Australian Government
Civil Aviation Safety Authority

Draft

Advisory Circular

AC 139-08(0) MARCH 2004

REPORTING TALL STRUCTURES

CONTENTS

1. REFERENCES

- CASR 139.360 and CASR 139.365
- MOS – 139 Aerodromes, Chapter 7- Obstacle Restriction and Limitation, Section 7.1 – General
- *Airports (Protection of Airspace) Regulations 1996*

2. PURPOSE

This Advisory Circular (AC) provides guidance to authorities and persons involved in the erection, extension or dismantling of tall structures that information on the structure may be provided to RAAF AIS who maintain a central database. This will enable information on tall structures to be identified on aeronautical charts.

3. STATUS OF THIS AC

3.1 This is the first AC to be issued on this subject.

3.2 The content of this AC updates information previously published in CAAP 89W-2(0) – Reporting of Tall Structures.

Advisory Circulars are intended to provide recommendations and guidance to illustrate a means but not necessarily the only means of complying with the Regulations, or to explain certain regulatory requirements by providing interpretative and explanatory material.

Where an AC is referred to in a 'Note' below the regulation, the AC remains as guidance material.

ACs should always be read in conjunction with the referenced regulations

4. GENERAL

4.1 The Australian aviation community has identified a need to have information on tall structures available for publication on aeronautical charts.

4.2 The RAAF Aeronautical Information Service (AIS) maintains a database of tall structures the top of which is:

- 30 metres or more above ground level (within 30 kilometres of an aerodrome); and
- 45 metres or more above ground level elsewhere.

4.3 The database of tall structures will generally capture more information than what is required to be reported by the regulations.

4.4 The database will also be available for use by mapping agencies such as Australian Surveying and Land Information Group, and domestic and international aviation organisations.

5. WHY REPORT

5.1 Inadvertent collision with tall structures is a significant cause of aircraft accidents involved in low level flying operations. The risk posed by a tall structure to aircraft safety can be minimised if information of the tall structure is conveyed to pilots so that they can fly at a safe margin above the structure.

5.2 Low level flying operations are typically conducted during:

- approach, landing and take-off operations;
- specialist flying activities such as crop-dusting, cattle mustering, pipeline inspection, fire-fighting, etc.
- search and rescue operations;
- military low-level flying operations.

5.3 Except for approach, landing and take-off operations that are normally conducted in the vicinity of an aerodrome, low level operations can be conducted anywhere across Australia.

5.4 In addition to the safety of aircraft operations, an inadvertent collision with a tall structure poses a number of other risks:

- business continuity if the services provided from the tall structure are unavailable e.g. communications services;
- costs associated with the erection of a new structure;
- liability issues.

5.5 In the event of an aircraft hitting a tall structure, the role of persons and/or organisations associated with the operation of the tall structure would be a matter for the courts.

6. AVIATION REGULATIONS AND TALL STRUCTURES

6.1 CASR 139.360 requires the operator of a certified or registered aerodrome to notify CASA of any development or proposed construction in the vicinity of the aerodrome (normally 15km) that is likely to be a hazard to air navigation.

6.2 In the vicinity of major capital city airports, the *Airports (Protection of Airspace) Regulations 1996 apply*. Under these regulations, the operator of such an aerodrome has to notify the Department of Transport and Regional Services (DOTRS) of any potential infringement to the prescribed airspace established for that aerodrome. DOTRS has the power to prohibit or limit erection of tall structures within the prescribed airspace of a federal airport covered by the above regulations.

6.3 In areas remote from an aerodrome, CASR 139.365 requires the owner of a structure or proponents of a structure which will be 110m or more above ground level to inform CASA. This is to allow CASA to assess the effect of the structure on aircraft operations and determine whether there is a need for the structure to be provided with obstacle marking and/or lighting.

7. WHAT DO I REPORT AND WHERE WILL THE INFORMATION BE HELD?

7.1 Details should be provided on the construction, extension or dismantling of tall structures the top of which is:

- 30 metres or more above ground level (within 30 kilometres of an aerodrome); and
- 45 metres or more above ground level elsewhere.

7.2 The information provided will be held in a central database that is managed by RAAF AIS.

7.3 Information provided to the database should be accurate and readily interpreted and should be submitted in accordance with the tall structure reporting form shown in Attachment A.

8. HOW DO I REPORT?

8.1 Information on tall structures and any queries in regard to the database should be directed to:

Aeronautical Data Officer
RAAF AIS (VBM-M2)
Victoria Barracks
St Kilda Road
Southbank Vic 3006

Tel: (03) 9282-6400

Fax: (03) 9282-6695

Email: ais.data@defence.gov.au

8.2 To assist organisations to provide the necessary and complete information to the RAAF database, a standard Tall Structure Report Form is provided in Attachment A.

Bill McIntyre
Executive Manager
Aviation Safety Standards

Attachment A

TALL STRUCTURE REPORT FORM

To: Aeronautical Data Officer
Date:……
Tel: (03) 9282-6400
Fax: (03) 9282-6695
Email: ais.data@defence.gov.au

NOTIFICATION OF **NEW**
REMOVAL OF
CHANGE MADE TO TALL STRUCTURES
(Delete as appropriate)

LOCATION and DESCRIPTION OF STRUCTURE

Identification of the Structure (if known) e.g. Company Reference No. _____ State or Territory _____

Nearest town or prominent landmark _____ Locality or feature name: _____

Description of structure: _____

Owner of structure: _____

SURVEY DATA

Survey Datum

WGS84/GDA94 ☐
or
AGD ☐

Latitude: _____ Longitude: _____

(Degrees, minutes and seconds to 1/100th of a second) (if available) (DD:MM:SS.SS) or (DD.DDDD)

Or Grid Reference: _____

Positional Accuracy ± (metres) (if available) _____

Date of last survey (if known): .....

Height of structure: _____ Year of erection: .....

Height Accuracy ± FT (if available): .....

Ground level elevation* at the base of the Structure (if known): .....

Height from ground level to the top of the including all antennae and aerials: .....

Elevation* to the top of the structure in metres, including all antennae and aerials: .....

Note: **Elevation values are referenced to Mean Sea Level (AMSL) or the Australian Height Datum (AHD) and values are requested in feet or to 1/10th of a metre.*

Value Code: How was the data captured? (1) (2) (3) (4) (5) (6) (*Please circle*)

1.	1st order survey	2.	Stereo photogrammetric
3.	Mono photogrammetric	4.	Chart/map derived
5.	Handheld GPS (non survey)	6.	Reported

Guy-wire footprint: _____ metres (*Lateral distance from structure*)

MARKING

Obstacle **marking**: Yes/No **Obstacle lighting**: Yes/No

Is the Obstacle Permanent or Temporary? _____

If Temporary, what is the removal date: ----------

OTHER REMARKS

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CONTACT DETAILS

Name of person making report: .....

Organisation and position within organisation: .....

Tel or Fax contact: .....