



**Australian Government**  
**Defence**

# **Guidelines for Aircraft Hangar Assessment Forms**

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**Infrastructure Division**  
**Environment and Engineering Branch**



Version 8  
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## Revision history

Version	Description	Date
1	First issue of guidelines related to chapter 13 of the Manual of Fire Protection Engineering (MFPE) – Edition 2	08/05/2018
2	Change title to 'Guidelines for aircraft hangar assessment forms' and update guide to reflect MFPE Edition 3 – Amendment 1	05/06/2018
3	As a result of the development of a Building Works Manual (BWM), this guide has been revised to refer to the BWM instead of the MFPE.	17/08/2020
4	Guidelines for aircraft hangar assessment forms updated as a result of updates to BWM edition 1, amendment 1 and MFPE edition 4, amendment 1.	01/09/2021
5	Cover page updated to reflect name change from 'Estate and Infrastructure Group' to 'Security and Estate Group'.	10/12/2021
6	Guidelines updated as part of the release BWM edition 1, amendment 2 and MFPE edition 4, amendment 2.	01/06/2022
7	Guidelines updated as part of the release BWM edition 1, amendment 3 and MFPE edition 4, amendment 3. Defence cover page logo and template example in appendices updated.	01/12/2022
8	Guidelines updated as part of the release BWM edition 1, amendment 4, MFPE edition 4, amendment 4 and NCC 2022.	01/05/2023

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## 1. Introduction

The passive and active fire safety measures required for aircraft areas in hangars and deployable hangars are details in chapter 11 of the Manual of Fire Protection Engineering (MFPE).

**Note.** This chapter of the MFPE does not apply to parts of the building that do not contain aircraft or to a hangar open shelter as defined in the Building Works Manual (BWM). These parts must comply with the general requirements detailed in the [National Construction Code Volume One – Building Code of Australia \(NCC\)](#) and the specific requirements specified in other chapters of the MFPE as applicable.

As part of any building approval for an aircraft hangar, the assessment form in annex 6A of the BWM must be completed. The form is then used to determine the specific fire safety requirements of chapter 11 of the MFPE.

## 2. Guidance for completion of chapter 6, annex A form

The following sub-sections provide guidance for completing the hangar assessment form in annex 6A of the BWM.

A template annex 6A form is provided at the Building Works Section page of the Estate Resources Information Kiosk (ERIK) website.

## 3. Building Contribution Factor

Chapter 5 of the BWM outlines the process for determining the Contribution Factor (CF) of buildings.

Further information regarding Contribution Factors can be found in the Guidelines for Contribution Factor Forms available at the Building Works Section page of the ERIK website.

Chapter 11 of the MFPE uses the assigned CF for the building or part as the basis for determining the fire protection level for hangars. The protection requirements are increased in line with the contribution to capability, expressed as the CF.

The CF is the starting point for establishing the relevant fire safety requirements. CF1 has a very high and CF2 has a high contribution to operational capability. Accordingly, these hangars have a higher level of fire protection requirements.

## 4. Hangar assessment form

The information needed in addition to the CF to determine the fire protection measures is:

### a. Specify maximum number of aircraft to be housed in the hangar

This needs to be determined because there are specific fire safety requirements for the protection of multiple aircraft in the same aircraft area – refer to MFPE chapter 11. The intent of these requirements is to protect other aircraft if a fire occurs.

### b. Will the aircraft be fuelled?

Fuelled aircraft in a hangar increases the potential for fire as well as the intensity of fire if ignition occurs. This needs to be determined so the appropriate fire safety measures for the protection of other aircraft can be determined.

**c. Is the building a Deployable Hangar?**

There are different fire protection requirements within for a hangar or a deployable hangar. This needs to be determined so the specific requirements for fire protection can be defined.

The determination of the CF in combination with the information recorded on the hangar assessment form provides the basis for determining whether any specific fire safety measures are required for individual aircraft areas.

There are a number of specific and a number of optional requirements that can be chosen depending on whether there are multiple aircraft in same fire compartment and whether or not the aircraft will remain fuelled.

For example, in a CF1 or CF2 hangar containing multiple fuelled aircraft, the MFPE provides options for either fire compartmentation between each aircraft or smoke exhaust where aircraft are located in the same aircraft area.

CF1, CF2 hangars / aircraft areas must be further protected in accordance with the requirements of chapter 11 of the MFPE. The intent is to minimise fire spread between aircraft and from ancillary areas if a fire event occurs.

Hangars and aircraft areas determined as CF3, CF4 and CF5 have a lower level contribution towards operational capability but still have a number of specific requirements that are in addition to [NCC](#) requirements – eg the requirement for fire compartmentation and floor drainage. This is intentional and is there to facilitate flexibility for future use should the classification of the aircraft change.

An example of a completed hangar assessment form is provided Appendix A.

# Appendix A. Example hangar assessment form

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Building Works Manual

ANNEX 6A

## HANGAR ASSESSMENT FORM

SEG Region:	[Defence estate region or sub-region]
Establishment:	[Base/establishment]
Building Name:	[add building name]
GEMS ID:	XXXX/XXXX

Specify maximum number of aircraft to be housed in the <i>hangar</i>	6 aircraft
Will the aircraft be fuelled?	No
Is the building a <i>deployable hangar</i>	No

Capability Manager comments
Aircraft area for maintenance of super hornets

### Capability Manager

Name:	
Position/title:	
Signature:	
Date:	

### Note:

- The Building Contribution Factor Form at [Annex 5A](#) shall be completed.

Edition 1

AL4

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