



INTERNATIONAL VIRTUAL AVIATION ORGANISATION
UNITED KINGDOM AND IRELAND SPECIAL OPERATIONS
DEPARTMENT

UK & IE IVAO MILITARY AIP

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0 Introduction

This document contains information and rules specific to special operations in the United Kingdom on IVAO and there for not for real world use. All the information in this document has been kept as close to the real world equivalent but due to limitations of the software used some changes have been made.

1 General Rules and Procedures

Below are rules that regard special operations in the United Kingdom, but can be superseded by specific rules or by the GB-SOC/SOAC.

1.1 Speed restrictions

The standard speed restrictions do not apply to military aircraft but aircraft operating in close proximity to civilian airfields or airspace with a high density of civil traffic should conform to civil rule of less than 250kts below 10,000ft. Pilots should also consider their location and altitude to decide an appropriate speed.

1.2 Supersonic flight

All supersonic flight in UK airspace is to be flown over sea unless ATC permission is obtained. Accelerating aircraft must ensure their aircraft is at least 10 nautical miles out to sea and along a line of flight at least 20° divergent from the mean line of the coast. Supersonic flights with the aircraft pointing towards the land, turning or flying parallel to the coast should take place at least 35 nautical miles from the nearest coastline. Low-level supersonic flight should only take place if a radar/visual search is maintained to avoid the following by the margins stated: 3 nm from shipping and fixed or mobile oil and gas installations; 6 nm from civilian or military transport aircraft, helicopters, helicopter main routes and corridors.

1.3 Rate of Climb and Decent Restrictions

Climb and decent rate inside CAS is restricted to 8000ft/min and it is advised that this is not exceeded when operating outside CAS due to possible collisions. With the approval of the appropriate ATC, greater climb and descent can be achieved.

1.4 Altimeter Setting Procedures

The standard altimeter setting for the full of the UK, is 1013hp above the transition altitude, which is 3000ft for the most of the Uk. Areas like the London TMA have designated transition altitude, which can be found on charts of airfields in the area. On the decent to a military airfield once passing, the transition level (calculated by ATC) the QFE is to be set, this should also be used when in the circuit.

1.5 Squawk Codes

All aircraft operating in UK airspace with a transponder should activate their transponder upon entering a runway. For uncontrolled aircraft flying under VFR rules 7000 should be set and for aircraft flying under IFR rules 2000 should be set. When under control you will be assigned a code by ATC. For Special use squawk codes found [here](#).

1.6 Operational Air Traffic

Operational air traffic (OAT) is used to define traffic that has to have special consideration due to the nature of the flight they are doing. They should be kept separate for general air traffic(GAT) and where possible be under the control of a M-ATC (Military ATC). Where possible flights should be flown as GAT, and just because it is a military flight does not imply it is OAT.

2 Controllers

Military controllers should have a good knowledge of air operations of a Military airfield and the unique procedures of M-ATC.

2.1 Military FRA's

All DEL positions are not to be opened without permission form for GB/IE-SO department. All GND and TWR positions are AS1, all APP are AS3 and Swanwick Military (North and South) are ADC. Exemptions are EGVN TWR- AS3, EGWU APP- ADC TWR-AS3, and EGVO ALL –AS3.

2.2 Airfield MATZ

As most Military airfields lie outside CAS so they make use of a Military airfield traffic zone to provide "protection" to aircraft in the circuit, on departure and final. For civil pilots entering and operating within, no permission is required to be gained but it is strongly advised that radio contact be made. The common dimensions of these zones are;

"The MATZ is centered on the midpoint of the longest runway. The main airspace is a zone 5 nautical miles in radius from the surface to 3,000 feet above aerodrome level (aal). One or two stubs may also exist and these project from the main airspace above aligned with the selected runway. The stubs dimensions are 5 nautical miles long, 4 nautical miles wide, 1000 feet to 3000 feet aal."

2.3 Airfield ATZ

An Air Traffic zone is a Defined area around the nearly all airfields outside CAS including military airfield. The ATZ lies within the MATZ but compared to the MATZ a civil pilot has to contact the corresponding ATC if available before entering. Their common dimensions are; they are centered on the longest runway extending 2 miles from the center and up to 2000ft agl.

2.4 Radar Corridors

Radar corridors are pre-defined sections of airspace that are used by aircraft to cross CAS. They can be used by M-ATC without coordination, but coordination is advised with civil area controller's if they are open. See RADAR CORRIDOR document for more information.

2.5 TACAN Routes

TACAN routes are similar to High airways and are predefined routes using TACAN as the fixes. As they are in CAS M-ATC should coordinate with C-ATC (civil ATC) and if required transfer pilots to C-ATC.

2.6 Swanwick Military

Swanwick Military is the military area controller for the UK, with the primary job is to provide services Outside CAS and CAS crossing services to all Aircraft. While also handling OAT with coordination with its civil counterpart. They also bandbox all military airfield if they are not open.

2.7 Coordination with Civilian ATC

Due to the dynamic use of UK airspace especially outside CAS, coordination is very important to maintain separation. In addition, M-ATC can control OAT in CAS but any other controllers will not try to maintain separation and therefore it is the responsibility of the M-ATC to maintain a 5nm or 5000ft separation.

2.8 Military Traffic in Civil Airspace

Unless the aircraft are flying as OAT, the flights will be treated as normal aircraft with little to no exceptions. But in the case of OAT, exceptions shall be made as long as safety is maintained, for example aircraft flying undefined routes through CAS.

2.9 Services in Uncontrolled airspace

In the UK Services (ATS) outside CAS are different to most of the world as the UK uses; Basic, Traffic, deconfliction and Procedural to define the services. They can be provided by any ATC position with a radar screen but of course limited to their area. The primary providers of services at low altitude are M-ATC as they have an extended range of operation, and Swanwick Mill is able to provide service covering the full of the UK. For More information, see Services Outside controlled airspace.

3 Pilots

3.1 Flight Plans

Due to the software used a flight plan is to be filled for every flight, these should contain your intentions as best it can before you depart, if there is no planned route "VFR" or "///" can be used in the route with a description in the remarks, this should be done with consideration to ATC and other traffic. No attempt to amend a flight plan once airborne should be made.

3.2 Navigation

Navigation for Mill aircraft is not different to Civil aircraft but with the added use of TACANS/TACAN routes and radar corridors. In addition, the use of coordinates is more common.

3.3 Formations

Formations flying in UK airspace only requires the lead to have an active transponder, except when formation has length longer than 1nm and the rear pilot must activate there's as well. Formations flying as GAT can expect delays and rerouting, therefore they usually flown as OAT. Formations have special use phraseology that all pilots should be aware of before flying.

3.4 Call signs

For all British Service aircraft in the UK, special Call signs are used with list available here. Formations will normally use the Lead pilot's call sign without his number identifier (e.g. TYPHOON formation). And to define individual elements of a formation their number in the formation will be used irrespective of their personally call sign (e.g. TYPHOON formation ONE)

3.5 Low flying

Low flying in the UK is allowed all over the UK with Low flight not allowed over city's and in areas of high Air traffic. The UK is divided in to 19 Low flying areas, which can be found in the Civil AIP on the NATS website. Speed restriction for low flying is 450kts with exceptions by the Department and when required you may temporarily accelerate up to 550kts.

3.6 Transiting CAS

Where possible Transiting CAS should be done by radar corridors, this is to limit disturbance of other traffic. Permission to transit must always be gained from ATC if online.

4 Navigation Warnings

4.1 Areas of Intense Aerial Activity

An Areas of Intense Aerial Activity is defined as airspace within which aircraft regularly participate in unusual maneuvers. Details of all AIAAs are available in the UK Civil AIP.

4.2 Prohibited, Restricted and Danger Areas

Danger areas are set up to warn pilots that during the specified times there could be activity inside this area that could affect the safety of their flight and that the pilot should take this in to consideration. A Restricted area is a defined part of airspace that flight within it is only allowed if the defined conditions are meet. A Prohibited are is a defined part of airspace such that no flight is allowed to operate it during its times of operation.

4.3 Air to Air Refueling Areas

Air to air refueling areas are defined parts of airspace that allows assured use of the airspace for tanking operations, this means during their operation controllers are to assure separation of other traffic. Details of all AARA's are available in the UK Civil AIP.

4.4 Military Training Areas

Military Training Areas are parts of airspace that allows free movement of Military aircraft without a radar controlled service, at heights that that would not normally be possible. Details of all MTA's are available in the UK Civil AIP.

4.5 Aerial Tactics Areas

Aerial Training Areas are parts of airspace that allows the training of Air combat that commonly consists of High energy maneuvers. Pilots not participating that require to enter the Area is strongly suggested to obtain a Radar service. Details of all ATA's are available in the UK Civil AIP.

4.6 Temporary Reserved Areas

Temporary Reserved Areas are parts of airspace Between FL195 and FL245 that allows various VFR UK airspace users including military autonomous flights to operate above FL195. TRA can only be activated by a covering controller and is to be closed as soon as there are no flights within it. Locations of TRA's can be found in the UK AIP.

5 Extra Information

5.1 Other Documents

- 5.1.1 Radar Corridors 1601V1.0
- 5.1.2 TACAN Routes 1601V1.0
- 5.1.3 Color Codes 1601V1.0
- 5.1.4 Phraseology 1601V1.0
- 5.1.5 Services in Uncontrolled Airspace 1601V1.0
- 5.1.6 Military Airfields 1601V1.0

5.2 Special Use Squawks

Use	Squawk
General VFR	7000
General IFR	2000
Military Fixed-wing Low Level Conspicuity/Climbout	7001
300FT Danger Areas General	7002
200FT Red Arrows Transit/Display	7003
Conspicuity Aerobatics and Display	7004
High-Energy Manoeuvres	7005
Autonomous Operations within TRA	7006