

Australian/New Zealand Standard™

**Siting and operation of  
radiocommunications facilities**

**Part 1: General guidelines for fixed,  
mobile and broadcasting facilities  
including fixed location satellite earth  
stations independent of the operating  
frequency**



## **AS/NZS 5070.1:2008**

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee RC-006, Radiocommunications Equipment—General. It was approved on behalf of the Council of Standards Australia on 26 February 2008 and on behalf of the Council of Standards New Zealand on 7 March 2008. This Standard was published on 19 May 2008.

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The following are represented on Committee RC-006:

AirServices Australia  
Australian Communications and Media Authority  
Australian Electrical and Electronic Manufacturers Association  
Australian Information Industry Association  
Civil Aviation Safety Authority  
Electromagnetic Technical Evaluation Committee (New Zealand)  
Free TV Australia  
Ministry of Economic Development (New Zealand)  
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Originated as AS 3516.1—1988 and part of AS 3516.3—1991.  
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## PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee RC-006, Radiocommunications Equipment—General, to supersede AS 3516.1—1988, *Siting of radiocommunications facilities, Part 1: LF, MF and HF transmitting and HF receiving facilities* and also to incorporate information of a general nature from other parts of the AS 3516 series.

The AS 3516 series will remain available superseded.

The objective of this Standard is to recommend good practice for, and to set out desirable outcomes in the planning, locating, constructing, commissioning, operating and decommissioning of radiocommunications sites. It addresses particularly the sharing of radiocommunications sites and the management of sites to achieve compliance with electromagnetic radiation human exposure limits set by other standards.

This Standard is the first part of a revised set of Standards on the subject of siting and operation of radiocommunications facilities. It deals with items of a general nature common to the siting, installation and operation of radiocommunications facilities independent of application and operating frequency. Committee RC-006 decided to reorganize the subject matter to extract the material common to all parts of the AS 3516 series into this common part so as to avoid repetition and achieve greater consistency.

In developing this part the concept of a Site Technical Manager that was used in AS 3516.2—1988 was discarded as it has been found in practice that this can produce conflicts with contractual arrangements binding on owners and operators of radiocommunication facilities.

At the time this Standard was written there is only one other member of the set, namely:

AS/NZS 5070.2, *Siting of radiocommunications facilities, Part 2, Guidelines for siting of radiocommunications facilities: VHF, UHF and SHF*. Other standards may be added to the set in future if the need arises.

Extracts from the material that was in AS 3516.1—1988, *Siting of radiocommunications facilities, Part 1: LF, MF and HF Transmitting and HF Receiving facilities*, now appear in this Standard at Appendix J.

Extracts from the material that was in AS 3516.3—1988, *Siting of radiocommunications facilities, Part 3: Fixed location satellite earth stations*, now appear in this standard at Appendix K.

Poorly planned, constructed and maintained sites can result in interference problems for users of those sites, particularly as the number of services at such sites increases. Hence, it is in the interest of site users to pay regard to the recommendations of this Standard. The Standard addresses a wide range of factors considered to influence the location of radiocommunications facilities. It also takes into account interaction with other radiocommunications sources, the effect of interference caused to radiocommunications and broadcast reception in the vicinity. It also considers the impact that such facilities might have on the environment and the community.

The Standard is intended to provide information to responsible authorities, site owners, facilities planners, site planners, site personnel, other organizations and members of the public on the effects that existing or planned developments could be expected to have on the operation of such facilities. It is intended to assist relevant authorities and concerned parties when considering the impact that such facilities might have on the community.

The term ‘informative’ has been used in this Standard to define the application of the appendix to which it applies. An ‘informative’ appendix is only for information and guidance.

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SECTION 1 SCOPE AND GENERAL

**1.1 SCOPE**

This Standard provides guidance of a general nature for the siting, installation and operation of radiocommunications facilities independent of the operating frequency.

It is intended to assist those responsible for the planning, construction, installation, operation, maintenance and decommissioning of radiocommunications and broadcasting services. It provides information and guidance for organizations and the public, from the viewpoint of the impact on the general public and operational staff, on the siting of radiocommunications and broadcasting facilities. It also provides information on the effects that existing or planned developments in the vicinity of those facilities could be expected to have on the operations of such facilities.

NOTE: Regulatory, planning and environmental authorities and bodies are listed in Appendices A and B. Appendices C and D list organizations involved in the radiocommunications/broadcasting industry. These lists may not be exhaustive. Users of this Standard should consult appropriate directories including the World Wide Web (Australian Government entry point address: <http://www.nla.gov.au/oz/gov/>) for up-to-date listings.

In Australia, telecommunications carriers who intend to install, or who are installing or operating fixed radiocommunications infrastructure used to supply a carriage service, may be required to comply with the Australian Communications Industry Forum (ACIF) Code C564:2002.

**1.2 APPLICATION**

This Standard is intended to apply to original work and subsequent alterations and additions. It is not intended to apply, retrospectively, to existing approved sites, although it contains guidance on how to make improvements or help alleviate problems that could have arisen.

This Standard applies to facilities used for radiocommunications purposes such as:

- (a) Cellular phone base stations.
- (b) Two-way radio base stations.
- (c) Broadcasting stations used for television, FM radio, AM radio and similar services
- (d) Microwave point-to-point stations.
- (e) Microwave point-to-multipoint stations.
- (f) Satellite earth stations.
- (g) Radiolocation stations.