RA 3223 - Provision of Air Traffic Service Inside Controlled Airspace

Rationale *Different classifications of airspace require the provision of specific Air Traffic Service (ATS).*

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Regulation 3223(1)

Provision of Air Traffic Service Inside Controlled Airspace

3223(1) Controllers **shall** apply the appropriate ATS in accordance with (iaw) the airspace classification in which the Air System under their control is operating.

Acceptable Means of Compliance 3223(1)

Provision of Air Traffic Service Inside Controlled Airspace

1. Prior to an Air System entering Controlled Airspace (CAS), the controller **should** ascertain which flight rules the pilot will be operating under; controllers **should** inform pilots when they are entering and leaving different classifications of CAS[1] iaw CAP 413 Radiotelephony Manual. Controllers **should** state the type of ATS being provided.

2. **Radar Control Service**. Radar Control Service **should** be provided to:

   a. All Instrument Flight Rules (IFR) flights in airspace classes A to E.

   b. All Visual Flight Rules (VFR) flights in airspace classes B[2], C and D.

   c. All Special VFR flights.

3. Radar Control Service **should** only be provided where surveillance[3] coverage is available 10 nm each side of the Air System's track and, between points on the track, 10 nm from each edge of the CAS, other than as follows:

   a. Air System's climbing into CAS subject to the following provisions:

      (1) The base of surveillance coverage is beneath the base level of CAS.

      (2) Transit is not permitted at a level where 5000 ft of surveillance coverage does not exist beneath the Air System unless it is subject to a Civil Air Traffic Control (ATC) clearance from the relevant sector controller (eg procedural clearance, Cleared Flight Path (CFP)[4] or Radar Corridor (RC)[5] clearance / activation).

4. Inside CAS controllers **should** only provide UK Flight Information Services (UK FIS) where authorized to do so, iaw RA 3224►[6]◄,in the following circumstances:

   a. At and above FL195 within:

      (1) The North Wales Military Training Area (NW MTA).

      (2) Temporary Reserved Airspace (TRA) areas 001-008 during published hours of activity.

   b. At and above FL245 in the East Anglia MTA during published hours of activity.

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[1] IFR Flights require ATC clearance to enter Class E airspace.
[2] No Class B airspace currently within UK FIR.
[3] ATS Surveillance System: Primary Surveillance Radar (PSR), Secondary Surveillance Radar (SSR), Automatic Dependant Surveillance Broadcast (ADS-B) or any comparable system (Wide Area Multilateration (WAM)) that is used to determine the position of an Air System in range and azimuth. However, units who provide Radar Control Service inside CAS where only SSR, WAM or ADS-B is available **should** ensure local orders define procedures to cover the eventuality of an Air System whose transponder is unserviceable while operating in CAS.
[4] Once a CFP has been obtained, the agreed track or flight level or the crossing Air System **should not** be changed without the prior approval of the civil sector controller, or the CFP automatically becomes invalid.
[5] RC are permanently established corridors to permit military Air System to transit the civil airways structure at agreed levels, following coordination between RAF(U) Swanwick and the relevant civil sector. UK Mil AIP 5.1 - 16.
[6] ►Refer to RA 3224 - UK Flight Information Services.◄

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c. Within active Managed Danger Areas (MDA) and other Danger Areas (DA) where appropriate agreements have been made, if required.

d. Class E airspace where the Air System is operating under VFR.

5. **VFR Flights in Class E Airspace**.

a. **Clearance**. VFR flights do not require ATC clearance to enter Class E airspace and, subject to compliance with the notified Transponder Mandatory Zone (TMZ) requirements, do not require two-way communications. VFR flights in receipt of an ATS in Class E airspace that are transitioning into Class C or D airspace **should** request a clearance, and subject to such a clearance, **should** be advised of any subsequent ATS changes.

b. **ATS**. VFR flights that request an ATS **should** be provided with traffic information as far as practical. This **should** be achieved through the provision of the UK FIS requested by the pilot, subject to ATS unit capability to provide the requested service. The parameters and conditions for the provision of Traffic Service and Basic Service to VFR Air System's in Class E airspace are as promulgated in CAP 774 UK Flight Information Services.

c. **Instructions**. When passing instructions to VFR flights, the preferred method is through the use of geographical routeing instructions. Surveillance vectors to VFR Air System's can be used as a last resort, used with extreme caution, and with special attention paid to the Unit Terrain Safe Level and terrain clearance[7]. Similarly, whenever possible, level restrictions **should** be based on an instruction to fly not above / not below a particular level rather than at a specified level. However, Air System's that have accepted surveillance vectors **should not** be subjected to level restrictions. When surveillance is used to monitor the conduct of a VFR flight, there is no requirement for the controller to advise the pilot that ►their◄ Air System has been identified unless, or until, the controller provides the pilot with surveillance vectors.

d. **VFR Flights unable to maintain Visual Met Conditions (VMC)**. If a pilot of a VFR Air System reports that they are unable to maintain VMC the controller **should**:

(1) Provide Radar Control Service and separate AS as soon as practicable (if the Air System is in contact with a unit authorized to provide such a service). Reduced vertical separation may be applied as necessary until standard separation is able to be applied. Essential traffic information **should** be provided.

(2) If the Air System is in contact with an ATS unit that is not authorized to provide Radar Control Service, the controller **should**:

(a) Instruct the Air System to squawk Transponder code A 7700.

(b) Pass essential traffic information and provide collision avoidance advice where the controller considers that a definite risk of collision exists.

(c) Pass information to the relevant en-route sector and any other ATC agencies as necessary.

(3) Pilots operating without an ATS that are unable to maintain VMC **should**:

(a) Squawk Transponder code A 7700.

(b) Contact the airspace controlling authority, or an appropriate autonomous radar unit[8], or Distress & Diversion Cell UHF 243.0 MHz or VHF 121.5 MHz.

6. **Procedural Service**. Procedural Service **should** only be provided by controllers who are specifically trained and authorized to do so.

[7] Refer to RA 3231 – Terrain Safe Level and Terrain Clearance.
[8] Refer to RA 3222 – Autonomous Radar Units.

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7. Radar Control Service is an ATS under which pilots follow mandatory instructions to enable the prescribed separation minima between Air System to be maintained. Such mandatory instructions will generally be associated with essential details of conflicting traffic. Pilots ►will◄ not change heading or level without prior approval of the Radar Controller.

8. When an Air System completes a crossing of CAS, and in the absence of a request to the contrary, controllers will reapply the type of ATS being provided prior to Radar Control Service without recourse to the pilot.

9. **VFR Traffic in Class D Airspace**. Instructions issued to VFR flights in Class D airspace are mandatory. These may comprise routeing instructions, visual holding instructions, level restrictions, and information on collision hazards, in order to establish a safe, orderly and expeditious flow of traffic and to provide for the effective management of overall ATC workload.

10. Routeing instructions may be issued which will reduce or eliminate points of conflict with other flights, such as final approach tracks and circuit areas, with a consequent reduction in the workload associated with passing extensive traffic information. Visual Reporting Points may be established to assist in the definition of frequently utilised routes and the avoidance of instrument approach and departure tracks. Where controllers require VFR AS to hold at a specific point pending further clearance, this is to be explicitly stated to the pilot.

11. When issuing instructions to VFR flights, controllers are to be aware of the overriding requirements for pilots to remain in VMC, to avoid obstacles and to remain within the privileges of their licence. This may result in the pilot requesting an alternative clearance, particularly in marginal weather conditions.

12. Controllers are to exercise caution when vectoring VFR flights, a geographical routeing instruction is preferable. Prior to vectoring, the controller will establish with the pilot the need to report if headings issued are not acceptable due to the requirements to remain in VMC, avoid obstacles, and comply with the low flying rules. Controllers are to be aware that pilots of some VFR flights may not be sufficiently experienced to comply accurately with vectors, or to recover to visual navigation after vectoring.

13. **En-Route Operations**. ICAO defines these as operations conducted on published air routes, direct point-to-point operations between defined waypoints (direct point-to-point operations include transit to / from airspace reservations and other operating areas), or along great circle routes, which are other than take-off, landing, departure, arrival or terminal operations. This includes all transit flights outside published ATS routes in receipt of an ATS from either a civil or military ATS provider.

14. **On-Route (ATS)**. This term is used routinely by ATC for coordination purposes within the UK. Civil / military Air System are considered to be ‘on-route (ATS)’ when flying along the alignment and within 5 nm of the centre-line of published parameters of an upper ATS route (UAR) and other areas defined for the application of reduced coordination procedures**.**

15. **Off-Route (ATS)**. This term is used routinely by ATC for coordination purposes within the UK; Air System’s are considered to be ‘off-route (ATS)’ when not complying with the conditions at paragraph 14.

16. Arrangements between civil and military units to declare ‘off-route’ status will be specified in Unit Orders.

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