

LETTER OF AGREEMENT

IVAO XU SPECIAL OPERATIONS DEPARTMENT

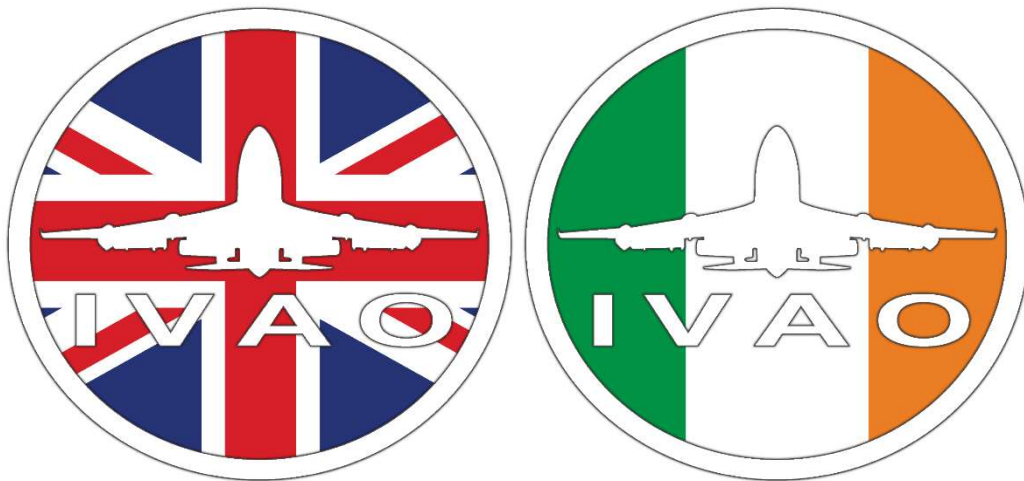


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LETTER OF AGREEMENT

Between

IVAO-XU Division

and

IVAO-SOD

1 GENERAL

1.1 Application

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

1.2 Applicable IVAO Regulations

- 1.2.1 At all times, XU SO LOA complies with IVAO rules (1.2.1.1) and furthermore, it complies with IVAO Special operations department regulations (1.2.1.2).
- 1.2.1.1 <https://doc.ivao.aero>
- 1.2.1.2 <https://sod.ivao.aero/regulations>

2 GENERAL RULES AND PROCEDURES

2.1 Enforcement of Rules

2.1.1 Rules present in this LOA will be enforced by the staff of XU division when operating in any of FIR's covered by the division.

2.2 Speed restrictions

2.2.1 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 the civil rule of less than 250kts below 10,000ft. Pilots should also consider their location and altitude to decide an appropriate speed.

2.3 Supersonic flight

2.3.1 All supersonic flight in UK airspace is to be flown oversea unless ATC permission is obtained.

2.3.2 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.

2.3.3 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.

2.4 Rate of Climb and Descent Restrictions

2.4.1 Climb and descent rates inside CAS are restricted to 8000ft/min, and it is advised that this is not exceeded when operating outside CAS due to air safety risks it causes. With the approval of the appropriate ATC, higher climb and descent rates can be achieved.

2.5 Altimeter Setting Procedures

2.5.1 The standard altimeter setting for the full of the UK is 1013hp above the transition altitude, which is 3000ft for most of the Uk.

- 2.5.2 Areas like the London TMA have designated transition altitude, which can be found on charts of airfields in the area.
- 2.5.3 On the descent 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.

2.6 Squawk Codes

- 2.6.1 All aircraft operating in UK airspace with a transponder should activate their transponder upon entering a runway.
- 2.6.2 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.

2.7 Operational Air Traffic

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

3 CONTROLLERS

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

3.1 Military FRA's

- 3.1.1 All DEL positions are not to be open without permission from XU-SO department.
- 3.1.2 All GND and TWR positions are AS1, all APP are AS3, and Swanwick Military (North and South) are ADC.
- 3.1.3 Exemptions are EGVN TWR- AS3, EGWU APP- ADC TWR-AS3, and EGVO ALL -AS3.

3.2 Airfield MATZ

- 3.2.1 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.
- 3.2.2 For civil pilots entering and operating within, no permission is required to be gained, but it is strongly advised that radio contact be made.
- 3.2.3 Standard dimensions of these zones are; "The MATZ is centred 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."

3.3 Airfield ATZ

- 3.3.1 Air Traffic zone is a Defined area around the nearly all airfields outside CAS including military airfield.
- 3.3.2 ATZ lies within the MATZ but compared to the MATZ a civil pilot must contact the corresponding ATC if available before entering.
- 3.3.3 Standard dimensions are; they are centred on the longest runway extending 2 miles from the centre and up to 2000ft AGL.

3.4 Radar Corridors

- 3.4.1 Radar corridors are pre-defined sections of airspace that are used by aircraft to cross CAS.

3.4.2 M-ATC can use them without coordination, but coordination is advised with civilian area controller's if they are open.

3.5 TACAN Routes

3.5.1 TACAN routes are like 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.

3.6 Swanwick Military

3.6.1 Swanwick Military is the military area controller for the UK, with the primary job is to provided services Outside CAS and CAS crossing services to all Aircraft.

3.6.2 Swanwick Military handles OAT with coordination with its civilian counterpart.

3.6.3 Swanwick Military takes responsibility for all military airfields if no ATC active at the airfield (bandbox).

3.7 Coordination with Civilian ATC

3.7.1 Due to the dynamic use of UK airspace, especially outside CAS, coordination is essential to maintain separation.

3.7.2 M-ATC can control OAT in CAS, but any other controllers will not try to maintain separation

3.7.3 It is the responsibility of the M-ATC to maintain a 5nm or 5000ft separation.

3.8 Military Traffic in Civil Airspace

3.8.1 Unless the aircraft are flying as OAT, the flights will be treated as standard aircraft with little to no exceptions.

3.8.2 In the case of OAT, exceptions shall be made if safety is maintained.

3.9 Services in Uncontrolled airspace

- 3.9.1 In the UK air traffic Services (ATS) outside CAS are different from most of the world as the UK uses; Basic, Traffic, deconfliction and Procedural to define the services.
- 3.9.2 ATS can be provided by any ATC position with a radar screen with consideration of their workload and radar coverage.
- 3.9.3 Primary providers of ATS at low altitudes are M-ATC as they have an extended range of operation, and Swanwick mill can provide service covering the full of the UK.

4 PILOTS

4.1 Flight Plans

- 4.1.1 Due to the software used, a flight plan is to be filled for every flight.
- 4.1.2 Flight plans must contain your intentions at the time departure.
- 4.1.3 If there is no planned route "VFR" or "I" can be used in the route with a description in the remarks, this should be done with consideration to ATC and other traffic.
- 4.1.4 No attempt to amend a flight plan once airborne should be made.

4.2 Navigation

- 4.2.1 Navigation for Mill aircraft is not different from Civil aircraft but with the added use of TACAN/TACAN routes and radar corridors. Also, the use of coordinates is more common.

4.3 Formations

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

4.4 Callsigns

- 4.4.1 For all British Service aircraft in the UK, unique Call signs are used with a list available here.
- 4.4.2 Formations will typically use the Lead pilot's callsign without his number identifier (e.g. TYPHOON formation). Moreover, to define individual elements of a formation, their number in the formation will be used irrespective of their callsign (e.g. TYPHOON formation ONE).

4.5 Low flying

- 4.5.1 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.

- 4.5.2 The UK is divided into 19 Low flying areas, which can be found in the Civil AIP on the NATS website.
- 4.5.3 Speed restriction for low flying is 450kts with exceptions by the Department, and when required you may temporarily accelerate up to 550kts.

4.6 Transiting CAS

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

5 NAVIGATION WARNINGS

5.1 Areas of Intense Aerial Activity

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

5.2 Prohibited, Restricted and Danger Areas

5.2.1 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 into consideration.

5.2.2 Restricted Areas are defined as part of airspace that flight within it is only allowed if the defined conditions are met.

5.2.3 Prohibited are a defined part of airspace such that no flight can operate it during its times of operation.

5.3 Air to Air Refuelling Areas

5.3.1 Air to air refuelling 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.

5.4 Military Training Areas

5.4.1 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 usually be possible.

5.5 Aerial Tactics Areas

5.5.1 Aerial Training Areas are parts of airspace that allows the training of Air combat that commonly consists of High energy manoeuvres.

5.5.2 Pilots not participating that require to enter the Area is strongly suggested to obtain a Radar service.

5.6 Temporary Reserved Areas

5.6.1 Temporary Reserved Areas are parts of airspace Between FL195 and FL245 that allows various VFR UK airspace users, including autonomous military flights to operate above FL195.

5.6.2 TRA can only be activated by a covering controller and is to be closed as soon as there are no flights within it.

6 UK AIRFIELDS

Name	ICAO	Aerodromes available for limited civil use.	IFR/VFR	
ALDERGROVE	EGAA	Yes	-	
BARKSTON HEATH	EGYE	-	IFR/VFR	
BENSON	EGUB	-	IFR/VFR	
BOSCOMBE DOWN	EGDM	Yes	IFR/VFR	
BRIZE NORTON	EGVN	Yes	IFR/VFR	
CHETWYND	-	-	VFR	
COLERNE	EGUO	-	VFR	
CONINGSBY	EGXC	-	IFR/VFR	
COSFORD	EGWC	-	VFR	
CRANWELL	EGYD	-	IFR/VFR	
CRANWELL NORTH	-	-	VFR	
CULDROSE	EGDR	-	IFR/VFR	
FAIRFORD	EGVA	-	IFR/VFR	
HALTON	EGWN	-	VFR	
HENLOW	EGWE	-	VFR	
KINLOSS	EGQK	-	VFR	
KIRKNEWTON	EGKT	-	VFR	
LAKENHEATH	EGUL	-	IFR/VFR	
LEEMING	EGXE	-	IFR/VFR	

LEUCHARS	EGQL	Yes	IFR/VFR	
LINTON-ON- OUSE	EGXU	-	IFR/VFR	
LOSSIEMOUTH	EGQS	-	IFR/VFR	
MARHAM	EGYM	-	IFR/VFR	
MERRYFIELD	EGDI	-	VFR	
MIDDLE WALLOP	EGVP	-	IFR/VFR	
MILDENHALL	EGUN	Yes	IFR/VFR	
MONA	EGOQ	-	VFR	
NETHERAVON	EGDN	-	VFR	
NORTHOLT	EGWU	Yes	IFR/VFR	
ODIHAM	EGVO	-	IFR/VFR	
PREDANNACK	EGDO	-	VFR	
SCAMPTON	EGXP	-	VFR*	
SHAWBURY	EGOS	-	IFR/VFR	
SYERSTON	EGXY	-	VFR	
TERNHILL	EGOE	-	VFR	
TOPCLIFFE	EGXZ	-	IFR/VFR	
UPAVON	EGDJ	-	VFR	
VALLEY	EGOV	-	IFR/VFR	
WADDINGTON	EGXW	Yes	IFR/VFR	
WARTON	EGNO	-	IFR/VFR	
WATTISHAM	EGUW	-	IFR/VFR	
WESTON-ON- THE-GREEN	-	-	VFR	

WITTERING	EGXT	-	IFR/VFR	
WOODVALE	EGOW	-	IFR/VFR	
YEOVILTON	EGDY	Yes	IFR/VFR	
OVERSEAS				
AKROTIRI	LCRA	-	IFR/VFR	
ASCENSION / WIDEAWAKE	FHAW	-	VFR	
GIBRALTAR	LXGB	Yes (Civil use)	IFR/VFR	
MOUNT PLEASANT	EGYP	-	IFR/VFR	

7 REPUBLIC OF IRELAND AIRFIELDS

Name	ICAO	Aerodromes available for limited civil use.	IFR/VFR	
Finner Camp /Bunoran	EIFR	-	VFR	
Baldonnell/ Casement	EIME	-	IFR/VFR	