

A decorative graphic element featuring a dashed grey line that forms a wave-like path. A blue paper airplane icon is positioned on the upward-sloping part of the dashed line, appearing to fly along it.

CIVIL AVIATION GUIDANCE MATERIAL – 8712

**AUTOMATIC DIRECTION
FINDING EQUIPMENT ON
TURBINE-ENGINE
AEROPLANES AND HELICOPTERS**

ADF

CIVIL AVIATION AUTHORITY OF MALAYSIA

INTENTIONALLY LEFT BLANK

Introduction

This Civil Aviation Guidance Material 8712 (CAGM 8712) is issued by the Civil Aviation Authority of Malaysia (CAAM) to provide guidance for Automatic Direction Finding Equipment On Turbine – Engine Aeroplanes And Helicopters, pursuant to Civil Aviation Directives 8 – Airworthiness of Aircraft.

Organisations may use these guidelines to demonstrate compliance with the provisions of the relevant CAD's issued. Notwithstanding Regulation 204 and Regulation 205 of the Malaysian Civil Aviation Regulations 2016 (MCAIR 2016), when the CAGMs issued by the CAAM are used, the related requirements of the CAD's are considered as met, and further demonstration may not be required.



Captain Chester Voo Chee Soon
Chief Executive Officer
Civil Aviation Authority of Malaysia

Civil Aviation Guidance Material Components and Editorial practices

This Civil Aviation Guidance Material is made up of the following components and are defined as follows:

Standards: Usually preceded by words such as “*shall*” or “*must*”, are any specification for physical characteristics, configuration, performance, personnel or procedure, where uniform application is necessary for the safety or regularity of air navigation and to which Operators must conform. In the event of impossibility of compliance, notification to the CAAM is compulsory.

Recommended Practices: Usually preceded by the words such as “*should*” or “*may*”, are any specification for physical characteristics, configuration, performance, personnel or procedure, where the uniform application is desirable in the interest of safety, regularity or efficiency of air navigation, and to which Operators will endeavour to conform.

Appendices: Material grouped separately for convenience but forms part of the Standards and Recommended Practices stipulated by the CAAM.

Definitions: Terms used in the Standards and Recommended Practices which are not self-explanatory in that they do not have accepted dictionary meanings. A definition does not have an independent status but is an essential part of each Standard and Recommended Practice in which the term is used, since a change in the meaning of the term would affect the specification.

Tables and Figures: These add to or illustrate a Standard or Recommended Practice and which are referred to therein, form part of the associated Standard or Recommended Practice and have the same status.

Notes: Included in the text, where appropriate, Notes give factual information or references bearing on the Standards or Recommended Practices in question but not constituting part of the Standards or Recommended Practices;

Attachments: Material supplementary to the Standards and Recommended Practices or included as a guide to their application.

It is to be noted that some Standards in this Civil Aviation Guidance Material incorporates, by reference, other specifications having the status of Recommended Practices. In such cases, the text of the Recommended Practice becomes part of the Standard.

The units of measurement used in this document are in accordance with the International System of Units (SI) as specified in CAD 5. Where CAD 5 permits the use of non-SI alternative units, these are shown in parentheses following the basic units. Where two sets of units are quoted it must not be assumed that the pairs of values are equal and interchangeable. It may, however, be inferred that an equivalent level of safety is achieved when either set of units is used exclusively.

Any reference to a portion of this document, which is identified by a number and/or title, includes all subdivisions of that portion.

Throughout this Civil Aviation Guidance Material, the use of the male gender should be understood to include male and female persons.



INTENTIONALLY LEFT BLANK



INTENTIONALLY LEFT BLANK



1 Introduction

- 1.1 This CAGM supersedes Airworthiness Notices No. 16, Issue 1, dated 1st April 1987.
- 1.2 Experience has shown the beneficial reduction in crew workload obtained where Automatic Direction Finding (ADF) equipment employing continuously variable tuning is replaced by equipment which is digitally tuned.
- 1.3 Certificate of Airworthiness may not be issued to aircraft types to which this CAGM applies unless they are installed with ADF equipment with features meeting paragraph 3.

Note. – Aircraft on the Malaysian Register at the date of issue of the Airworthiness Notices No. 16 (1st April 1987) are accepted by the CAAM as meeting paragraph 3.

2 Applicability

- 2.1 Turbojet engine aeroplanes certificated for the carriage of more than 19 persons over the age of 3 years.
- 2.2 Turbojet engine aeroplanes above 15000 kg Maximum Take-off Weight Authorised (MTWA).
- 2.3 Turbine-engine helicopters certificated in the Category A of CAD 8.

3 ADF Channel Frequency Selection

- 3.1 ADF installations in the aeroplanes and helicopters specified in paragraph 2 should be of a type where the channel frequency can be incrementally selected in discrete steps and displayed as a row of numerals. Equipment employing a continuously variable control for the 1kHz selector only will also be accepted.



INTENTIONALLY LEFT BLANK