

RA 3235 – Airborne Collision Avoidance Systems ► and Terrain Awareness and Warning Systems ◀ - Controller Responsibilities

Rationale

► Airborne Collision Avoidance Systems (ACAS) and Terrain Awareness and Warning Systems (TAWS) are fitted to Aircraft to reduce the Risk of mid-air collision or Controlled Flight into Terrain (CFIT) respectively. Inappropriate instructions to an Aircraft manoeuvring in response to an ACAS Resolution Advisory or TAWS warning could increase Risk to Life. Controllers therefore need to understand their responsibilities and actions when a pilot reports that they are manoeuvring in accordance with (iaw) an ACAS Resolution Advisory or TAWS warning. ◀

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Regulation 3235(1)

Airborne Collision Avoidance Systems – Controller Responsibilities

3235(1) Controllers **shall** cease to issue control instructions that are contradictory on being informed that an ► Aircraft ◀ is manoeuvring iaw an ACAS generated Resolution Advisory ► ◀.

Acceptable Means of Compliance 3235(1)

Airborne Collision Avoidance Systems – Controller Responsibilities

1. When a pilot reports that they are manoeuvring ► iaw ◀ an ACAS Resolution Advisory, Controllers **should** cease to provide instructions which would modify the ► Aircraft's ◀ flight path until the pilot reports "Clear of Conflict".
2. The Controller **should** resume responsibility for providing separation for all ► Aircraft ◀ affected by the Resolution Advisory when:
 - a. The Controller acknowledges a report from the pilot that the ► Aircraft ◀ has resumed the current Air Traffic Control (ATC) clearance; or
 - b. The Controller acknowledges a report from the pilot that the ► Aircraft ◀ is resuming the current ATC clearance and issues an alternative clearance which is acknowledged by the pilot.
3. Controllers **should not** routinely pass traffic information to ► Aircraft ◀ conducting Resolution Advisory manoeuvres, or other ► Aircraft ◀ affected by such manoeuvres.

Guidance Material 3235(1)

Airborne Collision Avoidance Systems – Controller Responsibilities

4. Once an ► Aircraft ◀ departs from an ATC clearance in compliance with a Resolution Advisory, or a pilot reports ► a ◀ Resolution Advisory, the Controller ceases to be responsible for providing separation between that ► Aircraft ◀ and any other ► Aircraft ◀ affected as a direct consequence of the manoeuvre as they may unknowingly issue instructions ► which ◀ conflict with the Resolution Advisory ► ◀.
5. There may be circumstances where the passing of traffic information is justified; consequently, controllers may provide traffic information under the following circumstances:

**Guidance
Material
3235(1)**

- a. To ► **Aircraft** ◀ conducting a Resolution Advisory manoeuvre if it is considered essential for Flight Safety (eg information on ► **Aircraft** ◀ which are known to be in close proximity that are not transponding Mode C information).
 - b. To other ► **Aircraft** ◀ affected by a Resolution Advisory manoeuvre if judged necessary by the controller (eg in airspace where the carriage and operation of ACAS and / or Secondary Surveillance Radar transponders is not mandatory).
6. Specific ACAS Resolution Advisory phraseology is detailed in CAP 413¹◀.

**Regulation
3235(2)**

► Terrain Awareness and Warning Systems – Controller Responsibilities

- 3235(2) Controllers **shall** cease to issue control instructions that are contradictory on being informed that an Aircraft is climbing iaw a TAWS warning².

**Acceptable
Means of
Compliance
3235(2)**

Terrain Awareness and Warning Systems – Controller Responsibilities

7. When a pilot reports that they are climbing iaw a TAWS warning, the controller **should** acknowledge the message and pass the appropriate pressure setting (QFE, QNH or Regional Pressure Setting).
8. Controllers **should not** dissuade a pilot from climbing.
9. Controllers **should not** routinely pass traffic information to Aircraft conducting a TAWS climb unless it is considered essential to mitigate an actual or perceived Risk of collision.
10. When an Aircraft subject to a TAWS warning is in conflict with another Aircraft, traffic information **should** be provided as follows:
 - a. Traffic information **should** be passed first to Aircraft in conflict with the Aircraft that is known or appears to be responding to a TAWS warning.
 - b. Traffic information **should** then be passed to the Aircraft responding to the TAWS warning once the Aircraft's Mode C / Mode S readout is observed to be at or above the appropriate Radar Vector Chart / Military Surveillance Minimum Altitude Chart altitude or, the pilot reports that they are no longer responding to a TAWS warning.

**Guidance
Material
3235(2)**

Terrain Awareness and Warning Systems – Controller Responsibilities

11. TAWS is a generic term that captures all equipment that assists a pilot to avoid CFIT such as, but not limited to:
 - a. Ground Proximity Warning System.
 - b. Enhanced Ground Proximity Warning System.
 - c. Ground Collision Avoidance System.
12. When responding to a TAWS warning, pilots will prioritise manually operating their Aircraft over informing ATC that they are manoeuvring iaw a warning.
13. When a TAWS warning instructs a pilot to climb, ACAS Resolution Advisories are temporarily suppressed. The suppressing of an ACAS Resolution Advisory only affects the Aircraft receiving the TAWS warning during the time the TAWS warning remains active. Other Aircraft in conflict that are suitably equipped and not receiving a TAWS warning may receive an ACAS Resolution Advisory.

¹ ► Refer to CAP 413 – Radiotelephony Manual.

² Refer to CAP 493 – Manual of Air Traffic Services – Part 1. ◀

**Guidance
Material
3235(2)**

14. Once an Aircraft departs from an ATC clearance in compliance with a TAWS warning, or a pilot reports responding to a TAWS warning, the Controller ceases to be responsible for providing separation between that Aircraft and any other Aircraft affected as a direct consequence of the manoeuvre as they may unknowingly issue instructions which conflict with the TAWS warning. Traffic information must be passed in accordance with paragraphs 9 and 10. ◀

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