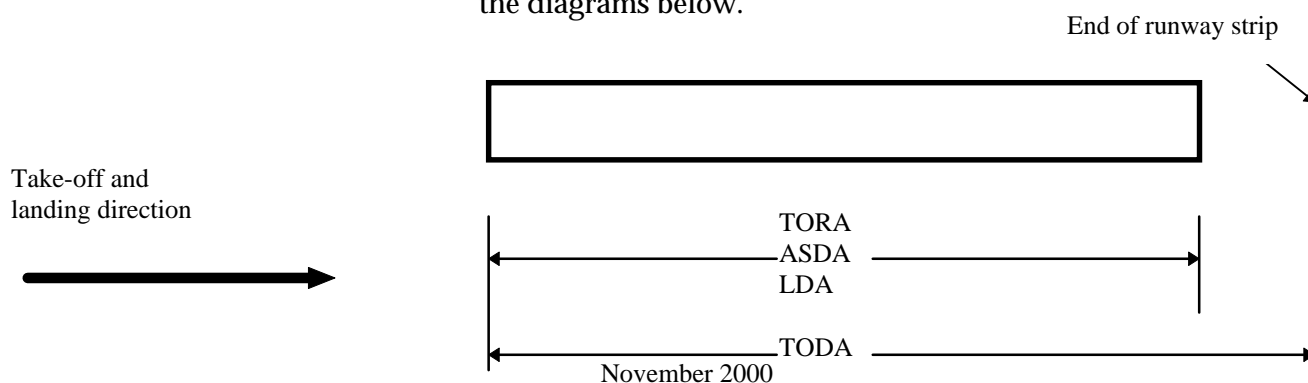
Declared distances are a combination of the runway (i.e. full strength pavement), any stopway (SWY) and clearway (CWY) provided.

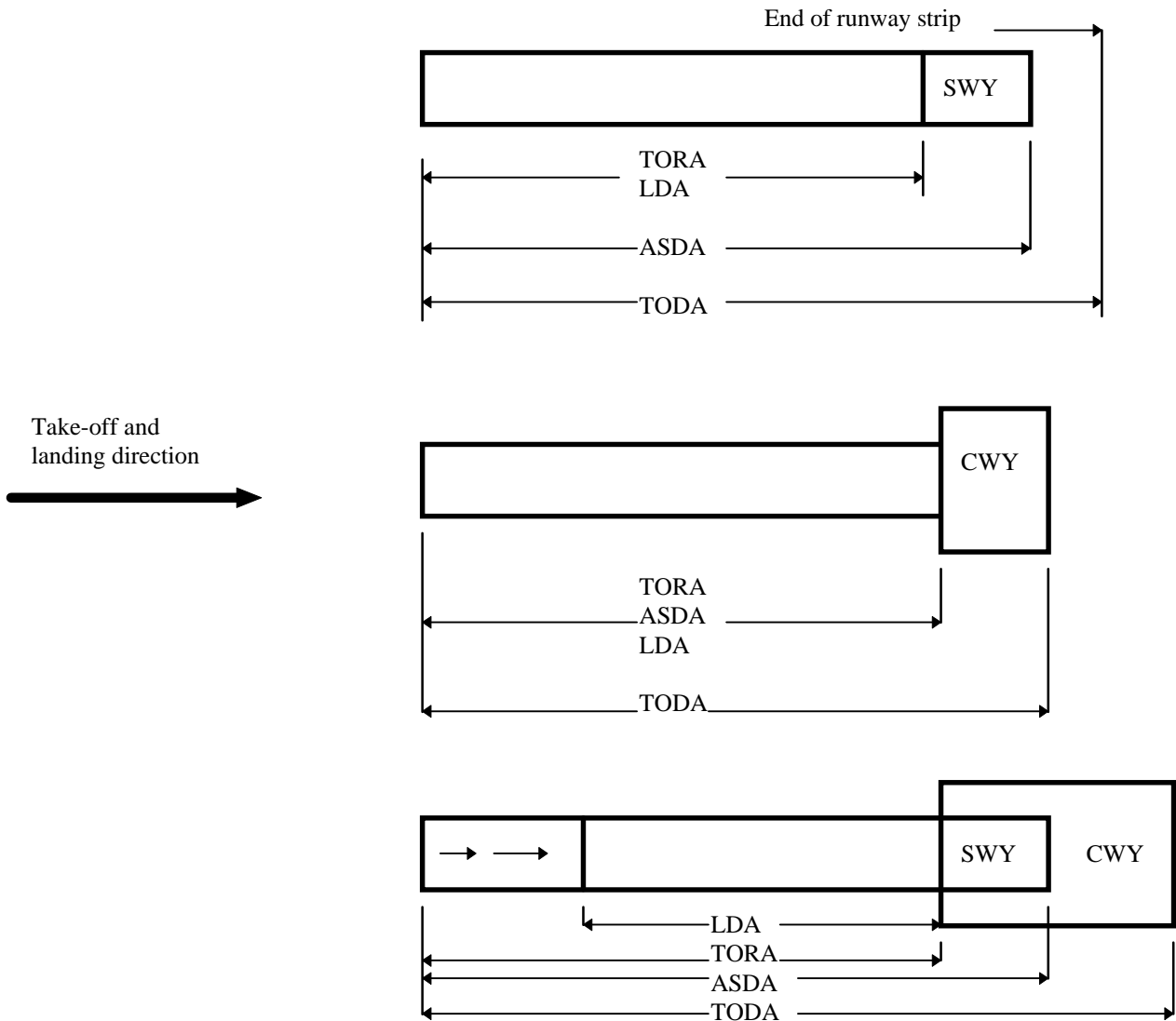
Calculation

The declared distances to be calculated for each runway direction are:

- **Take-off run available (TORA)** defined as the length of runway available for the ground run of an aeroplane taking off. It will normally be the full length of the runway. Neither stopway nor clearway are involved.
- **Take-off distance available (TODA)** defined as the distance available to an aeroplane for completion of its ground run, lift-off and initial climb to 35 feet. It will normally be the full length of the runway plus the length of any clearway. Where there is no designated clearway, the part of the runway strip between the end of the runway and the runway strip end is included as part of the TODA. This Australian practice has been registered with ICAO. Any stopway is not involved.
- **Accelerate-stop distance available (ASDA)** defined as the length of the take-off run available plus the length of any stopway. Any clearway is not involved.
- **Landing distance available (LDA)** defined as the length of runway available for the ground run of a landing aeroplane. The LDA commences at the runway threshold. Neither stopway nor clearway are involved.

The above definitions of the declared distances are illustrated in the diagrams below.





Obstacle-free take-off gradient

TODA is only usable where the minimum obstacle-free gradient from the end of the clearway is equal to or less than the climb performance of the aeroplane.

Therefore when calculating TODA it is necessary to also calculate the minimum obstacle-free take-off gradient. This is the gradient associated with the critical obstacle.

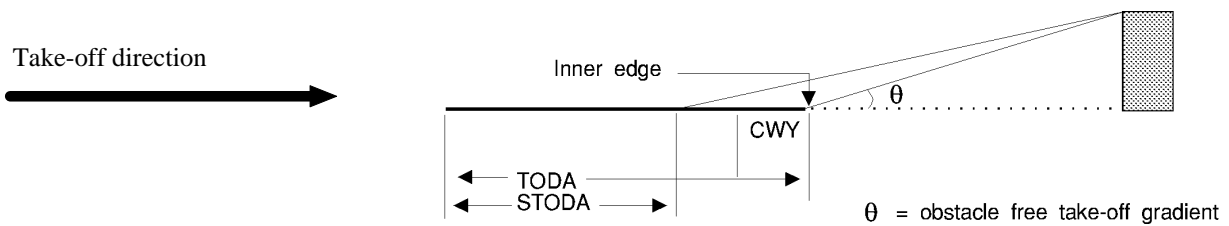
Critical obstacle. The critical obstacle is the obstacle within the take-off climb area which subtends the greatest vertical angle with the horizontal, at the highest point on the clearway, when measured from the inner edge of the take-off climb surface .

In assessing the critical obstacle, close in objects such as fences, transient objects on roads and railways, and navigational

installations should also be considered. Standards relating to obstacles are included in RPA Chapter 10.

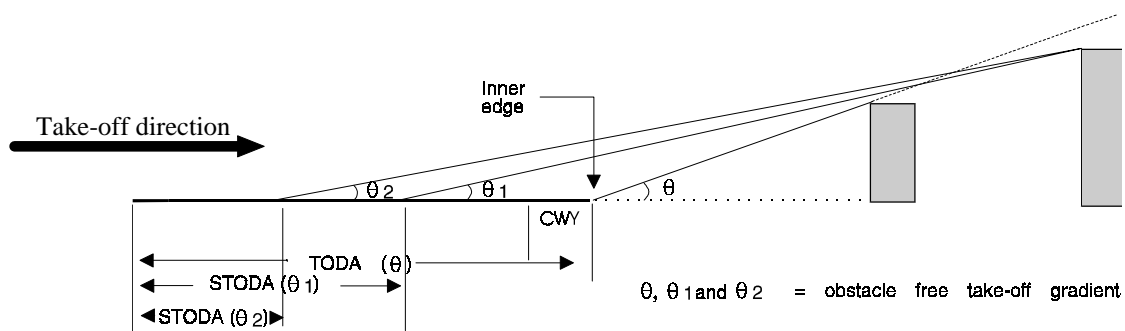
Supplementary take-off distances available

For TODA having an obstacle-free gradient of more than 1.6%, supplementary take-off distances available (STODA) are to be provided for the following gradients, where applicable: 1.6%, 1.9%, 2.2%, 2.5%, 3.3% and 5%. STODA of less than 800 m are not shown.



The specifications for take-off climb surfaces are given in RPA Chapter 10. Aerodrome operators should note in particular the standard for the elevation of the inner edge of the take-off climb surface.

In calculating supplementary take-off distances care should be taken to ensure that a shielded object does not become critical for the lesser take-off distances. This is most likely with a close-in critical obstacle.



LDA affected by object protruding through the approach surface

One way to overcome an object protruding through the approach surface is to displace the threshold and this reduces the LDA. Instances where the threshold needs to be displaced more than 300 m from the end of the runway should be referred to the CASA district office for consideration.

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Attachment C

SAMPLE AERODROME REPORT FORM	
AERODROME _____ Reference No. / / 19...	
To Australian NOTAM Office Phone (07) 3866 3647 Fax (07) 3866 3553	
NOTIFICATION OF CHANGE IN SERVICEABILITY OF AERODROME	
Please tick relevant boxes	
TIME ^(UTC preferred)	UTC <input type="checkbox"/> WST <input type="checkbox"/> CST <input type="checkbox"/> EST <input type="checkbox"/> Other Please advise <input type="checkbox"/>
Purpose of Report	PROVIDE NEW INFORMATION DETAILED BELOW <input type="checkbox"/> CANCEL PREVIOUS ADVICE (NOTAM No) _____ Date _____ <input type="checkbox"/> EXTEND PREVIOUS ADVICE (NOTAM No) _____ Date _____ to (date/time) _____ <input type="checkbox"/>
Period of Validity	FROM (date/time) _____ TO (date/time) _____ Estimated <input type="checkbox"/> (If finish time uncertain) * Note: If time estimated contact NOTAM OFFICE at least 2 hours before estimated duration time and advise if NOTAM is to be extended or cancelled. Daily duration or time schedule (if applicable) FROM (date/time) _____ TO (date/time) _____
Text	
Please FAX copy of NOTAM to originator. Fax No.	
This report confirms previous telephone advice: <input type="checkbox"/> Contact Number TEL Signed _____ FAX Reporting Officer (Print name) _____ (date/time) _____ CASA District Office advised by: Phone <input type="checkbox"/> Fax <input type="checkbox"/> Mail <input type="checkbox"/> Not advised <input type="checkbox"/>	
For NOTAM OFFICE only NOTAM No. C Int INITIALS	

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SOME GUIDELINES FOR TEXT OF REPORTS

Abbreviations for place names should not be used. Common abbreviations for days and months may be used. Plain language should be used in the text of reports and if abbreviations are needed, they should be in accordance with the list of abbreviations provided below.

A report on a runway, or part of a runway, which is obstructed by a disabled aircraft, should contain as much of the following information as possible:

- runway obstructed;
- type of aircraft causing obstruction;
- location of aircraft;
- obstacle height;
- if runway is still serviceable, amended declared distances, if applicable;
- expected duration of total or partial closure.

The standard method of reporting unserviceable portions of a runway or taxiway is "RWY (number) TWY (designation) NOT AVBL DUE (reason)".

Where one runway is not available, and it crosses or intersects other runways, the status of the other runway must be indicated, e.g. RWY 12/30 NOT AVBL DUE MAINT. RWY 01/19 AVBL.

Some of the standard reasons for unserviceability used in reports are:

- soft wet surface (SOFT WET SFC);
- sand drifts;
- rough surface;
- surface scouring;
- tall grass;
- loose stones;
- works in progress (WIP).

In a report referring to the only runway at an aerodrome, the runway numbers need not be quoted.

If the only runway at an aerodrome becomes unserviceable, report aerodrome not available due (reason).

When surface conditions impose a restriction on the type of aircraft which may use the aerodrome, this should normally be notified by a maximum take-off weight (MTOW).

Horizontal distances should be given in metres for relatively short distances such as those relating to aerodromes or in nautical miles, vertical distances in feet.

Where there are changes to declared distances, the new values should be listed in the order in which they appear in the AIP; viz runway number, TORA, TODA and obstacle free gradient, ASDA and LDA. All the declared distances information should be listed, when only part of the information is amended, to avoid confusion.

Temporary Obstacles

The height of obstacles should be given as the elevation of the top of the obstacle to the same datum as the aerodrome elevation, or as the height above mean sea level. However, if the obstacle is within the runway strip, the height may be quoted as the height above ground level.

Obstacle locations are required by airlines to prepare take-off charts. They should be given as a distance along the runway centre line (extended if necessary) from the start of the take off run available (SOT) and as an offset left or right of the runway centreline. Alternatively, where the obstacle is located some distance from the aerodrome and does not infringe the take-off surface, it may be given as a magnetic bearing and distance from the aerodrome reference point, navigation aid or prominent feature e.g. "temporary obstacle crane. 300ft above mean sea level bearing 076 magnetic two nautical miles from SE end Runway 14/32. Infringes horizontal surface."

Originators of NOTAM should ensure that the contents are adequately summarised within the first 50 characters of the first line of text (Field E). This first line can be part of the main text or consist of a separate summary with the text following on a new line.

Examples of NOTAM

To illustrate how changes to aerodrome information is communicated to pilots, some examples of NOTAM are given below:

Time limited work.

C0174/91 NOTAM

A) MARYBOROUGH 0174/91 (AD) 9106140900

B) 9106211000

C) 9106211600

E) RWY

17/35

WIP. MAE WILL CLR IF OPRT INDICATED.

Explanations of NOTAM format:

C0174/91 — the NOTAM number;

NOTAMN — a NOTAM containing new information;

A) Maryborough — name of aerodrome;

AD — information relating to aerodromes, or facilities thereon,
including approach and landing aids, and the existence or
removal of hazards or obstructions;

9106140900 — year/date/time of issue of NOTAM, in ten figures
UTC, representing year, month, day, hour and
minutes (Note: the year may be omitted);

B) 9106211000 — commencement of occurrence;

C) 9106211600 — cessation of occurrence and notification;

E) — the text of the NOTAM expressed as concisely as possible.

Major works in accordance with Method of Working Plan (MOWP). The MOWP will be faxed directly into the AVFAX electronic briefing system, with the pertinent stages of work activated by a trigger NOTAM quoting duration and AVFAX product code. Trigger NOTAM referring to specific stages of the MOWP will be issued as appropriate:

a. C0943/91 NOTAMN

A) PERTH 0943/91 (AD) 9105200600

B) 9105222300

C) 9105270800 EST

E) RWY 06/24 NOT AVBL DUE WIP. REF MOWP 4/1987
ACT STAGE 1. AVFAX CODE XXXX

b. C0056/91 NOTAMN

A) COOLANGATTA 0056/91 (AD) 9106101002

B) 9106121100

C) 9106140600

E) RWY 14/32 NOT AVBL DUE WIP. REF MOWP QRO
86/7 ACT STAGE 3.
AVFAX CODE XXXX

Unserviceable movement areas.

a. C0639/91 NOTAMN

- A) KINGAROY 0639/91 (AD) 9107272100
- B) 9107272100
- C) 9108010600 EST
- E) RWY 05/23 AND TWY PARL RWY 16/34. NOT AVBL
DUE SOFT WET SFC. RWY 16/34 AVBL.

b. C0021/91 NOTAMN

- A) WONDAI 0021/91 (AD) 9103232200
- B) 9103232200
- C) 9103290600 EST
- E) RWY 18/36 AMD. LEN. 140M S END NOT AVBL DUE
ROUGH SFC. THR 36 DISP 200M. RWY 18 TORA 1264
(4146) TODA 1464 (4802) (2.3) ASDA 1264 (4146) LDA
1264 (4146) RWY 36 TORA 1264 (4146) TODA 1324 (4343)
(1.6) ASDA 1264 (4146) LDA 1204 (3949) STODA RWY 18
1195 (3920) (1.6) 1339 (4392) (1.9) 1436 (4710) (2.2)

Surface bearing capacity. If the surface or part of the manoeuvring area is not serviceable for heavy aircraft a weight restriction may be imposed to allow light aircraft to operate.

C0281/91 NOTAMN

- A) TARA 0281/91 (AD) 9108160400
- B) 9108160400
- C) 9108230600 EST
- E) AD NOT AVBL TO ACFT ABV 1930 KG MTOW. DUE SOFT
WET SFC.

Apron areas. These are not part of the manoeuvring area and therefore should not normally be the subject of NOTAM, but a NOTAM may be issued at minor aerodromes to indicate temporary parking arrangements.

C0256/91 NOTAMN

- A) MERIMBULA 0256/91 (AD) 9108280500
- B) 9108280500
- C) 9108292600 EST
- E) APRON CLOSED DUE WIP. LOAD UNLOAD ON RWY.
RWY NOT AVBL WHEN ACFT STANDING THEREON.
PILOTS SHOULD MAKE PROVISION FOR ALTN.

Obstacle information.

- a. A permanent NOTAM to amend changes to declared distances owing to change in height of critical obstacle (trees).

C0166/95 NOTAMN

- A) COOLANGATTA CO166/95 (AD) 9501210200
- B) 9501210200
- C) PERM
- E) AMD RWY 14 GRADIENTS

RWY 14 TORA 2042 (6698) TODA 2102 (6895) (2.82)
ASDA 2042 (6698) LDA 2042 (6698) STODA RWY 14 1226
(4021) (2.2) 1716 (5628) (2.5) AMD AIP ERSR DATED 12
SEP 96

- b. A temporary NOTAM to advise of a crane within the OLS area.

C0073/91 NOTAMN

- A) COOLANGATTA 0073/91 (AD) 9104200700
- B) 9104200700
- C) 9106210600 EST
- E) RWY 14/32 TEMPO TEMP OBST CRANE. 300FT AMSL
BRG 076 MAG 2 NM FROM SE END OF RWY 14/32.
INFRINGES HZS.

Runway lighting out of service.

C0091/91 NOTAMN

- A) RICHMOND 0091/91 (AD) 9108510420
- B) 9108162200
- C) 9108192200
- E) RWY LGT NOT AVBL.

Temporary or permanent withdrawal of Aerodrome Licence

a. C0037/91 NOTAMN

- A) MOROWA 0037/91 (AD) 9109251035
- B) 9109251035
- C) 9109260600
- E) AD LICENCE SUSPENDED.

b. C0048/91 NOTAMN

- A) TURKEY CREEK 0048/91 (AD) 9103272218
- B) 9103272220
- C) PERM
- E) AD DELICENSED.

**GENERAL WORD ABBREVIATIONS AND PHRASE CONTRACTIONS TO MINIMISE
MESSAGE LENGTH OF AERODROME NOTAMS**

(Abbreviations shown in singular words are also applicable to the plural of those words)

APRIL	APR
Abbreviated "T" Visual Approach Slope Indicator System	AT-VASIS
Abbreviated Visual Approach Slope Indicator System	A-VASIS
Abeam	ABM
About	ABT
Above Aerodrome level	AAL
Above ground level	AGL
Above mean sea level	AMSL
Accelerate-stop distance available	ASDA
Accept or accepted	ACPT
Active, activated, activity	ACT
Actual time of arrival	ATA
Actual time of departure	ATD
Addition or additional	ADDN
Adjacent	ADJ
Advise	ADZ
Aerodrome	AD
Aerodrome Diagrams	ADDGM
Aerodrome beacon	ABN
Aerodrome control or aerodrome control tower	TWR
Aerodrome Frequency Response Unit	AFRU
Aerodrome obstruction chart	AOC
Aerodrome reference point	ARP
Aeronautical Information Circular	AIC
Aeronautical Information Publication	AIP
Aeronautical Information Service	AIS
After....(time or place)	AFT
Again	AGN
Air Traffic Control (in general)	ATC
Air traffic services	ATS
Aircraft	ACFT
Aircraft classification number	ACN
Airport	AP
Airway	AWY
All-up-weight	AUW
Alternate(Aerodrome)	ALTN
Alternate or alternating (light alternates in colour)	ALTN
Altimeter sub-scale setting to obtain elevation or altitude	QNH
Altitude	ALT
Amend(ed)	AMD
Amendment (AIP Amendment)	AMDT
Approach	APCH
Approach lighting system	ALS
Approximate(ly)	APRX
Arrange	ARNG
Arrive, or arrival	ARR
As soon as possible	SAP

Asphalt	ASPH
Associated with	ASSW
Attention	ATTN
Aircraft landing area (previously known as Authorised landing area)	ALA
Authorised or authorisation	AUTH
Automatic terminal information service	ATIS
Auxiliary	AUX
Available	AVBL
Average	AVG
Aviation gasoline	AVGAS
Azimuth	AZM
Beacon (aeronautical ground light)	BCN
Bearing	BRG
Becoming	BECMG
Before	BFR
Below	BLW
Between	BTN
Blue	B
Boundary	BDRY
Braking	BRKG
Broken	BKN
Building	BLDG
By way of..	VIA
Calibration	CLBG
Callsign (used to request a callsign)	CSGN
Category	CAT
Caution	CTN
Celsius (Centigrade)	C
Centreline	C/L
Centimetre	CM
Centre(runway)	C
Change frequency to...	CF
Channel	CH
Check	CK
Civil	CIV
Clear, cleared to, clearance	CLR
Clearway	CWY
Close or closed or closing	CLSD
Code number (runway)	CN
Commissioned	CMSD
Common Traffic Advisory Frequency	CTAF
Communications	COM
Completion or completed or complete	CMPL
Concrete	CONC
Condition	COND
Confirm(ing) or I confirm	CFM

Conical surface	COS
Construction or constructed	CONST
Contact	CTC
Continue(s) or continued	CONT
Continuous day and night service	H24
Continuous(ly)	CONS
Co-ordinated Universal Time	UTC
Correction or correct or corrected	COR
Cover or covered or covering	COV
Cross	X
Crossbar (of approach lighting system)	XBAR
Crossing	XNG
Customs	CUST
Danger or dangerous	DNG
Decommissioned	DCMSD
Degrees	DEG
Delay or delayed	DLA
Depart or departure	DEP
Departure and Approach procedures	DAP
Depth	DPT
Destination	DEST
Deteriorate, deteriorating	DTRT
Deviation or deviated	DEV
Direct	DCT
Displaced	DISP
Distance	DIST
Distance measuring equipment	DME
Divert or diverting or diversion	DIV
Docking	DOCK
Document	DOC
Domestic	DOM
Doppler VOR	DVOR
Duration	DUR
During	DRG
Dust	DU
Duststorm	DS
East north-east	ENE
East or east longitude	E
East south-east	ESE
Eastbound	EB
Effective operational length	EOL
Elevation	ELEV
Emergency	EMERG
Enroute Supplement Australia (AIP)	ERSA
En route	ENRT
Engine	ENG
Equipment	EQPT

Estimate or estimated	EST
Estimated/estimating time of arrival	ETA
Estimated/estimating time of departure	ETD
Every	EV
Except	EXC
Exercises or exercising or to exercise	EXER
Expect(ed)(ing)	EXP
Expected approach time	EAT
Extend(ed)(ing)	EXTD
FEBRUARY	FEB
Facility, facilities	FAC
Facsimile transmission	FAX
Feet (dimensional unit)	FT
Field	FLD
First	FST
Flares	FLR
Flight	FLG
Flight information service	FIS
Flight service (in general)	FS
Flight service centre	FSC
Flight service unit	FSU
Flight plan (domestic)	PLN
Fluctuating, fluctuation, fluctuated	FLUC
Fly or flying	FLY
Fog	FG
Follow(s), following	FLW
Forecast	FCST
Frequency	FREQ
Frequent	FRQ
Friday	FRI
From	FM
General	GEN
General Aviation	AWK or PVT
General Aviation Airport Procedures	GAAP
Glide path	GP
Glider	GLD
Glider flying	GLY
Gradual(ly)	GRADU
Gravel	GRVL
Green	G
Ground	GND
Hazard beacon	HBN
Haze	HZ
Heading	HDG
Heavy	HVY
Height or height above	HGT
Helicopter	HEL

Helicopter Landing Site	HLS
Hertz (cycle per second)	HZ
High intensity approach lighting	HIAL
Higher	HYR
Hold(ing)	HLDG
Homestead	HS
Horizontal surface	HZS
Hour(s)	HR
ICAO standard atmosphere	ISA
Immediate(ly)	IMT
Immigration	IMM
Improve(ment), improving	IMPR
Inbound	INBD
Information	INFO
Inner marker	IM
Inoperative	INOP
Install or installed or installation	INSTL
Instrument	INSTR
Instrument approach and landing charts	IAL
Instrument approach chart	IAC
Instrument flight rule	IFR
Instrument landing system	ILS
Instrument meteorological conditions	IMC
Intensify(ing)	INTSF
Intensity	INTST
Intermittent(ly)	INTER
International	INTL
International Civil Aviation Organisation	ICAO
Interrupt(ion)(ed)	INTRP
Intersection	INT
Isolated	ISOL
JAN	JANUARY
JUL	JULY
JUN	JUNE
Jet barrier	JBAR
Jet stream	JTST
Kilogram	KG
Kilometres	KM
Kilometres per hour	KMH
Kilopascals	KPA
Kilowatts	KW
Knots	KT
Landing	LDG
Landing direction indicator	LDI
Landing distance available	LDA
Latitude	LAT
Leave or leaving	LVE

Left (runway identification)	L
Length	LEN
Level	LVL
Light or lighting	LGT
Lighted	LGTD
Limited	LTD
Local mean time	LMT
Local, locally, location, located	LOC
Localiser	LLZ
Longitude	LONG
Magnetic	MAG
Magnetic bearing	QDR
Magnetic orientation of runway	QFU
Magnetic variation	VAR
Maintain(ed)(ing)	MNTN
Maintenance	MAINT
Mandatory Broadcast Zone	MBz
Manual	MAN
Marker radio beacon	MKR
Maximum	MAX
Maximum brakes release weight	MBRW
Maximum landing weight	MLW
Maximum take off weight	MTOW
Maximum tyre pressure	MTP
Mean sea level	MSL
Medical	MED
Megahertz	MHZ
Men and equipment	MAE
Message	MSG
Method of working plan	MOWP
Metres (preceded by figures)	M
Metres per second	MPS
Microwave landing system	MLS
Mid-point (related to RVR)	MID
Middle marker	MM
Military	MIL
Minimum	MNM
Minimum eye height over threshold (VASI system)	MEHT
Minimum obstacle clearance (required)	MOC
Minus	MS
Minutes	MIN
Miscellaneous	MISC
Missed approach point	MAPT
Mist	BR
Moderate(ly)	MOD
Modification	CHG
Monitor(ed and ing)	MNT

Mountain	MT
Move(d)(ment), moving	MOV
Nautical mile	NM
Navigation	NAV
Near or over large town	CIT
Next	NXT
Night	NGT
Night visual flight rule	NV
Non scheduled commercial transport	CHTR
No SAR action required	NOSAR
No change	NC
No or negative or permission not granted or that is not correct	NEG
No specific working hours	HX
Non-directional radio beacon	NDB
None or nothing	NIL
North north-east	NNE
North north-west	NNW
North or north latitude	N
North-west	NW
Northbound	NB
NOTAM Office	NOF
Not before	NBFR
Notice to airmen	NOTAM
Number	NR
Open(ed)(ing)	OPN
Obscure(d)	OBSC
Observe(d), observation	OBS
Obstacle	OBST
Obstacle clearance altitude/height	OCA/H
Obstacle clearance limit	OCL
Obstruction	OBSTR
Occasional(ly)	OCNL
Occulting (light)	OCC
On request	O/R
On top	OTP
Operate, operator, operative, operating, operational	OPR
Operation	OPRT
Operations	OPS
Outbound	OUBD
Outer marker	OM
Overhead	OHD
Parallel	PARL
Parking	PRKG
Passengers	PAX
Passing	PSG
Pavement classification number	PCN
Performance	PER

Persons on board	POB
Pilot activated lighting	PAL
Plus	PS
Position	PSN
Power	PWR
Precision approach path indicator	PAPI
Prior notice required	PN
Probable, probability	PROB
Procedure(s)	PROC
Procedures for air navigation services	PANS
Provisional	PROV
Public Holidays	PH
Quadrant(al)	QUAD
Radial	RDL
Radius	RAD
Ragged	RAG
Rain	RA
Rapid or rapidly	RAPID
Reach or reaching	RCH
Read back	RB
Recent (to qualify other abbreviations)	RE
Reference	REF
Reference datum height (for ILS)	RDH
Registration	REG
Remarks	RMK
Report(ed)(ing)(ing point)	REP
Requested	REQ
Require(d)	RQ
Requirements	RQMNTS
Reroute	ERTE
Rescue and Fire Fighting Services	FFS
Rescue Coordination Centre	RCC
Rescue Sub Centre	RSC
Restriction(s)	RESTR
Return to service	RTS
Return(ed)(ing)	RTN
Review	REV
Route	RTE
Runway	RWY
Runway centreline	RCL
Runway edge light(s)	REDL
Runway end light(s)	RENL
Runway lead in lighting system	RLLS
Runway strip	RWS
Runway surface condition	RSCD
Runway threshold light(s)	RTHL
Runway touchdown zone light(s)	RTZL

Runway visual range	RVR
Rules of the air and air traffic services (associated with AIP)	RAC
Sand	SA
Sandstorm	SS
Scattered	SCT
Scheduled	SKED
Scheduled commercial air transport	S
Search and Rescue	SAR
Second(ary)	STRY
Secondary surveillance radar	SSR
Seconds	SEC
Sector	SECT
Service available during scheduled hours of operation	HS
Service available to meet operational requirements	HO
Service(ing), served	SER
Serviceable	SVCBL
Severe	SEV
Short take-off and landing	STOL
Showers	SH
Simple approach lighting system	SALS
Simultaneous(ly)	SIMUL
Simultaneous Runway Operations	SIMOPS
Slow(ly)	SLW
Smoke	FU
Snow	SN
South or south latitude	S
South south-east	SSE
South south-west	SSW
South-east	SE
South-west	SW
Southbound	B
Special series NOTAM (message type designator)	SNOWTAM
Sport aviation	SPA
Standard	STD
Standard instrument arrival	STAR
Standard instrument departure	SID
Standard departure clearance	SDC
Standby	SDBY
Start of TORA(take-off run available)	SOT
Start of climb	SOC
Station	STN
Stationary	STNR
Status	STS
Stop-end(related to RVR)	END
Stopway	SWY
Stopway light(s)	STWL
Straight in approach	STA

Subject to	SUBJ
Sunrise	SR
Sunrise to sunset	HJ
Sunset	SS
Sunset to sunrise	HN
Supplement (AIP Supplement)	SUP
Supplementary take-off distance	STODA
Surface	SFC
Surface movement control	SMC
Surface movement radar	SMR
“T” visual approach slope indicator system	T-VASIS
Take-off	TKOF
Take-off distance available	TODA
Take-off run available	TORA
Taxiing guidance system	TGS
Taxiing or taxi	TAX
Taxiway	TWY
Taxiway link	TWYL
Technical reason	TECR
Telephone	TEL
Temperature	T
Temporary	TEMPO
Terminal area surveillance radar	TAR
Terminal control area	TMA
Threshold	THR
Threshold crossing height	TCH
Through	THRU
Thunderstorm	TS
Thursday	THU
Time limited WIP (work in progress)	TLW
Time search action required	SARTIME
To be advised	TBA
Tornado	TDO
Touchdown zone	TDZ
Track	TR
Traffic	TFC
Transitional surface	TNS
Trend or tending to	TEND
Tropical cyclone	TC
True bearing	QTE
Turbulence	TURB
Type of aircraft	TYP
Typhoon	TYPH
UHF tactical air navigation aid	TACAN
Ultra high frequency (300-3000mhz)	UHF
Unable	UNA
Unable to approve	UNAP

Unlimited	UNL
Unserviceable	U/S
Until	TIL
Until advised by	UAB
Until further notice	UFN
Upper limits	UL
VHF omni-direction radio range	VOR
Variable	VRB
Vertical	VER
Vertical take-off and landing	VTOL
Very high frequency (30-300mhz)	VHF
Very important person	VIP
Very low frequency (3-30 Khz)	VLF
Vicinity	VCY
Visibility	VIS
Visual approach slope indicator system	VASIS
Visual en route chart	VEC
Visual flight rules	VFR
Visual meteorological conditions	VMC
Visual terminal chart	VTC
Warning	WRNG
We agree or it is correct	OK
Weaken(ing)	WKN
Weather	WX
Weight	WT
West north-west	WNW
West or west longitude	W
West south-west	WSW
White	W
Widespread	WID
Wind direction indicator	WDI
Wind shear	WS
With effect from, or effective from	WEF
Within	WI
With immediate effect, or effective immediately	WIE
Without	WO
Work in progress	WIP
World Aeronautical Chart (1:1,000,000)	WAC
Yards	YD
Yellow caution zone (runway lighting)	YCZ
Yes or affirm or affirmative or that is correct	AFM
Yours	YR

ATTACHMENT E**ADDRESSES OF CASA HEAD OFFICE, AREA AND AIRLINE OFFICES - April 2000**

(An office where a CASA aerodrome inspector is stationed is identified with an *)

HEAD OFFICE
CASA Building
Cnr Barry Drive & Northbourne Avenue
GPO Box 2005
Canberra City ACT 2601
Ph (local call cost) 131 757
Fax 02 6217 1444

The local call cost national 131 757 number may be used to contact any CASA office.

*SYDNEY BASIN AREA OFFICE
BANKSTOWN OFFICE
Building 491
Avro Street
Bankstown Airport
PO Box CP57
Condell Park NSW 2200
Ph 02 9780 3057/3058 Fax 02 9780 3060

SYDNEY AIRLINE OFFICE
Building 235
Cnr Robey Street & Qantas Drive
PO Box 409
Mascot NSW 1460
Ph 02 9366 3102 Fax 02 9366 3111

*VICTORIA/TASMANIA AREA OFFICE
AND MELBOURNE AIRLINE OFFICE
11th Floor
505 Little Collins Street
PO Box 558
Collins Street West VIC 8007
Ph 03 9927 5355 Fax 03 9927 5336

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