

RA 2310 – Flight Procedures: Role Specific Fixed Wing

Rationale

UK military fixed wing ►Air Systems◄ offer capabilities and challenges that are distinct from other Air Systems. Failure to appropriately address the nuances of fixed wing Air System role specific Hazards could lead to an increased Risk to Life (RtL). This Regulation requires Aviation Duty Holders (ADH) and Accountable Managers (Military Flying) (AM(MF)) to detail in orders the conduct of these role specific activities to ensure that RtL is As Low As Reasonably Practicable and Tolerable.

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Regulation

2310(1)

Supersonic Flight

2310(1) ADH and AM(MF) **shall** publish orders detailing the conduct of supersonic flight for operations, training, tests and trials within their Area of Responsibility (AoR).

Acceptable Means of Compliance 2310(1)

Supersonic Flight

1. **Conduct and Positioning of Supersonic Flights in the UK Flight Information Region (FIR).** In the UK FIR, all supersonic flights **should** be conducted over the sea, unless supersonic flight over land is operationally required. ►◄
2. ►When supersonic and less than 35 nautical miles (nm) from the nearest land, Aircraft Commanders **should** ensure their Aircraft is at least 10 nm from land, and on a Track which is at least 20° divergent from the mean line of the coast.
3. When the purpose of a dive manoeuvre is to achieve supersonic flight, the manoeuvre **should** be limited to avoid excessive Height loss or exceeding the speed / Mach limit for the Aircraft type.
4. Unless operating in Segregated Airspace, Aircraft Commanders **should** ensure that the appropriate radar Station is notified of all planned supersonic flights in advance.
5. Low-level supersonic flight **should** only take place if a radar / visual search is maintained to avoid the following by the criteria stated:
 - a. 3 nm from shipping and fixed or mobile oil and gas installations.
 - b. 6 nm from civilian or military transport Aircraft, helicopters, helicopter main routes and corridors.
6. Aircraft Commanders that know or suspect that they have infringed any of the criteria in sub-paragraphs 5.a or b. **should** follow the reporting procedure for Inadvertent Supersonic Flight in paragraph 9. ◄
7. **Supersonic Flights outside the UK FIR.** Supersonic flight **should** only be carried out in accordance with (iaw) host nation Regulations.
8. ►◄
 - a. ►◄
 - b. ►◄
 - c. ►◄
 - d. ►◄
 - e. ►◄
9. **Inadvertent Supersonic Flight.** If ►an◄ Aircraft Commander knows or suspects that their Aircraft has inadvertently made a supersonic flight ►outside of

Acceptable Means of Compliance 2310(1)

Segregated Airspace, or is otherwise in breach of ◀ this Regulation, they **should** make ▶ an auditable ◀ record ▶ ◀ in the flight Authorization record, ▶ and notify their parent unit. The ◀ parent unit ▶ **should** ◀ notify the appropriate Control and Reporting Centre or Control and Reporting Point, Military Supervisor at 78 Sqn, Swanwick Mil or Naval Radar Unit of the flight within 30 minutes of the Air System's landing. The ▶ unit receiving the Notification from the parent unit ◀ **should** maintain ▶ an auditable ◀ record. ▶ Auditable records **should** contain the following details:

- a. Aircraft.
- b. Time period during which supersonic flight conducted.
- c. Heading and speed of Aircraft (where known).
- d. Position (area in the case of sustained supersonic flight).
- e. Altitude and attitude (where known). ◀

Guidance Material 2310(1)

Supersonic Flight

10. **Supersonic Flights outside the UK FIR.** Where there are no host nation Regulations, these UK Regulations must be used.

Regulation 2310(2)

Spinning

2310(2) Intentional spinning **shall** be specifically approved and authorized.

Acceptable Means of Compliance 2310(2)

Spinning

11. Intentional spinning **should** be ▶ conducted ◀ only where ▶ this activity is cleared in the Air System Document Set (ADS)¹, and be done so iaw the procedures therein. ◀

12. If still spinning by the minimum Height given in the ADS¹ ◀, ▶ ◀ or higher if stipulated in ADH / AM(MF) orders, the Aircraft **should** be abandoned.

Guidance Material 2310(2)

Spinning

13. Nil.

Regulation 2310(3)

Asymmetric Flight

2310(3) Airborne practice and simulated Asymmetric Flight **shall** be specifically approved and authorized.

Acceptable Means of Compliance 2310(3)

Asymmetric Flight

14. ADH / AM(MF) **should** promulgate orders ▶ for ◀ practice and simulated Asymmetric Flight ▶ for applicable Aircraft in their AoR, which include at least the following:

- a. The minimum Height for Asymmetric Flight.
- b. Asymmetric Flight currency.
- c. Weather limits for Asymmetric Flight.
- d. Asymmetric Flight Operating limitations. ◀

15. Asymmetric Flight approaches and landings **should** only be practised in weather conditions within the ▶ ability ◀ of the ▶ handling ◀ pilot ▶ ◀.

16. ▶ Practice and simulated Asymmetric Flight **should** only be conducted if cleared in the ADS¹.

¹ ▶ Reference to the ADS specifically includes the Release To Service (RTS) or, for non RTS flying operations, the Military Permit to Fly (MPTF). ◀

**Acceptable
Means of
Compliance
2310(3)**

17. Practice and simulated Asymmetric Flight **should** be conducted in such a manner that safe flight can be continued in the event of a real engine failure.
18. On multi engine Aircraft that exhibit asymmetric characteristics with the loss of thrust on one engine, ◀ simulated engine failure on take-off ▶ when conducted in the live Aircraft below a Height of ◀ 500 ft ▶ ◀ **should** only be carried out under the ▶ supervision ◀ of a suitably authorized Qualified Flying Instructor or when authorized under a trials instruction.

**Guidance
Material
2310(3)**

Asymmetric Flight

19. Due to the increased Risks associated with Asymmetric Flight, practice and simulated Asymmetric Flight training will be closely supervised; training will be regular and limited to the amount necessary to achieve ▶ Competence. ◀
20. Practice Asymmetric Flight is flight in which a Serviceable engine (or engines) is shut down, (eg for training purposes), with the propeller(s) feathered (if applicable).
21. Simulated Asymmetric Flight is flight with all engines running, but with one or more engines set at “Zero Thrust” or “Flight Idle” to give a condition of asymmetry.
22. ▶ ◀
23. Full-stop landings and touch-and-go landings following simulated Asymmetric Flight approaches and touchdowns may be carried out providing that Approval for the Air System has been granted by the appropriate ADH / AM(MF).

**Regulation
2310(4)**

Single-Engine Air System Engine Shutdowns

- 2310(4) Engine shutdowns and re-lights in single-engine Air Systems **shall not** be ▶ routinely ◀ carried out in the air ▶ ◀.

**Acceptable
Means of
Compliance
2310(4)**

Single-Engine Air System Engine Shutdowns

24. Engine shutdowns and re-lights **should** only be carried out in single-engine Air Systems ▶ in the air, ◀ when part of an approved Flight Test Schedule or MPTF (Development) programme, ▶ or when responding to an emergency situation iaw the ADS!. ◀

**Guidance
Material
2310(4)**

Single-Engine Air System Engine Shutdowns

25. This Regulation does not apply to self-launching motor gliders or Remotely Piloted Air Systems that can only recover by means of a parachute.

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