

AS 3891.1:2021



STANDARDS
Australia



Air navigation — Cables and their supporting structures — Marking and safety requirements

Part 1: Marking of overhead cables and supporting structures



AS 3891.1:2021

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- Australian Industry Group
- Civil Aviation Safety Authority
- Communications, Electrical and Plumbing Union — Electrical Division
- Department of Regional NSW
- Electrical Regulatory Authorities Council
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Air navigation — Cables and their supporting structures — Marking and safety requirements

Part 1: Marking of overhead cables and supporting structures

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Preface

This Standard was prepared by the Standards Australia Committee EL-010, Overhead Lines, to supersede AS 3891.1:2008, *Air navigation—Cables and their supporting structures—Marking and safety requirements, Part 1: Permanent marking of overhead cables and their supporting structures for other than planned low-level flying*.

The objective of this document is to specify requirements for aircraft warning markers on overhead cables and supporting structures.

This document is part one of a two-part series as follows:

AS 3891.1, *Air navigation — Cables and their supporting structures — Marking and safety requirements, Part 1: Marking of overhead cables and supporting structures* (this document).

AS 3891.2, *Air navigation — Cables and their supporting structures — Marking and safety requirements, Part 2: Low-level aviation operations*.

The major changes in this edition are as follows:

- (a) Description of marking requirements aligning with updated aerodrome classification terminology in Civil Aviation Safety Regulations Part 139 (Aerodromes) Manual of Standards.
- (b) Hierarchical categorization and definition of marking requirements by location/application type.
- (c) Delineation and prescriptive marking requirements in proximity to certified aerodromes, tall structures and other Civil Aviation Safety Authority (CASA) defined obstacles.
- (d) Introduction of performance-based marker design and installation for assets not in proximity to a certified aerodrome and not classified as a tall structure or obstacle.
- (e) Introduction of a risk assessment framework in alignment with established approaches in AS 3891.2 and AS ISO 31000, supporting the design and installation of performance-based marking systems for assets not in proximity of a certified aerodrome and not classified as a tall structure or obstacle.

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Australian Standard®

Air navigation — Cables and their supporting structures — Marking and safety requirements

Part 1: Marking of overhead cables and supporting structures

1 Scope

This document specifies requirements for marking overhead cables and their supporting structures designed to provide a visual warning to pilots of aircraft, other than those aircraft involved in planned and legal low-level aviation operations. The relevant marking requirements for those operations can be found in AS 3891.2.

This document does not prevent the marking of cables and their supporting structures not specified in this document, which are considered by their owner to require marking, provided that the markings are consistent with the colours and devices detailed in this document.

2 Normative references

The following document is referred to in the text in such a way that some or all of its content constitutes requirements of this document.

NOTE Documents referenced for informative purposes are listed in the Bibliography.

AS 2700, *Colour standards for general purposes*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

AGL

above ground level

3.2

aircraft warning marker

marker/lighting installed on an overhead cable, or paint/panels/lighting affixed to the supporting structures, required to delineate the existence or presence of such cables and structures for the purpose of warning aircraft pilots

3.3

cable height

vertical distance taken at the documented minimum cable design temperature under still air conditions, at any point along the length of a cable/span from the uppermost cable to the ground, ambient vegetation or water immediately below it

Note 1 to entry: Refer also to AS/NZS 7000.

3.4

certified aerodrome

aerodrome certified in accordance with the Civil Aviation Safety Regulations 1998, Part 139

3.5

in the proximity of a certified aerodrome

within 30 km of —

(a) a certified aerodrome; or