



# SAFETY ALERT

# PART A

## Subject: Type C(1938) Hangar Gutter Support Failure

Number: SA 2017/07  
Version 1.1

DIO SEE Sponsor: Bryan Dunn

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**Who Should Read this:** Top Level Budget Holders, Prime Contractors, Private Finance Initiatives, Public-Private Partnership and other traditionally procured contracts, Project Managers, Infrastructure Managers and Property Managers with responsibility for MOD projects and Property Management Works Services (including the legacy work of EWCs/WSMs), Coordinating Authorising Engineers, Heads of Establishment and Health & Safety Advisors.

This Safety Alert does not necessarily cover all aspects of the subject matter and readers should make themselves aware of other potential issues. Readers should also not rely on DIO Safety Alerts as their only means of becoming aware of safety issues, but they should consult widely across other media to maintain awareness.

**When it takes effect:** immediately

**When it is due to expire:** When updated or rescinded.

## RECORD OF CHANGES

Amendment No	Summary of Changes Made	Authority	Date of Insertion
Initial Issue	New publication	Hd SEE E&C	4 <sup>th</sup> Aug17
1	Correction of Typo Para 11b PG 05/1 should read PG 05/11	Hd SEE E&C	8 <sup>th</sup> Aug 17

### Aim

1. To bring to the attention of appropriate persons inadequacies found with gutter installations on Type C (1938) hangars which led to a bracket falling from a height which had the potential to cause damage, serious injury or fatality.

### Introduction

2. Compliance with the contents of this Alert will enable compliance with the Health & Safety at Work etc Act 1974 and its subordinate Regulations.
3. The appropriate MOD officer shall arrange for the Maintenance Management Organisation (MMO) contractor to carry out all actions in accordance with this Alert.
4. Contractors and MMOs are to keep informed the establishment Health, Safety and Environmental Protection Adviser and 4Cs Duty Holder on behalf of the Head of Establishment regarding progress of actions required of this Safety Alert.
5. Any work required as a result of this Safety Alert must be carried out in accordance with JSP 375.
6. On MOD Establishments occupied by United States Visiting Forces (USVF), responsibility is jointly held by USVF and DIO (USF). At base level this jointly managed organisation is to take appropriate action to implement the contents of this Alert. Where this Alert contains procedures which differ significantly from USVF practice, DIO (USF) code of practice will be issued.

### Background

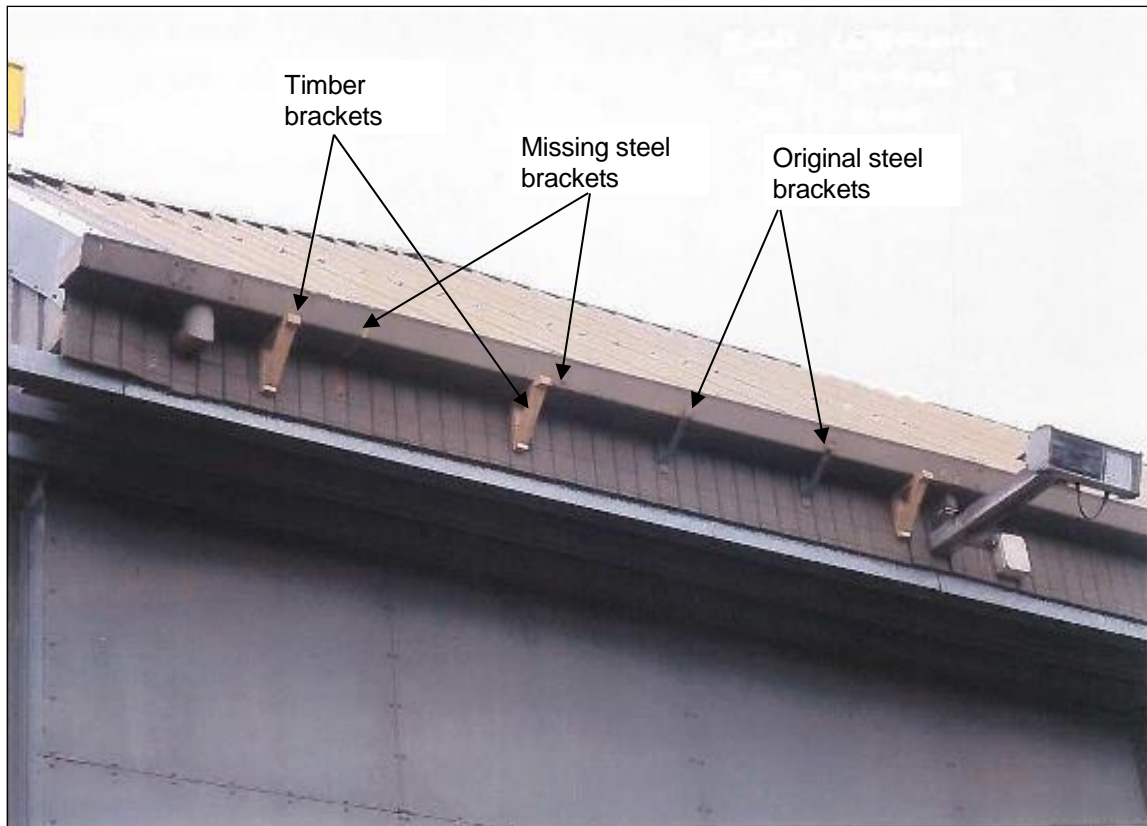
7. Type C (1938) hangars have roof eaves gutters over the hangar doors at each end. There has been a recent failure whereby a 1kg steel support bracket fell to ground from a height exceeding 10m, which could have resulted in serious injury or fatality. On investigation the bracket in question was found to be fixed by 2no. 25mm wood screws which had failed. These screws were fixed to the tongued and grooved timber fascia to the eaves above the hangar doors. The condition of this fascia was also suspect in places.
8. Whilst the exact failure mode is undetermined, the bracket in question failed following the installation of adjacent wooden bracket. It is suspected that this action may have contributed to the failure.
9. Available records indicate that Type C(1938) hangars are at the following locations:

Aldergrove  
Cosford  
Leeming  
Middle Wallop  
Tern Hill

Bramcote  
Kinloss  
Leuchars  
Newton  
Wroughton

Coltishall  
Kirtan in Lindsey  
Lossiemouth  
Topcliffe

There may be others.



10. The photograph indicates where original steel brackets are missing and where timber brackets have been installed. These gutters are subject to significant wind loading, and in heavy rainfall conditions they are estimated to weigh some 50kg per linear metre, requiring a robust high integrity support system.

## Requirement

### Part A

11. The Maintenance Management Organisation (MMO), on direction from the DIO Service Manager (or equivalent), is to:

- a. Determine which establishments have Type C (1938) hangars and how many there are at each location. The hangar type can be checked via DIO Technical Bulletin 2002/02, or the Guide to World War II Hangars – No. 03 Type C Hangars (DMG 24, Dec 2001).
- b. Confirm that each hangar has in-date inspection and appraisal certification in accordance with DIO PG04/11 and PG 05/11.
- c. Confirm where any issues are reported with the hangar guttering and whether they have been satisfactorily addressed or remain outstanding.
- d. Confirm where previous hangar refurbishments have already replaced the original installations with a robust solution.

12. Where there is any doubt regarding the status of inspection or appraisal findings or appropriate records cannot be found, a suitable and sufficient risk assessment shall be carried out by suitably competent persons (typically including site/establishment health and safety team together with MMO technical specialist) to determine appropriate mitigation.

13. The following is recommended as an approach where required:

Short term – Urgent actions:

- a. Inspect all eaves gutters and their supports for adequacy. This should include a check on screw length, firmness of fixing, suitability of fascia and its support framing etc. The level of intrusive checking of the brackets will depend on the findings at each location, but must be sufficient to provide an appropriately representative assessment; however, at least a 10% sample is advised. Particular attention should be paid to any lengths of sagging gutter or instances of distorted fascia boarding.
- b. Where defects are found, a risk assessment should be undertaken to identify any mitigations required prior to the completion of suitable remediation or other actions necessary to address identified hazards and risks. Temporary remediation may include increasing the screw length and providing additional brackets, noting the original failure may have in part been caused by repair works disturbing brackets which appeared firm at the time.
- c. The site 4Cs duty holder should be notified of this inspection and results and the need to update site risk registers.

14. The MMO is to notify the DIO Service Delivery Performance Management Team – DIO SD-Perf Mgt Team (MULTIUSER) account, through their respective DIO Service Manager identifying:

- a. the location and numbers of Type C (1938) Hangars,
- b. which of these hangars:
  - (i) have no issues with the gutter installation, stating whether the installation is original or of a new refurbished design
  - (ii) had issues with the gutter installation but are now adequately repaired, providing details of the repairs undertaken
  - (iii) have outstanding issues with the gutter installation, providing details of the problems (brackets, fascia, other support) and of any other mitigation in place.
- c. **A nil return is required for Establishments where this equipment is not installed.**

15. The requested data is required by the 28 Sept 2017 and will be reviewed on 2 Oct 2017.

16. The requirement for a corporate approach to all Type C(1938) hangars will depend on the analysis of issues reported to the DIO Service Delivery Performance Management Team.

17. Further information will follow with the issue of **Part B** to this Safety Alert once the extent and scope of the affected estate has been established.

18. The contents of this Alert should be considered when undertaking Technical Inspections or Appraisals of this type of asset.