

Issued: 20 September 2016

## Avoidance of Incidents Related to Controlled Flight Into Terrain When Under Air Traffic Control Radar Control

This Information Notice contains information that is for guidance and/or awareness.

Recipients are asked to ensure that this Information Notice is copied to all members of their staff who may have an interest in the information (including any 'in-house' or contracted maintenance organisations and relevant outside contractors).

<b>Applicability:</b>	
<b>Aerodromes:</b>	Not primarily affected
<b>Air Traffic:</b>	All ATC Units
<b>Airspace:</b>	All NATMAC Members
<b>Airworthiness:</b>	Not primarily affected
<b>Flight Operations:</b>	All Aeroplane and Helicopter AOC Holders, PAOC Holders and General Aviation Pilots
<b>Licensed/Unlicensed Personnel:</b>	Not primarily affected

### 1 Introduction

- 1.1 There have been a number of Controlled Flight Into Terrain (CFIT) related events while aircraft are being radar-vectorred by Air Traffic Control (ATC) in the vicinity of significant terrain, particularly during the approach phase. It appears that crews may be unaware of the Minimum Radar Vectoring Altitude or the Minimum Safe Altitude (MSA) in the area in which they are being vectored, as in some of the events the crew were not utilising all the available sources of terrain data.
- 1.2 The purpose of this Information Notice (IN) is to provide advice on monitoring techniques to avoid inadvertent CFIT events when in receipt of an air traffic service and especially when being radar-vectorred.
- 1.3 This IN supersedes IN-2014/051.

### 2 Operational Recommendations

- 2.1 Crews should monitor the position of the aircraft and the relationship of its altitude to the MSA in the area and confirm that each descent clearance below MSA is safe. If an ATC Surveillance Minimum Altitude Chart (ATSMAC) is published, this should be used to confirm that the cleared altitude is above the published minima.

- 2.2 If there is no ATSMAC available, crews should refer to the MSA contours/terrain and obstacle information on the procedure chart in use. However, the minimum terrain clearance associated with radar vectoring is nominally 1,000 ft within 5 NM of the aircraft; and 15 NM ahead and 20° either side of the aircraft's track within 30 NM of the radar antenna associated with the unit providing the service. When the aircraft is within 15 NM of the antenna, and provided an ATSMAC or approved procedure has been notified, these distances may be reduced to 3 and 10 NM respectively. Conflict may therefore occur between clearances based on these criteria and charted MSAs. Hence pilots must be aware of the terrain clearance afforded by the chart MSAs to enable them to monitor the terrain clearance when under radar control.
- 2.3 The Enhanced Ground Proximity Warning System (EGPWS) terrain display function should be used to monitor the aircraft's position in relation to terrain when appropriate, and crews should familiarise themselves with the display logic.
- 2.4 It should be noted that radar vectoring altitudes assigned by ATC are not always temperature compensated.
- 2.5 Should a crew have doubt about the terrain clearance afforded by an ATC clearance it must be immediately challenged.
- 2.6 Should crews experience an incident (e.g. EGPWS warning) that could have led to a CFIT event, it is important that a Mandatory Occurrence Report is filed giving the precise circumstances.
- 2.7 Operators should review and, if necessary, amend their Operations Manuals to ensure that crews are aware of the above and appropriate training and guidance are provided.

### **3 Queries**

- 3.1 Any queries or requests for further guidance from AOC and PAOC holders as a result of this communication should be addressed to the assigned Oversight Manager in the first instance.
- 3.2 Any queries or requests for further guidance from non-AOC holders as a result of this communication should be addressed to the Flight Operations Inspectorate (General Aviation) at the following e-mail address: [GA@caa.co.uk](mailto:GA@caa.co.uk).
- 3.3 Otherwise, queries should be addressed to the [ISPTechnicalSupportTeam@caa.co.uk](mailto:ISPTechnicalSupportTeam@caa.co.uk) e-mail address.

### **4 Cancellation**

- 4.1 This Information Notice will remain in force until further notice.