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Operations

SCOTTISH FIR (EGPX) VMATS PART 2

SCOTTISH AREA CONTROL, SCOTTISH TMA & ANTRIM

REVISION 2025/03 - EFFECTIVE 20 MARCH 2025

CONTENTS

PRE | PREFACE

Distribution and Scope

This manual is for controllers of Scottish control sectors (excluding Manchester Prestwick Control which uses the RTF callsign of "Scottish Control") and contains specific and local procedures relevant to these sectors. In addition, relevant information regarding the handling of traffic at airfields that may be covered top-down by VATSIM controllers is also included. Controllers **must** be familiar with controlling procedures in the UK; this manual should be read in conjunction with MATS Part 1 (CAP 493[1]) and guidance on standard UK Radiotelephony phraseology, detailed in CAP 413[2].

Exclusion of Liability

This manual is for use on the VATSIM Network only and should never be adopted for real world use.

The information published by VATSIM UK within this document is made available without warranty of any kind; the Organisation accepts no responsibility or liability whether direct or indirect, as to the currency, accuracy, or quality of the information, nor for any consequence of its use.

Several procedures have been adapted or created using content published in the AIS (published and maintained by NATS). Any information in this document does not constitute as a real-world replacement for any official procedure / documentation set out on the AIS website, and any similar procedures set out here or influenced by NATS' content is written under the Limited License provided by the AIS.

Acknowledgements

This document has been written and proofread by a huge wealth of people, without which the development of this document would not have been possible. On behalf of all VATSIM UK's members, this acts as an acknowledgement and thanks for their work.

[1] The latest version of which is always available at https://caa.co.uk/CAP493
[2] The latest version of which is always available at https://caa.co.uk/CAP413

Marked Changes

Changes made since the last release are marked with a black bar, as indicated, in the left-hand margin. New text is marked in red. The changes are also described briefly in the table below.

Changes Incorporated

In addition to minor procedural and editorial changes, the following changes have been made since the last published edition:

Affected Section(s)	Affected Sector(s)	Description
GEN 7.1	All	Updated UK Intention Codes (Figure GEN-2)
ScAC 2.4.4	North	Revised Polaris (Stavanger) frequencies due to implementation of 8.33 kHz frequency spacing (as of AIRAC 2025/03)
ScAC 3.4.5 ScAC 3.4.7	South	Amended Amsterdam positions and frequencies (as of AIRAC 2024/13) and removed EUC-MW position from Maastricht sector ownership (as of AIRAC 2024/13)
ScAC 3.4.7	South	Amended Bremen (EDWW_W_CTR) sector frequency (as of AIRAC 2025/03)

Introduction and Structure

The Scottish virtual Manual of Air Traffic Services (vMATS) Part 2 is complementary to the MATS Part 1 (CAP 493). Together, these two documents provide comprehensive instructions and information for ATS controllers within VATSIM UK.

> ***Note:*** *Letters of Agreement between VATSIM UK and adjacent FIRs/vACCs are published separately. Where there are conflicts between information, the LoA shall have precedence over this document, except where instructions are otherwise notified to the ATC Procedure Changes forum.*

This vMATS has been divided into separate sections for ease of reference, each with its own three letter identification code:

Page Abbreviation	Section
PRE	Preface
GEN	Unit General Operating Procedures
ScAC	Scottish Area Control Procedures
ScTMA	Scottish TMA Sector Procedures
ANT	Antrim Sector Procedures
APT	Airports
ANX	Annexes

Time References

All time references within this document are Coordinated Universal Time (UTC), or Zulu time, unless otherwise specified.

The UK observes daylight saving time in the summer months (British Summer Time, or BST), so the clocks shift forwards by one (1) hour. In summer therefore, UK local time is one hour ahead of UTC/Zulu time.

Understanding 'VATSIMisms'

At various points in this document, text boxes have been added to help you, as a VATSIM controller, understand how and why real-world procedures might have been simplified, made redundant, or even more complex because of the nature of VATSIM.

Note that anything contained in these boxes is for **information** purposes **only** – procedures will always be in the main body of the text.

*Useful information or explanations will be contained in text boxes with the same format as this. Note that information contained within these boxes are **not** procedures.*

General Abbreviations

See the Glossary for a complete list of abbreviations and acronyms contained within this document.

Abbreviation	Meaning
AC	Area Control
ACC	Area Control Centre
APC	Approach Control
FIR	Flight Information Region
FRA	Free Route Airspace
LAC	London Area Control
LAG	Local Area Group
lvl	Level By (in a standing agreement)
MPC	Manchester Prestwick Control
MTMA	Manchester TMA
MUAC	Maastricht Upper Area Control
PC	Prestwick (MTMA) Control
RFC	Released for Climb
RFD	Released for Descent
RFT	Released for Turn
ScAC	Scottish Area Control
ScTMA	Scottish TMA
UAC	Upper Area Control
UIR	Upper Information Region
↑ ↓	Indicates the agreement does not have a "level by" restriction specified. The aircraft may still be climbing/descending to the agreement level on transfer/contact.

Interpretation of Words

To avoid any misunderstanding within this vMATS Part 2, certain words are to be interpreted as having specific meanings when they are the operative words in an instruction.

'shall', 'is to', 'are to' and 'must'	means that compliance with the instruction or requirement by the controller/pilot is mandatory.
'should'	means that it is strongly advisable that an instruction is carried out; it is recommended or discretionary. It is applied where the more positive 'shall' is unreasonable but nevertheless a controller would have to have good reason for not doing so.
'may'	means that the instruction is permissive, optional, or alternative, e.g., 'a controller may seek assistance…' but would not if they did not need it.
'will'	is used for informative or descriptive writing, e.g., 'pilots will file…', is not an instruction to the controller.

List of Figures

Validity of Procedures

Controllers must ensure they are using the most recent version of documentation when controlling and mentoring.

Variations to the procedures and information published in the vMATS and Agreed Levels Diagrams are handled as described below.

Permanent Changes to Procedures

Amendments to existing procedures and the introduction of new procedures will take place by the publication of an ATC Procedure Change Forum post. These shall have precedence over procedures published in this document.

Significant changes will also be highlighted to controllers via a UK Controller Plugin notification, but controllers are expected to check the forum and Discord for relevant changes.

AIP-Published Data

Some information included in this vMATS is aeronautical data published in the UK AIP, e.g., the STAR listing in Annex A. Where there are differences, the information published in the AIP shall take precedence.

The Operations Department aims to notify controllers of the differences between this document and the AIP by means of an ATC Procedure Changes forum post (see above).

Temporary Instructions (TIs)

A TI is a mandatory ATC instruction which is a temporary change to local ATC procedures. These will most often be published in advance of events for the purpose of opening non-standard sector splits but may also be used in case of vRAF military activity, or to set out VATSIM UK's operational response to a temporary change to real world procedures.

All published instructions in the ATC Temporary Instructions Forum shall have precedence over procedures published in this document for the period of their validity.

Letters of Agreement (LoAs)

Letters of Agreement between VATSIM UK and adjacent FIRs/vACCs are published separately. Where there are conflicts between information, the LoA shall have precedence over this document, except where instructions are otherwise notified to the ATC Procedure Changes forum.

GEN | UNIT GENERAL OPERATING PROCEDURES

Chapter 1 Operating Procedures

1.1 Initial Clearance

1.1.1 Departure Clearances

Traffic from airfields contained within the Scottish ACC Area of Responsibility (AoR) may be departing on a Standard Instrument Departure, or to agreed levels as part of a Standing Agreement detailed within this document.

Elsewhere, clearances shall be issued in accordance with MATS Part 1 (CAP 493).

1.1.2 Arrival Clearances

Aircraft inbound to airfields within the Scottish ACC AoR, the Manchester TMA, Birmingham (EGBB) or East Midlands (EGNX) shall be cleared for their route/STAR by the initial Scottish Control Sector, as applicable:

- To a specified holding facility if remaining within controlled airspace to its destination, which may be via a Standard Terminal Arrival Route (STAR)
- To leave controlled airspace at an appropriate point.

1.1.2.1 Confirmation of STAR by Flight Crew

Aircraft may, on first contact with the initial Scottish Control sector, report to the controller the STAR that they are flying. This does not permit pilots to route direct to the STAR start point, and they are expected to continue to fly their flight planned route.

> ***Note:*** *If the previous controller has instructed the aircraft to fly a heading, the pilot will report both the heading and expected STAR to the controller.*

Where the reported STAR is **correct**, the controller does **not** need to reiterate the STAR to the pilot. Their report may be taken as confirmation that the pilot will follow the STAR, as reported.

Where the reported STAR is **incorrect**, the controller shall proceed as follows:

- If the routing and STAR need amending, the controller shall pass the routing and STAR instructions to the pilot in full and receive a full readback and confirmation that they are able to follow said route.
- If the STAR is from an outdated AIRAC cycle, the controller shall ascertain whether the pilot has the updated/correct STAR and if yes, re-clear them on this up-to-date STAR.

When the pilot fails to report the inbound STAR, or when they report an incorrect STAR, the controller shall pass the route to the aircraft and obtain a readback of this.

1.2 Use of 'Expect Level' Clearances

Many published STAR charts advise pilots of levels that they should expect ATC to issue. Agreements between split sectors often require that certain climb/descent profiles be adhered to in order to maintain the correct sector coordination sequence.

If a clearance to an intermediate level is given during climb or descent but the controller feels it would be beneficial to emphasise a planned level, controllers should use the following phraseology and procedures:

- Normally use a single transmission where the cleared flight level is at the end of the transmission – for example, *"BAW123, expect FL260 level by INPIP, when ready descend FL300"*
- The cleared flight level may be reinforced with the word "now" – for example, *"EXS23AB, expect FL250 level by TILNI, descend now FL330"*.

If planned level information is given with no change to the cleared level, the controller must re-emphasise the cleared level. For example, *"EIN123, expect FL150 level by GIRVA, report ready for descent. Maintain FL230"*.

1.3 Confirmation of Cleared Level

Pilots are required to report their cleared level on first contact following a frequency change. Controllers shall request this information from pilots who do not report this before issuing further instructions to an aircraft unless the traffic has come from unstaffed airspace.

1.4 Holding Phraseology

To reduce instances of incorrect direction holding, controllers are to use the following phraseology when instructing aircraft to hold: *"(callsign) hold at (name), (left/right) hand turns, (as published)"*.

For example: *"EZY40LD hold at TARTN, left hand turns, as published"*.

If there is no published hold, or the direction given differs from the published hold, controllers shall also specify the inbound course and leg time/distance.

1.5 Assuming of Electronic Aircraft Tags

The following procedures apply to all transfers of aircraft tags (UK internal & external).

1.5.1 Between Radar-Equipped Controllers

Controllers shall only 'accept' the transfer of an aircraft tag from a sending controller when the aircraft has 'checked in' on the receiving controller's frequency.

The transfer of an aircraft tag from a UK radar-equipped unit to another UK radar-equipped unit shall indicate to the receiving controller that the aircraft has been identified, their Mode A code validated, and their Mode C readout verified. However, aircraft outside of controlled

airspace received from APC units should be instructed to squawk IDENT in accordance with GEN 1.6.2 below.

1.5.2 Aircraft from Unstaffed Airspace

For aircraft coming from unstaffed airspace, controllers should assume the tag after sending a 'contact me' request. This signals to other controllers that they are trying to contact the aircraft.

1.5.3 Departures

Controllers should not assume aircraft tags for departures until they have checked in on the frequency. Additionally, tags of departing aircraft will not be assumed by APC controllers unless it is their responsibility to complete identification, validation and verification (IVV).

1.6 Surveillance Procedures

MATS Part 1 (CAP 493) details procedures for the use of radar and methods of identification and validation of Mode A codes. Verification of Mode C shall also be completed in accordance with MATS Part 1.

In general, the transfer of an aircraft's tag from a UK radar-equipped unit to another UK radar-equipped unit shall indicate to the receiving controller that the aircraft has been identified, their Mode A code validated, and their Mode C readout verified.

1.6.1 SSR Code Allocation

Code allocation for non-local traffic is managed by the UK Controller Plugin. Departures joining the ATS route network transferred to LAC/LTC/MPC from units using local SSR codes should be allocated a new general code.

1.6.2 Validation of SSR Mode A Codes by Scottish Control

The display of a DUPE error (indicating a non-discrete code) on any aircraft's tag requires the controller to identify and validate the aircraft's identity before issuing executive instructions, with the exception of an initial climb. If initially identified via IDENT or another method, the controller shall assign and validate a new, discrete Mode A code as soon as practicable and prior to transferring the aircraft to the next controller.

The table below sets out how identification and validation may be achieved in different scenarios:

Traffic	Identification and Validation
Aircraft from unstaffed airspace	Observation of successful code-callsign conversion following the allocation of a discrete Mode A code, unless already discrete
Departures handled 'top-down'	May be identified via the Departure Method and Mode A validated through observation of the expected code-callsign conversion

Traffic	Identification and Validation
Departures from airfields within CAS	Observation of the expected code-callsign conversion with no DUPE error shown, else squawk IDENT in accordance with the procedure above
Departures from airfields outside of CAS transferred by an adjacent unit	Aircraft may be instructed to squawk IDENT to confirm the observed code-callsign conversion on first contact with LAC/LTC/MPC

1.6.3 Verification of Mode C by Adjacent Units

When a controller receives an electronic tag transfer from an adjacent unit (including from external ACCs), this may be taken as confirmation that the Mode C readout has been verified. Aircraft from unstaffed airspace must have their Mode C readout verified, regardless of whether a radar unit may previously have controlled the traffic.

Verification of Mode C for departures will only be completed by APC units or controllers covering the function top-down.

1.7 Free Route Airspace (FRA)

Free Route Airspace (FRA) is a volume of airspace in which the ATS route structure has been removed allowing operators to flight plan any DCT route option of their choosing between specific FRA entry / exit / arrival / departure and published intermediate waypoints.

Within UK FRA there is no limit to the length of DCT segments that can be flight planned.

Within FRA, Significant Points (or 'fixes') are described as one (or a combination) of:

FRA Horizontal Entry Point I	A published Significant Point on the horizontal boundary of FRA from which DCT operations are allowed.
FRA Horizontal Exit Point (X)	A published Significant Point on the horizontal boundary of FRA to which DCT FRA operations are allowed.
FRA Departure Point (D)	A published Significant Point from which aircraft transition from the lower route network from a specific airfield to DCT FRA operations.
FRA Arrival Point (A)	A published Significant Point where aircraft transition from DCT FRA operations to the lower route network to a specific airfield.

FRA Intermediate Point (I)	A published Significant point via which DCT FRA operations are allowed. In the UK, the use of unpublished points or a bearing/range from a point may not be filed in a flight plan.

All airfields contained within or adjacent to FRA have specified Arrival (A) and Departure (D) points, as well as routings to these points as published in the UK Standard Route Document (SRD) and EUROCONTROL Route Availability Document (RAD).

Intermediate (I) points, especially those on or near to adjacent FIR boundaries have specified conditions of use in the RAD. Those that are relevant to Letters of Agreement with adjacent units are specified in the respective co-ordination sections in this vMATS.

The extent of FRA in the UK is charted in **AIP ENR 6-70**.

Other than for meeting the terms of LoAs with adjacent units, we do **not** mandate that aircraft route via any specified Intermediate (I) points that would ensure aircraft avoid Flight Plan Buffer Zones (FBZs) in the real world.

This is due to a lack of both mandatory flight plan validation and a uniform policy for the treatment of danger areas as either permanently (or temporarily) active/inactive.

Chapter 2 Provision of Air Traffic Service

2.1 Roles and Responsibilities

- Provide the appropriate ATS within their stated AoR to ensure a safe, orderly, and expeditious flow of air traffic.
- Provide UK FIS where appropriate.
- Verify flight data including updating and managing the flight progress strip (data block).
- Maintain a listening watch and conduct standard radiotelephony communication with aircraft.
- Provide ATS to aircraft using radar within airspace of the relevant AoR and UK FIS, as appropriate, in accordance with local procedures.
- Where appropriate, identify aircraft, validate, and verify SSR data on first contact or as soon as possible thereafter.
- Assist aircraft in emergency (except where the simulation of the emergency is denied in accordance with VATSIM Code of Conduct B10[3]).
- Coordinate with Military ATC as required.
- Individually coordinate the movement of aircraft into and out of the sector unless said aircraft are operating under the terms of a standing agreement.
- Issue releases to airfields as appropriate.
- Allocate or obtain levels at holding stacks.
- When necessary, initiate a suspension of local standing agreements.
- Issue clearances to aircraft to join, leave or cross regulated airspace.
- Ensure that aircraft which do not have a serviceable transponder are the subject of notification and of a radar handover before the aircraft exits the sector.
- When aircraft are accepted into the sector, ensure separation exists in accordance with this vMATS Part 2.
- Confirm all data transfer, revisions and estimates have been effected as required in local instructions.

[3] See https://vatsim.net/docs/policy/code-of-conduct/

2.2 Types of ATS Surveillance Service

The provision of an Air Traffic Service is dependent upon specific types of airspace. Details of the services provided are stated in the table below:

Airspace	Type of Service	ATC action with regard to Unknown Aircraft that may be in Unsafe Proximity to the Aircraft in Receipt of an ATS
Class A *(IFR only)*	Radar Control	Flights shall be given traffic avoidance advice and traffic information shall be passed.
Class C and D	Radar Control	IFR flights shall be given traffic avoidance advice and traffic information shall be passed. VFR flights shall be given traffic information and, if requested or deemed appropriate, traffic avoidance advice shall be suggested.
Class E ***(CAS where VFR flight without ATC clearance is permitted)***	Radar Control (IFR)	Pass traffic information unless the controller's primary function of sequencing and separating IFR flights is likely to be compromised. IFR flights shall be given traffic avoidance advice against other IFR flights.
	Traffic, or Basic	VFR flights shall be given traffic information in accordance with CAP 774 (see below).
Class G airspace *(OCAS)*	Deconfliction (IFR)	Flights shall be given traffic information and deconfliction advice in accordance with CAP 774. If deemed required, traffic avoidance advice may be passed by ATC before traffic information.
	Traffic, or Basic	Flights shall be given traffic information in accordance with CAP 774 (see below).

2.3 UK Flight Information Services

Controllers shall provide UK FIS in accordance with MATS Part 1 and CAP 774[4].

2.3.1 General

The UK Flight Information Services are:

- Basic Service (IFR and VFR traffic).
- Traffic Service (IFR and VFR traffic).
- Deconfliction Service **(IFR traffic only)**.
- Procedural Service **(IFR traffic only) –** *not included in this document.*

All these services may be offered in **any** meteorological conditions. However, as pilots are expected to accept advice given under the service, they should not request a service which is not suitable to their qualification/ability/situation and should select the most appropriate to their conditions.

If a Deconfliction Service or Traffic Service is being provided, there may be circumstances that prevent the controller from passing timely advice or traffic information, such as high workload, traffic intensity etc. In these situations, the controller is to inform the pilot of the limitation of service.

To remind the controller of the service they are providing, and to indicate to adjacent controllers, the UK Controller Plugin tag item may be used to record the service, else the following abbreviations should be marked in the 'Scratchpad':

- Basic Service - /BS
- Traffic Service - /TS
- Deconfliction Service - /DS
- Procedural Service - /PS

2.3.1.1 Class E Airspace

Class E airspace is controlled airspace. However, there is no requirement for VFR flights to gain clearance to enter or to communicate with ATC.

VFR flights operating in Class E airspace who contact ATC and request a service are to be provided with one of the Flight Information Services (Basic Service or Traffic Service), not a 'Control Service'.

IFR flights in Class E airspace (on a Radar Control Service) are to be provided with traffic information on all known VFR flights. Traffic avoidance will be given only if requested.

[4] The latest version is available at https://caa.co.uk/CAP774/

2.3.2 Basic Service (BS)

A Basic Service is an ATS provided for the purpose of giving advice and information useful for the safe and efficient conduct of flights. This may include weather information, changes of serviceability of facilities, conditions at aerodromes, general airspace activity information, and any other information likely to affect safety. The avoidance of other traffic is solely the pilot's responsibility.

Basic Service	Remarks
Type	Non-surveillance-based service.
Provision	Controllers and FISOs may provide a Basic Service.
Flight Rules	IFR and VFR.
Identification	The controller may identify an aircraft.
Traffic Information	Generic traffic information.
Deconfliction	Deconfliction is not provided under a Basic Service. If a pilot requires deconfliction advice outside controlled airspace, Deconfliction Service shall be requested.
Terrain	Basic Service is available at all levels, and the pilots remain responsible for terrain clearance at all times.
Headings	Unless the pilot has entered into an agreement with a controller to maintain a specific course of action, a pilot may change heading or routing without advising the controller.
Levels	Unless the pilot has entered into an agreement with a controller to maintain a specific level or level band, a pilot may change level without advising the controller/FISO.

2.3.3 Traffic Service (TS)

A Traffic Service is a surveillance based ATS, where the controller provides specific surveillance-derived traffic information to assist the pilot in avoiding other traffic. Controllers may provide headings and/or levels for the purposes of positioning and/or sequencing; however, the controller is not required to achieve deconfliction minima, and the pilot remains responsible for collision avoidance.

Traffic Service	Remarks
Type	Surveillance-Based service.
Provision	Only provided by a controller with access to an ATS surveillance system.
Flight Rules	IFR and VFR.
Identification	The controller shall identify the aircraft, inform the pilot that they are identified, and maintain identity.
Traffic Information	Traffic is normally considered to be relevant when, in the judgement of the controller, the conflicting aircraft's observed flight profile indicates that it will pass within 3 NM and, where level information is available, 3,000 ft of the aircraft in receipt of the Traffic Service or its level-band if manoeuvring within a level block. However, controllers may also use their judgement to decide on occasions when such traffic is not relevant, e.g., passing behind or within the parameters but diverging. Controllers shall aim to pass information on relevant traffic before the conflicting aircraft is within 5 NM *(CAP 774, Chapter 3, Paragraph 3.5)*.
Deconfliction	Deconfliction is not provided under a Traffic Service. If a pilot requires deconfliction advice outside controlled airspace, Deconfliction Service shall be requested.
Terrain	Traffic Service may be provided below the MSA; however, pilots remain responsible for terrain clearance.
Headings	A pilot may operate under their own navigation, or a controller may provide headings for the purpose of positioning, sequencing, or as navigational assistance.
Levels	Pilots may select their own operating levels or may be provided with level allocations by the controller for the positioning and/or sequencing of traffic or for navigational assistance

2.3.4 Deconfliction Service (DS)

A Deconfliction Service is a surveillance based ATS where, in addition to the provisions of a Basic Service, the controller provides specific surveillance-derived traffic information and issues headings and/or levels aimed at achieving planned deconfliction minima, or for positioning and/ or sequencing. However, the avoidance of other traffic is ultimately the pilot's responsibility.

Deconfliction Service	Remarks
Type	Surveillance-Based service.
Provision	Only provided by a controller with access to an ATS surveillance system.
Flight Rules	IFR **only.**
Identification	The controller shall identify the aircraft, inform the pilot that they are identified, and maintain identity.
Traffic Information	The controller may, subject to workload, pass traffic information on deconflicted traffic in order to improve the pilot's situational awareness.
Deconfliction	The deconfliction minima against un-coordinated or unknown traffic are: - 5 NM laterally; or - 3000 ft vertically unless Mode-C has been verified. The deconfliction minima against aircraft under a service from the same controller or have been previously coordinated: - 3 NM laterally; or - 1000 ft vertically.
Terrain	A Deconfliction Service shall only be provided to aircraft operating at or above the MSA. If a pilot requests descent below MSA, controllers shall no longer provide a Deconfliction Service, but should instead, subject to surveillance and RTF coverage, apply a Traffic Service and inform the pilot.
Headings	A pilot may operate under their own navigation, or a controller may provide headings for the purpose of positioning, sequencing, or as navigational assistance.
Levels	Controllers will normally provide level allocations for positioning, sequencing, navigational assistance, or to achieve deconfliction minima.

2.3.5 Provision, Upgrade and Downgrade

When a pilot is provided with a service, the controller is to inform them of the service they will receive. Should the service subsequently change, the pilot must be informed so that they are aware of what information they can expect to receive.

2.4 Area Control Service

Within airspace Classes A to D and IFR aircraft in Class E, an Air Traffic Control Service, with or without the use of radar is provided.

In Class G airspace, any of the UK FISs, as detailed above, are provided.

Airspace	Service Provided	Remarks
Class A, C and D (CAS)	Air traffic control services with or without surveillance	Aircraft are required to comply with ATC instructions
Class E	Air Traffic Control Service with or without surveillance to IFR flights; and UK FIS to participating VFR flights	Participating VFR flights shall not be provided with an Air Traffic Control Service, but one of the following types of UK FIS in accordance with CAP774 (UK FIS): Basic Service; or Traffic Service
Class G	UK FIS: - Basic Service - Traffic Service - Deconfliction Service - Procedural Service	Instructions issued by controllers to pilots operating outside controlled airspace are not mandatory. However, the services rely upon pilot compliance with the specified terms and conditions to promote a safer operating environment for all airspace users.

There are a variety of objectives of an Air Traffic Control Service, which include:

1. preventing collisions between aircraft;
2. preventing collisions between aircraft on the manoeuvring area or between aircraft and obstructions in that area;
3. expedite and maintain an orderly flow of air traffic;
4. provide advice and information useful for the safe and efficient conduct of flights.

Note: *ATS personnel are not solely responsible for the prevention of collisions. Pilots must also fulfil their own responsibilities in accordance with the Rules of the Air.*

2.5 Prioritisation of Services

Area Controllers shall prioritise service provision as follows:

1. Provision of Air Traffic Control Service to traffic inside CAS.
2. Provision of a Deconfliction Service to IFR traffic outside CAS operating to/from an aerodrome covered top-down.
3. Provision of Deconfliction Service or Traffic Service to traffic flying between airfields where there is no available route within CAS and to traffic joining or leaving CAS by the appropriate direct route.
4. Provision of a Deconfliction/Traffic Service to all other traffic.

2.5.1 Top-Down Service Provision

In the absence of local ATC, Area Controllers shall provide a top-down service at aerodromes within their AoR where an Air Traffic Control service would normally be provided (see GEN 6). Provision of ATS to airborne traffic should generally take priority over top-down service provision.

Where necessary, controllers may reduce the extent of the top-down service by permitting aircraft to self-manoeuvre or depart at their discretion (especially at airfields outside CAS). Aircraft should be instructed to maintain a listening watch on the frequency and must not be transferred to Unicom.

While some top-down service degradation is permitted, when the overall traffic workload (En Route and top-down) is such that safety, efficiency or the experience of pilots is compromised, Area Controllers are to reduce their coverage area. It is recognised that during events reducing coverage may not be possible.

Chapter 3 Local Separation Standards

3.1 General

Separation shall be applied in accordance with MATS Part 1 (CAP 493) Section 1, Chapter 3, Separation Standards.

Separation on VATSIM is subject to some simplification, especially due to the fact of continuous uninterrupted radar coverage limiting the necessary use of procedural separation. As such, an understanding of the separation requirements in this document will be sufficient for the purpose of area control on VATSIM.

Standard vertical or horizontal separation shall be provided between:

- All flights in Class A airspace;
- IFR flights and VFR flights in Class C airspace;
- IFR flights and other IFR flights in in Class C, D and E airspace;
- IFR flights and Special VFR flights in any classification of airspace;
- Special VFR flights and other SVFR flights,.

3.2 Vertical Separation

Vertical separation exists when the vertical distance between aircraft is never less than the prescribed minimum. The vertical separation minima are:

- Between aircraft flying subsonic:
    a. Up to FL410 apply 1000 ft;
    b. Above FL410 apply 2000 ft.
- Between aircraft flying supersonic and between aircraft flying supersonic and aircraft flying subsonic:
    a. Up to FL450 apply 2000 ft;
    b. Above FL450 apply 4000 ft.

On VATSIM, all aircraft with an RFL above FL290 are assumed to be RVSM approved. Therefore, we apply 1000 ft separation between FL290 and FL410 inclusive (RVSM airspace).

See MATS Part 1 (CAP 493), Section 1, Chapter 3, 5. Vertical Separation.

3.3 Separation Based on ATS Surveillance System Information

3.3.1 Radar Separation Minima

The standard minimum horizontal radar separation to be applied **across all area sectors is 5 NM**, except where the use of 3 NM has been approved as stipulated in the following sections.

Where there is a requirement for an increase in separation or spacing between aircraft prior to transfer, this shall be noted in the relevant section(s) of this document.

3.3.2 Ensuring Radar Separation

The minimum radar separation is an absolute minimum. Therefore, aircraft should not be permitted to fly on their own navigation where the minimum separation is not ensured. As a guide, it is recommended that where planned separation is less than 10 NM, aircraft should be on assigned radar headings to ensure separation. This may be reduced to 7 NM where the use of 3 NM lateral separation has been approved.

It should be noted that due to the nature of VATSIM, radar headings may need to be assigned where planned separation is greater than required where there is the possibility of differing aircraft performance. When operating at or close to the radar separation or surveillance monitored separation minima, controllers shall monitor the flights for any unforeseen discrepancy.

Greater separation may be required for wake turbulence separation purposes.

The use of adequate speed control may be used in place of radar headings for aircraft flying in trail.

3.3.3 Surveillance Monitored Separation

Radar monitoring of traffic on ATS routes (including SIDs, STARs and associated holds) or FRA directs is permitted, subject to the following conditions:

- Traffic must be established on the route centreline, or following radar vectoring / within FRA, more than **7 NM** (or 5 NM where 3 NM radar separation is approved) from the adjacent route and cleared to a navigational fix.
- Aircraft must be radar vectored if any significant route deviations are observed by the controller.
- Where turbulence or weather systems are reported, the controller must consider re-establishing positive radar control to counter track deviation.
- Controllers should, where possible, ensure that the routes' centrelines or the associated navigational fix's symbols are displayed when radar monitoring is in use.

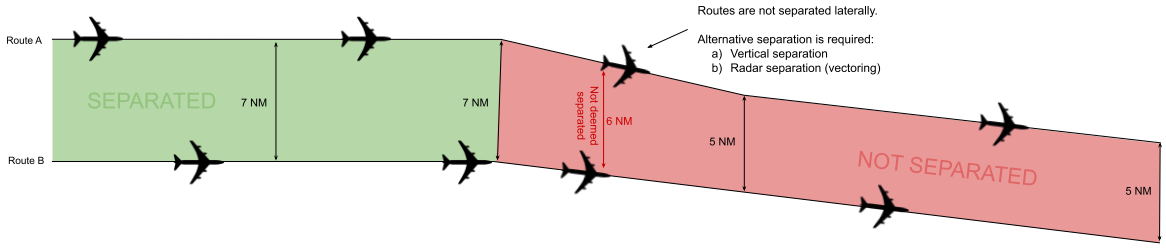
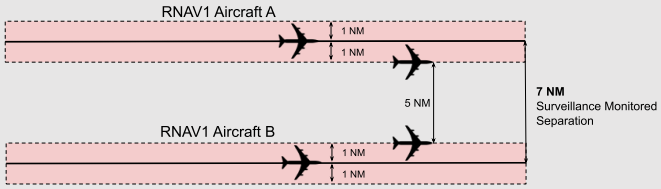


Figure GEN-1 – 7 NM Surveillance Monitored Separation

We assume all aircraft filed via ATS routes, (RNAV) SIDs/STARs and FRA directs to be RNAV1 certified for the purposes of Surveillance Monitored Separation. If a pilot states that this is not the case, or the controller has any doubt as to the navigation capability of an aircraft, then aircraft must be radar vectored to ensure separation.

The 7 NM separation standard is derived from the 5 NM minimum radar separation, allowing for a +/- 1 NM track deviation, as shown in the diagram.



3.3.4 Use of 3 NM Radar Separation

All ScTMA (Galloway & Talla) and Antrim controllers are authorised to apply a minimum of 3 NM, subject to the following conditions. Aircraft must be:

1. Under the control of the same controller, or controllers with a means of effecting direct voice coordination.
2. Identified and operating below **FL255**.
3. Within the airspace contained by the sectors of the TMA or Antrim sectors.
4. Separated by prescribed wake turbulence separation standards (see GEN 3.4 below) when these are greater than radar separation.

The use of 3 NM lateral separation is also approved up to FL260 inside of Rathlin's airspace by Antrim and PC West controllers, as long as climb above FL250 has been coordinated. Both Antrim and PC West must ensure either 5 NM lateral separation or vertical separation is achieved before transfer of communications to Rathlin, since Rathlin controllers are not permitted to use 3 NM separation at any time.

In areas of known bad weather, for example, CBs, thunderstorms, reported turbulence, 3 NM radar separation should **not** be used.

3.4 Wake Turbulence Separation Requirements

In accordance with *MATS Part 1 (CAP 493), Section 1, Chapter 3, 9C. En-route*, the following surveillance-based separation minima shall be applied:

- minimum of 5 NM between a HEAVY (including a SUPER) and a MEDIUM (UPPER and LOWER), SMALL or LIGHT aircraft following or crossing behind at the same level or less than 1,000 ft below.

3.5 Minimum Separation Between Sectors

Unless otherwise specified, controllers shall not route or vector unknown traffic closer than 2.5 NM from a sector boundary without prior coordination with the affected sector controller.

3.6 Separation Requirements Against Holding Aircraft

A minimum of 5 NM radar separation shall be applied between holding aircraft and en-route aircraft/aircraft approaching the holding facility. This includes the application of 3 NM lateral separation, provided that all conditions relating to the use of this are satisfied.

> ***Note:*** *Controllers should use caution when applying radar separation to aircraft approaching/passing other holding aircraft, taking into account such factors as variable rates of climb/descent, hold entry patterns, hold protected areas and weather conditions (particularly prevailing wind).*

Chapter 4 Altimeter Setting Procedures and Meteorology

4.1 Transition Altitude

Area	Transition Altitude
Scottish TMA	6000 feet
Belfast TMA	
Aberdeen CTR/CTA	
Sumburgh CTR/CTA	
Newcastle CTR/CTA	
Manchester TMA	5000 feet
All other Scottish FIR airspace	3000 feet

4.2 Transition Level and Minimum Stack Level

The Transition Level is to be determined from the table below, derived from MATS Part 1 (CAP 493). The Minimum Stack Level – sometimes referred to as the Minimum Flight Level – shall be determined from the table below.

QNH (hPa)	Transition Altitude					
	3000 ft		5000 ft		6000 ft	
	TL	MSL	TL	MSL	TL	MSL
1060 1050	FL30	**FL40**	FL50	**FL60**	FL60	**FL70**
1049 1032	FL35	**FL40**	FL55	**FL60**	FL65	**FL70**
1031 1014	FL40	**FL40**	FL60	**FL60**	FL70	**FL70**
1013 995	FL45	**FL50**	FL65	**FL70**	FL75	**FL80**
994 977	FL50	**FL50**	FL70	**FL70**	FL80	**FL80**
976 959	FL55	**FL60**	FL75	**FL80**	FL85	**FL90**
958 940	FL60	**FL60**	FL80	**FL80**	FL90	**FL90**

Note 1: *The classification of 1013 hPa as 'low pressure' in the above table aligns with MATS Part 1. However, within the Aberdeen CTR/CTA and Sumburgh CTR/CTA, 1013 hPa is classified as 'high pressure' (i.e., MSL FL70) to increase the availability of FL70.*

Note 2: *To avoid confusion, irrespective of the Transition Level, the lowest Minimum Flight Level for use shall be:*

- *FL40 against a Transition Altitude of 3000 ft,*
- *FL60 against a Transition Altitude of 5000 ft,*
- *FL70 against a Transition Altitude of 6000 ft.*

Area	Calculated From
Scottish TMA	Glasgow Aerodrome QNH
Belfast TMA	Belfast Aldergrove Aerodrome QNH
Manchester TMA	Manchester Aerodrome QNH

4.2.1 Change to MSL Procedure

When the pressure changes across an MSL boundary:

- The first APC/Enroute controller to notice the change shall notify all affected units who also refer to the MSL.
- The first controller shall coordinate the agreement of an effective time that is at least 5 minutes from the time the pressure change was noticed.

Aircraft operating at the old MSL are deemed separated from aircraft operating at the Transition Altitude until the new MSL is agreed to be in effect.

Chapter 5 General Coordination Regulation

5.1 Standing Agreements

> ***Note:*** *This section only applies to UK Internal Standing Agreements. For transfers to/from external neighbouring ACCs, see GEN 5.5 Transfer of Control and Communication (External ACCs).*

A Standing Agreement is a procedure specifying conditions (and restrictions, as required) under which an aircraft may enter another sector/controller's airspace without individual coordination.

Aircraft must be individually coordinated when they cannot be transferred in accordance with a standing agreement and are not deemed coordinated (see *GEN 5.2*). Controllers may agree temporary (amendments to) standing agreements.

5.1.1 Conditions

An aircraft operating under a Standing Agreement shall be:

- cleared to, or at, an agreed level before transfer of communication; and
- on an agreed route or heading.

5.1.2 Transfer of Control and Communication

Unless specific restrictions are specified in the agreement, transfer of control of aircraft under the terms of a standing agreement is coincident with transfer of communication.

The **offering controller** must ensure that any potential confliction with aircraft either in or entering their own airspace is resolved before transfer of communication.

The **receiving controller** must continue the flight in the **same general direction**, not climb a descending aircraft or descend a climbing aircraft, nor stop the aircraft at an intermediate level while it remains in the offering controller's airspace.

If traffic on a Standing Agreement will pass through an intermediate controller's airspace without communication, transfer of control is effective at the receiving controller's AoR boundary. In these instances, any turns or climb/descent must be coordinated with all controllers concerned.

5.1.3 Release for Climb or Descent

When transferred under a standing agreement, traffic is released for climb or descent (never both) by the receiving sector within the confines of the offering controller's airspace unless the agreement specifies otherwise. On VATSIM, this allows climb/descent into bandboxed sectors, but not for the traffic to enter another controller's airspace.

> ***Note:*** *Traffic that has entered the receiving controller's airspace must not then re-enter the offering controller's airspace during further climb or descent. This is more likely in bandboxed scenarios.*

5.1.4 Release for Turn

When transferred under a Standing Agreement, traffic is released for turn in the **same general direction** against known traffic, including if transferred on a heading and unless the agreement specifies otherwise. The receiving controller must be informed if an aircraft is transferred on a heading against traffic unknown to them. Any turn must not take the aircraft into a third controller's airspace without prior coordination.

> **Same general direction** means that traffic should continue towards the receiving controller's airspace and should be turned with due consideration given to the distance from the common AoR boundary and surrounding traffic situation, usually by no more than 30°.

If a release for turn is individually or electronically coordinated for an aircraft, the turn must **not** be greater than **45°**, unless a specific direct is agreed.

5.1.5 Level By Instructions

If no "level by" point is specified, the level must be reached prior to the aircraft entering the receiving sector. However, the traffic does not have to be level at the time of transfer of communication.

A climbing/descending agreement is indicated by an arrow (below). This means the aircraft does not need to be level by the sector boundary and may continue to climb/descend to that level within the next sector's airspace.

↑ ↓ **Indicates a climbing/descending agreement.**

Where specified in an agreement, the "level by" point should be included in the descent clearance to ensure the correct sector sequence. If the level specified cannot be achieved by the aircraft, the pilot in command shall inform ATC immediately. ATC is responsible for further coordination with the appropriate sector(s).

Where an agreement for climbing outbounds specifies a level by point, controllers shall monitor the climb rate and intervene/coordinate as required. Optionally, the "level by" point may be specified in the clearance.

5.1.6 Additional Coordination Requirements

If an aircraft which would normally be transferred to a sector on a standing agreement is routed to avoid that sector entirely, controllers should notify the original sector that the traffic has been 'skipped'.

Aircraft following a route for which an inbound standing agreement exists, but at a level higher than the aircraft's RFL, must be individually coordinated.

> On VATSIM, electronic coordination via EuroScope may be used to notify the next sector of an RFL below the standing agreement level, or to coordinate a different level. The receiving controller must acknowledge the coordination request for it to be deemed as coordinated.

5.2 Deemed Coordination of En-Route Traffic

Traffic which has reached the RFL indicated on the flight plan by the sector boundary is deemed to have been coordinated and may be transferred by silent handover (see GEN 5.6), provided that:

- the aircraft is at a correct level for the direction of flight;
- the RFL has not been changed within 30 NM of the AoR boundary; and
- no objection has been raised by the receiving controller.

Where the RFL is unusually low for the flight planned route, controllers should notify these flights to the next sector individually.

Transfer of control is at the receiving sector boundary, unless otherwise stated in this document.

5.3 Individual Coordination

Flights not deemed coordinated (*GEN 5.2*) subject to a standing agreement (*GEN 5.1*) must be individually coordinated between sector controllers. An Exit Flight Level (XFL) should be offered, and other conditions may optionally be applied.

Departures from aerodromes not covered by Standing Agreements must also be allocated a level for acceptance from the aerodrome/approach controller by the receiving sector.

Coordination Request	Phrase
Radar Release	*"Request release (message)"*
Level Revision	*"Level Revision (level request)"*
Request Coordination	*"Request Coordination (aircraft)"*

Allow the receiving sector to identify the traffic before presenting the coordination request.

5.4 Transfer of Control and Communication (UK Internal)

***Note:** This section does **not** apply to UK internal Standing Agreements – see GEN 5.1.*

Unless otherwise stated in this document:

- **transfer of control** is effective at the common AoR boundary between the offering and receiving controllers
- **transfer of communication** shall take place no later than the sector boundary.

Aircraft **must not enter** a third controller's airspace without coordination. This applies to all climb / descent and turn procedures detailed below and in sector instructions.

5.4.1 Release for Climb or Descent

Aircraft that are climbing/descending are released for climb/descent to the top/bottom of the transferring controller's airspace.

5.4.2 Release for Turn

Traffic transferred on its own navigation is released for turn in the **same general direction**.

If an aircraft **not** operating under the terms of a Standing Agreement is transferred on a radar heading , **any change of heading, before entering the receiving controller's airspace, must be coordinated** unless otherwise specified in sector procedures.

It is the responsibility of the receiving sector controller to ascertain if an aircraft is on a heading, and it should be noted that aircraft may be transferred on a heading against traffic unknown to the receiving sector.

If a release for turn is individually or electronically coordinated for an aircraft, the turn must **not** be greater than **45 degrees**, unless a specific direct is agreed.

5.4.3 Full Release

A full release is an authorisation for the accepting unit to climb, descend and/or turn a specific aircraft according to the instructions above.

5.4.4 Conditions of Transfer

Aircraft transferred on a radar heading or with a speed restriction should have this recorded in the tag, with the pilot instructed to report their assigned heading and/or speed upon transfer of communication.

5.5 Transfer of Control and Communication (External ACCs)

Unless otherwise stated in this document, the transfer of control is effective at the Coordination Point (COP) otherwise the FIR/AoR boundary.

Transfer of communication shall take place no later than the COP/FIR/AoR boundary. Note that some traffic will have an earlier transfer of communication point specified in sector instructions.

5.5.1 Release for Climb/Descent or Turn

Unless specified in sector specific instructions or individually coordinated, aircraft are not released for turn or climb/descent while within the offering ACC's airspace.

Unless otherwise specified, traffic transferred on a radar heading must **not** be turned until within the receiving controller's airspace.

If a release for turn is individually coordinated for an aircraft, the turn must **not** be greater than **45 degrees**, unless a specific direct is agreed.

5.5.2 Conditions of Transfer

Aircraft transferred on a radar heading or with a speed restriction should have this recorded in the tag, with the pilot instructed to report their assigned heading and/or speed upon transfer of communication.

5.6 Silent Handover

5.6.1 UK Internal

Unless otherwise stated in this document, transfer of control between UK enroute controllers may be effected without radar handover provided that:

- The aircraft is covered by Standing Agreement (*GEN 5.1*) or is deemed coordinated (*GEN 5.2*).
- The aircraft has a discrete SSR identity.
- The aircraft is within the anticipated radar cover of the receiving controller.

5.6.2 External ACCs

Unless otherwise stated in this document, transfer of control between a UK enroute controller and an external ACC may take place by means of a Silent Handover (that is, without prior coordination) provided that:

- If the aircraft concerned are following the **same route**, they are spaced by a minimum of 10 NM, constant or increasing. (See *Note*).
- If the aircraft concerned are on **crossing tracks**, the conditions detailed under (Reduced) Longitudinal Separation for the relevant ACC are met.
- The minimum distance between the aircraft concerned is no less than 10 NM (See *Note*) for at least 20 NM beyond the AoR boundary.
- The transferring controller places any speed control or vectoring instructions (within the terms of the agreement) in the tag and instructs aircraft to report these on first contact with the receiving controller.
- The receiving controller is informed – by means of XFL electronic coordination or otherwise – of any level restriction other than an aircraft's requested flight level or those covered by Standing Agreement prior to transfer of communications.

  ***Note:** The 10 NM here is not a separation standard. It is the minimum spacing required for a silent transfer of control.*

Controllers should note that all external ACCs use the ICAO phrase "transfer of radar control", as opposed to the UK term "radar handover".

5.7 Reduced Radar Handovers

If the conditions for silent handover cannot be met, or where otherwise stated, a reduced radar handover shall be given in the following format:

> *"[Callsign] descending to FL…"*

If the aircraft is on a heading or has been assigned a speed restriction, this shall also be included.

5.8 Coordination of Direct Routings

There is no requirement to coordinate a direct routing for aircraft, provided that the direct route point issued complies with the following:

- It must be entered in the route (Datablock label and/or EuroScope sector list)
- The aircraft will enter the receiving sector at the boundary with the offering sector, **not** through an intermediate sector
- **Outside FRA** – it will not take the aircraft off route by more than 5 NM in the next or any subsequent sectors or contravene any positioning requirements specified in a standing agreement
- or **Inside FRA** – no further than the FRA Exit or Arrival Point.

If any of the above conditions cannot be met, coordination shall be effected by the offering sector with the receiving sector, the original receiving sector if that has changed, and any intermediate sectors through which the aircraft will transit.

Directs may be given into adjacent ACC sectors in accordance with the procedures above, provided the direct point is less than 30 NM beyond the common boundary.

5.9 Electronic Coordination

Electronic coordination requires less time to perform (usually a few seconds) and generally lower controller workload.

Releases between UK controllers may be specified via the UK Controller Plugin Enroute Release tag item. Additionally, some neighbouring ACCs use TopSky which has release functionality.

The main limitation of electronic coordination is that they are only applicable to pre-defined scenarios and can only be initiated to one adjacent controller. Also, they are not suitable for time critical situations where a timely response is essential.

> Controllers should be aware that accepting coordination of a direct routing only appears in the aircraft tag for the coordinating and receiving controllers. It is therefore advisable for the current controller to re-enter/re-type any direct into the scratchpad/tag after it has been agreed via electronic coordination.

Where electronic coordination is used to agree a transfer level, this level is always assumed to be level by the coordination point (or sector boundary if no defined point).

5.10 Transfer of Aircraft to APC

Scottish shall not initiate transfer of communication of arriving aircraft to APC until the aircraft is indicating below FL195.

5.10.1 Silent Handover Inbound to a Holding Facility

A silent handover is a radar handover without the need for individual coordination. These can be used to facilitate the transfer of control from Area Control to Approach Control between certain units in order to reduce the amount of coordination required.

Specific local procedures for the silent handover will include an agreed level and typically a minimum distance in trail – or for aircraft on parallel/diverging headings – for successive inbounds. Some agreements permit multiple aircraft to be transferred at or descending to the same agreed level and it is the responsibility of APC to inform ACC whenever holding is likely to be initiated, suspend the silent handover procedure, and agree another course of action.

It is the responsibility of APC to inform ACC of traffic transiting the CTR at any level conflicting with the silent handover procedure and agree an alternative course of action. Area Control must transfer traffic clean of all traffic which is unknown to APC.

Transfer of control is effective according to specific local restrictions. Approach Control may not climb the aircraft or stop its descent above the agreed/cleared level; however, may add or remove speed control or instruct aircraft to disregard any 'level by' restrictions imposed.

5.10.2 Abbreviated Releases

An abbreviated release to APC is a method of reducing coordination between APC and ACC, compared to a full release, as only the release level must be stated. Abbreviated releases may only be used at specified holding facilities and procedures for transfer of control are defined for each case.

Upon transfer of communication, APC may:

- apply or remove speed control;
- turn and descend the aircraft after reaching the release point (which may or may not be the holding fix) in accordance with local procedures;
- descend the aircraft to a lower level as specified in local procedures.

Approach Control may not climb the aircraft or stop its descent above the release level; however, the approach controller may instruct aircraft to disregard any 'level by' restrictions imposed.

It is the responsibility of the Approach Controller to ensure that aircraft under their control are descended in a timely manner to leave higher holding levels vacant.

Aircraft transferred on an abbreviated release must be vertically separated from other traffic and following its own navigation to the holding facility.

Aircraft should not be instructed to operate at a high speed by one controller and, on transfer to the next sector, be instructed to reduce speed significantly. Aircraft with an ATC speed restriction should be transferred to Approach control in the speed range of 250 – 300

kts IAS; speeds outside this band should be coordinated with the receiving sector. Allocated speeds should take into account the time remaining to reduce to holding speed, speed limit points and target levels where published.

Aircraft must be cleared to the release level upon transfer of communication - the highest and lowest release level is specified in the local documentation for each holding facility (and in the relevant sections of this document). Aircraft holding above the highest release level must be retained by Area Control until lower levels can be allocated.

Provided the correct cleared level is displayed in the aircraft TAG, it is not, on VATSIM, necessary to coordinate an abbreviated release verbally with the relevant APC sector. It is, however **recommended** that verbal abbreviated releases are used while holding is taking place and workload allows, or where it might be deemed useful for clarity.

Note that this everyday omission of verbal abbreviated releases does not equate to a 'Silent Handover' as defined below. We use the terminology "electronic abbreviated release" and "verbal abbreviated release" when necessary to specify the difference.

5.11 Airfield Groups

References to, and agreements for, certain groups of airfields have been simplified as follows:

5.11.1 UK

Group	Aerodromes	
Belfast Group	Belfast Aldergrove (EGAA) Belfast/City (EGAC)	Newtownards (EGAD) Londonderry/Eglinton (EGAE)
Brize Group	Brize Norton (EGVN) Fairford (EGVA)	Gloucester (EGBJ) Kemble (EGBP)
Essex Group	London Stansted (EGSS) London Luton (EGGW)	Cambridge (EGSC)
London TMA Group	Essex Group Heathrow Group Thames Group	Denham (EGLD) Gatwick (EGKK)
Manchester TMA Group	Manchester (EGCC) Liverpool (EGGP)	Barton (EGCB) Hawarden (EGNR)
Midlands Group	Birmingham (EGBB) Coventry (EGBE)	East Midlands (EGNX)
Scottish TMA Group	Edinburgh (EGPH) Glasgow (EGPF) Prestwick (EGPK)	Dundee (EGPN) Cumbernauld (EGPG)
Severn Group	Cardiff (EGFF) Bristol (EGGD)	Swansea (EGFH) St Athan (EGSY)
Thames Group	London/City (EGLC) Biggin Hill (EGKB)	Southend (EGMC) Rochester (EGTO)
Wessex Group	Blackbushe (EGLK) Fairoaks (EGTF) Odiham (EGVO)	Lasham (EGHL) Dunsfold (EGTD)

5.11.2 Non-UK

Group	Aerodromes	
Dublin Group	Dublin (EIDW) Casement (EIME)	Weston (EIWT)
Groningen Group	Groningen (EHGG) Hoogeveen (EHHO)	Leeuwarden (EHLW) Deventer (EHTE)

5.12 Handing Over/Taking Over an Operational Position

It is essential that a Controller taking over a position is fully aware of all relevant information before they accept responsibility for the operational position.

ATCOs are recommended to use one of the following checklists as an aide-memoir when handing and taking over sectors. These recommendations are not exhaustive and should be read in conjunction with MATS Part 1 requirements for sector hand-over.

5.12.1 WEST

W	Weather	Turbulence CB Activity SIGMETs Winds Pressure Settings (High/Low) and Minimum Stack Level Runway(s) in Use
E	Equipment	RT/Intercom systems ATIS
S	Situation	Mil Activity Holding Minimum Departure Intervals (MDIs) Staffing/Adjacent ATC
T	Traffic	Traffic on frequency Pending Traffic Potential Traffic Conflictions

5.12.2 PRAWNS

P	Pressure	Pressure Settings (High/Low) and Minimum Stack Level
R	Roles	Area Sectors – bandboxed? Splits? Frequencies? Top-down responsibilities
A	Airports	Runways
W	Weather	Turbulence, CB Activity, SIGMETs Avoidance Winds
N	Non-Standard Info	Holding and EATs Flow restrictions (e.g., MDIs, departure checks) Amended or cancelled standing coordination Military Activity
S	Strips	Transfer of TAGs Coordinated traffic

Chapter 6 Top-Down Coverage

In the absence of the local ADC and APC sector covering the below aerodrome(s), the responsibility for top-down control is determined as follows:

SW	ScAC West	**SN**	ScAC North	**STW**	Galloway
SR	Rathlin	**SS**	ScAC South	**STE**	Talla
		SE	ScAC East	**ST**	TMA Bandbox
SWD	West & Deancross				
S	Scottish Bandbox	**SD**	Deancross	**STA**	Antrim

Aerodrome	Top-Down Control
Glasgow (EGPF) Prestwick (EGPK)	STW – ST – SD – SWD – SS – S
Edinburgh (EGPH)	STE – ST – SD – SWD – SS – S
Belfast Aldergrove (EGAA) Belfast/City (EGAC)	STA – SR – SW – SWD – S
Benbecula (EGPL) ★ Barra (EGPR) ☆ Tiree (EGPU) ☆	SW – SWD – S
Londonderry/Eglinton (EGAE) ★ Islay (EGPI) ☆	SR – SW – SWD – S
Inverness (EGPE) ★ Stornoway (EGPO) ★ Kirkwall (EGPA) ★ Sumburgh (EGPB) Wick (EGPC) ★	SN – SE – S
Aberdeen (EGPD) Dundee (EGPN) ★	SS – SE – S

★ Airfield is outside of controlled airspace but has either a Tower or Approach position, so top-down shall be provided.

☆ Airfield is always AFIS-only but has published Instrument Approach Procedures (IAP). No top-down of the airfield shall be provided however, Scottish may opt to provide a service to the aircraft.

Chapter 7 Intention Codes

7.1 UK Intention Codes

The UK Controller Plugin assigns a series of letter codes to indicate the point at which an aircraft is planned to leave UK airspace. These codes are shown in the aircraft tag label as an indication of the routing of a flight.

For a flight landing within the UK, the intention code is the last two letters of the ICAO destination indicator (e.g., EGLL becomes "LL"). In addition, the following intention codes are used for arrivals at aerodrome groups outside the UK:

AM & AS	-	Amsterdam Area
EB	-	Brussels TMA
DW	-	Dublin CTA

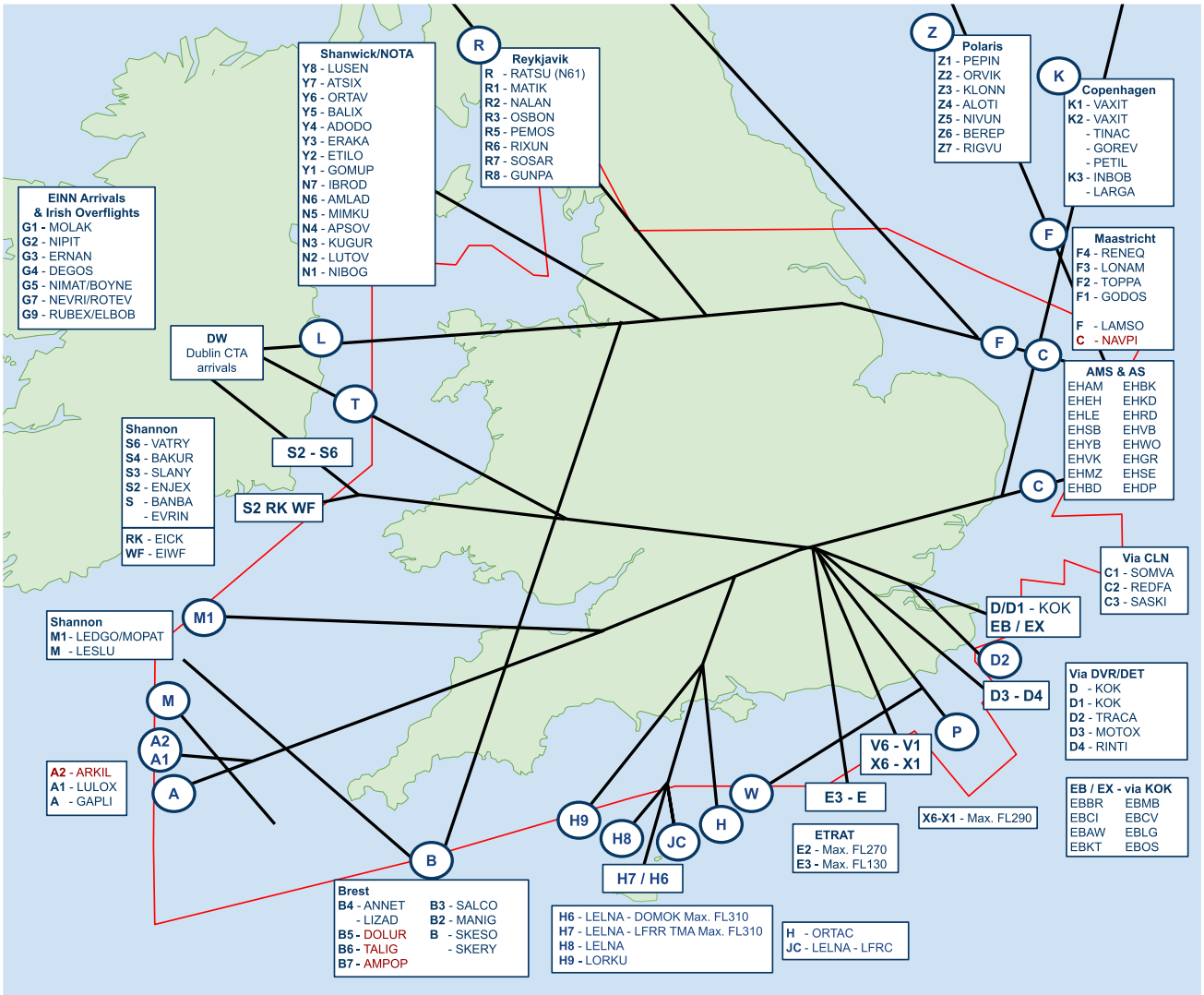


Figure GEN-2 – UK Intention Codes

7.2 Scottish Upper Intention Codes

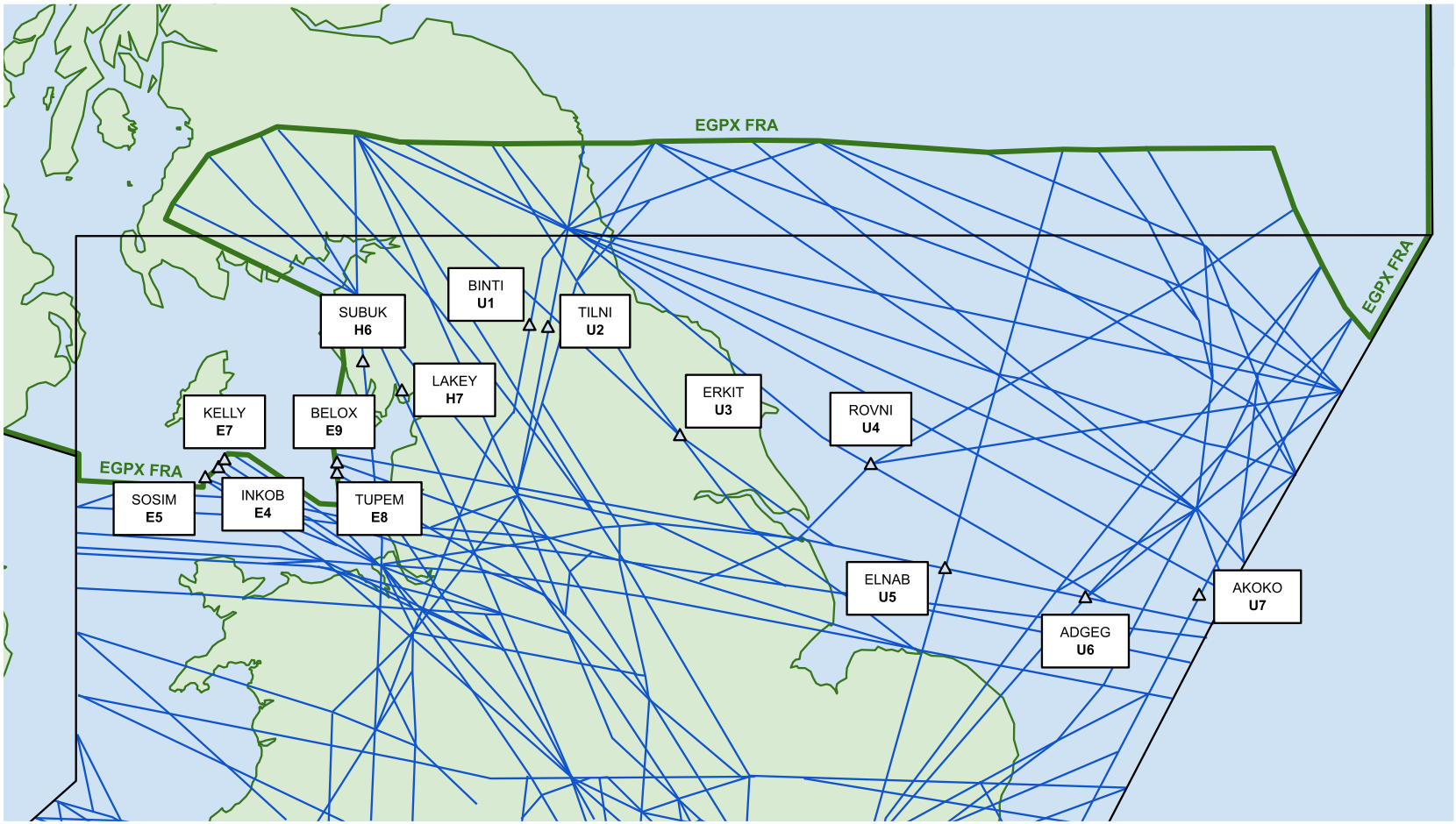


Figure GEN-3 – Scottish Upper Intention Codes

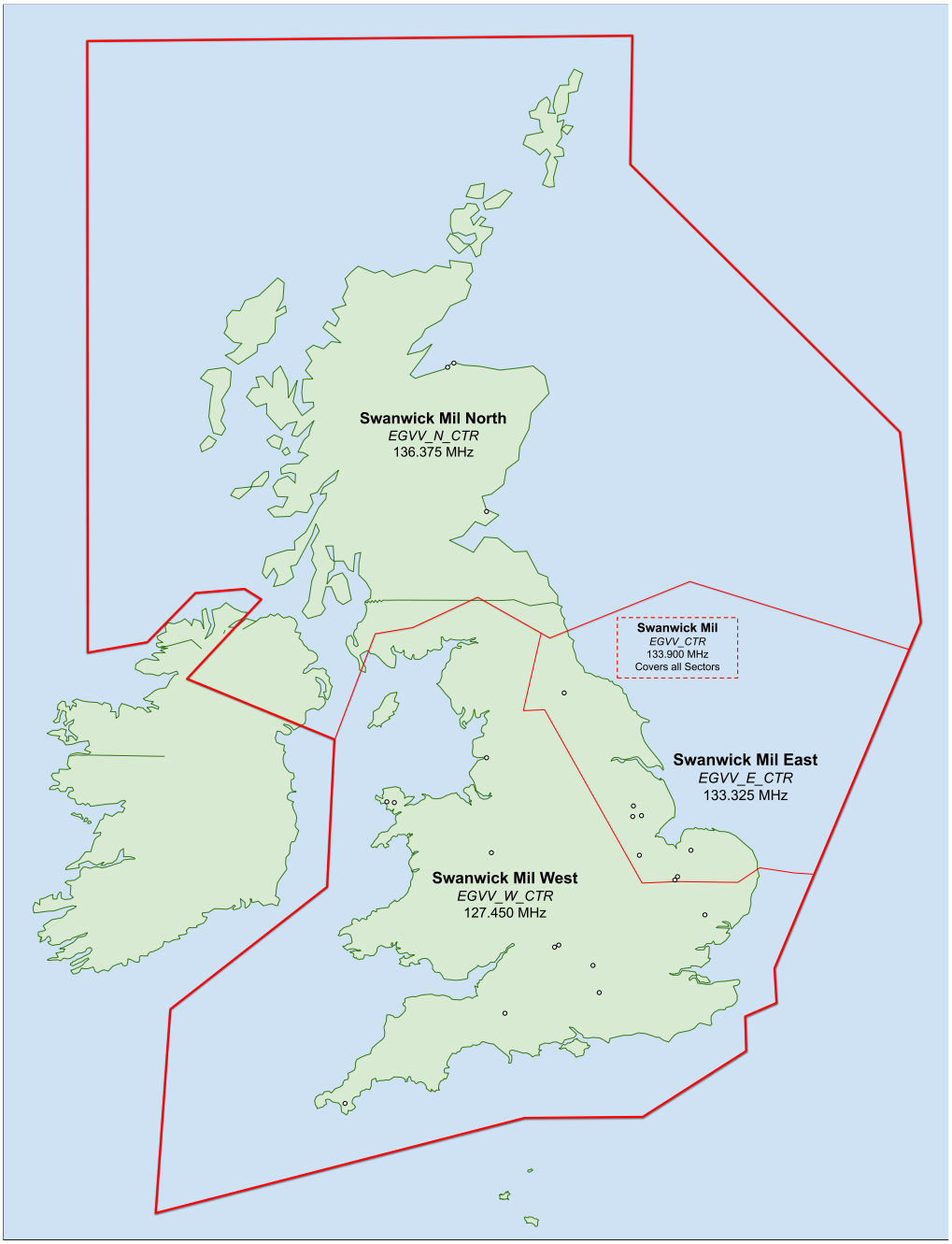
Chapter 8 Civil/Military Procedures

Procedures relevant to multiple sectors are contained in this Chapter.

8.1 Swanwick Mil Controllers

Figure GEN-4 shows the extent of the Swanwick Mil sectors (West, East, and North). Further splits may be notified via a Temporary Instruction.

Figure GEN-4 – Swanwick Mil Sectors



Swanwick Mil – Bandboxing/Splitting Procedures

EGVV_CTR "Swanwick Mil" 133.900 MHz	**EGVV_E_CTR** "Swanwick Mil East" 133.325 MHz
	EGVV_W_CTR "Swanwick Mil West" 127.450 MHz
	EGVV_N_CTR "Swanwick Mil North" 136.375 MHz

8.2 Military Radar Corridors

8.2.1 General Procedures

Radar Corridors are established to enable transits of the ATS route structure by Military traffic.

8.2.1.1 Swanwick Mil Online

When Swanwick Mil is online, they will coordinate with the relevant controller to request a corridor transit at least 5 minutes prior to entry in the following format:

"Request FLxxx for a (direction) transit of the (name) Radar Corridor by (callsign/formation), ETA (mins)"

When it is safe to do so, civil ATS shall delegate the corridor to Swanwick Mil for the transit, who is responsible for maintaining standard radar separation between aircraft under their control in the corridor. Swanwick Mil will advise when the traffic is clear of the corridor.

Traffic will wear a Swanwick Mil squawk for the duration of the transit and the Mode C readout is assumed to be verified.

> ***Note:*** *On VATSIM, no Radar Corridor is permanently delegated to Swanwick Mil. However, by agreement, controllers may agree a temporary delegation to reduce coordination.*

8.2.1.2 Swanwick Mil Offline

When Swanwick Mil is offline, aircraft/formations wishing to transit a corridor will call Scottish at least 5 minutes prior. Traffic should be identified, and Mode C verified and may be offered a service outside of controlled airspace, workload permitting.

Clearance should be in the following format:

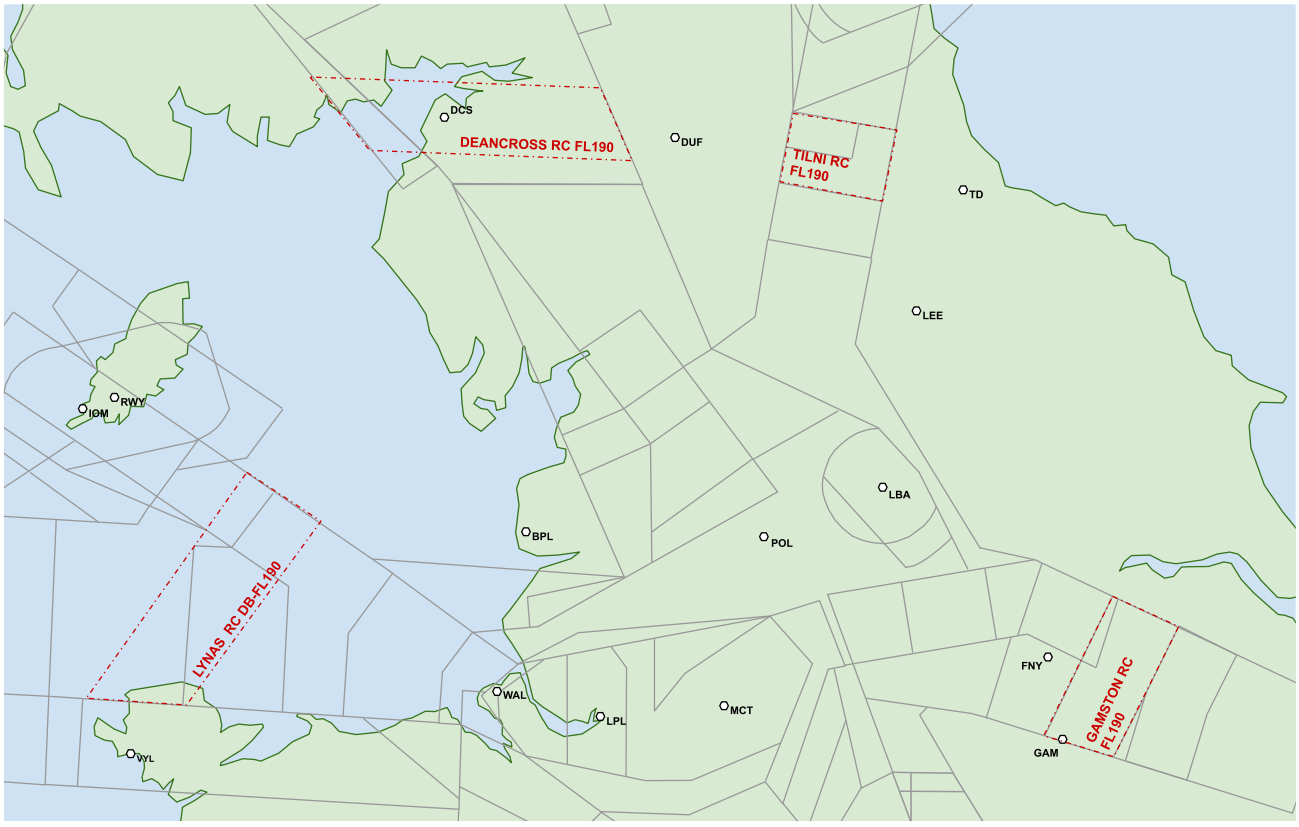
> *"(callsign/formation) cleared to transit the (name) Radar Corridor at FLxxx"*

8.2.2 Deancross Radar Corridor

See *Figure GEN-5*.

Swanwick Mil Sector	West
Civil Sector	ScTMA Galloway & Talla
Transit Area	Borders CTA in the vicinity of the DCS VOR
Width	10 NM
Level(s)	FL190

Figure GEN-5 – Military Radar Corridors (Deancross)



ScAC | SCOTTISH AREA CONTROL

Chapter 1 General Operating Procedures

1.1 Sectors and Sector Groups

Scottish Area Control (ScAC) manages mainly en-route traffic, with some top-down responsibilities at smaller airfields.

The airspace is split into 2 Local Area Groups (LAGs), West and East, and the Deancross sector, which may be operated independently or as part of one of the other LAGs.

- **West LAG:** ScAC West and ScAC Rathlin.
- **East LAG:** ScAC North and ScAC South.

All sectors have the radiotelephony callsign **"Scottish Control"**.

VATSIM Callsign		Group	Coordination Name	Frequency
SCO_CTR	*S*	(Bandbox)	Scottish Bandbox	135.530 MHz
SCO_WD_CTR	*SWD*	(Bandbox)	West-Deancross	133.875 MHz
SCO_W_CTR	*SW*	West LAG	Scottish West	132.730 MHz
SCO_R_CTR	*SR*	West LAG	Rathlin	129.100 MHz
SCO_E_CTR	*SE*	East LAG (Bandbox)	Scottish East	121.325 MHz
SCO_N_CTR	*SN*	East LAG	Scottish North	129.225 MHz
SCO_S_CTR	*SS*	East LAG	Scottish South	134.775 MHz
SCO_D_CTR	*SD*	-	Deancross	135.855 MHz

***Note:** Relief callsigns shall be determined by the addition of a **second** underscore between the middle identifier (or prefix in the case of the Bandbox callsign) and the suffix (CTR).*

For example:

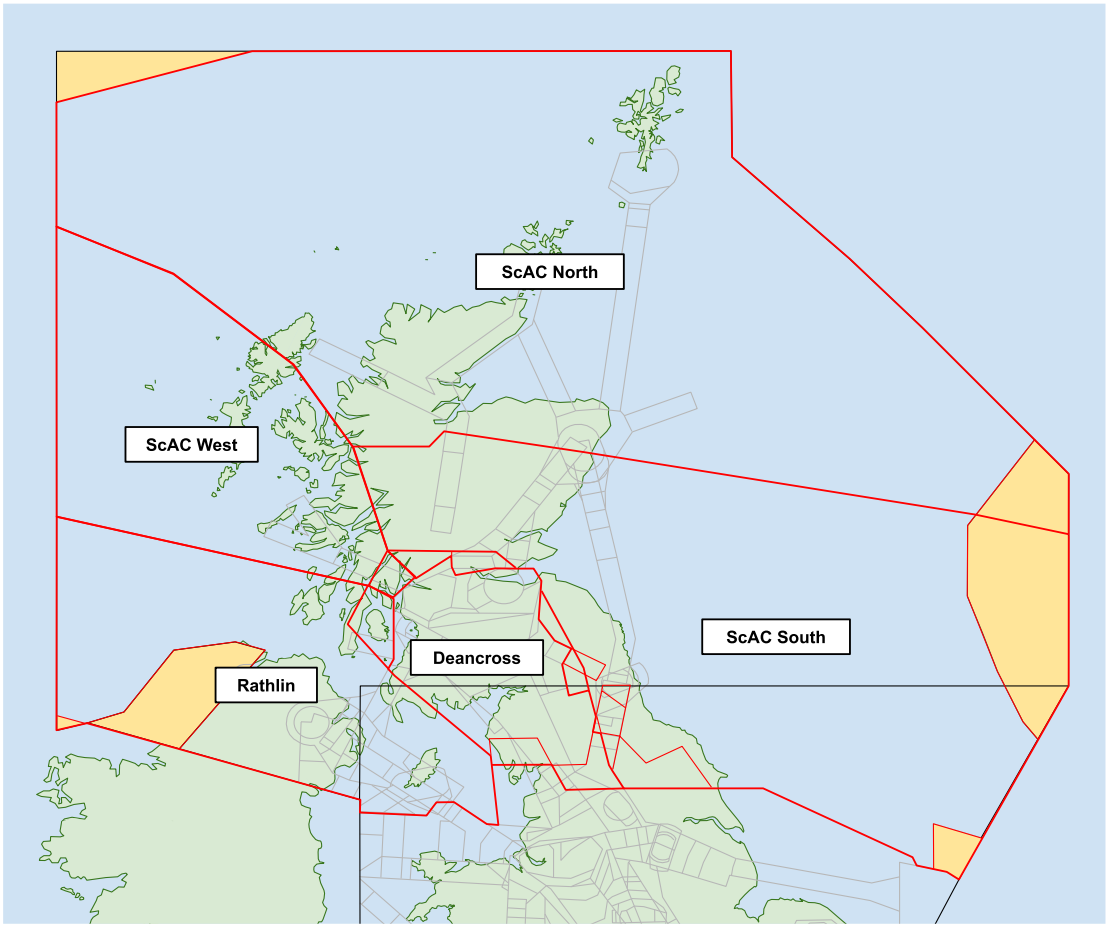
SCO_CTR → SCO__CTR
SCO_E_CTR → SCO_E__CTR

1.2 Sector Bandboxing/Splitting Procedures

<table>
<tr><td rowspan="4">SCO_CTR
Scottish Bandbox
135.530 MHz</td><td colspan="2">SCO_WD_CTR
West-Deancross
133.875 MHz</td><td>SCO_W_CTR
Scottish West
132.730 MHz</td><td>SCO_R_CTR
Rathlin
129.100 MHz</td></tr>
<tr><td rowspan="3">SCO_E_CTR
Scottish East
121.325 MHz</td><td rowspan="2">SCO_S_CTR
Scottish South
134.775 MHz</td><td>SCO_D_CTR
Deancross
135.855 MHz</td><td rowspan="2"></td></tr>
<tr><td></td></tr>
<tr><td colspan="3">SCO_N_CTR
Scottish North
129.225 MHz</td></tr>
</table>

Note: *ScAC Deancross is a 'floating' sector, in that the available positions allow it to be controlled with ScAC West or ScAC East, or on its own. However, it should be noted that the SCO_E_CTR does* ***not*** *cover the ScAC Deancross sector. To be controlled by an East LAG controller, it either needs to be using the SCO_S_CTR callsign or the SCO_CTR bandbox.*

Figure ScAC-1 – ScAC (Scottish Area Control) Sectors



Chapter 2 ScAC North

2.1 Area of Responsibility

The area of responsibility for the ScAC North sector is illustrated in Figure ScAC-2.

2.1.1 Sector Frequency

ScAC North operates on frequency 129.225 MHz.

2.1.2 Delegated Airspace

2.1.2.1 To Copenhagen ACC

From FL195 to FL660 within the orange area in Figure ScAC-3 known as the North Sea High Area, ATS is delegated from Scottish to Copenhagen.

2.1.2.2 To Reykjavik ACC

From SFC to FL660 within the magenta area in Figure ScAC-4 known as the RATSU Triangle, ATS is delegated from Scottish to Reykjavik.

From SFC to FL660 along the Common Boundary Line (see ScAC 2.4.3.2), ATS is delegated from Scottish to Reykjavik.

Figure ScAC-2 – ScAC North AoR

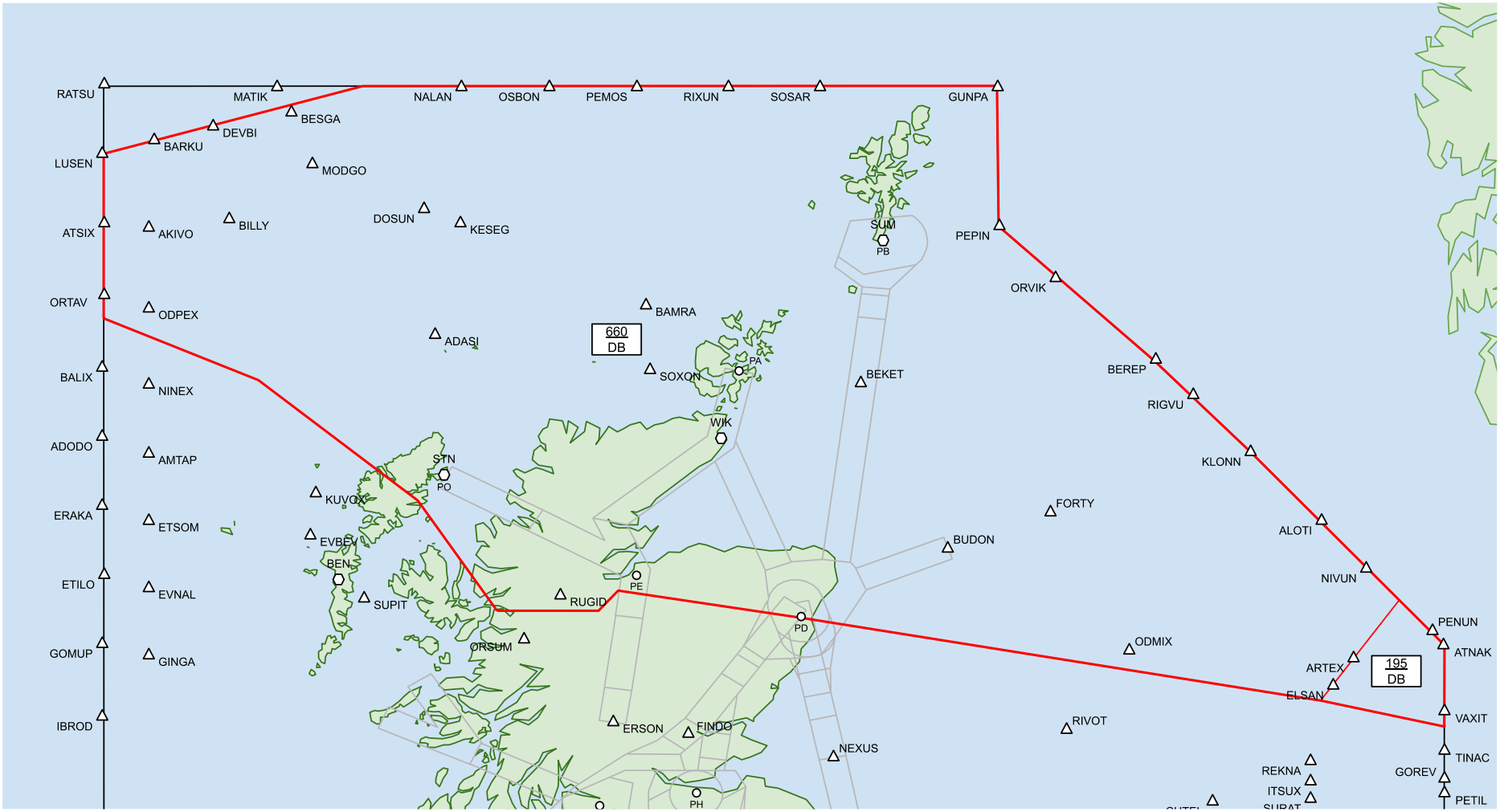


Figure ScAC-3 – ATS Delegation to Copenhagen ACC in the North Sea

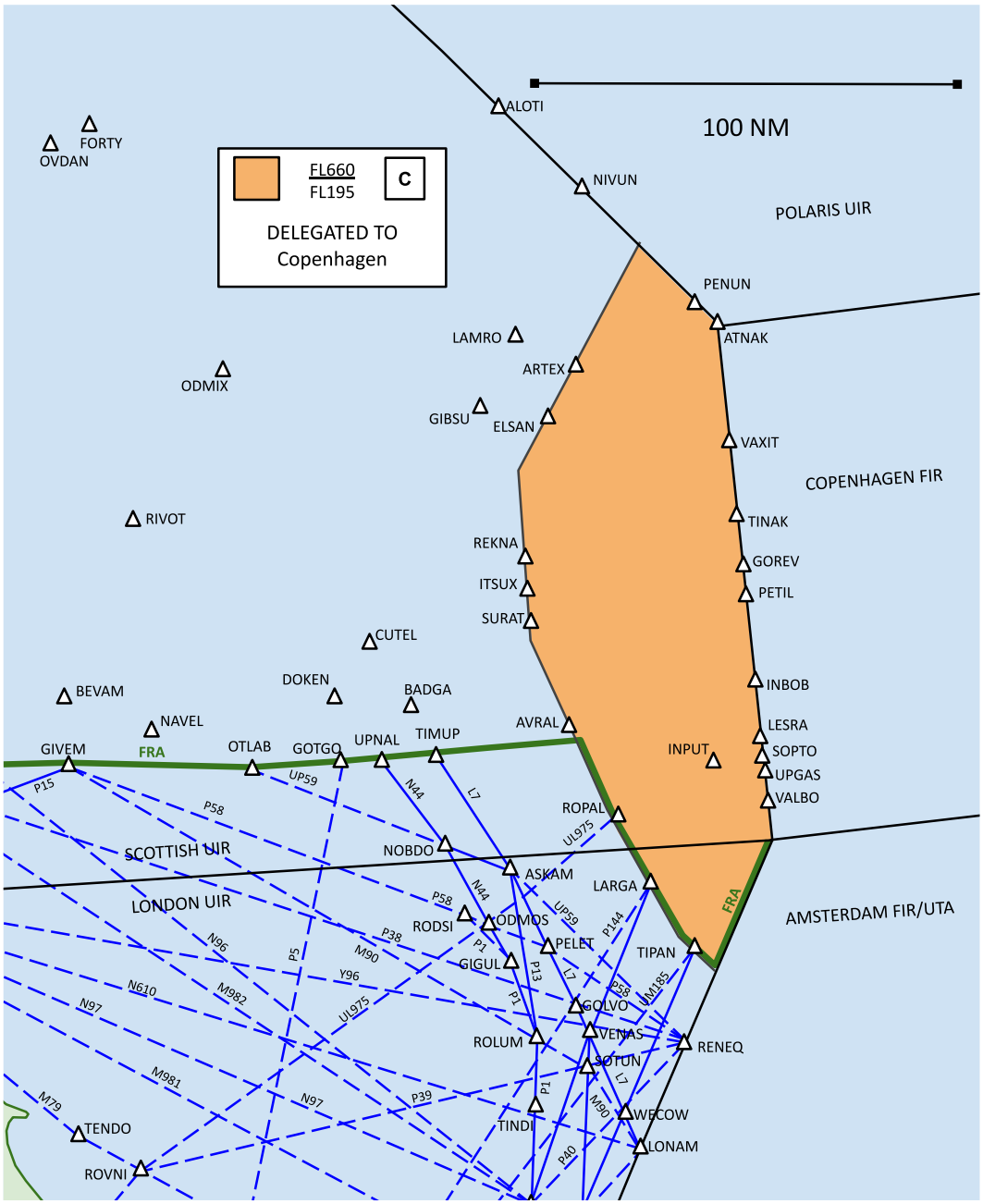
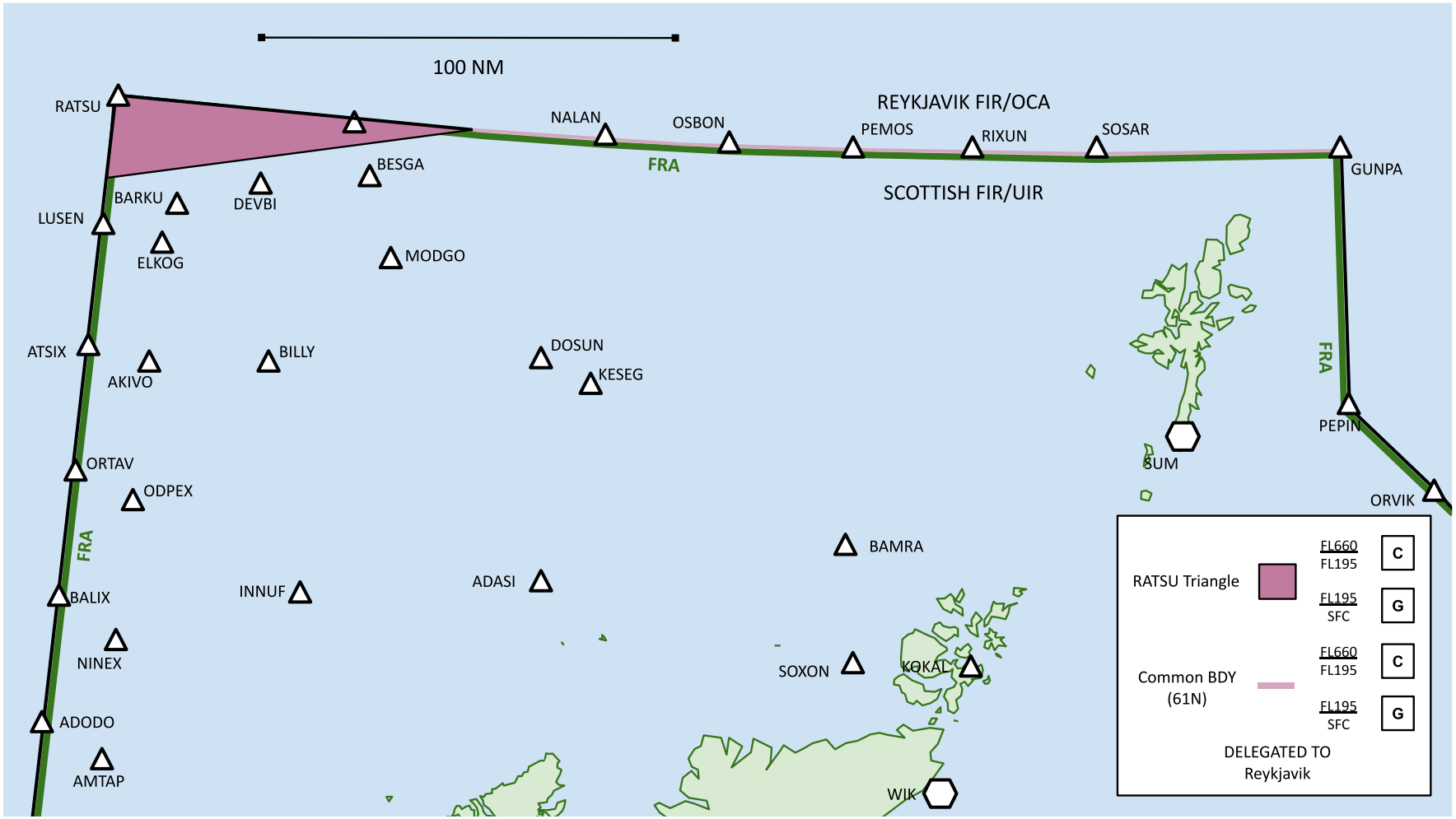


Figure ScAC-4 – ATS Delegation to Reykjavik in the RATSU Triangle and on the Common Boundary Line



2.2 General Operating Procedures

2.2.1 Route Structure

Any complexity that arises in the ScAC North sector is primarily derived from either: a particularly northern oceanic track structure; or high traffic levels to/from the Reykjavik FIR/UIR. The sector also has relatively few top-down responsibilities when Scottish is split, so is focused primarily on the safe transit of overflights across the sector.

The table below lists ATS route restrictions and availability:

ATS Route	Restriction
P600	Lower limit above the Aberdeen CTR/CTA is FL115 Lower limit between ADN and LESNI is FL90 due North Sea Offshore Operations

Significant Point	Restriction
LUSEN	Not available for flight planning

2.2.2 Initial Route Clearance

See GEN 1.1.

2.3 Standing Agreements

2.3.1 Scottish Standing Agreements

2.3.1.1 ScAC South

From ScAC North to ScAC South

To	Agreement	Conditions
ScTMA	FL260 lvl ADN	Via AND. (See *Note*)
ScTMA	↓ FL260	Via all other routes (FRA). (See *Note*)

Note: *ScTMA Arrivals are RFD subject to known traffic.*

2.3.2 External Standing Agreements

2.3.2.1 Aberdeen

ScAC North to Aberdeen

To	Via	Agreement
EGPD	Y905/P600	FL120 lvl ADN
EGPD	Y904	FL90 lvl ADN

Aberdeen to ScAC North

From	Via	Agreement
EGPD	Y905/P600	FL110
EGPD	Y904	FL80

2.3.2.2 Inverness

The following standing agreements only exist when Radar is being simulated as available at Inverness. Otherwise, traffic must be individually coordinated.

ScAC North to Inverness

To	Via	Agreement	COP
EGPE	N560	FL120 lvl CHINN	10 NM NE of CHINN
EGPE	Y906	FL110 lvl 10 NM NW of GARVA (27 NM NW of INS)	10 NM SE of ULLAP

Inverness to ScAC North

From	Via	Agreement	COP
EGPE	N560	↑ FL110	10 NM NE of CHINN
EGPE	Y906	↑ FL100	10 NM SE of ULLAP

2.3.2.3 Sumburgh

The following standing agreements only exist when Radar is being simulated as available at Sumburgh. Otherwise, traffic must be individually coordinated.

Sumburgh Radar shall coordinate all traffic that wishes to enter the Y905 and is unknown to ScAC North before they enter controlled airspace.

ScAC North to Sumburgh

To	Via	Agreement
EGPB and EGET	Y905	↓ FL130

Sumburgh to ScAC North

From	Via	Agreement
EGPB and EGET	Y905	↑ FL120

2.3.2.3.1 IFR Traffic to/from Class G and VFR Traffic to/from Class E/G Acceptance Levels

The use of the following acceptance levels for inbounds and outbounds negates the need for a full radar handover.

Arrivals – FL130

Departures – FL120

2.3.2.3.2 Traffic Cruising Below the Standing Agreement/Acceptance Level

All other traffic inbound to EGPB or EGET cruising below the Agreed Level or Acceptance Level must be individually coordinated no later than 50 DME SUM.

2.4 Coordination and Procedures with Adjacent Units, Sectors and Airfields

2.4.1 ScAC South

Unless operating under the terms of a standing agreement set out in 2.3.1.1 above, all traffic shall be transferred level at the boundary. Any climb or descent within 10 NM of the AoR boundary must be coordinated.

2.4.1.1 Holding at INS VOR

ScAC North is responsible for the INS (VOR) hold. As such, they are responsible for issuing all clearances and releases to Inverness, following coordination with adjacent sectors as appropriate.

ScAC South shall coordinate with ScAC North any holding required at INS.

Should holding at INS commence, ScAC North shall inform ScAC South and Inverness ATC that standing agreements are suspended.

An acceptance level shall then be coordinated for all inbounds, which ScAC North may elect to work, or request be sent directly to Inverness. All outbounds must be coordinated by Inverness with ScAC North, who shall coordinate with ScAC South as appropriate.

When holding ceases, ScAC North shall inform all units concerned that standard procedures and agreements may be resumed.

2.4.2 Shanwick OAC

The Shanwick Oceanic Control Area (OCA) adjoins the Scottish FIR/UIR along W010. The lower limit is FL55 and there is no upper vertical limit.

All flights crossing the Shanwick OCA/Scottish FIR/UIR boundary are subject to prior coordination.

2.4.2.1 North Atlantic Track System

The NAT system enables a more structured flow of aircraft given the North Atlantic weather situation. The tracks are published twice daily to reflect the busiest flow:

- **Daytime** (westbound) – published 2200 UTC, valid 1130 to 1900 UTC
- **Night-time** (eastbound) – published 1400 UTC, valid 0100 to 0800 UTC

> On VATSIM, it should be expected that pilots may file via NAT tracks that are 'invalid' according to the times above. They do not need to be re-routed as the Oceanic controller is able to clear these aircraft as if it were a random routing, or just simply treat the NAT as if it were valid.

The tracks are separated laterally up to and including the landfall fixes on either side of the Atlantic.

2.4.2.2 Obtaining Oceanic Clearance into Shanwick OCA

Flights entering the Shanwick OCA from the Scottish FIR/UIR and ScAC West sectors must be in receipt of an OCA clearance before crossing W010.

Aircraft are to request OCA clearance with the appropriate Shanwick controller **at least 30 minutes prior to Oceanic entry point**.

If it is not required prior to departure (see below), ScAC West controllers shall initiate transfer of communications to ensure clearance has been obtained between 90 and 30 minutes prior to the Shanwick boundary. The OCA clearance (including level allocation) is valid only from the Oceanic entry point.

2.4.2.3 Aircraft Requiring Oceanic Clearance Prior to Departure – 'Proximate Airfields'

Due to the short flying times between Scottish and Irish aerodromes and the Shanwick OCA boundary, pilots may be required to request and receive an Oceanic Clearance prior to departure.

The requirement to obtain Oceanic clearance prior to departure is detailed below:

Departure Point	Jet Departures	Non-Jet Departures
EIDW **EIWT** **EIME**	For all Oceanic entry points request when airborne.	
All other EIxx	If flight planned to enter Shanwick between GOMUP and BEDRA (inclusive), oceanic clearance is required prior to departure.	
EGAA **EGAC** **EGAE** **EGPF** **EGPK**	If flight planned to enter Shanwick at GOMUP or ETILO, oceanic clearance is required prior to departure. For all other Oceanic entry points, request when airborne.	Request when airborne.
All other aerodromes	If the elapsed time to the Shanwick entry point is 40 minutes or less oceanic clearance is required prior to departure.	

2.4.2.4 Transfer of Control and Communication

Route	Transfer of Control	Transfer of Communications
Via W010	W010	At or before W010

2.4.2.5 OCA Clearance Non-Compliance

If any part of an OCA clearance cannot be complied with, ScAC North must notify the relevant Shanwick Delivery controller.

2.4.2.6 Time Restrictions

Shanwick may specify a time restriction for westbound traffic at W010 as part of the OCA clearance. Aircraft will be instructed to report these to the ScAC North controller on return to the domestic frequency.

2.4.2.7 Time Revisions

Time revisions of 3 minutes or more from the estimate notified in the clearance shall be passed by ScAC North to Shanwick in the following format:

- Callsign
- Entry Point
- Revised Time
- Cleared Oceanic Level

2.4.3 Reykjavik OACC

The Reykjavik FIR/CTA adjoins the Scottish FIR/UIR from N61 W010 to N61 W000. It has a base of FL55 but no vertical limit. A portion of the Scottish FIR/UIR known as the RATSU triangle is also delegated to Reykjavik from the SFC to FL660 – see ScAC 2.1.2.2.

RATSU is delegated from Shanwick OAC to Reykjavik OACC at and above FL55.

2.4.3.1 Sectorisation

The first position to log on is BIRD_S1_CTR (South 1) covering all Reykjavik airspace.

East Sector

The airspace adjoining the Scottish FIR/UIR is the East Sector, which can be dynamically split according to the coverage priority (left to right) below:

Priority → Level ↓	1	2	3	4	5	6
FL365+	**BIRD_E3** 128.800	**BIRD_E2** 132.200	**BIRD_E1** 126.750	**BIRD_S3** 128.600	**BIRD_S2** 125.700	**BIRD_S1** 119.700
FL365-FL355	**BIRD_E2** 132.200	**BIRD_E3** 128.800	**BIRD_E1** 126.750	**BIRD_S2** 125.700	**BIRD_S3** 128.600	**BIRD_S1** 119.700
FL355-FL345	**BIRD_E2** 132.200	**BIRD_E1** 126.750	**BIRD_E3** 128.800	**BIRD_S2** 125.700	**BIRD_S1** 119.700	**BIRD_S3** 128.600
FL345-	**BIRD_E1** 126.750	**BIRD_E2** 132.200	**BIRD_E3** 128.800	**BIRD_S1** 119.700	**BIRD_S2** 125.700	**BIRD_S3** 128.600

South Sector

The airspace west of 010W is the South Sector, which can be dynamically split according to the coverage priority (left to right) below:

Priority → Level ↓	1	2	3
FL365+	**BIRD_S3** 128.600	**BIRD_S2** 125.700	**BIRD_S1** 119.700
FL365-FL355	**BIRD_S2** 125.700	**BIRD_S3** 128.600	**BIRD_S1** 119.700
FL355-FL345	**BIRD_S2** 125.700	**BIRD_S1** 119.700	**BIRD_S3** 128.600
FL345-	**BIRD_S1** 119.700	**BIRD_S2** 125.700	**BIRD_S3** 128.600

2.4.3.2 Responsibilities

The **Common Boundary Line** is defined along N61 from W000 to W010.

All flights crossing the Common Boundary Line, including into/from the RATSU area, are subject to prior coordination in real life, usually by means of passing an estimate. On VATSIM, the presence of a shared, single data source is deemed sufficient to remove this need. As such, traffic may be transferred in accordance with the conditions set out below in ScAC 2.4.3.9.

Aircraft operating **along** the Common Boundary Line – will be provided with a service by Reykjavik. This traffic will not be coordinated with Scottish.

Scottish ACC shall coordinate all traffic that will operate closer than 20 NM to the Common Boundary Line with Reykjavik.

2.4.3.3 Level or Route Revisions

Any change to the level or routing of an aircraft are to be coordinated (which can be via electronic coordination) by the transferring controller, with acknowledgement received or agreement reached prior to transfer of communications.

2.4.3.4 Transfer of Control and Communication

The Coordination Point to be used is the COP closest to the position where the aircraft will cross the Sector Boundary.

2.4.3.4.1 Traffic Leaving Scottish

Scottish Control shall transfer northbound traffic as soon as possible after 60N.

Coordination Point	Transfer of Control	Transfer of Communications	Compulsory FRA DCT
BARKU	BARKU	At or before BARKU	BARKU/BESGA/ DEVBI DCT RATSU (See *Note*) BESGA DCT MATIK
BESGA	BESGA	At or before BESGA	
DEVBI	DEVBI	At or before DEVBI	
NALAN	NALAN	At or before NALAN	
OSBON	OSBON	At or before OSBON	
PEMOS	PEMOS	At or before PEMOS	
RIXUN	RIXUN	At or before RIXUN	
SOSAR	SOSAR	At or before SOSAR	

Note: *Traffic via RATSU remaining west of 010W should be transferred to the Reykjavík South Sector controller.*

2.4.3.4.2 Traffic Entering Scottish

Coordination Point	Transfer of Control	Transfer of Communications	Compulsory FRA DCT
BARKU	BARKU	At or before BARKU	RATSU DCT BARKU/ BESGA/DEVBI MATIK DCT BESGA
BESGA	BESGA	At or before BESGA	
DEVBI	DEVBI	At or before DEVBI	
NALAN	NALAN	At or before NALAN	
OSBON	OSBON	At or before OSBON	
PEMOS	PEMOS	At or before PEMOS	
RIXUN	RIXUN	At or before RIXUN	
SOSAR	SOSAR	At or before SOSAR	

2.4.3.5 Obtaining Oceanic Clearance for Reykjavik CTA

Reykjavík OACC will normally issue Oceanic Clearance (OCL) to aircraft via Iceland Radio on:

Primary: BICC_1_FSS (Radio 1) – 127.850 MHz.
Secondary (as directed): BICC_3_FSS (Radio 3) – 129.625 MHz and BICC_2_FSS (Radio 2) – 126.550 MHz).

Reykjavík OACC shall notify Scottish ACC of the correct frequency (or frequencies) for aircraft to receive clearance. Scottish shall drop the aircraft tag on transfer of communication.

Aircraft must obtain Oceanic Clearance at least **25 minutes** prior to the aircraft entering Reykjavík airspace.

Flights via RATSU do **not** require clearance from Shanwick OAC.

2.4.3.5.1 Co-ordination of Flight Levels

If the requested flight level (RFL) at the Oceanic entry point (OEP) is different to the current requested/cleared flight level or a different level is required by Reykjavík, it shall be coordinated by Reykjavík OACC or Iceland Radio with Scottish ACC.

Traffic which has reached the level in the Oceanic Clearance prior to the AoR boundary shall be deemed coordinated.

2.4.3.5.2 Procedures when no Oceanic Clearance is Received

If an aircraft has not obtained Oceanic Clearance before crossing 61N (due to frequency congestion or otherwise) this is not received due to frequency congestion or otherwise, they must not hold and should continue at the level previously assigned by Scottish ACC, obtaining clearance on first contact with Reykjavík Control.

2.4.3.5.3 Procedures without Iceland Radio

When Iceland Radio is not online, Oceanic Clearance will be issued directly by the appropriate Reykjavík OACC sector.

The minimum time to obtain an OCL is also lowered to the Transfer of Communication.

2.4.3.6 Vagar (EKVG) Departures

Any Vagar departures via N61 will be coordinated by Reykjavik with Scottish once airborne.

2.4.3.7 Longitudinal Separation

5 minutes longitudinal separation may be applied between aircraft on the same or crossing tracks, at the same level, climbing, or descending. The transferring unit in each case must radar monitor the separation and ensure that the actual distance between aircraft is no less than 30 NM.

2.4.3.8 Silent Handover (Silent Transfer of Radar Control)

Note: *The procedures here differ from the standards defined in GEN 5.6.2.*

Transfer of radar control may take place by means of a Silent Handover (that is, without verbal coordination) provided that:

- Oceanic Clearance has been obtained for aircraft crossing N61 from Scottish to Reykjavik (see Section 2.4.3.5).
- If the aircraft concerned are following the **same route**, they are spaced by a minimum of 15 NM, constant or increasing. (See *Note*).
- If the aircraft concerned are on **crossing tracks**, the conditions under 2.4.3.7 above are met.
- The transferring controller places any vectoring instructions or speed control in the tag and instructs aircraft to report these on first contact with the receiving controller.
- The receiving controller is informed – by means of XFL electronic coordination or otherwise – of any level restriction other than an aircraft's requested flight level or those covered by Standing Agreement prior to transfer of communications.

  Note: *The 15 NM here is not a separation standard. It is the minimum spacing required for a silent radar handover.*

2.4.4 Polaris ACC (Stavanger)

The Polaris ACC has three locations in real life: Oslo, Stavanger and Bodø. The Stavanger sectors border the Scottish FIR. While the coordination name is, for example, "Stavanger Sector 15", the RTF callsign for all enroute stations in the Polaris FIR is "Polaris Control".

2.4.4.1 Sectorisation

Polaris ACC (Stavanger) sectorisation and associated COPs are as shown in this table:

COP	Receiving Sector
PEPIN, BEREP, RIGVU, ORVIK, GUNPA	15
KLONN, ALOTI	11
NIVUN	10
Statfjord CTA (FL85-)	20 (Offshore)
Balder CTA (FL85-)	21 (Offshore)
Ekofisk CTA (FL85-)	22 (Offshore)

The coverage priority (left to right) for the sectors referenced above is as follows:

Sector	1	2	3	4	5	6	7
15	**ENSV_W** 136.280	**ENSV_16** 135.680	**ENSV_N** 124.705	**ENSV** 120.655	**ENOR_S** 121.550	**ENOR_SC** 134.515	**ENOR** 125.500
11 / **10**	**ENSV_W** 136.280	**ENSV** 120.655	**ENSV_N** 124.705	**ENOR_S** 121.550	**ENOR_SC** 134.515	**ENOR** 125.500	-
20 (Offshore)	**ENSV_O** 134.205	**ENSV_16** 135.680	**ENSV_N** 124.705	**ENSV** 120.655	**ENOR_S** 121.550	**ENOR_SC** 134.515	**ENOR** 125.500
21 (Offshore)	**ENSV_O** 134.205	Then as per Sector 15					
22 (Offshore)	**ENSV_O** 134.205	Then as per Sectors 10/11					

Note: *Eurocontrol North (EURN_FSS) covers all Polaris FIR airspace above FL245 in the absence of local ATC.*

2.4.4.2 Level Allocation

VFR flights are expected to operate at the same semi-circular levels **plus 500 feet** (e.g., FL195 eastbound, FL185 westbound). Where possible, ScAC should advise aircraft of the appropriate level before transfer to Stavanger ACC.

2.4.4.3 Level or Route Revisions

Any change to the level or routing of an aircraft are to be coordinated (which can be via electronic coordination) by the transferring controller, with acknowledgement received or agreement reached prior to transfer of communications.

2.4.4.4 Transfer of Control and Communication

2.4.4.4.1 Traffic Leaving Scottish

Coordination Point	Transfer of Control	Transfer of Communications	Compulsory FRA DCT
KLONN	KLONN (See *Note*)	At or before KLONN	
ORVIK	ORVIK	At or before ORVIK	
ALOTI	ALOTI	At or before ALOTI	
NIVUN	NIVUN	At or before NIVUN	LAMRO DCT NIVUN
PEPIN	PEPIN	At or before PEPIN	
RIGVU	RIGVU	At or before RIGVU	
BEREP	BEREP	At or before BEREP	

Note: *ENZV arrival traffic via KLONN is RFD to FL260 passing 20 NM SW of KLONN. Polaris is responsible for ensuring separation against all other traffic from Scottish ACC.*

2.4.4.4.2 Traffic Entering Scottish

Coordination Point	Transfer of Control	Transfer of Communications	Compulsory FRA DCT
KLONN	KLONN	At or before KLONN	
ORVIK	ORVIK	At or before ORVIK	
ALOTI	ALOTI	At or before ALOTI	
NIVUN	NIVUN	At or before NIVUN	NIVUN DCT LAMRO
PEPIN	PEPIN	At or before PEPIN	
RIGVU	RIGVU	At or before RIGVU	
BEREP	BEREP	At or before BEREP	

2.4.4.5 Traffic in the Vicinity of GUNPA

Scottish ACC shall coordinate all traffic that will route within 15 NM of GUNPA in the north-eastern corner of the Scottish FIR with both Polaris and Reykjavik ACCs.

2.4.4.6 Longitudinal Separation

A reduced longitudinal separation of 3 minutes may be applied between aircraft on the same or crossing tracks, at the same level, climbing, or descending. The transferring unit in each case must radar monitor the separation and ensure that the actual distance between aircraft is no less than 20 NM.

2.4.4.7 Separation between COPs

All COPs are deemed laterally separated at the AoR Boundary.

Traffic simultaneously transferred at the same level via adjacent COPs may not be laterally separated after crossing the AoR boundary. If any doubt exists regarding lateral separation, then vertical separation must be provided.

2.4.4.8 Silent Handover (Silent Transfer of Radar Control)

The conditions for Silent Handover are as per GEN 5.6.2.

2.4.5 Copenhagen ACC

2.4.5.1 Sectorisation

The coverage priority (left to right) for Copenhagen at the interface with Scottish ACC is as follows:

EKDK_N_CTR	EKDK_S_CTR	EKDK_V_CTR	EKDK_L_CTR	EKDK_CTR
134.680 MHz	136.555 MHz	135.565 MHz	124.555 MHz	136.485 MHz

Note: *Eurocontrol North (EURN_FSS) covers all Copenhagen airspace above FL245 in the absence of local ATC.*

2.4.5.2 Level Allocation to Traffic Below FL195

The semi-circular rule applies to all IFR flights within the Copenhagen FIR.

VFR flights are expected to operate at the same semi-circular levels **plus 500 feet** (e.g., FL195 eastbound, FL185 westbound). Where possible, ScAC should advise aircraft of the appropriate level before transfer to Copenhagen ACC.

2.4.5.3 Level or Route Revisions

Any change to the level or routing of an aircraft are to be coordinated (which can be via electronic coordination) by the transferring controller, with acknowledgement received or agreement reached prior to transfer of communications.

2.4.5.4 Transfer of Control and Communication

2.4.5.4.1 Traffic Leaving Scottish

Coordination Point	Transfer of Control	Transfer of Communications	Compulsory FRA DCT
ELSAN	ELSAN	At or before ELSAN	ARTEX / ELSAN DCT VAXIT
ARTEX	ARTEX	At or before ARTEX	

Note 1: *Transfer of communications should not occur earlier than 30 NM before the AoR-boundary, unless otherwise coordinated.*

Note 2: *Within 25 NM of the delegated airspace boundary (see ScAC 2.1.2.1), eastbound traffic is released for turns by up to 45°. Aircraft are not released for climb or descent without prior coordination.*

2.4.5.4.2 Traffic Entering Scottish

Coordination Point	Transfer of Control	Transfer of Communications	Compulsory FRA DCT
ELSAN	ELSAN	At or before ELSAN	VAXIT DCT ARTEX / ELSAN
ARTEX	ARTEX	At or before ARTEX	

Note: *Transfer of communications should not occur earlier than 30 NM before the AoR-boundary, unless otherwise coordinated.*

2.4.5.5 Reduced Longitudinal Separation

A reduced minimum longitudinal separation of 3 minutes may be applied between aircraft on the same or crossing tracks, at the same level, climbing, or descending. The transferring unit in each case must radar monitor the separation and ensure that the actual distance between aircraft is no less than 20 NM.

2.4.5.6 Separation between COPs

For eastbound traffic, the following COPs are to be considered the same point for the purposes of Longitudinal separation:

- ELSAN / ARTEX

2.4.5.7 Silent Handover (Silent Transfer of Radar Control)

The conditions for Silent Handover are as per GEN 5.6.2.

2.4.6 AFISO Airfield Procedures

At times, an AFIS only service may be provided at certain airfields:

- Barra (EGPR)
- Campbeltown (EGEC)
- Islay (EGPI)
- Tiree (EGPU)

It is not the responsibility of Scottish controllers to separate traffic in the vicinity of an aerodrome with only AFIS available.

Instrument Approach Procedures (IAPs) are available at Barra, Campbeltown, Islay and Tiree. If Scottish has chosen to provide a service to an aircraft undertaking an IAP, they should make their best effort to coordinate with the AFISO to prevent a conflict with a departure.

Controllers may wish to remind pilots under a Traffic Service and/or Basic Service that it is the responsibility of pilots to provide their own separation under these services.

2.4.7 Kirkwall (EGPA)

Kirkwall may provide an air traffic control service to arriving and departing IFR aircraft within the N560 subject to inbound release/coordination from ScAC North. They may not provide a service without coordination.

All IFR or VFR arrivals and departures via Class G airspace, or VFR using the N560 requiring an ATS, shall be subject to individual coordination.

2.4.7.1 Procedures for Inbound Aircraft

ScAC North shall pass an estimate for inbounds via the N560 that are receiving a service. Kirkwall shall offer an acceptance level, and ScAC North shall offer a release. ScAC North remains responsible for separating inbound IFR aircraft against other aircraft operating in/cleared into the N560. They shall also pass traffic information about known VFR aircraft prior to the release point.

2.4.7.2 Procedures for Outbound Aircraft

Kirkwall shall call ScAC North for a joining clearance for IFR departures via the N560. If none has been received or coordinated, then aircraft may remain outside of CAS before free calling ScAC North.

VFR departures planning to enter Class E airspace requiring an ATS service shall be instructed to free call ScAC North.

2.4.8 Stornoway (EGPO)

Stornoway is covered top-down by ScAC North, and traffic will primarily route via the Y906. However, some traffic may be handled by ScAC West from/to Class G.

All IFR or VFR arrivals and departures from Class G that require an ATS shall be subject to individual coordination.

2.4.9 Wick (EGPC)

Wick may provide an air traffic control service to arriving and departing IFR aircraft within the N560 or Y904 subject to inbound release/coordination from ScAC North. They may not provide a service without coordination.

All IFR or VFR arrivals and departures via Class G airspace, or VFR using the N560 or Y904 requiring an ATS, shall be subject to individual coordination.

2.4.9.1 Procedures for Inbound Aircraft

ScAC North shall pass an estimate for inbounds via the N560 or Y904 that are receiving a service. Wick shall offer an acceptance level, and ScAC North shall offer a release. ScAC North remains responsible for separating inbound IFR aircraft against other aircraft operating in/cleared into the N560 or Y904. They shall also pass traffic information about known VFR aircraft prior to the release point.

2.4.9.2 Procedures for Outbound Aircraft

Wick shall call ScAC North for a joining clearance for IFR departures via the N560 or Y904. If none has been received or coordinated, then aircraft may remain outside of CAS before free calling ScAC North.

VFR departures planning to enter Class E airspace requiring an ATS service shall be instructed to free call ScAC North.

2.5 Special Procedures

2.5.1 North Atlantic and Northern North Sea Transfer of ATS

2.5.1.1 Area I

In this part of the Polaris FIR, as shown in Figure ScAC-5, Sumburgh Radar will provide ATS to all aircraft at or below FL85.

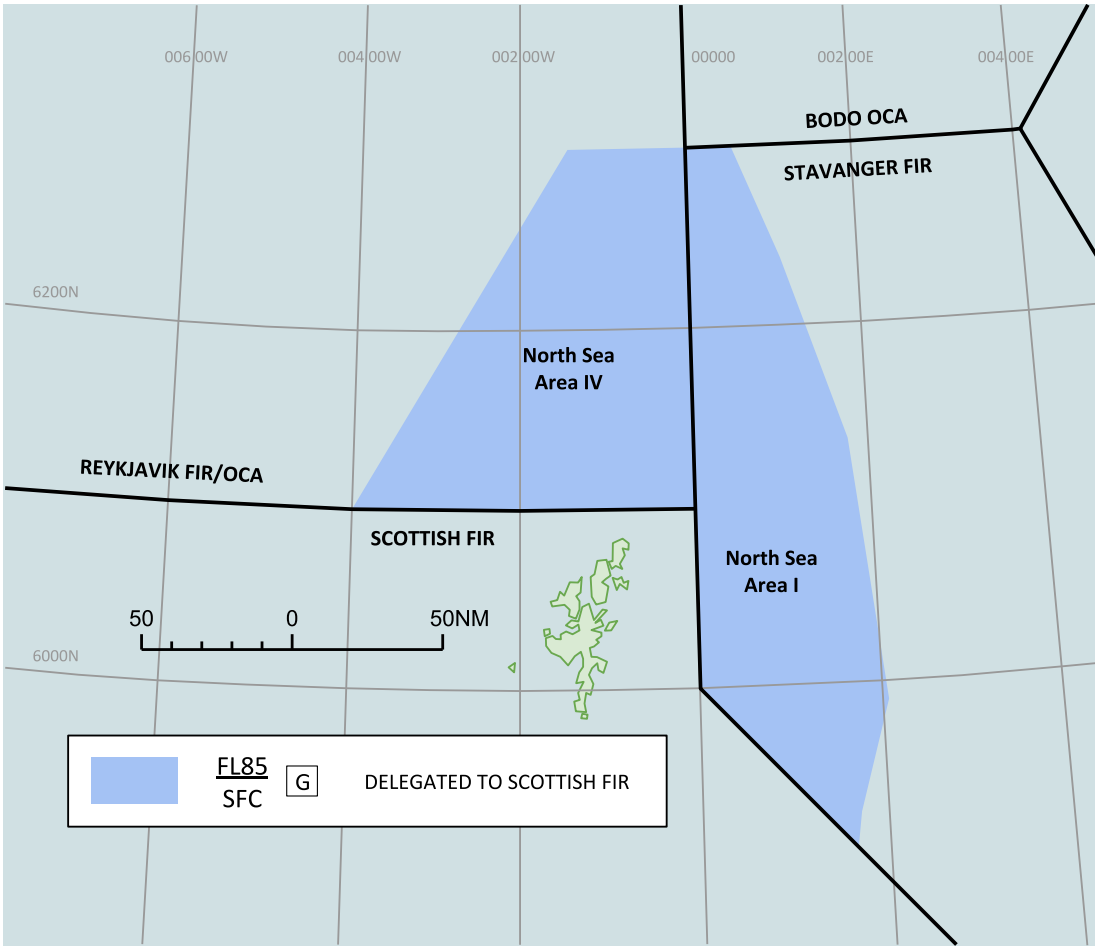
2.5.1.2 Area II

In this part of Scottish FIR, as shown in Figure ScAC-6, Polaris ACC will provide ATS to all aircraft at or below FL85.

2.5.1.3 Area IV

In this part of the Reykjavik FIR/OCA, Sumburgh Radar will provide ATS to all aircraft at or below FL85.

Figure ScAC-5 – North Sea Areas I and IV

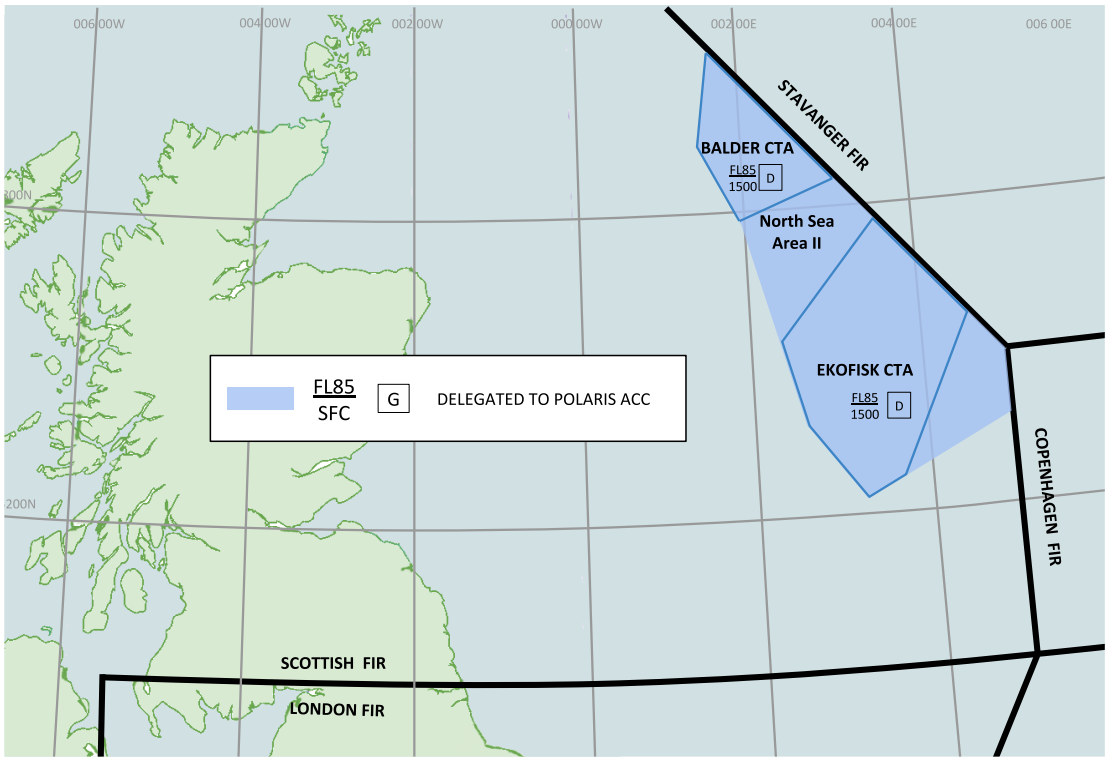


2.5.2 Polaris Offshore CTAs

2.5.2.1 Ekofisk and Balder CTAs

The Ekofisk and Balder CTAs are established within the North Sea Area II, as shown in Figure ScAC-6. Both extend from 1500 feet to FL85 and are Class D airspace.

Figure ScAC-6 – North Sea Area II



Traffic is to be instructed to obtain ATC clearance at least 15 NM prior to the boundary. Pilots must remain clear of Ekofisk/Balder CTA unless ATC clearance has been received, and as such all traffic adjacent to the CTA but within the UK ATS area should provide Polaris with intentions at least 15 NM prior to the boundary.

2.5.2.2 Offshore Sectorisation

The Offshore sectors are divided as shown in **eAIP Norway ENR 6-11**. There are no standalone Offshore sector frequencies on VATSIM. The coverage priority for the Offshore sectors is detailed in ScAC 2.4.4.1.

2.6 Holding Procedures

2.6.1 Aberdeen Holding

ADN Hold

ADN	1-minute legs
Axis	160°
Direction	LEFT hand
Speed	Maximum 210 kts IAS

2.6.2 Inverness Holding

All holds below are separated up to and including FL100.

Hold	Axis	Direction	Time or Distance	Speed
INS	244°	RIGHT	1 min	-
BONBY	157°	LEFT	1 min	Max 210 kts
GARVA	123°	RIGHT	5 NM	Max 210 kts
GUSSI	009°	RIGHT	5 NM	Max 210 kts

2.6.3 STN Hold

En-route holding may take place at the STN VOR.

STN	1.5-minute legs
Axis	137°
Direction	RIGHT hand
Holding Levels	FL250 – FL390

Chapter 3 ScAC South

3.1 Area of Responsibility

The area of responsibility for the ScAC South sector is illustrated in Figure ScAC-7.

> ***Note:*** *In the absence of ScAC Deancross (135.855 MHz) or the ScAC West & Deancross Bandbox (133.875 MHz), ScAC South shall take responsibility of the Deancross sector, which includes top-down of ScTMA in their absence also.*

3.1.1 Sector Frequency

ScAC South operates on frequency 134.775 MHz.

3.1.2 Delegated Airspace

3.1.2.1 To Amsterdam ACC – GODOS Area

From FL175 to FL245 within the purple area in Figure ScAC-*8* known as the GODOS Area, ATS is delegated from Scottish to Amsterdam.

3.1.2.2 To Copenhagen ACC

From FL195 to FL660 within the orange area in Figure ScAC-9 known as the North Sea High Area, ATS is delegated from Scottish to Copenhagen.

Figure ScAC-7 – ScAC South AoR

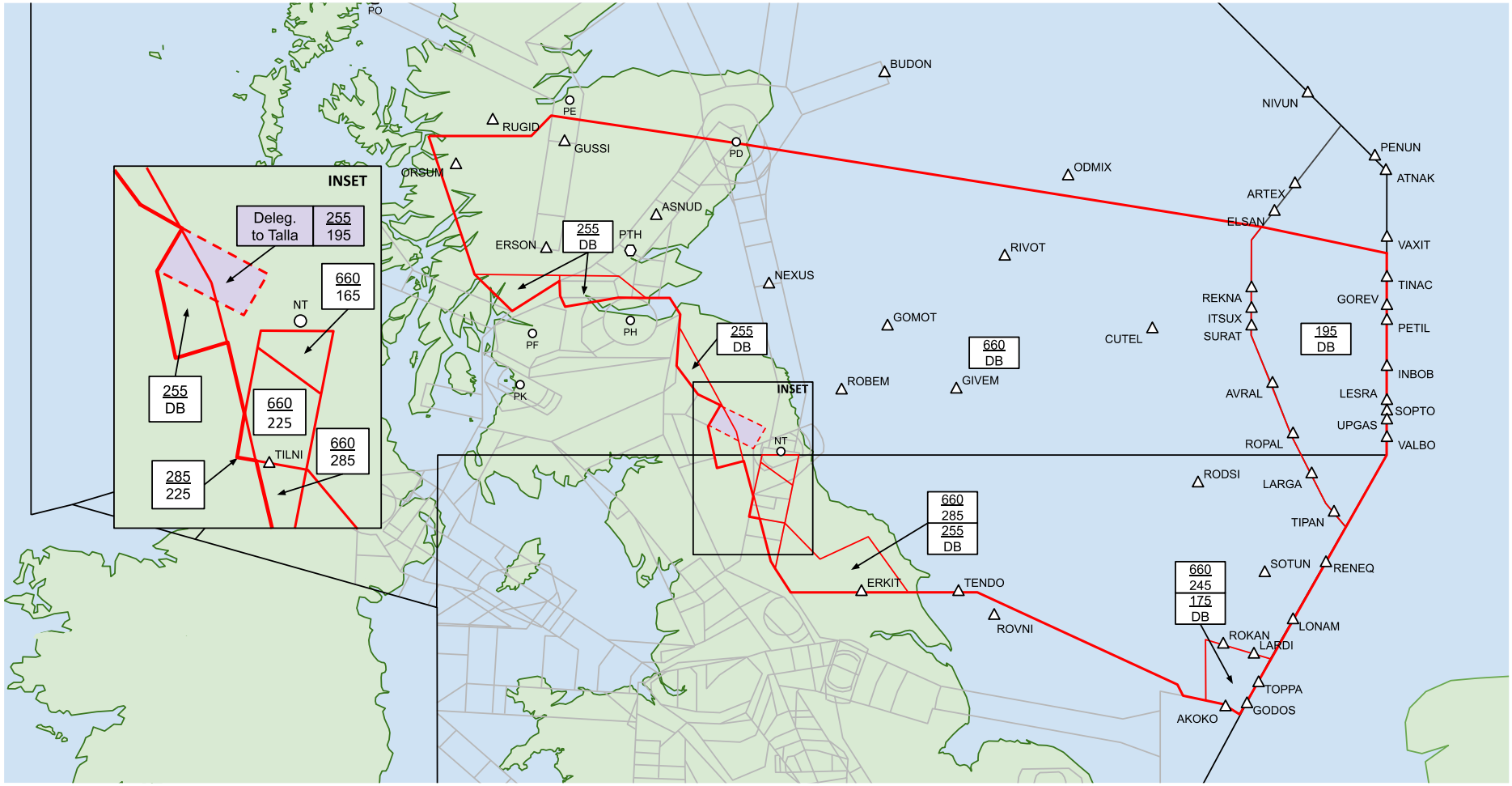


Figure ScAC-8 – ATS Delegation to Amsterdam ACC in the GODOS Area

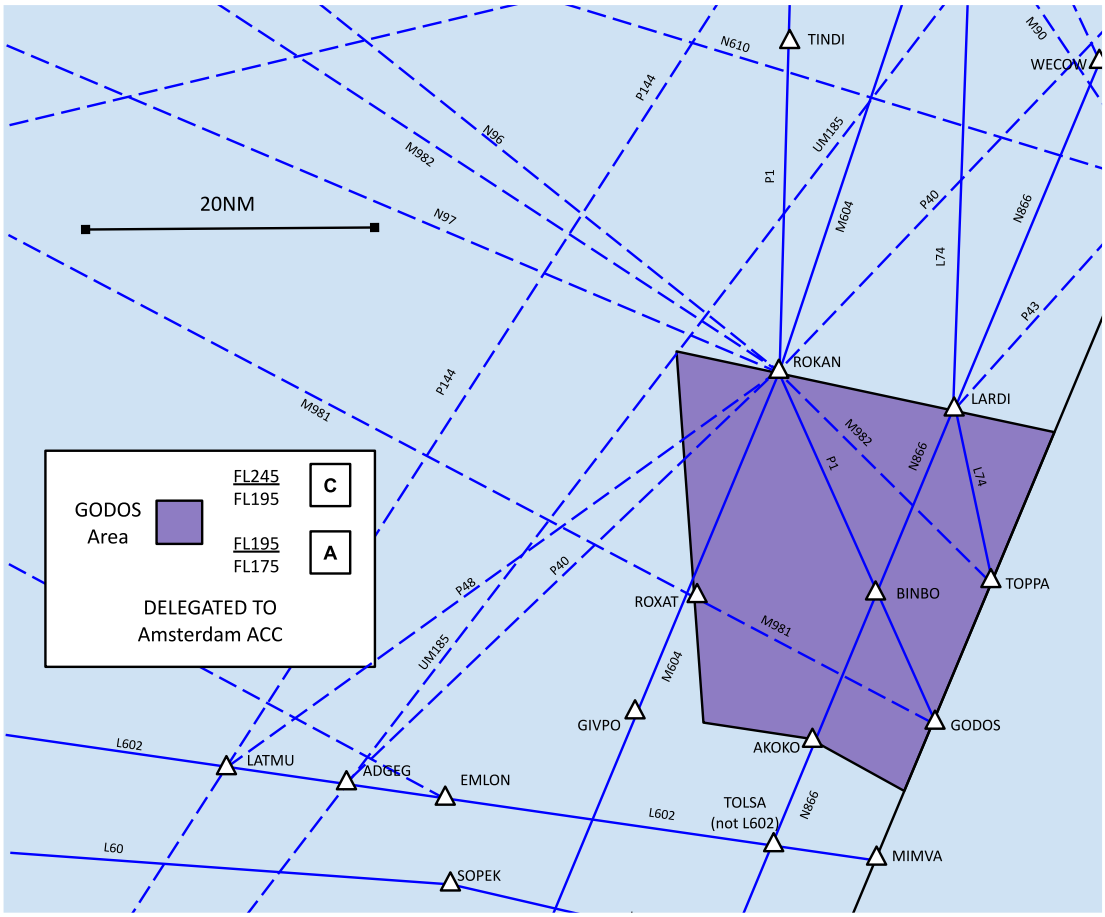
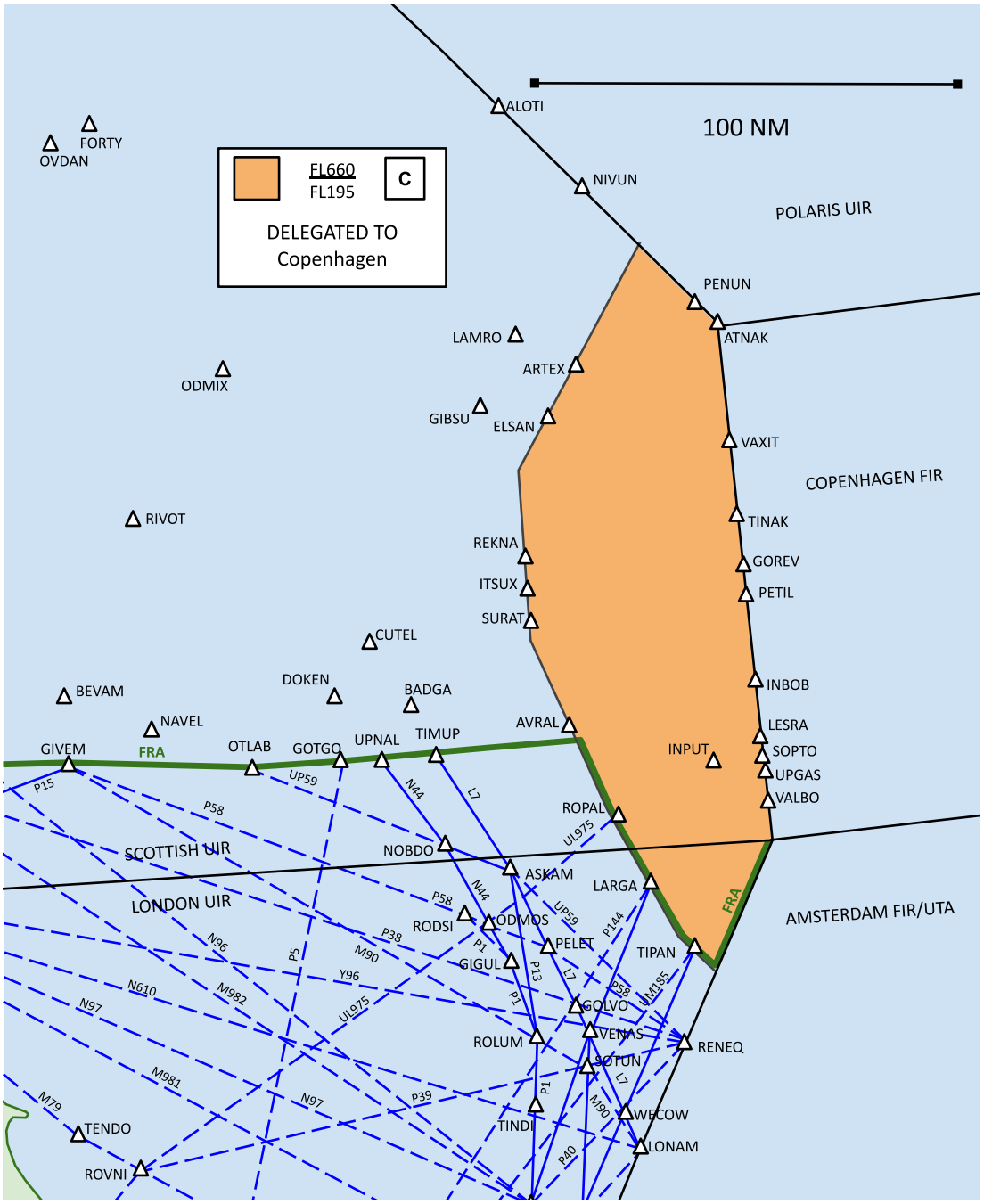


Figure ScAC-9 – ATS Delegation to Copenhagen ACC in the North Sea



3.2 General Operating Procedures

3.2.1 Route Structure

There are several dominant traffic flows within the ScAC South sector which – especially during events – can result in significant complexity. There are various flows of traffic to/from the Polaris, Copenhagen and Reykjavik FIRs and northern Scottish destinations via FRA, and to the Amsterdam FIR via dual-direction ATS routes. Inbounds to the MTMA, Midlands Group route westbound via the UP16 from ROBEM, and eastbound (northbound) traffic from NATEB or TIPTA enters FRA at either ALASO, ROBEM or GIVEM.

A significant number of the ATS routes are classified as conditional routes (CDRs). For VATSIM purposes, unless notified by means of a Temporary Notice or by Swanwick Mil controllers, these routes may always be deemed to be available if filed by a pilot.

The table below lists ATS route restrictions and availability:

ATS Route	Restriction
L602	CDR H24 between NALAX and ERKIT
L613	Westbound only
L7	CDR H24 between LONAM and VENAS
UL975	CDR H24 between LIBSO and ROPAL
UM185	CDR H24 between DIGSU and TIPAN Westbound only
M79	CDR H24
UM82	CDR H24 Eastbound only
M90	CDR H24 between LONAM and GIVEM
M981	CDR H24
M982	CDR H24 between ROKAN and ROBEM
N44	Westbound only
N560	The cruising level allocation between RIMOL and BONBY is inappropriate to the MAG Track
N610	CDR H24 between LONAM and NATEB
N864	In real, flight plannable from 0001 Saturday to 2359 Sunday to allow for gliding activity in the P600. However, it is not available when the airspace is required for military use, in which case the P600 is retained for use. On VATSIM, the N864 is available at all times, unless notified for use by Swanwick Mil

ATS Route	Restriction
	FL65 – FL255
N96	CDR H24
N97	CDR H24 between ROKAN and NATEB
P1	CDR H24 between ROKAN and RODSI Westbound only between ROKAN and RODSI
P13	Westbound only
P18	CDR H24 between NATEB and ADN See 3.2.1.2 below.
P38	CDR H24
P39	CDR H24
P40	CDR H24 Westbound only between ROKAN and ADGEG
P43	CDR H24 Westbound only
P48	CDR H24 Eastbound only between LATMU and ROKAN
P144	CDR H24 between MATCH and LARGA Eastbound only
P5	CDR H24 between DIGSU and GOTGO
P58	CDR H24 between RENEQ and PELET, ODMOS and GIVEM
UP59	CDR H24 between RENEQ and ASKAM, NOBDO and OTLAB
P600	Lower limit above the Aberdeen CTR/CTA is FL115 At weekends in real, a portion may be notified as in use by the Scottish Gliding Centre, in which case the N864 is used as an alternative route subject to military activity (see this table)

3.2.1.1 M79

The M79 is compulsory for traffic from EMLON and MIMVA when EG D323 is inactive (as in, when it has not been notified as active by Swanwick Mil) for westbound traffic only bound for the ScTMA, EGPE, EGQS and EGPO, or exiting the Scottish FIR at GOMUP, ETILO, AMLAD, IBROD and MIMKU. Eastbound traffic will then use N110.

3.2.1.2 (U)P18

The P18 ATS route north of NATEB (and UP18 between NATEB and ALASO) is established as a CDR for traffic from/to Aberdeen only available H24. Unavailability of the route in real life is specified by NOTAM when required for MOD access or by activation of a flight planning buffer zone, EGD514Z.

For VATSIM purposes, and because of a lack of mandatory flight plan validation, Swanwick Mil (vRAF) shall notify ScAC sectors when the P18 is explicitly unavailable, and whether civil aircraft are required to be re-routed. Only when Swanwick Mil reserves the airspace for use will it revert to Class G and ScAC shall therefore provide UK FIS.

When the P18 is unavailable, traffic may be re-routed via GRICE and the P600.

3.2.2 Initial Route Clearance

See GEN 1.1.

3.3 Standing Agreements

3.3.1 Scottish Standing Agreements

3.3.1.1 ScAC North

From ScAC North to ScAC South

To	Agreement	Conditions
ScTMA	FL260 lvl ADN	Via AND. (See *Note*)
ScTMA	↓ FL260	Via all other routes (FRA). (See *Note*)

Note: *ScTMA Arrivals are RFD subject to known traffic.*

3.3.1.2 Deancross

From Deancross to ScAC South

To	Agreement	Conditions
EGPD	FL260 lvl GRICE	Via P600/FRA. (See *Note*)
EGPE	FL260 lvl FOYLE	Via N560

Note: *Aberdeen arrivals from Deancross airspace via P600 shall be routed onwards via GRICE-FINDO.*

3.3.1.3 Talla

From ScAC South to Talla

To	Agreement	Conditions
ScTMA	FL260 lvl by/abeam AGPED	

From Talla to ScAC South

From	Agreement	Conditions
EGPF and EGPK (RFL270+)	FL250 lvl by/abeam HAVEN	Via Y96/N97/N110
EGPH (RFL270+)	FL250 lvl by/abeam OTBUN	Via Y96/N97/N110

3.3.2 External Standing Agreements

3.3.2.1 LAC North

From LAC North to ScAC South

To	Agreement	Conditions
EGNT, EGNV	FL250 lvl TENDO	(*Notes 1 & 2*).

Note 1: *LAC North shall pre-note Swanwick Military if online, with the flight details including: call-sign, routing, SSR code, aircraft type and destination. Swanwick Mil will issue a squawk and frequency.*

Note 2: *Once the aircraft is clear of conflictions from all traffic under the control of LAC North and Scottish East (including traffic via UL975) and on passing ROVNI; LAC North will change the SSR code to the assigned Swanwick Mil code and transfer the aircraft silently to Swanwick Mil North.*

3.3.2.2 PC Northeast

From ScAC South to PC Northeast

To	Agreement	Conditions
EGSH	FL270 lvl ERKIT	RFD within PC Northeast (incl. delegated airspace).
EGNM	FL230 lvl TILNI	
MTMA, EGNH and EGNO	FL250 lvl TILNI	
Midlands Group	FL280 lvl RAPUM	

From PC Northeast to ScAC South

From	Agreement	Conditions
MTMA, Midlands Group, EGNH and EGNO	FL270 lvl ARSAT/TILNI	Via UP17/(U)P18. (See *Note*)
EGNM and EGCM	FL270 lvl UNTAL	(See *Note*)

Note: *Positioned to the east of the TILNI-NATEB track.*

3.3.2.3 Aberdeen

ScAC South to Aberdeen

To	Via	Agreement	
EGPD		P600/P18	FL120
EGPD		Class G Airspace	FL120. (See *Note*)

Note: *East of the P600 ATS route, arrivals that route west of the SAB-ADN track that require descent to FL80 or below must be coordinated with Leuchars by ScAC South, who shall notify Aberdeen.*

Aberdeen to ScAC South

From	Via	Agreement
EGPD	P600	FL110
EGPD	P18	FL110 lvl BALID
EGPD	Class G Airspace	FL110. (See *Note*)

Note: *Departures routing west of the SAB-ADN track at or below FL80 must be coordinated with Leuchars by Aberdeen, who shall notify ScAC South.*

3.3.2.4 Inverness

The following standing agreements only exist when Radar is being simulated as available at Inverness. Otherwise, traffic must be individually coordinated.

ScAC South to Inverness

To	Via	Agreement	COP
EGPE	N560	FL130 lvl NESDI	10 NM N of INBAS

Inverness to ScAC South

From	Via	Agreement	COP
EGPE	N560	↟ FL120	10 NM N of INBAS

3.3.2.5 Edinburgh/Glasgow

ScAC South to Edinburgh/Glasgow

To	Via	Agreement
EGPH/EGPF	STIRA	MSL lvl STIRA

3.3.2.6 Amsterdam West (FL245-)

ScAC South to Amsterdam

To	Agreement	Conditions
EHxx (except Groningen Group and EHDL)	FL250 lvl LARDI	Via L74. RFD to FL180 beyond LARDI. (See *Note*)
EHxx (except Groningen Group and EHDL)	FL250 lvl ROKAN	Via N97/M982/N96. RFD to FL180 beyond ROKAN. (See *Note*)

Note: *Amsterdam is responsible for separation against traffic at/climbing to FL240 previously transferred to Scottish.*

Amsterdam to ScAC South

From	Agreement	Conditions
EHxx (except Groningen Group and EHDL)	FL240 lvl ROKAN	Via P1. Cross GODOS FL180+, RFC. (*Notes 1 & 2*)
EHxx (except Groningen Group and EHDL)	FL240	Via M981. Cross GODOS FL180+, RFC. (*Notes 1 & 2*)

Note 1: *Scottish is responsible for separation against traffic at/descending to FL250 previously transferred to Amsterdam.*

Note 2: *Traffic is RFC to FL300 subject to known traffic and traffic to/from LAC North. Further climb shall be coordinated with Delta Sector (or Amsterdam ACC in their absence).*

3.3.2.7 Maastricht UAC (FL245+)

MUAC Jever Sector to ScAC South

From	Agreement	Conditions
EHAM	↟ FL320	Via LONAM. (See *Note*)

Note: *Traffic is released for climb to FL360 and released for turns, subject to known traffic, providing it remains within the confines of the transferring and receiving sectors.*

3.4 Coordination and Procedures with Adjacent Units, Sectors and Airfields

3.4.1 ScAC North

Unless operating under the terms of a standing agreement set out in 3.3.1.1 above, all traffic shall be transferred level at the boundary. Any climb or descent within 10 NM of the AoR boundary must be coordinated.

3.4.1.1 ScTMA Arrivals

ScTMA Arrivals transferred between ScAC North and ScAC South are RFD subject to known traffic.

3.4.1.2 Holding at INS VOR

ScAC North is responsible for the INS (VOR) hold. As such, they are responsible for issuing all clearances and releases to Inverness, following coordination with adjacent sectors as appropriate.

ScAC South shall coordinate with ScAC North any holding required at INS.

Should holding at INS commence, ScAC North shall inform ScAC South and Inverness ATC that standing agreements are suspended.

An acceptance level shall then be coordinated for all inbounds, which ScAC North may elect to work, or request be sent directly to Inverness. All outbounds must be coordinated by Inverness with ScAC North, who shall coordinate with ScAC South as appropriate.

When holding ceases, ScAC North shall inform all units concerned that standard procedures and agreements may be resumed.

3.4.2 Deancross

Outbounds from both Aberdeen via P600 and Inverness via FOYLE shall be individually coordinated by ScAC South with Deancross. These aircraft are released for climb on contact with Deancross.

3.4.3 Talla

3.4.3.1 Carlisle Departures RFL260+ via GRICE/PIPAR

Talla shall climb traffic to FL250 and transfer to Deancross, coordinating with Galloway any aircraft which will penetrate their airspace.

Deancross shall then individually coordinate traffic with ScAC South.

3.4.4 Galloway

3.4.4.1 Prestwick Arrivals via P600 from the North

The default routing for traffic inbound to Prestwick should be GRICE-FENIK-TRN. ScAC South shall coordinate a level at GRICE with Galloway.

Galloway shall then descend the traffic to MSL, ensuring it remains above Glasgow's Local Area (see ScTMA 1.2.2) before providing Prestwick Radar with a radar handover when the traffic is clean. It is then Prestwick's responsibility to coordinate with Glasgow, should they wish to descend it into Glasgow's local area.

If the aircraft is low performance, it shall be routed to TRN by Galloway and identified to Glasgow Radar if it is likely to conflict with Glasgow inbounds. If Glasgow chooses to work the traffic, they are then responsible for coordinating the inbound with Prestwick.

3.4.4.2 Traffic Overflying via GRICE

All flights shall be cleared to the correct semi-circular level for their direction of flight, except traffic routing via P600 which is planned to route via DCS, which shall be cleared to an eastbound (i.e., odd) level and coordinated by ScAC East with Galloway.

3.4.5 Amsterdam ACC

Amsterdam ACC is responsible for the whole of the Amsterdam FIR FL245 and below.

As in real world, the Maastricht Delta and Jever (sectors have responsibility for portions of the Amsterdam FIR adjacent to Scottish above FL245. On VATSIM, in the absence of EDYY positions, Amsterdam ACC and RG Bremen take responsibility of the Delta and Jever sector airspace, respectively.

FL250 is not available as a cruising level in the Amsterdam FIR/UIR.

3.4.5.1 Sectorisation

The coverage priority (left to right) for Amsterdam (SFC-FL245) at the interface with Scottish ACC is as follows:

EHAA_W_CTR	EHAA_LOW_CTR	EHAA_ALL_CTR	EHAA_S_CTR	EHAA_E_CTR
123.705 MHz	125.750 MHz	134.375 MHz	123.850 MHz	124.880 MHz

3.4.5.2 Level or Route Revisions

Any change to the level or routing of an aircraft are to be coordinated (which can be via electronic coordination) by the transferring controller, with acknowledgement received or agreement reached prior to transfer of communications.

3.4.5.3 Transfer of Control and Communication

3.4.5.3.1 Traffic Leaving Scottish

Route	Coordination Point	Transfer of Control	Transfer of Communications
L74	LARDI/ROKAN	LARDI/ROKAN	At or before LARDI/ROKAN

3.4.5.3.2 Traffic Entering Scottish

Route	Coordination Point	Transfer of Control	Transfer of Communications
P1	GODOS	ROKAN, or passing FL245, whichever is later	At or before ROKAN
M981	GODOS	ROXAT, or passing FL245, whichever is later	At or before ROXAT

3.4.5.4 Level Planning

For Standing Agreements, see ScAC 3.3.2.6.

3.4.5.5 Reduced Longitudinal Separation

A reduced minimum longitudinal separation of 3 minutes and exemption from radar handover may be applied between aircraft on the same or crossing tracks, at the same level, climbing, or descending. The transferring unit in each case must radar monitor the separation and ensure that the actual distance between aircraft is no less than 20 NM.

3.4.5.6 Silent Handover (Silent Transfer of Radar Control)

The conditions for Silent Handover are as per GEN 5.6.2.

3.4.6 Copenhagen ACC

3.4.6.1 Sectorisation

The coverage priority (left to right) for Copenhagen at the interface with Scottish ACC is as follows:

EKDK_N_CTR	EKDK_UN_CTR	EKDK_V_CTR	EKDK_WE_CTR	EKDK_CTR
134.680 MHz	136.555 MHz	135.565 MHz	126.055 MHz	136.485 MHz

Note: *Eurocontrol North (EURN_FSS) covers all Copenhagen airspace above FL245 in the absence of local ATC.*

3.4.6.2 Level or Route Revisions

Any change to the level or routing of an aircraft are to be coordinated (which can be via electronic coordination) by the transferring controller, with acknowledgement received or agreement reached prior to transfer of communications.

3.4.6.3 Transfer of Control and Communication

3.4.6.3.1 Traffic Leaving Scottish

Coordination Point	Transfer of Control	Transfer of Communications	Compulsory FRA DCT
REKNA	REKNA	At or before REKNA	REKNA DCT VAXIT / PETIL
ITSUX	ITSUX	At or before ITSUX	ITSUX DCT TINAC
SURAT	SURAT	At or before SURAT	SURAT DCT GOREV / PETIL
AVRAL	AVRAL	At or before AVRAL	AVRAL DCT VALBO
LARGA	LARGA	At or before LARGA	LARGA DCT SOPTO / INBOB / PENUN
ROPAL	ROPAL	At or before ROPAL	ROPAL DCT INBOB / LESRA

Note 1: *Transfer of communications should not occur earlier than 30 NM before the AoR-boundary, unless otherwise coordinated.*

Note 2: *Within 25 NM of the delegated airspace boundary (see ScAC 3.1.2.2), eastbound traffic is released for turns by up to 45°. Aircraft are not released for climb or descent without prior coordination.*

3.4.6.3.2 Traffic Entering Scottish

Coordination Point	Transfer of Control	Transfer of Communications	Compulsory FRA DCT
REKNA	REKNA	At or before REKNA	VAXIT/PETIL DCT REKNA
ITSUX	ITSUX	At or before ITSUX	TINAC DCT ITSUX
SURAT	SURAT	At or before SURAT	GOREV / PETIL DCT SURAT
AVRAL	AVRAL	At or before AVRAL	VALBO DCT AVRAL
TIPAN	TIPAN	At or before TIPAN	LESRA DCT ROPAL
ROPAL	ROPAL	At or before ROPAL	UPGAS / ATNAK DCT TIPAN

Note: *Transfer of communications should not occur earlier than 30 NM before the AoR-boundary, unless otherwise coordinated.*

3.4.6.4 Reduced Longitudinal Separation

A reduced minimum longitudinal separation of 3 minutes may be applied between aircraft on the same or crossing tracks, at the same level, climbing, or descending. The transferring unit in each case must radar monitor the separation and ensure that the actual distance between aircraft is no less than 20 NM.

3.4.6.5 Separation between COPs

For westbound traffic, the following COPs are to be considered the same point for the purposes of Longitudinal separation:

- REKNA / ITSUX / SURAT

All other COPs are deemed laterally separated at the AoR boundary.

3.4.6.6 Silent Handover (Silent Transfer of Radar Control)

The conditions for Silent Handover are as per GEN 5.6.2.

3.4.7 Maastricht UAC

As described in ScAC 3.4.5 Amsterdam ACC, and as in real world, the Maastricht Delta and Jever sectors have responsibility for portions of the Amsterdam FIR adjacent to Scottish above FL245. On VATSIM, in the absence of EDYY positions, Amsterdam ACC and RG Bremen take responsibility of the Delta and Jever sector airspace, respectively.

FL250 is not available as a cruising level in the Amsterdam FIR/UIR.

3.4.7.1 Sectorisation

The coverage priority (left to right) for Maastricht UAC (FL245+) at the interface with Scottish ACC is as follows:

Delta Sector (FL245+)

EDYY_D_CTR 135.960 MHz	**EHAA_ALL_CTR** 134.375 MHz

Jever Low Sector (FL245-FL365)

EDYY_JL_CTR 136.465 MHz	**EDYY_JH_CTR** 129.735 MHz	**EDYY_HH_CTR** 132.780 MHz	**Common Jever top-down order**

Jever High Sector (FL365+)

EDYY_JH_CTR 129.735 MHz	**EDYY_HH_CTR** 132.780 MHz	**EDYY_JL_CTR** 136.465 MHz	**Common Jever top-down order**

Common Jever top-down order

The following top-down order is common to both Jever sectors:

EDYY_BB_CTR 129.840 MHz	**EDWW_E_CTR** 124.075 MHz	**EDWW_A_CTR** 126.325 MHz	**EDWW_W_CTR** 127.675 MHz	**EDWW_CTR** 133.725 MHz

3.4.7.2 Level or Route Revisions

Any change to the level or routing of an aircraft are to be coordinated (which can be via electronic coordination) by the transferring controller, with acknowledgement received or agreement reached prior to transfer of communications.

3.4.7.3 Transfer of Control and Communication

Traffic is released for turn on contact, subject to known traffic, providing it remains within the confines of the transferring and receiving sectors.

3.4.7.3.1 Traffic Leaving Scottish

To Jever Sector

Coordination Point	Transfer of Control	Transfer of Communications
RENEQ	RENEQ	At or before RENEQ
LONAM	LONAM	At or before LONAM

To Delta Sector

Coordination Point	Transfer of Control	Transfer of Communications
TOPPA	TOPPA	At or before TOPPA
GODOS	GODOS	At or before GODOS

3.4.7.3.2 Traffic Entering Scottish

From Jever Sector

Coordination Point	Transfer of Control	Transfer of Communications
RENEQ	RENEQ	At or before RENEQ
LONAM	LONAM (See *Note*)	At or before LONAM

Note: *Traffic via LONAM is released for descent to FL320 within 20 NM of the common boundary, subject to known traffic.*

From Delta Sector

Coordination Point	Transfer of Control	Transfer of Communications
TOPPA	TOPPA	At or before TOPPA
GODOS	GODOS	At or before GODOS

3.4.7.4 Level Planning

For Standing Agreements, see ScAC 3.3.2.7.

3.4.7.5 Reduced Longitudinal Separation

A reduced minimum longitudinal separation of 3 minutes may be applied between aircraft on the same or crossing tracks, at the same level, climbing, or descending. The transferring unit in each case must radar monitor the separation and ensure that the actual distance between aircraft is no less than 20 NM.

3.4.7.6 Separation between COPs

The following COPs are to be considered the same point for the purposes of applying longitudinal separation:

- RENEQ / LONAM
- TOPPA / GODOS

3.4.7.7 Silent Handover (Silent Radar Handover)

The conditions for Silent Handover are as per 5.6.2, except for the following additional procedure.

In place of longitudinal separation (see 3.4.7.6 above), two aircraft at the same level on own navigation via **RENEQ** and **LONAM** may be transferred by silent handover if, at the point of transfer:

- their routes before the COPs are separated by at least 10 NM, and
- their routes after the COP are separated by at least 10 NM for the first 20 NM beyond the sector boundary.

3.4.7.7.1 Silent Handover for Aircraft on Parallel Headings and/or Speed Control

In addition to the above, aircraft may be transferred between ScAC South and Maastricht on parallel headings and with speed control provided that:

- The minimum lateral separation is never less than 5 NM.
- The transferring controller places the assigned heading in the tag and instructs the aircraft to report this on first contact with the receiving controller.
- If the receiving controller anticipates that an aircraft is on an assigned heading, but this is not reported, they shall ascertain whether they are on a heading or own navigation before altering the heading.

3.4.8 LAC North

3.4.8.1 Transfer of Control and Communication

3.4.8.1.1 Traffic Leaving Scottish

Route	Coordination Point	Transfer of Control	Transfer of Communications
N866	AKOKO	AKOKO	At or before LARDI
UM185 *CDR*	ADGEG	14 NM NE of ADGEG (i.e. sector boundary)	At or before 14 NM NE of ADGEG (i.e. sector boundary)
P5 *CDR*	ELNAB	25 NM N of ELNAB (i.e. sector boundary)	At or before 25 NM N of ELNAB (i.e. sector boundary)
UL975, P39 *CDR*	ROVNI	5 NM NE of ROVNI (i.e. sector boundary)	At or before 5 NM NE of ROVNI (i.e. sector boundary)

Traffic via the N866 and UL975 ATS routes to the London TMA, EGHH, EGHI, EGLF, Wessex Group, Brize Group, EGSC, EGTC, EGTK, Manchester TMA and the Midlands Group are released for descent to FL330 on contact, subject to known traffic, and released for turns if on own navigation.

3.4.8.1.2 Traffic Entering Scottish

Route	Coordination Point	Transfer of Control	Transfer of Communications
M604	GIVPO	GIVPO	At or before GIVPO
P5 *CDR*	ELNAB	25 NM N of ELNAB (i.e. sector boundary)	At or before 25 NM N of ELNAB (i.e. sector boundary)
P144, P44 *CDR*	LATMU	17 NM N of LATMU (i.e. sector boundary)	At or before 17 NM N of LATMU (i.e. sector boundary)
UL975, P39 *CDR*	ROVNI	5 NM NE of ROVNI (i.e. sector boundary)	At or before 5 NM NE of ROVNI (i.e. sector boundary)

3.4.8.2 Silent Handover

Traffic transferred in both directions is exempt from radar handover provided that aircraft on the same route are separated by a minimum of 10 NM in trail, constant or increasing.

3.4.8.2.1 Transfer of Control on Headings

In addition to the above conditions being met, aircraft may be transferred between ScAC South and LAC North on parallel headings provided that:

- The minimum lateral separation is never less than 5 NM.
- The transferring controller places the assigned heading in the tag and instructs the aircraft to report this on first contact with the receiving controller.
- If the receiving controller anticipates that an aircraft is on an assigned heading, but this is not reported, they shall ascertain whether they are on a heading or own navigation before altering the heading. In any case, the receiving controller must not turn aircraft off an assigned heading without first effecting coordination.

3.4.8.3 N866 Traffic Positioning

ScAC South shall endeavour to stream traffic to the same destination, regardless of their level, as well as to position traffic in accordance with the table below.

West to East			
Faster - Slower			
Overflights (Same level or lower)	EGGW/SS/SC/TC	EGLL/WU/HI/HH/LF, Wessex Group, Brize Group & EGTK	EGKK

This means, for example, that an inbound to Southampton (EGHI) that is faster than an inbound to Oxford Kidlington (EGTK) should be positioned to the west of the Oxford inbound.

3.4.9 PC Northeast

3.4.9.1 Traffic Departing Leeds via P17/(U)P18

All traffic departing EGNM, regardless of RFL, routing via P17/(U)P18 shall be individually coordinated by PC Northeast with ScAC South.

3.4.9.2 Traffic Routing Southbound on N110 (via ERKIT) at FL250

Any traffic cruising at FL250 on the N110 southbound must be coordinated by ScAC South with Swanwick Mil (East – EGVV_E_CTR), who will terminate Standing Agreements with PC Northeast as required.

PC Northeast shall be responsible for conflict detection between cruising traffic and traffic wishing to join the N110.

3.4.10 Cumbernauld (EGPG)

Cumbernauld is situated within the Glasgow Local Area (see ScTMA 1.2.2).

3.4.10.1 Procedures for Inbound Aircraft

IFR arrivals to Cumbernauld shall not be provided with an approach control service by either Glasgow or Edinburgh Radar, but they will be provided with an en-route service initially by the airfield responsible for the local area being transited, while they are descending through it.

ScAC South shall therefore release Cumbernauld arrivals to the appropriate airfield APC at an agreed level and suitable routing/heading. Once the traffic has entered the local area, it must not be allowed to re-enter airspace under the control of any Scottish area sector without coordination.

3.4.10.2 Procedures for Outbound Aircraft

IFR outbounds from Cumbernauld wishing to enter controlled airspace shall be instructed to obtain a clearance from Glasgow APC – or the controller responsible for them top-down – prior to departure. The clearance given must ensure that the aircraft remains within local area airspace, and all departures are subject to release from Glasgow. Glasgow shall coordinate with Edinburgh if the aircraft is likely to penetrate their local area.

Glasgow shall then coordinate these departures with ScAC South/ScTMA as appropriate.

3.5 Special Procedures

3.5.1 Northern North Sea Transfer of ATS

3.5.1.1 Area III

In this part of the Scottish FIR, as shown in **UK eAIP ENR 6-44**, Copenhagen will provide ATS to all aircraft at or below FL85.

3.5.1.2 Area V

In this part of the Scottish FIR, as shown in **UK eAIP ENR 6-44**, the Netherlands will provide ATS to all aircraft at or below FL55.

3.6 Holding Procedures

3.6.1 Aberdeen Holding

ADN Hold

ADN	1-minute legs
Axis	161°
Direction	LEFT hand
Speed	Maximum 210 kts IAS

3.6.2 Inverness Holding

All holds below are separated up to and including FL100.

Hold	Axis	Direction	Time or Distance	Speed
INS	244°	RIGHT	1 min	-
BONBY	158°	LEFT	1 min	Max 210 kts
GARVA	123°	RIGHT	5 NM	Max 210 kts
GUSSI	010°	RIGHT	5 NM	Max 210 kts

3.6.3 ScTMA Holding

FOYLE Hold

FOYLE	1-minute legs
Axis	189°
Direction	LEFT hand
Maximum Holding Level	FL140
Speed	Maximum 230 kts IAS

Note: *Separated from GOW (FL70 and below, entry procedure not separated above FL70), STIRA (FL120 and below) and SUMIN, LANAK, TARTN and FYNER at FL140 and below.*

STIRA Hold

STIRA	4 NM hold
Axis	234°
Direction	RIGHT hand
Maximum Holding Level	FL140
Speed	Maximum 230 kts IAS

Note: *Separated from FOYLE (FL120 and below) and GOW, SUMIN, TARTN, and FYNER at FL140 and below.*

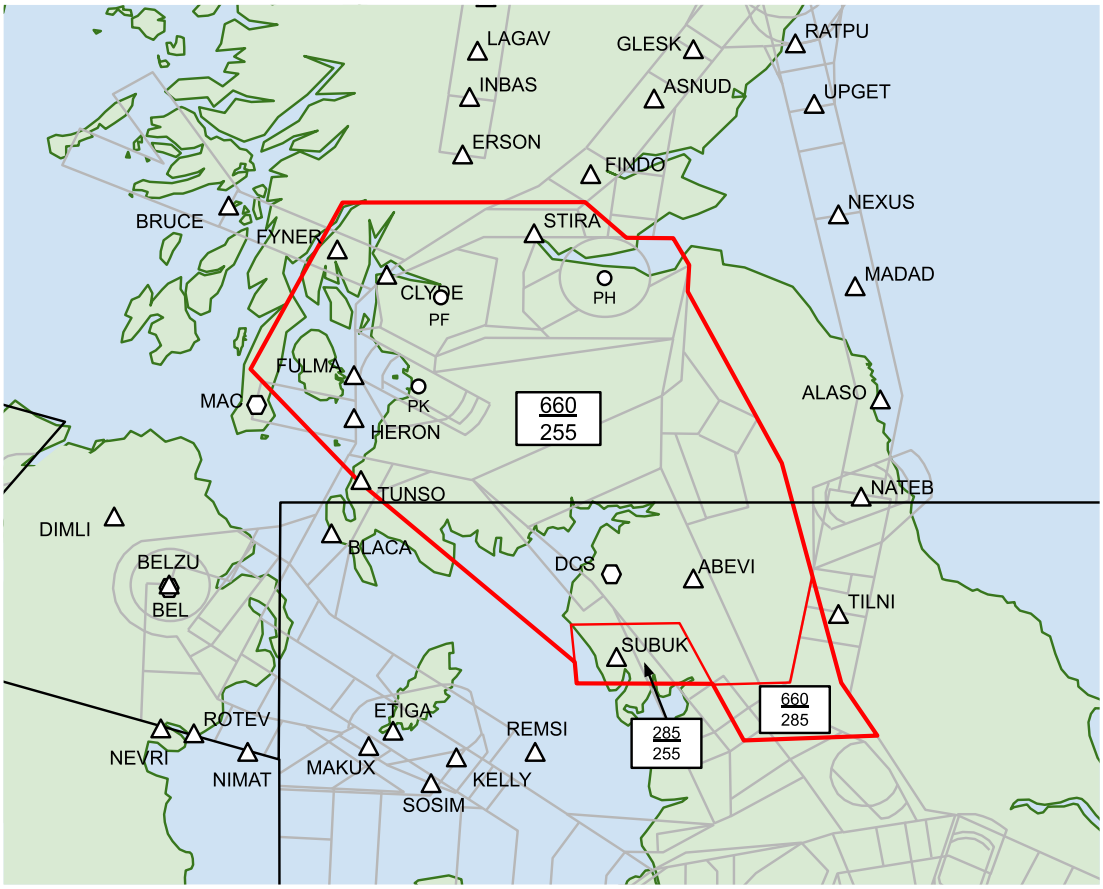
Note: *The STIRA hold can be used for both Glasgow and Edinburgh arrivals.*

Chapter 4 Deancross

4.1 Area of Responsibility

The area of responsibility for the Deancross sector is illustrated in Figure ScAC-10.

Figure ScAC-10 – Deancross AoR



4.1.1 Sector Frequency

Deancross operates on frequency 135.855 MHz.

4.2 General Operating Procedures

4.2.1 Route Structure

Most traffic within the Deancross sector will be routing via an ATS route and onto a published arrival if inbound to the Scottish TMA. Some crossing or merging of traffic may occur in the TLA area as the stream from ScAC South joins the northbound flow from POL. Otherwise, the southbound and northbound flows are well separated.

ATS Route	Restriction(s)
UL612	Eastbound only between DCS and XAMAB.
UN57	Eastbound only between MAC and DCS. DCS – SETEL only available if coordinated with LAC.
UN864	Eastbound (southbound) only between TLA and BILVO.
UN601	Westbound only between SANDY and TLA.
L602	Between ERKIT and TLA base level FL285.
UN590	Westbound only.
L613	Westbound (northbound) only between SOVAT and TLA.
(U)P18	CDR H24 between NATEB and ADN Unavailability specified by Swanwick Mil (vRAF)

4.2.1.1 (U)N864

The N864 between DCS and WAL (base level FL195) is for use of southbound traffic only that are operating flights between the following airfields/exit points. This is reflected in the SRD.

Departure Airfield	Arrival Airfield/UK FIR Exit Point
EGPD/PE/PF/PH/PK	EGGD/FF, EGHH/HI, EGHQ, EGJJ/JB/JA, EGKK, EGLF, EGTE
	ANNET, BIGNO, SALCO, SKERY (all via BHD)

4.2.2 Initial Route Clearance

See GEN 1.1.

4.3 Standing Agreements

4.3.1 Scottish Standing Agreements

4.3.1.1 Galloway

From Deancross to Galloway

To	Agreement	Conditions
MTMA and EGNM	FL260 lvl DCS	
Belfast Group	FL260 lvl TRN	

From Galloway to Deancross

From	Agreement	Conditions
ScTMA	↑ FL250	Via DCS

4.3.1.2 Talla

From Deancross to Talla

To	Agreement	Conditions
EGPH	FL260 lvl INPIP	
EGPF, EGPK and EGPG	FL260 lvl ASLIB	
EGPN and EGQL	↓ FL260	

From Talla to Deancross

From	Agreement	Conditions
EGNM	FL250	RFC in PC West's airspace.

4.3.1.3 ScAC South

From Deancross to ScAC South

To	Agreement	Conditions
EGPD	FL260 lvl GRICE	Via P600/FRA. (See *Note*)
EGPE	FL260 lvl FOYLE	Via N560

Note: *Aberdeen arrivals from Deancross airspace via P600 shall be routed onwards via GRICE-FINDO.*

4.3.2 External Standing Agreements

4.3.2.1 LAC Lakes

From Deancross to LAC Lakes

From	Agreement	Conditions
EGPH, EGPF, EGPH, EGPN and EGQL	FL350 lvl SUBUK/LAKEY	
EGPK	FL310 lvl SUBUK/LAKEY	(See *Note*)

Note : *If outbound traffic is likely to penetrate MPC airspace, Deancross will coordinate with MPC and establish if MPC would like to work the traffic. Deancross will then advise LAC Lakes accordingly.*

4.3.2.2 PC West

From Deancross to PC West

To	Agreement	Conditions
Midlands Group and EGNJ	↓ FL270	

From PC West to Deancross

From	Agreement	Conditions
MTMA Group	↑ FL280	(See *Note*)

Note: *PC West will notify Talla (255-) of traffic unable to achieve FL260 before the sector boundary between PC West & Talla and ascertain whether they wish to work the traffic.*

4.4 Coordination and Procedures with Adjacent Units, Sectors and Airfields

4.4.1 ScAC South

Outbounds from both Aberdeen via P600 and Inverness via FOYLE shall be individually coordinated by ScAC South with Deancross. These aircraft are released for climb on contact with Deancross.

4.4.2 ScAC West (Rathlin)

4.4.2.1 Release for Descent of Dublin Group Inbounds via TRN

Dublin Group arrivals via TRN transferred from Deancross to Rathlin are released for descent to FL260, subject to known traffic. Traffic is not released for further descent without coordination, including when the TMA Sectors (Galloway & Talla) are bandboxed with the Deancross controller.

4.4.3 PC West

4.4.3.1 Coordination of Traffic on L613 and UN590

Although the minimum published available level on UN590 is FL280, tactical use of FL250 – FL270 between HALIF and ABEVI is approved at all times.

4.4.4 LAC North

4.4.4.1 Traffic Entering Deancross

4.4.4.2 Positioning

LAC North shall position inbounds to EGPH, EGPN or EGQL to the east of other inbounds to the ScTMA.

LAC North shall endeavour to position Aberdeen arrivals via the UP18 to the east of all other traffic transferred to Deancross, except that northbound traffic via the UP17 via ARSAT shall be positioned to the east of Aberdeen arrivals. This traffic will be transferred to ScAC South, unless Deancross elects to work the traffic. This traffic is released for right turns only.

4.4.4.2.1 Level Planning (Westbound)

PC West and LAC will plan westbound traffic via ABEVI/HALIF in accordance with the following table:

Levels	Availability
FL200 – FL260	Westbound levels only. Odd levels after coordination.
FL280+	All levels.

4.4.4.2.2 Traffic at Cruising Levels

LAC North and PC West will normally transfer all ScTMA overflights and inbounds via ABEVI/ASLIB at cruising levels.

Traffic departing from MTMA airfields and EGNM to the Scottish TMA shall be allocated a maximum level of FL240.

Traffic departing EGNX, EGBB, EGBE and EGNJ overflying the ScTMA will be allocated a maximum of FL280.

All levels FL250 and above between HALIF and ABEVI may be used at all times.

4.4.4.2.3 RFT/RFD of traffic from LAC North

Aircraft inbound to the Scottish TMA which is transferred to Deancross prior to the transfer of control position (i.e. the sector boundary) is RFD within the confines of AC North, subject to known traffic.

Any vectoring of traffic must ensure that aircraft do not track west of the western edge of ATS route UN601 while within LAC North airspace.

4.4.4.3 Traffic Leaving Deancross

4.4.4.3.1 Positioning

Deancross shall endeavour to position traffic inbound to London and nearby airfields as follows (west to east):

EGHH/HI	**EGLF and Wessex Group**	**EGKK**	**EGLL/WU**	**EGMC**	**Essex Group**	**EGLC/KB**

4.4.4.3.2 Level Agreements

To	Via	Max Level
Overflights to Brize Group, Severn Group, EGTE, EGUN, EGUL, EGYM, EGSH and EGTK	DCS	FL330

4.5 Special Procedures

N/A

4.6 Holding Procedures

4.6.1 TLA Hold

En-route holding may take place at TLA.

TLA	1.5-minute legs
Axis	151°
Direction	LEFT hand
Holding Levels	FL250 – FL390
Speed	Standard ICAO Holding Speeds

Note: *Not separated from DCS.*

4.6.2 DCS Hold

En-route holding may take place at DCS. RNAV Hold.

DCS	1.5-minute legs
Axis	152°
Direction	RIGHT hand
Holding Levels	FL250 – FL370
Speed	Maximum 255 kts IAS

Note 1: *Not separated from TLA.*

Note 2: *Should holding at DCS become necessary, Deancross shall notify Galloway, Talla, PC West and LAC North.*

Note 3: *Talla shall ensure traffic remains at least 5 NM from traffic in or entering the DCS hold.*

Chapter 5 ScAC West (includes Rathlin)

5.1 Area of Responsibility

The area of responsibility for the ScAC West LAG, West and Rathlin sectors are illustrated in Figure ScAC-*11* and Figure ScAC-12, respectively.

Figure ScAC-11 – ScAC West – West AoR

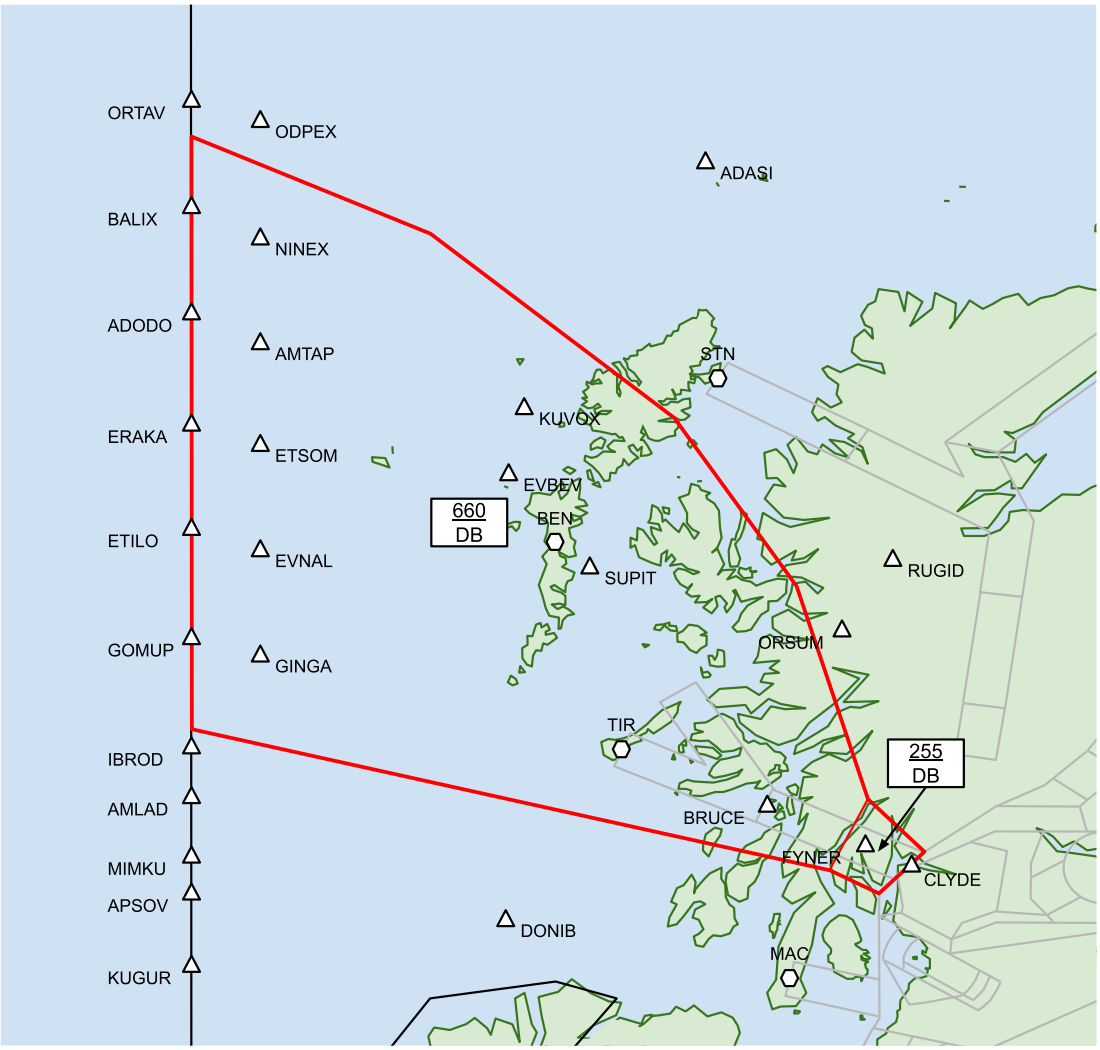
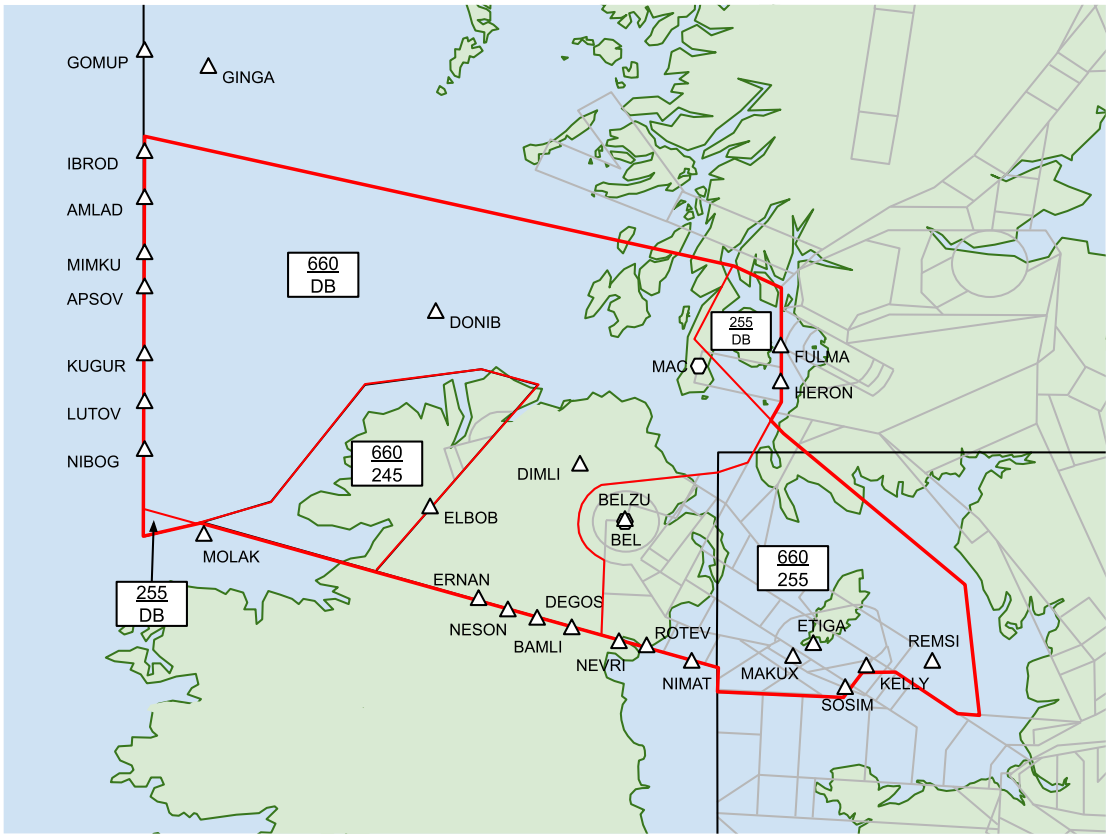


Figure ScAC-12 – ScAC West – Rathlin AoR



5.1.1 Sector Frequencies

ScAC West (Bandboxed) operates on frequency 132.730 MHz.

Rathlin operates on frequency 129.100 MHz.

5.1.2 Delegated Airspace

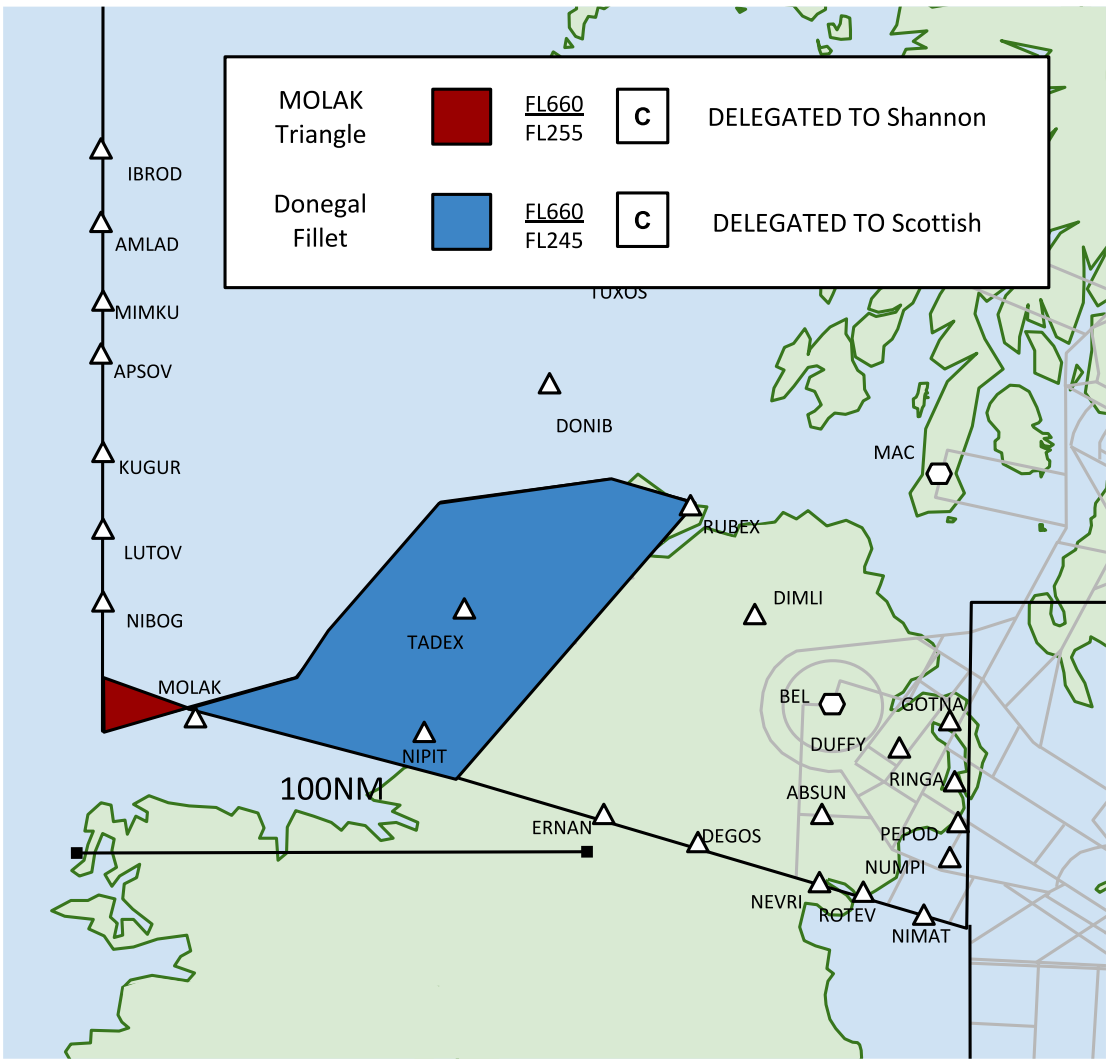
5.1.2.1 To Shannon ACC – MOLAK Triangle

From FL255 to FL660 within the red area in Figure ScAC-13 known as the MOLAK Triangle, ATS is delegated from Scottish to Shannon.

5.1.2.2 From Shannon ACC – Donegal Fillet

From FL245 to FL660 within the blue area in Figure ScAC-13 known as the Donegal Fillet, ATS is delegated from Shannon to Scottish.

Figure ScAC-13 – ATS Delegation from/to Shannon ACC in the SW Corner of the EGPX FIR



5.2 General Operating Procedures

5.2.1 Route Structure

The airspace within the West and Rathlin sectors was the first in the UK to be made 'Free Route Airspace' (FRA). As such, there is no formal ATS route structure at high levels, and below FL255 only the N562 connects MAC to MIMKU on the western border, and the N552 MAC to RUBEX, north of Londonderry/Eglinton.

There are a vast number of FRA directs available, and their use is largely determined by the Oceanic track structure and dominant traffic flow. Most westbound traffic enters Rathlin at REMSI, and most eastbound traffic headed to the London TMA routes to KELLY. Most eastbound traffic in the West sector routes via GOW/DCS.

5.2.2 Route Restrictions

ATS Route	Restriction(s)
N552	Class C (Argyll CTA 5) FL195-FL245.
N562	Between HERON and MAC Class E (Argyll CTA 3) + Transponder Mandatory Zone from FL105-FL195. Between MAC and MIMKU Class C (Argyll CTA 5) FL195-FL245.
L602	Class C (Argyll CTA 4) FL195-FL245. Between TIR and BRUCE Class E (Argyll CTA 2) + Transponder Mandatory Zone FL115-FL195. Between BRUCE and CLYDE Class E (Argyll CTA 1) + Transponder Mandatory Zone from 5,500-FL195.

5.2.3 Initial Route Clearance

See GEN 1.1.

5.2.4 Use of 3 NM Separation

The use of 3 NM lateral separation is only approved up to FL260 inside of Rathlin's airspace by Antrim and PC West controllers, as long as climb above FL250 has been coordinated. Both Antrim and PC West must ensure either 5 NM lateral separation or vertical separation is achieved before transfer of communications to Rathlin, since Rathlin controllers are not permitted to use 3 NM separation at any time, *except* when acting as Antrim top-down on VATSIM.

5.3 Standing Agreements

5.3.1 Scottish Standing Agreements

5.3.1.1 Antrim

From Rathlin to Antrim

To	Agreement	Conditions
ScTMA	FL260	Via GOTNA
EGAC	FL260	Via NINEB/MASOP (*Notes 1, 4 & 5*)
EGAA	FL260	Via UVPOK/MASOP. (*Notes 1, 4 & 5*)
EGAB/EGAE	FL260	Via NELBO. (*Notes 1 & 4*)
Dublin Group	FL260 lvl BELZU	Via BELZU. (*Note 2*)
Dublin Group	FL260	Via BLACA. (*Note 3*)

Note 1: *Rathlin is responsible for conflict detection and resolution between Manchester TMA departures and Belfast TMA arrivals.*

Note 2: *Antrim shall ensure that this traffic is descended to FL250 or below by 10 NM after BELZU. Rathlin is responsible for conflict detection and resolution against south/westbound traffic via NELBO.*

Note 3: *Rathlin shall ensure that aircraft are given descent that enable Antrim to ensure that traffic is FL240 or below by NIMAT.*

Note 4: *If EGAC are using Runway 04 and EGAA Runway 25, Antrim will inform Rathlin, who should then position EGAC arrivals south of EGAA arrivals.*

Note 5: *MASOP for RNAV 5 only.*

From Antrim to Rathlin

From	Agreement	Conditions
All	↟ FL250	Via P600 (northbound)
EGAA, EGAC (RFL285+)	FL250 lvl ETIGA	Via INKOB (Q39). (*Notes 1* & *2*)
EGAA, EGAC (RFL 255-285)	FL250 lvl MAKUX	Via MAKUX (Q38). (*Note 2*)
EGAA, EGAC (RFL 255+)	FL250 lvl MAKUX	Via MAKUX (L15). Transferred on a heading between KELLY and SOSIM.
EGAB	↟ FL250	Via PEPOD
EGAE	↟ FL250	Via DUFFY
Dublin Group	↟ FL250	Via BELZU (N34)

Note 1: *EGAA and EGAC departures via INKOB with an RFL290+ are required to reach FL290 by abeam INKOB to avoid PC West airspace. The Antrim controller will stop the aircraft at FL250, inform Rathlin, and confirm with Rathlin whether the aircraft is RFC in their airspace. Antrim shall then coordinate this with PC West.*

Note 2: *Rathlin is not able to use 3 NM separation. Antrim and PC West can use 3 NM within Rathlin's airspace up to FL260 but must ensure that either 5 NM lateral or vertical separation exists before transfer of communications to Rathlin.*

5.3.2 External Standing Agreements

5.3.2.1 Prestwick

Rathlin to Prestwick

To	Agreement	Conditions
EGPK	MSL lvl 25 NM before TRN	Via HERON

Prestwick to Rathlin

From	Agreement	Conditions
EGPK	6000 feet Prestwick QNH	Via HERON

5.3.2.2 Glasgow

ScAC West to Glasgow

To	Agreement	Conditions
EGPF	FL90 lvl 20 NM before GOW	Via ROBBO/LOMON/FYNER

5.3.2.3 PC West

From Rathlin to PC West

To	Agreement	Conditions
MTMA, EGNH, EGNO, and EGNM	FL270 lvl MAKUX	Positioned between KELLY and SOSIM. RFD.
EGBB, EGNX, EGBE, EGNJ	FL270 lvl MAKUX	Positioned between KELLY and SOSIM. RFD.

From	Agreement	Conditions
EGAA, EGAC (RFL270)	FL270 lvl 5 NM before SOSIM	Positioned between KELLY and SOSIM.

From PC West to Rathlin

From	Agreement	Conditions
MTMA Group, EGNH and EGNO	FL260 lvl KELLY/LUSOD	Positioned on a heading on the north side of L10. (See *Note*)

Note: *PC West should notify STC Antrim (255-) of traffic unable to achieve FL260 level 10 NM before KELLY and ascertain whether they wish to work the traffic.*

5.3.2.4 LAC North

From Rathlin to LAC North

From	Agreement	Conditions
EGAA, EGAC (RFL290+) (L15)	FL290 lvl abeam SOSIM	Transfer of communications at or before abeam MAKUX. Positioned between KELLY and SOSIM on own navigation or a heading. RFT after passing FL255, remaining south of the REMSI buffer (see ScAC 5.4.1.2). (*Notes 1, 2 & 3*)
EGAA, EGAC (RFL290+) (Q39)	FL290 lvl abeam INKOB	Transfer of communication at or before abeam ETIGA. Positioned between KELLY and SOSIM on own navigation or a heading. RFT after passing FL255, remaining south of the REMSI buffer (see ScAC 5.4.1.2). (*Notes 1, 2 & 3*)

Note 1: *If the Rathlin controller assesses that the aircraft will not achieve FL290 abeam SOSIM/INKOB, the controller shall coordinate with PC West and LAC North as early possible.*

Note 2: *Should such traffic be transferred on a radar heading, it is not RFT until within the confines of LAC North airspace unless coordination with Rathlin is effected.*

Note 3: *Traffic inbound to EGFF, EGGD and EGTE shall be positioned to the south of all other traffic and south of KELLY.*

From LAC North to Rathlin

Traffic inbound to:

- EGAA should be routed south towards UVPOK
- EGAC should be routed north towards NINEB

5.3.2.5 Shannon ACC

From Rathlin to Shannon

From	Agreement	Conditions
ScTMA (excl. EGPK via NIMAT)	RFL	Via NIMAT/ERNAN/DEGOS/ NIPIT/MOLAK (*Notes 1 & 2*)
EGPK	FL310 lvl NIMAT	Via NIMAT (*Notes 1 & 2*)

Note 1: *Rathlin must ensure that traffic is clear of all other traffic at FL310 or above that is unknown to Shannon before transfer.*

Note 2: *When traffic is within 30 NM of the common boundary, it is RFC and – if on its own navigation – is RFT by up to 45°.*

Note 3: *Shannon are responsible for providing separation from traffic previously transferred to Scottish if traffic is climbed above the agreed level and/or vectored.*

To	Agreement	Conditions
Dublin TMA from 10W	↓ FL290	Via ERNAN (*Notes 1 & 2*)

Note 1: *This traffic is released for descent to FL260 on transfer to Shannon.*

Note 2: *Should this traffic be descended, it is the responsibility of Shannon to ensure separation against traffic previously transferred to Rathlin.*

From Shannon to Rathlin

To	Agreement	Conditions
ScTMA (excl. EGPK via ROTEV)	RFL	Via ROTEV/ERNAN/DEGOS/ NIPIT/MOLAK (*Notes 1 & 2*)
EGPK	FL330 lvl ROTEV or RFL if lower	Via ROTEV (*Notes 1 & 2*)

Note 1: *When traffic is within 30 NM of the common boundary, it is RFD to FL250 within Shannon's airspace and – if on its own navigation – is RFT by up to 45°.*

Note 2: *Rathlin is responsible for providing separation from traffic previously transferred to Shannon if traffic is descended below the agreed level and/or vectored.*

From	Agreement	Conditions
Dublin TMA to 10W	↑ FL280	(See *Note*)

Note: *This traffic is RFC, but if it is climbed, it is the responsibility of Rathlin to ensure separation against traffic previously transferred to Shannon.*

5.4 Coordination and Procedures with Adjacent Units, Sectors and Airfields

5.4.1 PC West

5.4.1.1 Traffic Positioning

Eastbound traffic should be positioned by Rathlin on a heading towards or south of INKOB prior to transfer to PC West.

Westbound traffic on the L10 ATS route will be positioned by PC West on a heading towards or north of KELLY prior to transfer to Rathlin.

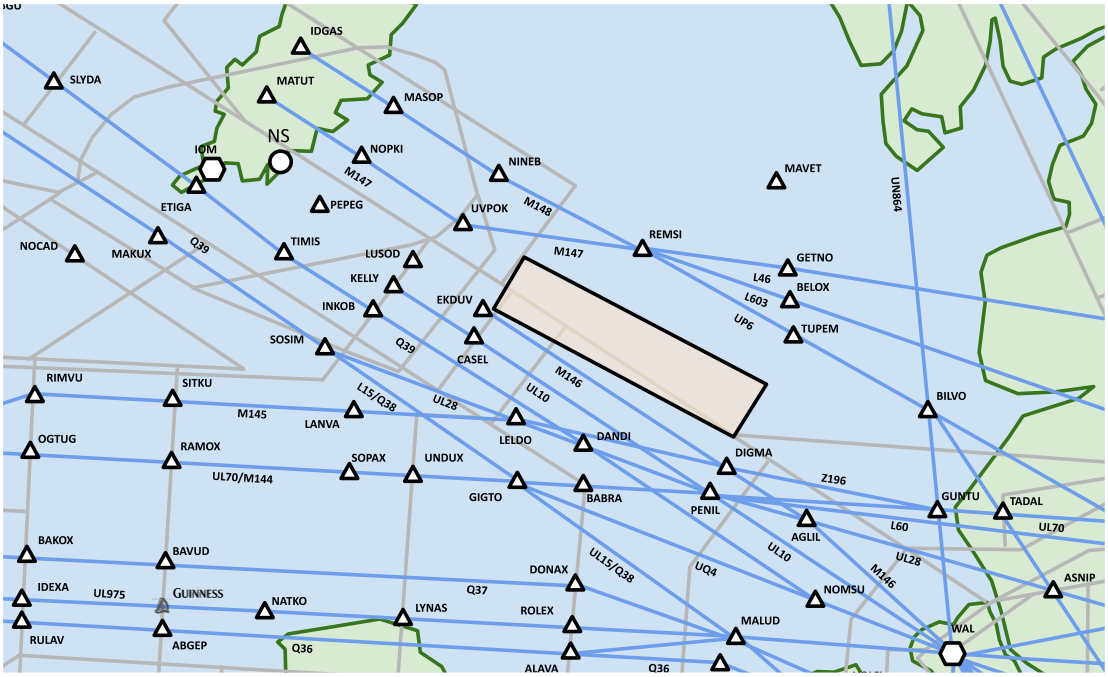
5.4.1.2 The REMSI Buffer Zone

The REMSI Buffer Zone (Figure ScAC-14) is established to ensure separation between eastbound traffic from the Belfast TMA and ScAC Rathlin versus westbound traffic inbound to the Belfast TMA via REMSI or entering FRA.

PC West will also ensure that Manchester TMA Group outbounds climbing FL260 will not enter the REMSI Buffer Zone.

Controllers shall ensure the buffer is shown on the radar display (**Display Settings → Stars → REMSI Buffer**).

Figure ScAC-14 – REMSI Buffer Zone



5.4.1.3 Level Agreements

To	Via	Max Level
Belfast TMA departures to EGNJ, EGNT, EGNV and EGSH	Q38/L15	FL270

5.4.2 Deancross

5.4.2.1 Release for Descent of Dublin Group Inbounds via TRN

Dublin Group arrivals via TRN transferred from Deancross to Rathlin are released for descent to FL260, subject to known traffic. Traffic is not released for further descent without coordination, including when the TMA Sectors (Galloway & Talla) are bandboxed with the Deancross controller.

5.4.3 LAC North

5.4.3.1 The REMSI Buffer Zone

The REMSI Buffer Zone (see Figure ScAC-14, above) is established to ensure separation between traffic transferred between LAC and Rathlin.

LAC North will ensure that eastbound aircraft remain on the southern boundary or south of the REMSI buffer zone to ensure separation against traffic entering FRA via GETNO, TUPEM or BELOX.

Rathlin shall ensure that westbound aircraft remain on the northern boundary or north of the buffer zone. This traffic is RFT subject to known traffic, provided it remains to the north of the REMSI buffer zone.

Controllers shall ensure the buffer is shown on the radar display (**Display Settings → Stars → REMSI Buffer**).

5.4.3.2 Level Agreements

To	Via	Max Level	Conditions
Brize Group, Severn Group, EGTE, EGUN, EGUL and EGTK	KELLY	FL330	Transferred on a heading between KELLY and SOSIM, RFT to remain south of the REMSI Buffer Zone (see Figure ScAC-14). RFD after passing IOM.
Belfast TMA departures to Brize Group, Severn Group, EGTE, EGUN, EGUL and EGTK	SOSIM	FL310	Transferred on a heading between KELLY and SOSIM, RFT to remain south of the REMSI Buffer Zone (see Figure ScAC-14). RFD after passing IOM.
EGSH, EGUL, EGUN, EGYM	BELOX	FL330	Released for turns to remain North of the REMSI Buffer Zone (see Figure ScAC-14). RFD after passing REMSI.

5.4.4 Shannon ACC

5.4.4.1 Shannon Airspace FL245 and Above

Although Shannon have defined a day-to-day configuration of the high-level airspace (see Figure ScAC-15), they use a dynamic sectorisation above FL245 that varies according to the particular traffic demands. The airspace can also be split vertically at FL355; when this occurs, the sector from FL245-FL355 will be referred to as 'Upper', with the sector above FL355+ referred to as 'Super'.

Shannon ACC will advise Scottish of the current sector configuration and frequencies if different from the configuration shown below.

The coverage priority (left to right) for **Shannon LIFFY (Upper)** sector is as follows:

EISN_E_CTR 134.260 MHz	**EISN_CTR** 134.260 MHz

The coverage priority (left to right) for **Shannon LIFFY (Super)** sector is as follows:

EISN_ES_CTR 135.730 MHz	**Shannon LIFFY (Upper)**

The coverage priority (left to right) for **Shannon NOTA (Upper)** sector is as follows:

EISN_N_CTR 122.980 MHz	**Shannon LIFFY (Upper)**

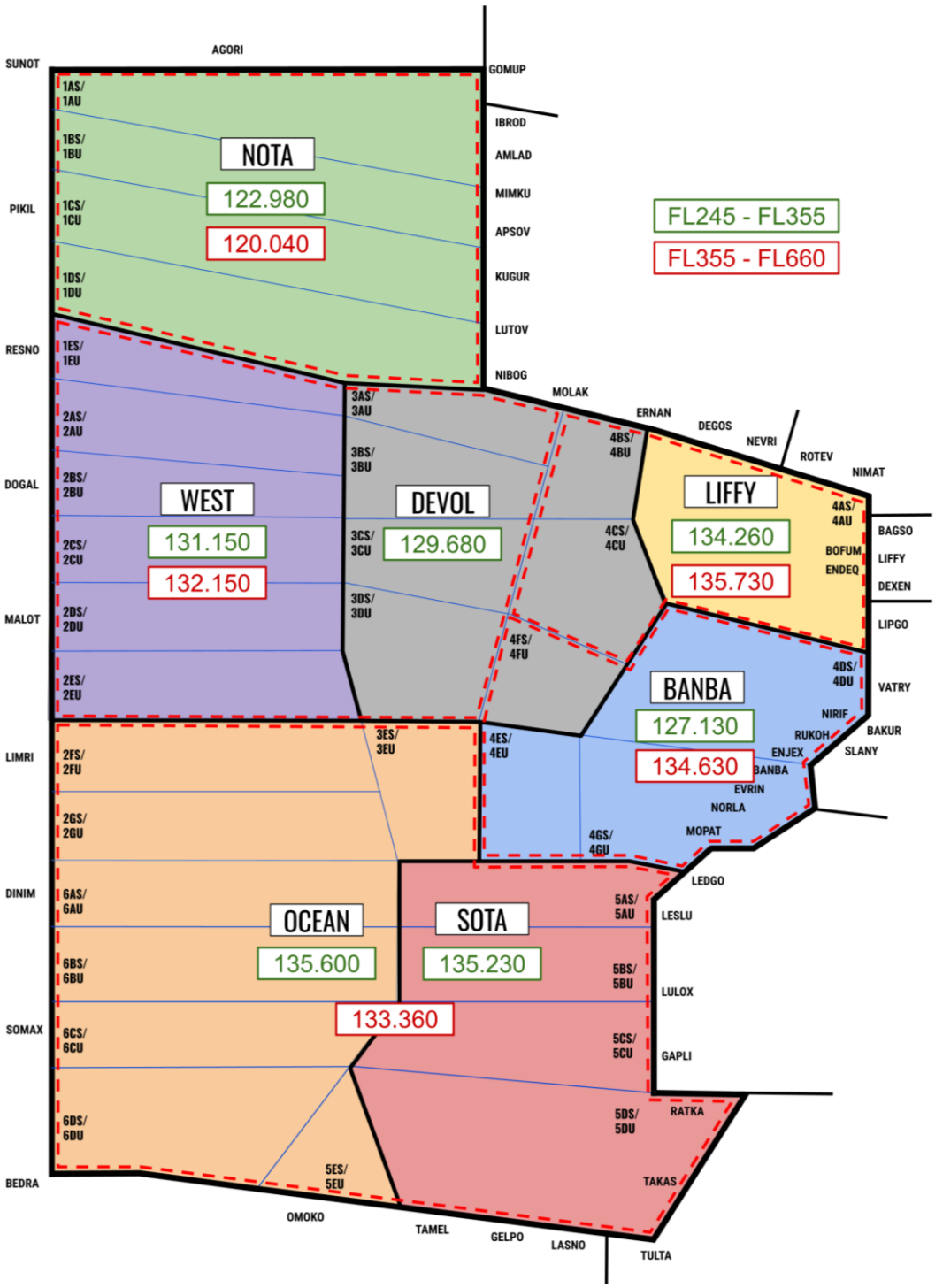
The coverage priority (left to right) for **Shannon NOTA (Super)** sector is as follows:

EISN_NS_CTR 120.040 MHz	**Shannon NOTA (Upper)**

5.4.4.2 Shannon NOTA

The Shannon North Atlantic Transition Area (NOTA) extends from FL55 to an unlimited height. Shannon ACC is responsible for ATS provision within this area.

Figure ScAC-15 – Shannon ACC Standard Sectorisation



5.4.4.3 Data Transfer and Coordination

Messages, including current flight plan data, shall generally be automatically transferred the accepting ATS unit by automatic data exchange via the controller client. Alternatively, this may be achieved via coordination to the appropriate sector/position.

5.4.4.4 Transfer of Control and Communication

The table below and associated notes apply to traffic in either direction.

Route	Transfer of Control	Transfer of Communications
NOTA Boundary	W010	At or before W010
MOLAK	MOLAK	At or before MOLAK
NIPIT	NIPIT	At or before NIPIT
ERNAN	ERNAN	At or before ERNAN
DEGOS	DEGOS	At or before DEGOS
NEVRI	NEVRI	At or before NEVRI
ROTEV	ROTEV	At or before ROTEV

Note 1: *Transfer of communications shall occur no later than 3 minutes or 20 NM, whichever is earlier, before the boundary.*

Note 2: *Unless otherwise specified in a Standing Agreement, aircraft are RFC within 30 NM of the common boundary, except for that traffic routing from NOTA via Scottish to ERNAN.*

Note 3: *Within 30 NM of the common boundary aircraft on their own navigation are released for turns by up to 45° subject to known traffic.*

Note 4: *Except for Dublin Arrivals, Scottish shall not change flight levels for eastbound traffic from NOTA via ERNAN without coordination.*

5.4.4.5 Level Planning

5.4.4.5.1 Flight Level Allocation

COP	Flight Level Allocation	
	Shannon ACC to Rathlin	**Rathlin to Shannon ACC**
IBROD	ODD	EVEN
AMLAD	ODD	EVEN
MIMKU	ODD	EVEN (*Intention Code* **N5**)
APSOV	ODD	EVEN
KUGUR	ODD	EVEN
LUTOV	ODD	EVEN
NIBOG	ODD	EVEN

COP	Flight Level Allocation	
	Shannon ACC to Rathlin	Rathlin to Shannon ACC
MOLAK	ODD/EVEN	ODD/EVEN
NIPIT	ODD	EVEN
ERNAN	ODD/EVEN	ODD/EVEN
DEGOS	ODD	EVEN
NEVRI	EVEN	-
ROTEV	ODD	EVEN
NIMAT	-	EVEN

5.4.4.5.2 Event Flight Level Allocation Scheme (eFLAS)

Following agreement between the appropriate personnel responsible for the Shannon ACC and London/Scottish ACCs, the following eFLAS scheme may be adopted.

Westbound eFLAS

Eastbound Levels	Direction	Westbound Levels
410	→	
	←	400
390	→	
	←	380
370	→	
	←	360
	←	**350**
	←	340
330 (*Note 1*)	→	
	←	320
	←	**310** (*Note 2*)
	←	300
290	→	

Note 1: *FL330 not available southbound via NIMAT.*

Note 2: *FL310 not available northbound via ROTEV.*

Eastbound eFLAS

Eastbound Levels	Direction	Westbound Levels
410	→	
400	→	
390	→	
380	→	
370	→	
360	→	
350	→	
340	→	
330	→	
	←	320
310	→	
	←	300
290	→	

Note 1: *FL330 not available southbound via NIMAT.*

Note 2: *FL310 not available northbound via ROTEV.*

5.4.4.6 Reduced Longitudinal Separation

A reduced minimum longitudinal separation of 3 minutes may be applied between aircraft on the same or crossing tracks, at the same level, climbing, or descending. The transferring unit in each case must radar monitor the separation and ensure that the actual distance between aircraft is no less than 20 NM.

5.4.4.7 Separation between COPs

The following are considered the same track for the purposes of Longitudinal Separation:

- Flights crossing the NOTA boundary (W010) at adjacent points.
- Flights crossing the boundary at AMLAD and APSOV.
- Westbound flights crossing at NIBOG and MOLAK.

All other COPs are deemed laterally separated at the AoR boundary.

5.4.4.8 Silent Handover (Silent Transfer of Radar Control)

The conditions for Silent Handover are as per GEN 5.6.2.

5.4.4.9 Vectoring of Traffic

The distance to the AoR boundary must never be less than 5 NM when either Rathlin or Shannon ACC vector traffic that is unknown to the other.

5.4.5 Shanwick OAC

The Shanwick Oceanic Control Area (OCA) adjoins the Scottish FIR/UIR along W010. The lower limit is FL55 and there is no upper vertical limit.

All flights crossing the Shanwick OCA/Scottish FIR/UIR boundary are subject to prior coordination.

5.4.5.1 North Atlantic Track System

The NAT system enables a more structured flow of aircraft given the North Atlantic weather situation. The tracks are published twice daily to reflect the busiest flow:

- **Daytime** (westbound) – published 2200 UTC, valid 1130 to 1900 UTC
- **Night-time** (eastbound) – published 1400 UTC, valid 0100 to 0800 UTC

The tracks are separated laterally up to and including the landfall fixes on either side of the Atlantic.

> On VATSIM, it should be expected that pilots may file via NAT tracks that are 'invalid' according to the times above. They do not need to be re-routed as the Oceanic controller is able to clear these aircraft as if it were a random routing, or just simply treat the NAT as if it were valid.

5.4.5.2 Obtaining Oceanic Clearance into Shanwick OCA

Flights entering the Shanwick OCA from the Scottish FIR/UIR and ScAC West sectors must be in receipt of an OCA clearance before crossing W010.

Aircraft are to request OCA clearance with the appropriate Shanwick controller via natTrak (https://nattrak.vatsim.net/) **at least 30 minutes prior to Oceanic entry point (OEP)**.

If it is not required prior to departure (see below), ScAC West controllers shall initiate transfer of communications to ensure clearance has been obtained between 90 and 30 minutes prior to the Shanwick boundary. The OCA clearance (including level allocation) is valid only from the OEP.

5.4.5.3 Aircraft Requiring Oceanic Clearance Prior to Departure – 'Proximate Airfields'

Due to the short flying times between Scottish and Irish aerodromes and the Shanwick OCA boundary, pilots may be required to request and receive an Oceanic Clearance prior to departure.

The requirement to obtain Oceanic clearance prior to departure is detailed below:

Departure Point	Jet Departures	Non-Jet Departures
EIDW **EIWT** **EIME**	For all Oceanic entry points request when airborne.	
All other EIxx	If flight planned to enter Shanwick between GOMUP and BEDRA (inclusive), oceanic clearance is required prior to departure.	
EGAA **EGAC** **EGAE** **EGPF** **EGPK**	If flight planned to enter Shanwick at GOMUP or ETILO, oceanic clearance is required prior to departure. For all other Oceanic entry points, request when airborne.	Request when airborne.
All other aerodromes	If the elapsed time to the Shanwick entry point is 40 minutes or less oceanic clearance is required prior to departure.	

5.4.5.4 Transfer of Control and Communication

Route	Transfer of Control	Transfer of Communications
Via W010	W010	At or before W010

5.4.5.5 OCA Clearance Non-Compliance

If any part of an OCA clearance cannot be complied with, ScAC West must notify the relevant Shanwick Delivery controller.

5.4.5.6 Time Restrictions

Shanwick may specify a time restriction for westbound traffic at W010 as part of the OCA clearance. Aircraft will be instructed to report these to the ScAC West controller on return to the domestic frequency.

5.4.5.7 Time Revisions

Time revisions of 3 minutes or more from the estimate notified in the clearance shall be passed by ScAC West to Shanwick in the following format:

- Callsign
- Entry Point
- Revised Time
- Cleared Oceanic Level

Controllers should note that departures from the proximate airfields are more likely to require a time revision. ScAC West should take care to pass these revisions to Shanwick as soon as possible.

5.4.5.8 Traffic via GOMUP

Shanwick is responsible for the coordination of east and westbound traffic at GOMUP, on the edge of NOTA. They will inform ScAC West if westbound traffic is to be transferred to Shannon rather than Shanwick.

Westbound traffic routing via NIBOG, MIMKU and IBROD enters the NOTA and does not require an oceanic clearance to cross W010. It is subject only to coordination procedures between ScAC West and Shannon.

5.4.6 AFISO Airfield Procedures

At times, an AFIS only service may be provided at certain airfields:

- Barra (EGPR)
- Campbeltown (EGEC)
- Islay (EGPI)
- Tiree (EGPU)

It is not the responsibility of Scottish controllers to separate traffic in the vicinity of an aerodrome with only AFIS available.

Instrument Approach Procedures (IAPs) are available at Barra, Campbeltown, Islay and Tiree. If Scottish has chosen to provide a service to an aircraft undertaking an IAP, they should make their best effort to coordination with the AFISO to prevent a conflict with a departure.

Controllers may wish to remind pilots under a Traffic Service and/or Basic Service that it is the responsibility of pilots to provide their own separation under these services.

5.4.7 Campbeltown (EGEC), Islay (EGPI) and Tiree (EGPU)

IFR or VFR aircraft requiring a service from Scottish shall be subject to individual coordination or may free call.

ScAC West shall pass an estimate of 10 minutes from the relevant aerodrome on inbound IFR/VFR aircraft receiving a service.

IFR departure airborne times and assigned squawks shall be passed to ScAC West.

5.4.8 Stornoway (EGPO)

Stornoway is covered top-down by ScAC North and traffic will primarily route via the Y906. However, some traffic may be handled by ScAC West from/to Class G.

All IFR or VFR arrivals and departures from Class G that require an ATS shall be subject to individual coordination.

5.4.9 Londonderry/Eglinton (EGAE)

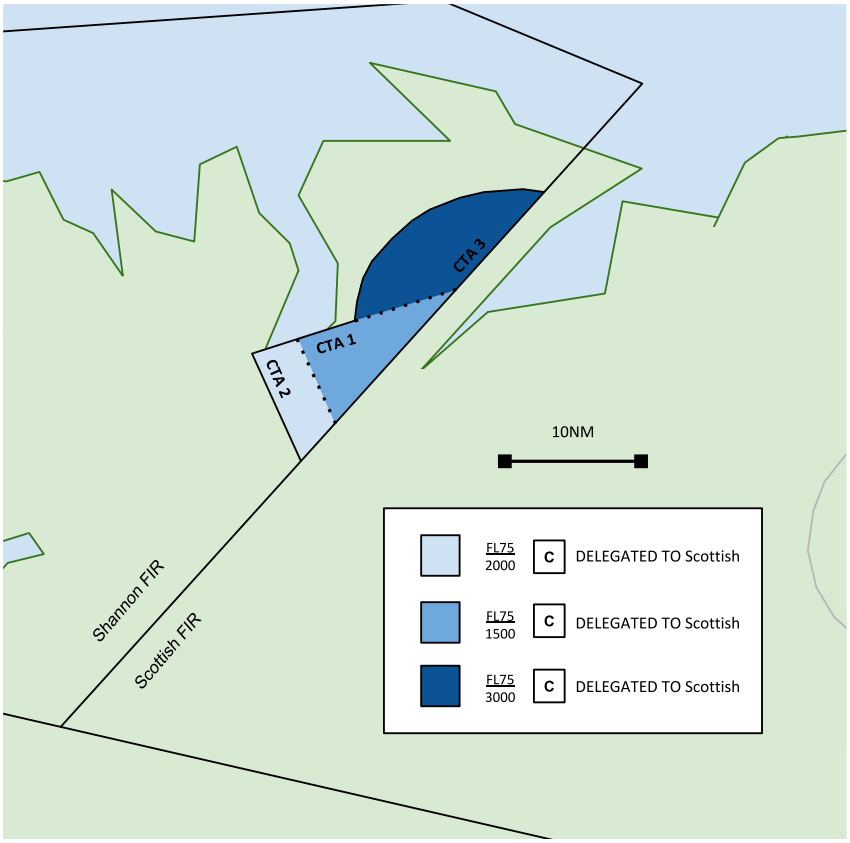
There is no radar available for use by Eglinton Approach, thus all aircraft shall be in receipt of a procedural service.

Scottish is however permitted to provide a Traffic Service to departures and arrivals that may come into conflict, subject to workload. They may also provide a Deconfliction Service to a minimum of 5000 feet based on the Belfast RPS. On Eglinton's request, Rathlin may use the radar to separate arrivals and departures provided they are willing to accept a Deconfliction Service.

5.4.9.1 Airspace Delegated from Shannon ACC

Whenever Eglinton ATC or Scottish are online, the airspace in Eglinton CTAs 1 to 3 shown in Figure ScAC-16 is delegated from Shannon as Class C airspace. At all other times, the airspace is Class G.

Figure ScAC-16 – ATS Delegation from Shannon ACC within the Eglinton CTA



5.4.9.2 Procedures for Inbound Aircraft

Traffic may route via BELZU, other COPs, or via BAMLI. Rathlin shall pass an estimate to Eglinton no later than the time the inbound reaches the COP/end of its route. Eglinton will agree transfer conditions.

Inbounds from Shannon airspace shall initially be coordinated with Rathlin, who may elect not to work the traffic.

5.4.9.2.1 Holding Procedures

Apart from the EGT airfield hold, there are three holds available on the direct arrivals: DUNGV, COLRE and LUNEX.

When holding is required and the landing runway is 08, all arrivals from the P6/L10 shall route BELZU then BEL VOR 290R direct to LUNEX, enabling Londonderry/Eglinton to use airfield deemed separation between arrivals and departures.

All other arrivals must be vertically separated from departures prior to transfer.

5.4.9.3 Procedures for Outbound Aircraft

Any request for joining clearance or traffic information will be directed to Rathlin, who shall also be responsible for Identifying, Validating and Verifying the Mode C for all departures on first contact.

Departures towards Shannon's airspace shall initially be coordinated with Shannon Low Level. Eglinton shall obtain a departure release from Rathlin who will determine whether there is any conflicting traffic or if the departure may be transferred straight to Shannon.

5.5 Special Procedures

N/A

5.6 Holding Procedures

FYNER Hold

RNAV Hold on the BRUCE 1G arrival for Glasgow.

FOYLE	1-minute legs
Axis	118°
Direction	LEFT hand
Maximum Holding Level	FL140
Speed	Maximum 230 kts IAS

Note: *Separated from TRN, SUMIN, LANAK, TARTN, STIRA and FOYLE at FL140 and below.*

ScTMA | SCOTTISH TMA

Chapter 1 General Operating Procedures

1.1 Altimeter Setting Procedures

1.1.1 Transition Altitude

The transition altitude in the Scottish TMA is 6000 ft.

1.1.2 Transition Level and Minimum Stack Level

QNH (hPa)	Transition Altitude	
	6000 ft	
	Transition Level (TL)	Minimum Stack Level (MSL)
1060 **1050**	FL60	FL70 (See *Note*)
1049 **1032**	FL65	
1031 **1014**	FL70	
1013 **995**	FL75	FL80
994 **977**	FL80	
976 **959**	FL85	FL90
958 **940**	FL90	

Note 1: *The classification of 1013 hPa as 'low pressure' in the above table aligns with MATS Part 1 (CAP 493).*

Note 2: *The lowest Minimum Flight Level for use shall be FL70 against a Transition Altitude of 6000 ft, irrespective of the Transition Level, to avoid confusion.*

1.1.2.1 Change to MSL Procedure

When the pressure changes across an MSL boundary:

- The first APC/Enroute controller to notice the change shall notify all affected units who also refer to the MSL;
- The first controller shall coordinate the agreement of an effective time that is at least 5 minutes from the time the pressure change was noticed.

Aircraft operating at the old MSL are deemed separated from aircraft operating at the Transition Altitude until the new MSL is agreed to be in effect.

1.2 ScTMA Airspace

The Scottish TMA airspace is divided into two sectors as shown in Figure ScTMA-1.

1.2.1 Designated Sectors

Sector	Coordination Name	VATSIM Callsign		Frequency
Galloway	Galloway	STC_W_CTR	*STW*	124.825 MHz
Talla	Talla	STC_E_CTR	*STE*	130.975 MHz

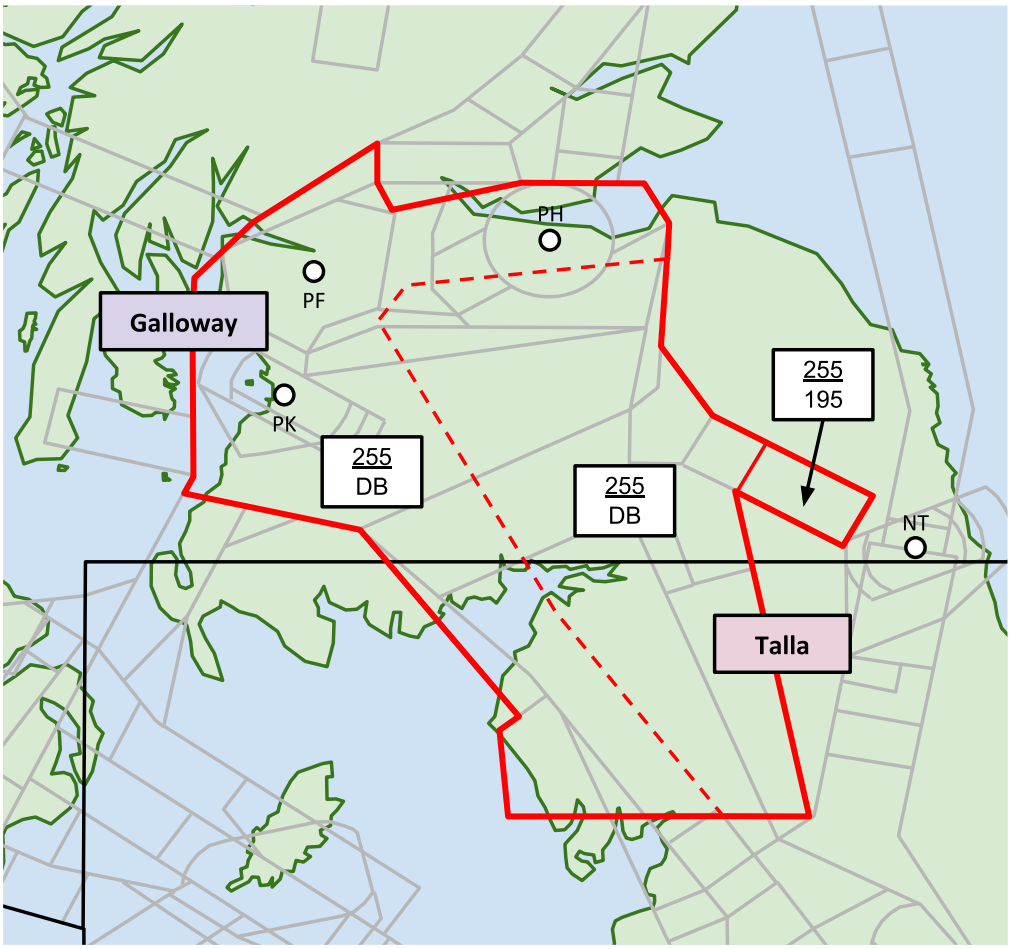
ScTMA Bandboxes

Sectors	Coordination Name	VATSIM Callsign		Frequency
Galloway & Talla	Scottish TMA	STC_CTR	*ST*	126.300 MHz

***Note:** Relief callsigns shall be determined by the addition of a **second** underscore between the middle identifier (or prefix in the case of the Bandbox callsign) and the suffix (CTR).*

For example: *STC_E_CTR* → *STC_E__CTR*

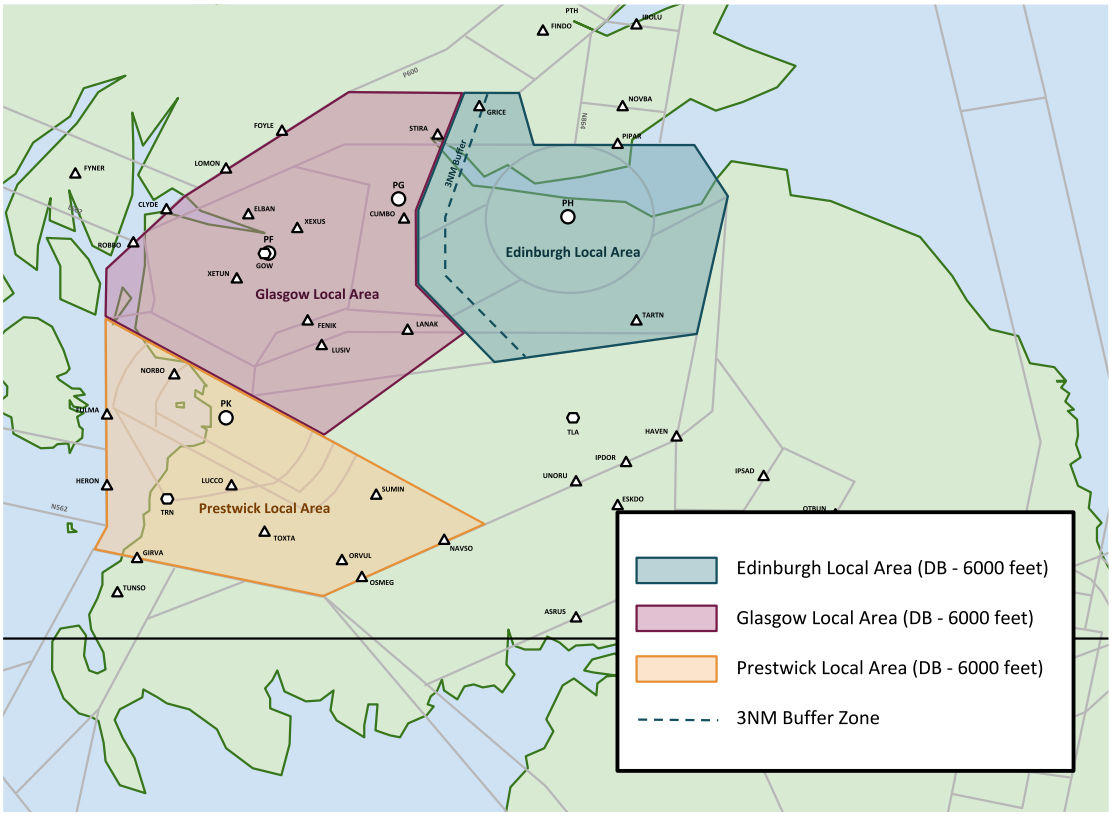
Figure ScTMA-1 – ScTMA AoR



1.2.2 Airfield Local Areas – Prestwick, Glasgow and Edinburgh

Within the Local Areas for Prestwick (EGPK), Glasgow (EGPF) and Edinburgh (EGPH) airfields, as shown in Figure ScTMA-2, responsibility for ATS is delegated to their respective Approach Radar units – when online – from DB to 6000 feet.

Figure ScTMA-2 – Scottish TMA Airfield Local Areas



1.3 Sector Bandboxing/Splitting Procedures

The ScTMA Bandbox position – which has responsibility for both the Galloway and Talla sectors – is most used, as opposed to the split ScTMA configuration.

When a split takes place after having operated in a bandboxed configuration, ScTMA Bandbox shall notify:

- Any ScAC/Antrim controller adjacent to the sector for which the adjacent controller and frequency has now changed
- Glasgow, Edinburgh and Prestwick, as appropriate to the change in configuration.

ScTMA Sectors – Bandboxing/Splitting Procedures

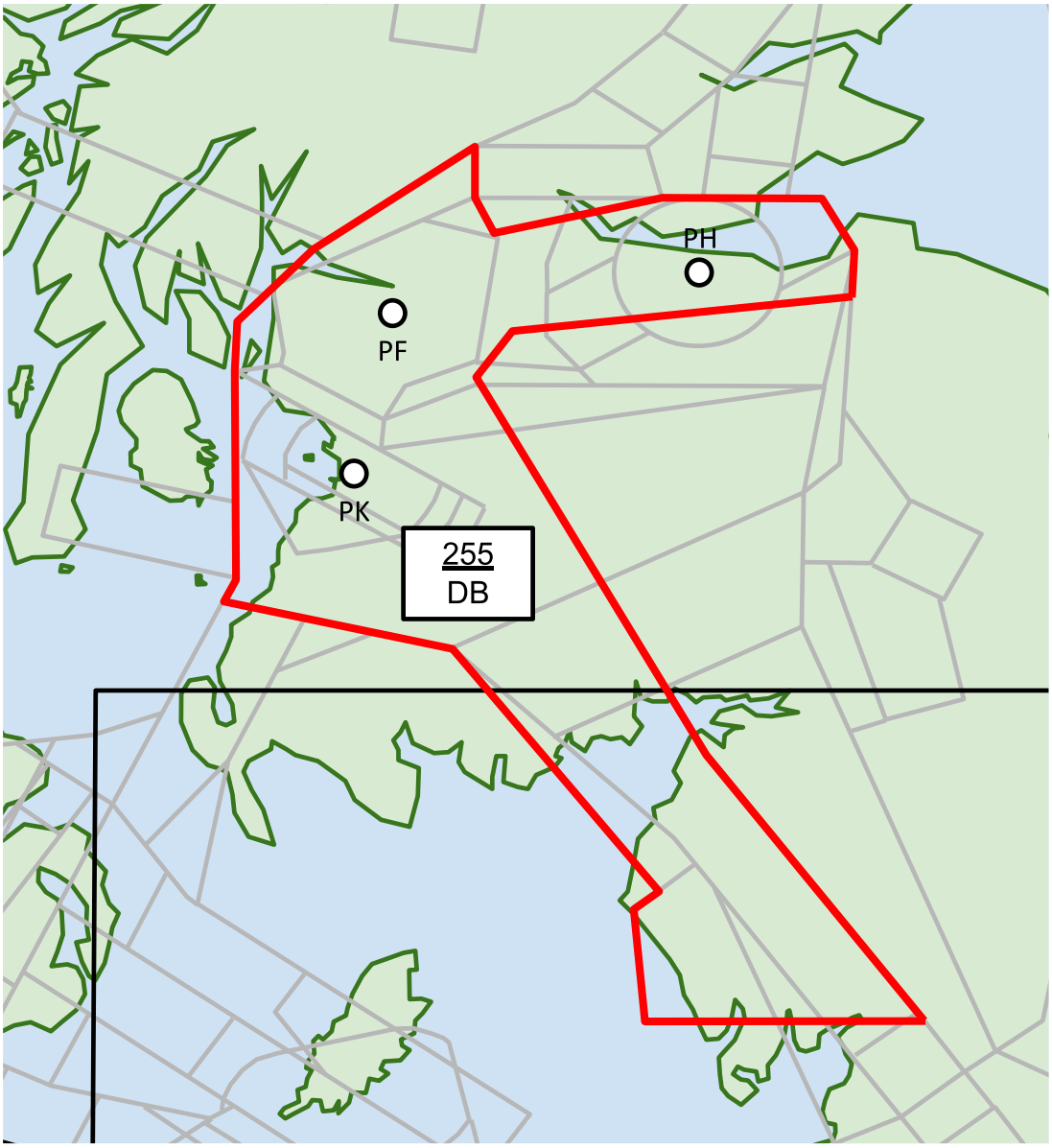
<table>
<tr><td rowspan="2">STC_CTR
ScTMA Bandbox
126.300 MHz</td><td>STC_W_CTR
Galloway
124.825 MHz</td></tr>
<tr><td>STC_E_CTR
Talla
130.975 MHz</td></tr>
</table>

Chapter 2 Galloway

2.1 Area of Responsibility

The area of responsibility for the Galloway sector is illustrated in Figure ScTMA-3.

Figure ScTMA-3 – ScTMA Galloway AoR



2.1.1 Sector Frequency

The Galloway frequency is 124.825 MHz.

2.1.2 Delegated Airspace

See ScTMA 1.2.2 Airfield Local Areas.

2.1.3 Talla/Galloway Buffer

A 5 NM wide radar buffer zone is established when Talla and Galloway are controlled by different controllers, following the sector boundary (i.e. 2.5 NM either side) from abeam LANAK to abeam LAKEY. This allows the sectors to operate independently of one another as long as the buffer zone is observed. As such, any breaches must be coordinated with the adjacent controller as a matter of priority.

Controllers shall ensure the buffer is shown on the radar display (**Display Settings → Stars → Talla-Galloway Buffer**) when Talla and Galloway are split.

2.2 General Operating Procedures

2.2.1 Route Structure and Restrictions

As with most of the lower airspace in the UK, the complexity within the Scottish TMA sectors is derived from the need for tactical vectoring by controllers. The major routes into/out of the TMA are the POL-ABEVI route for northbound traffic, and the DCS-BARTN route for southbound traffic. Traffic on each routing is deemed separated from the other.

The table below summarises the configuration within the sector and any relevant restrictions.

ATS Route	Route	Restriction(s)
N864	TLA – PIPAR – ASNUD	On VATSIM, the N864 is available for flight planning at all times, unless notified for use by Swanwick Mil (North – EGVV_N_CTR). In real, flight plannable from 0001 Saturday to 2359 Sunday to allow for gliding activity in the P600. However, it is not available when the airspace is required for military use, in which case the P600 is retained for use. FL65 – FL245.
N57	SETEL – DCS	Minimum level south of DCS – FL100. 0700-2000 local daily – between DCS and N540532 W0023208, the minimum level is FL125. Traffic at FL150+ to EGCC, GP and NX should use the L612 ATS route.
N560	GOW – FOYLE – ERSON	ScAC South may climb departures to FL90 between GOW and FOYLE without coordination. Available H24, except between GOW and INBAS in *exceptional* circumstances when notified by Swanwick Mil (North – EGVV_N_CTR).

ATS Route	Route	Restriction(s)
N601	SHAPP – ABEVI – TLA – GRICE	0700-2000 local daily – between N545250 W0025357 and N540922 W0022312, the minimum level is FL125. Westbound only between BPK and TLA.
L612	GOW – DCS – CALDA	Minimum level south of DCS – FL150.
N864	TLA – BILVO	Eastbound (southbound) only.
L613	DET – TLA – FINDO	Overflying ScTMA. TMA arrivals shall route via ABEVI.
UN590	HALIF – ABEVI – GOW	Westbound only FL250 and above.
UN601	SHAPP – ABEVI – TLA – ERSON	Westbound only.
UL612	GOW – DCS – BARTN	Southbound only.
(U)T256	NORBO – ORVUL – DCS	

2.2.1.1 N601 and N864

Traffic on the N601 and N864 ATS routes are not separated north of N5415 (roughly abeam LAKEY).

2.2.1.2 (U)N864

The N864 between DCS and WAL (base level FL195) is for use of southbound traffic only that are operating flights between the following airfields/exit points. This is reflected in the SRD.

Departure Airfield	Arrival Airfield/UK FIR Exit Point
EGPD/PE/PF/PH/PK	EGGD/FF, EGHH/HI, EGHQ, EGJJ/JB/JA, EGKK, EGLF, EGTE
	ANNET, BIGNO, SALCO, SKERY (all via BHD)

2.2.2 Initial Route Clearance

See GEN 1.1.

2.2.3 Use of 3 NM Separation

The use of 3 NM lateral separation is approved inside controlled airspace within Galloway airspace, from DB-FL255.

2.3 Standing Agreements

2.3.1 ScTMA Internal Standing Agreements

From Galloway to Talla

From	Agreement	Conditions
EGPF	FL190 lvl 10 NM before TLA	Released for left turn.

To	Agreement	Conditions
EGPH	FL170 lvl at or before sector boundary	Via P600/BLACA

From Talla to Galloway

From	Agreement	Conditions
EGPH (non-jet departures)	↟ FL120 lvl at or before sector boundary	

To	Agreement	Conditions
EGPK	FL200 lvl ENIPI	Released for left turn.

2.3.2 Scottish Standing Agreements

2.3.2.1 Antrim

From Galloway to Antrim

From	Agreement	Conditions
EGPF	FL160 lvl TRN	
EGPK	FL140	(See *Note*)

Note: *Galloway must coordinate with Antrim if this traffic is likely to conflict with a P600 arrival into Prestwick that has already been coordinated and allocated a level.*

From Antrim to Galloway

To	Agreement	Conditions
EGPF	FL150 lvl GIRVA	
EGPH	FL170 lvl TUNSO	

2.3.2.2 Deancross

From Galloway to Deancross

From	Agreement	Conditions
ScTMA	↟ FL250	Via DCS

From Deancross to Galloway

To	Agreement	Conditions
MTMA and EGNM	FL260 lvl DCS	
Belfast Group	FL260 lvl TRN	

2.3.3 External Standing Agreements

2.3.3.1 PC Northeast

From Galloway to PC Northeast

To	Agreement	Conditions
MTMA and EGNM	FL200 lvl LAKEY	Via DCS – (U)L612. (See *Notes*).

Note 1: *Traffic to be descended to FL190 or below 10 NM after LAKEY to remain clear of PC West.*

Note 2: *Due to system limitations, the calculated descent profile for some inbounds may cause an incorrect predicted next controller. In certain sector configurations, Galloway will need to manually initiate the data tag transfer to the correct PC sector.*

2.3.3.2 Glasgow

From Galloway to Glasgow

Via	Level	Conditions
P600/TRN	Agreed level by LANAK	See *Notes*.

Note 1: *Galloway shall coordinate a stack level with Talla for aircraft on the BLACA 1G STAR, with stack traffic to be descended to be level by LANAK.*

Note 2: *This traffic shall be transferred directly to Glasgow following the coordination described above. If the traffic is not routing to LANAK (which is preferred), then only a reduced radar handover to Glasgow is required, prior to the aircraft passing north of the Prestwick 12/30 extended centreline.*

2.3.3.3 Prestwick

From Galloway to Prestwick

Via	Level	Conditions
All, except arrivals from ScAC West	MSL or agreed level 10 NM before TRN	See *Notes*.

Note 1: *BLACA 1P arrivals are subject to coordination. Antrim shall coordinate a level with Galloway, clear the traffic to this level to be level by GIRVA, transferring directly from Antrim to Prestwick APC.*

Note 2: *When Runway 30 is in use at Prestwick and traffic is not holding, traffic from ASLIB, SAB, TLA and the Y96 ATS route may be given direct to SUMIN and descended to MSL level by SUMIN, without coordination with Prestwick. This direct routing is subject to coordination between Talla and Galloway.*

2.4 Coordination and Procedures with Adjacent Units, Sectors and Airfields

2.4.1 ScAC South

2.4.1.1 Prestwick Arrivals via P600 from the North

The default routing for traffic inbound to Prestwick shall be GRICE-FENIK-TRN. ScAC South shall coordinate a level at GRICE with Galloway.

Galloway shall then descend the traffic to MSL, ensuring it remains above Glasgow's local area (see ScTMA 1.2.2) before providing Prestwick APC with a **radar handover** when the traffic is clean. It is then Prestwick's responsibility to coordinate with Glasgow APC, should they wish to descend it into Glasgow's local area.

If the aircraft is low performance, it shall be routed to TRN by Galloway and identified to Glasgow APC if it is likely to conflict with Glasgow inbounds. If Glasgow chooses to work the traffic, they are then responsible for coordinating the inbound with Prestwick.

2.4.1.2 Traffic Overflying via GRICE

All flights shall be cleared to the correct semi-circular level for their direction of flight, except traffic routing via P600 which is planned to route via DCS, which shall be cleared to an eastbound (i.e. odd) level and coordinated by ScAC East with Galloway.

2.4.1.3 Carlisle Departures RFL 260+ via GRICE/PIPAR/GOW/MAC

Talla shall climb traffic to FL250 and transfer to Deancross, coordinating with Galloway any aircraft which will penetrate their airspace.

2.4.2 ScAC West (West & Rathlin)

2.4.2.1 Traffic Overflying via FOYLE

All flights shall be cleared to the correct semi-circular level for their direction of flight, except traffic routing via N560 which is planned to route via DCS, which shall be cleared to an eastbound (i.e. odd) level and coordinated by ScAC West with Galloway.

2.4.2.2 Edinburgh Shanwick Arrivals via NIBOG and MIMKU

ScAC West shall coordinate a TMA joining level at TRN for this traffic with Galloway, ensuring that the traffic is transferred at or before the sector boundary.

2.4.3 PC West/East and LAC

2.4.3.1 Level Allocation for Outbounds/Inbounds from/to MTMA and Midlands Airfields

From	To	Max Level
Belfast Group	EGNT, EGNV, EGNJ and EGSH	FL270
MTMA and EGNM	ScTMA	FL240
Midlands Group	All Scottish destinations (EGP*/EGQ*) excluding EGPD	FL280
All departures	Midlands Group	FL270

2.4.3.2 Level Planning (Eastbound)

Eastbound traffic via DCS shall be transferred to PC West/East in accordance with the following table:

Sector	Allocated Flight Levels
Deancross to PC West	FL260, FL270
ScTMA Sectors to PC West	FL200 – FL250 (except inbounds to MTMA and EGNM which are transferred at FL200 to PC Northeast)
ScTMA Sectors to PC Northeast	- FL190

2.4.3.3 Traffic Positioning

Galloway shall endeavour to position traffic from the ScTMA that is inbound to EGKK, EGHI, EGHH, EGLF or the Wessex Group, or if it is overflying the LTMA, to the west of other traffic.

Galloway shall also endeavour to position traffic inbound to EGBB and EGBE to the west of traffic inbound to EGNX.

2.4.3.4 Traffic Routing Between DCS and WAL – FL190- Southbound

Traffic routing between DCS and WAL at FL190 and below (i.e. beneath N864) shall be coordinated by Galloway with PC West and/or Warton Radar, as appropriate. Galloway shall transfer the aircraft once south of DCS and outside of CAS to Warton Radar in accordance with any agreed conditions.

Traffic should then be descended by Warton Radar to remain outside of PC West airspace, who will then contact PC West for a joining clearance via WAL.

2.4.4 Antrim

2.4.4.1 Departures via IOM

Galloway/Talla shall climb to RFL or FL250 – whichever is higher – and transfer to Antrim.

2.4.4.2 Departures via BLACA

Galloway/Talla shall climb to a maximum level of FL250 and transfer to Antrim, unless covered by standing agreement.

2.4.5 Airfields

See Chapter 5.

2.5 Holding Procedures

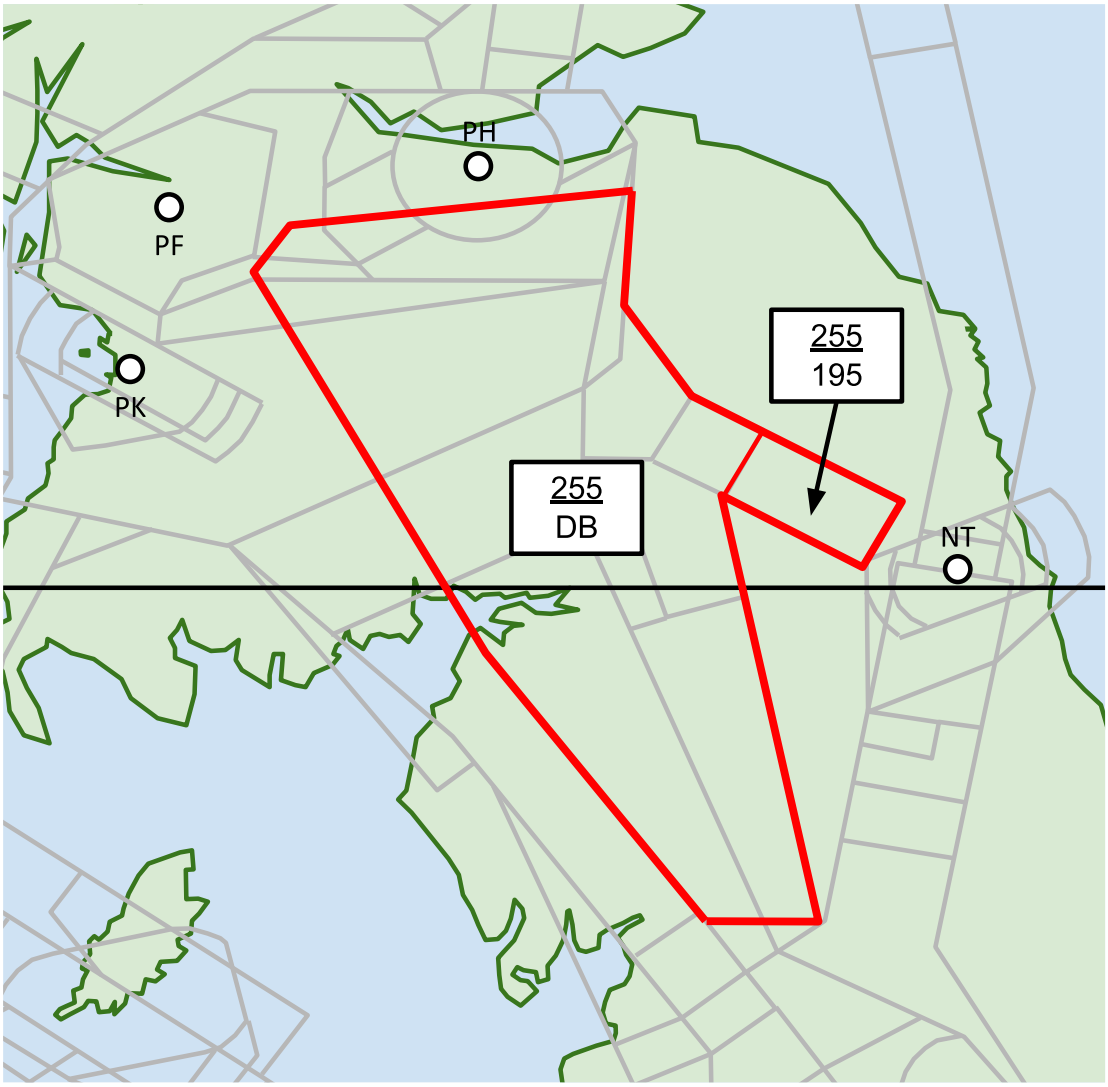
See Chapter 4.

Chapter 3 Talla

3.1 Area of Responsibility

The area of responsibility for the Talla sector is illustrated in Figure ScTMA-4.

Figure ScTMA-4 – ScTMA Talla AoR



3.1.1 Sector Frequency

The Talla frequency is 130.975 MHz.

3.1.2 Delegated Airspace

See ScTMA 1.2.2 Airfield Local Areas.

3.1.3 Talla/Galloway Buffer

A 5 NM wide radar buffer zone is established when Talla and Galloway are controlled by different controllers, following the sector boundary (i.e. 2.5 NM either side) from abeam LANAK to abeam LAKEY. This allows the sectors to operate independently of one another as long as the buffer zone is observed. As such, any breaches must be coordinated with the adjacent controller as a matter of priority.

Controllers shall ensure the buffer is shown on the radar display (**Display Settings → Stars → Talla-Galloway Buffer**) when Talla and Galloway are split.

3.2 General Operating Procedures

3.2.1 Route Structure and Restrictions

As with most of the lower airspace in the UK, the complexity within the Scottish TMA sectors is derived from the need for tactical vectoring by controllers. The major routes into/out of the TMA are the POL-ABEVI route for northbound traffic, and the DCS-BARTN route for southbound traffic. Traffic on each routing is deemed separated from the other.

The table below summarises the configuration within the sector and any relevant restrictions.

ATS Route	Route	Restriction(s)
N864	TLA – PIPAR – ASNUD	On VATSIM, the N864 is available for flight planning at all times, unless notified for use by Swanwick Mil (North – EGVV_N_CTR). In real, flight plannable from 0001 Saturday to 2359 Sunday to allow for gliding activity in the P600. However, it is not available when the airspace is required for military use, in which case the P600 is retained for use. FL65 – FL245.
N57	SETEL – DCS	Minimum level south of DCS – FL100. 0700-2000 local daily – between DCS and N540532 W0023208, the minimum level is FL125. Traffic at FL150+ to EGCC, GP and NX should use the L612 ATS route.
N601	SHAPP – ABEVI – TLA – GRICE	0700-2000 local daily – between N545250 W0025357 and N540922 W0022312, the minimum level is FL125. Westbound only between BPK and TLA.

ATS Route	Route	Restriction(s)
N864	TLA – BILVO	Eastbound (southbound) only.
L613	DET – TLA – FINDO	Overflying ScTMA. TMA arrivals shall route via ABEVI.
UN590	HALIF – ABEVI – GOW	Westbound only FL250 and above.
UN601	SHAPP – ABEVI – TLA	Westbound only.

3.2.1.1 N601 and N864

Traffic on the N601 and N864 ATS routes are not separated north of N5415 (roughly abeam LAKEY).

3.2.1.2 (U)N864

The N864 between DCS and WAL (base level FL195) is for use of southbound traffic only that are operating flights between the following airfields/exit points. This is reflected in the SRD.

Departure Airfield	Arrival Airfield/UK FIR Exit Point
EGPD/PE/PF/PH/PK	EGGD/FF, EGHH/HI, EGHQ, EGJJ/JB/JA, EGKK, EGLF, EGTE
	ANNET, BIGNO, SALCO, SKERY (all via BHD)

3.2.2 Initial Route Clearance

See GEN 1.1.

3.2.3 Use of 3 NM Separation

The use of 3 NM lateral separation is approved inside controlled airspace within Talla airspace, from DB-FL255.

3.3 Standing Agreements

3.3.1 ScTMA Internal Standing Agreements

From Galloway to Talla

From	Agreement	Conditions
EGPF	FL190 lvl 10 NM before TLA	Released for left turn.

To	Agreement	Conditions
EGPH	FL170 lvl at or before sector boundary	Via P600/BLACA

From Talla to Galloway

From	Agreement	Conditions
EGPH (non-jet departures)	↑ FL120 lvl at or before sector boundary	

To	Agreement	Conditions
EGPK	FL200 lvl ENIPI	Released for left turn.

3.3.2 Scottish Standing Agreements

3.3.2.1 Deancross

From Talla to Deancross

From	Agreement	Conditions
EGNM	FL250	RFC in PC West's airspace.

From Deancross to Talla

To	Agreement	Conditions
EGPH	FL260 lvl INPIP	
EGPF, EGPK and EGPG	FL260 lvl ASLIB	
EGPN and EGQL	↓ FL260	

3.3.2.2 ScAC South

From Talla to ScAC South

From	Agreement	Conditions
EGPF and EGPK (RFL270+)	FL250 lvl by/abeam HAVEN	Via Y96/N97/N110.
EGPH (RFL270+)	FL250 lvl by/abeam OTBUN	Via Y96/N97/N110.

From ScAC South to Talla

To	Agreement	Conditions
ScTMA	FL260 lvl by/abeam AGPED	

3.3.3 External Standing Agreements

3.3.3.1 PC Northeast

From PC Northeast to Talla

To	Agreement	Conditions
EGNC	FL140 lvl SHAPP	

From	Agreement	Conditions
EGNM	↑ FL180	Via N601.

3.3.3.2 Edinburgh

From Talla to Edinburgh

Via	Level	Conditions
All routes	↓ MSL	

3.3.3.3 Glasgow

From Talla to Glasgow

Via	Level	Conditions
All except P600/TRN	MSL or agreed level by LANAK.	See *Notes*.

Note 1: *Glasgow will ensure that aircraft via LANAK cross the Galloway/Talla sector boundary at or below MSL. Talla shall take into consideration the above requirement when vectoring aircraft and shall coordinate with Galloway those aircraft which cannot comply with the agreed level by LANAK.*

Note 2: *At times when Galloway and Talla are not split, or with agreement between the two controllers during quiet periods, the requirement to be MSL level by LANAK may be waived.*

3.4 Coordination and Procedures with Adjacent Units, Sectors and Airfields

3.4.1 ScAC South

3.4.1.1 Edinburgh

3.4.1.1.1 Arrivals from the FIR to the east of the TMA

Edinburgh inbounds routing from the FIR to the east of the Scottish TMA are subject to individual coordination between ScAC South and Talla.

3.4.1.2 Glasgow

3.4.1.2.1 LANAK Arrivals via SAB

Glasgow inbounds routing via SAB are subject to individual coordination between ScAC South and Talla.

3.4.1.2.2 Traffic Overflying via GRICE

All flights shall be cleared to the correct semi-circular level for their direction of flight, except traffic routing via P600 which is planned to route via DCS, which shall be cleared to an eastbound (i.e. odd) level and coordinated by ScAC East with Galloway.

3.4.2 ScAC West (West & Rathlin)

3.4.2.1 Traffic Overflying via FOYLE

All flights shall be cleared to the correct semi-circular level for their direction of flight, except traffic routing via N560 which is planned to route via DCS, which shall be cleared to an eastbound (i.e. odd) level and coordinated by ScAC West with Galloway.

3.4.2.2 Edinburgh Shanwick Arrivals via NIBOG and MIMKU

ScAC West shall coordinate a TMA joining level at TRN for this traffic with Galloway, ensuring that the traffic is transferred at or before the sector boundary.

3.4.3 PC West/East and LAC

3.4.3.1 Level Allocation for Outbounds/Inbounds from/to MTMA and Midlands Airfields

From	To	Max Level
Belfast Group	EGNT, EGNV, EGNJ and EGSH	FL270
MTMA and EGNM	ScTMA	FL240
Midlands Group	All Scottish destinations (EGP*/EGQ*) excluding EGPD	FL280
All departures	Midlands Group	FL270

3.4.3.2 Traffic at Cruising Levels

LAC North and PC West will normally transfer all ScTMA overflights and inbounds via ABEVI/ASLIB at cruising levels.

Traffic departing from MTMA airfields and EGNM to the Scottish TMA shall be allocated a maximum level of FL240.

Traffic departing EGNX, EGBB, EGBE and EGNJ overflying the ScTMA will be allocated a maximum of FL280.

All levels FL250 and above between HALIF and ABEVI may be used at all times.

3.4.3.3 Slow Climbing Aircraft from PC West to Talla/Deancross

Aircraft routing via the N601 outbound from MTMA airfields shall normally be transferred to Deancross climbing FL260 to avoid the Talla sector. In the event that traffic will enter Talla's airspace, coordination must be effected by PC West with Talla prior to transferring the aircraft to Deancross.

3.4.3.4 Vectoring

Westbound flights via UN601/UN590 transferred to Talla prior to the sector boundary are released for turn on contact, but not for descent before the sector boundary unless coordinated with PC West. Traffic that is vectored must not cross the western edge of the (U)N601 ATS route.

3.4.3.5 Level Planning (Westbound)

PC West and LAC will plan westbound traffic via ABEVI/HALIF in accordance with the following table:

Levels	Availability
FL200 – FL260	Westbound levels only. Odd levels after coordination.
FL280+	All levels.

3.4.3.6 Traffic Positioning

PC West and PC Northeast will position inbounds to EGPH, EGPN, or EGQL to the east of other ScTMA arrivals.

3.4.4 Airfields

See Chapter 5.

3.5 Holding Procedures

See Chapter 4.

Chapter 4 TMA Holding Procedures

4.1 Edinburgh Holding

TARTN Hold

RNAV Hold.

TARTN	3.5 NM hold
Axis	015°
Direction	LEFT hand
Holding Levels	MSL – FL140
Speed	Maximum 230 kts IAS

Note: *Separated from GOW, TRN, LANAK, SUMIN, STIRA and FYNER at FL140 and below.*

If TARTN becomes full, en-route holding shall take place at TLA (see ScTMA 4.4) or TRN (see ScTMA 4.3).

EDN Airfield Hold

EDN	-
Axis	241°
Direction	LEFT hand
Maximum Level	6000 feet

4.2 Glasgow Holding

Holding at STIRA, FOYLE and FYNER is detailed in the relevant ScAC sections.

LANAK Hold

RNAV Hold.

LANAK	4 NM hold
Axis	303°
Direction	RIGHT hand
Holding Levels	MSL – FL140
Speed	Maximum 230 kts IAS

Note: *Separated from GOW, TRN, SUMIN, TARTN, STIRA and FYNER at FL140 and below.*

If LANAK becomes full, en-route holding shall take place at TLA (see ScTMA 4.4) or TRN (see ScTMA 4.3).

GOW Hold

GOW	1-minute legs
Axis	229°
Direction	RIGHT hand
Holding Levels	MSL – FL140
Speed	Maximum 230 kts IAS

Note 1: *The GOW hold is separated from LANAK, TRN, SUMIN, STIRA and FYNER at FL140 and below.*

Note 2: *The GOW hold is separated from FOYLE at FL70 and below. The entry procedure is not separated from FOYLE above FL70.*

Note 3: *Not separated from GLW.*

GLW Airfield Hold

GLW	-
Axis	228°
Direction	RIGHT hand
Maximum Level	7000 feet (FL equivalent)

Note: *Not separated from GOW.*

4.3 Prestwick Holding

SUMIN Hold

The SUMIN Hold is an off-route RNAV hold.

SUMIN	1-minute legs
Axis	269°
Direction	LEFT hand
Holding Levels	6000 – FL90
Speed	Maximum 210 kts IAS

Note: *Although the maximum holding level is FL90, the SUMIN hold is separated from GOW, TRN, LANAK, TARTN, STIRA and FYNER at FL140 and below.*

TRN Hold

TRN	1-minute legs
Axis	028°
Direction	LEFT hand
Holding Levels	6000 – FL90
Speed	Maximum 210 kts IAS

Note: *Although the maximum holding level is FL90, the TRN hold is separated from GOW, SUMIN, LANAK, TARTN, STIRA and FYNER at FL140 and below.*

4.4 TLA Hold

En-route holding may take place at TLA.

TLA	1.5-minute legs
Axis	153°
Direction	LEFT hand
Holding Levels	FL250 – FL390
Speed	Standard ICAO Holding Speeds

Note: *Not separated from UN610 or DCS.*

4.5 DCS Hold

En-route holding may take place at DCS.

DCS	1.5-minute legs
Axis	154°
Direction	RIGHT hand
Holding Levels	FL250 – FL370
Speed	Maximum 255 kts IAS

Note 1: *Not separated from TLA.*

Note 2: *Should holding at DCS become necessary, Deancross shall notify Galloway, Talla, PC West and LAC North.*

Note 3: *Talla shall ensure traffic remains at least 5 NM from traffic in or entering the DCS hold.*

Chapter 5 Airfields

5.1 Walney (EGNL)

5.1.1 Outbounds via DCS

When Warton Radar is Online

Walney will pass an estimated airborne time to Galloway. Joining clearance shall be requested by Warton from Galloway, who will clear the traffic into controlled airspace.

> ***Note:*** *Warton is covered top-down by Swanwick Mil (West – EGVV_W_CTR).*

When Warton Radar is Offline

Walney will pass an estimated airborne time to Galloway. Traffic will be instructed to route direct to DCS and to free call Galloway for a joining clearance.

5.2 Carlisle (EGNC)

5.2.1 Procedures for Inbound Aircraft

Talla shall receive inbound aircraft via SHAPP at the agreed level, FL140, from PC Northeast. All other inbounds routing via the Talla sector are subject to individual coordination from the preceding sector.

IFR flights are not permitted into Carlisle. On leaving controlled airspace, the aircraft shall normally be instructed to squawk conspicuity, and radar service shall be terminated.

If both London Information and Carlisle are offline, arrivals shall not be provided with an approach control service and shall position for a visual approach at Carlisle. Provision of UK FIS is subject to controller workload.

5.2.2 Procedures for Outbound Aircraft

For aircraft intending to join the ATS route network, Carlisle will pass an estimated airborne time and direction of flight to Galloway or Talla as appropriate (see table below). The controller may request for initial instructions to be passed to the traffic:

> ***Example:*** *"Scottish Control instructs GBOLV to remain outside controlled airspace routing DCS, squawk 1234"*

All clearances shall be for the aircraft to join controlled airspace on track DCS/NATEB/TLA. Coordination is required with ScAC South due to the interaction with EGNT/NV outbound traffic.

Departure to	Via	Route	Coordinate With
N	N57, N601	TLA	Talla
E	-	NATEB	Talla (See *Note*)
SE	Y70	NATEB	Talla (See *Note*)
	L602, P15, P18	NATEB	Talla (See *Note*)

Departure to	Via	Route	Coordinate With
S	N57, L612, N864	DCS	Galloway
W	-	BLACA	Galloway
NW	L612	TLA	Talla

Note: *In the absence of Scottish Control, coordination may be with Newcastle APC if online.*

5.3 Cumbernauld (EGPG)

5.3.1 Procedures for Inbound Aircraft

IFR arrivals to Cumbernauld shall not be provided with an approach control service by either Glasgow or Edinburgh Radar, but they will be provided with an en-route service initially by the airfield responsible for the local area (see ScTMA 1.2.2) being transited, while they are descending through it. This is to then position for a visual approach at Cumbernauld. Provision of UK FIS beyond the local area is subject to controller workload.

Talla shall therefore release Cumbernauld arrivals to the appropriate airfield APC at an agreed level and suitable routing/heading. Once the traffic has entered the local area, it must not be allowed to re-enter airspace under the control of any Scottish area sector without coordination.

5.3.2 Procedures for Outbound Aircraft

IFR outbounds from Cumbernauld wishing to enter controlled airspace shall be instructed to obtain a clearance from Glasgow APC – or the controller responsible for them top-down – prior to departure. The clearance given must ensure that the aircraft remains within local area airspace (see ScTMA 1.2.2), and all departures are subject to release from Glasgow. Glasgow shall coordinate with Edinburgh if the aircraft is likely to penetrate their local area.

Glasgow shall then coordinate these departures with Talla/Galloway as appropriate.

5.4 Leuchars (EGQL) and Dundee (EGPN)

5.4.1 Procedures for Inbound Aircraft

Galloway will coordinate an acceptance level for all arrivals from the Scottish TMA with ScAC South. For aircraft via the Talla sector, Talla shall coordinate a routing and level with Galloway prior to these arrivals crossing the Talla/Galloway sector boundary.

ScAC South shall then pass an ETA for DND/abeam EDN to Leuchars Radar who will agree a level – typically the ScTMA MSL – and if required, Leuchars will issue an SSR code.

Then:

- If ScAC South has **no** known/observed conflicting traffic, the agreed level and squawk (if applicable) will be passed to Galloway, who shall transfer the arrival directly to Leuchars Radar when clear of the TMA. A radar handover is **not** required.
- If ScAC South has known/observed conflicting traffic, then a routing and level shall be coordinated with Galloway who must transfer the aircraft prior to the controlled airspace boundary. ScAC South will then instruct the aircraft to free call Leuchars when clear of the traffic.

Descent below MSL, into the Edinburgh local area (see ScTMA 1.2.2) must not be given without coordination with Edinburgh APC.

If Leuchars is simulating operations without Radar, then the procedures above shall be followed except that no squawk will be issued and Leuchars will only provide a Basic Service.

If Leuchars is **offline**, ScAC South shall liaise with Dundee for their arrivals and may provide a UK FIS and top-down service appropriate to their workload.

Leuchars must **not** be covered top-down by a civilian ATC position, regardless of whether or not the controller has achieved the relevant Military endorsement.

5.4.2 Procedures for Outbound Aircraft

Joining the ScTMA cruising above 6000 feet

All Leuchars/Dundee departures will receive a CAS joining clearance from ScAC South and are subject to a release. Departures will be transferred to ScAC South by Leuchars when clear of traffic.

Traffic should follow the standard routing of GRICE-FENIK-DCS with a level coordinated on an individual basis between ScAC South and Galloway.

Joining the ScTMA cruising at or below 6000 feet

All Leuchars/Dundee departures will receive a CAS joining clearance from Edinburgh APC, subject to coordination between Leuchars (or the controller covering Leuchars/Dundee top-down) and Edinburgh. ScAC South must obtain a release from Edinburgh APC.

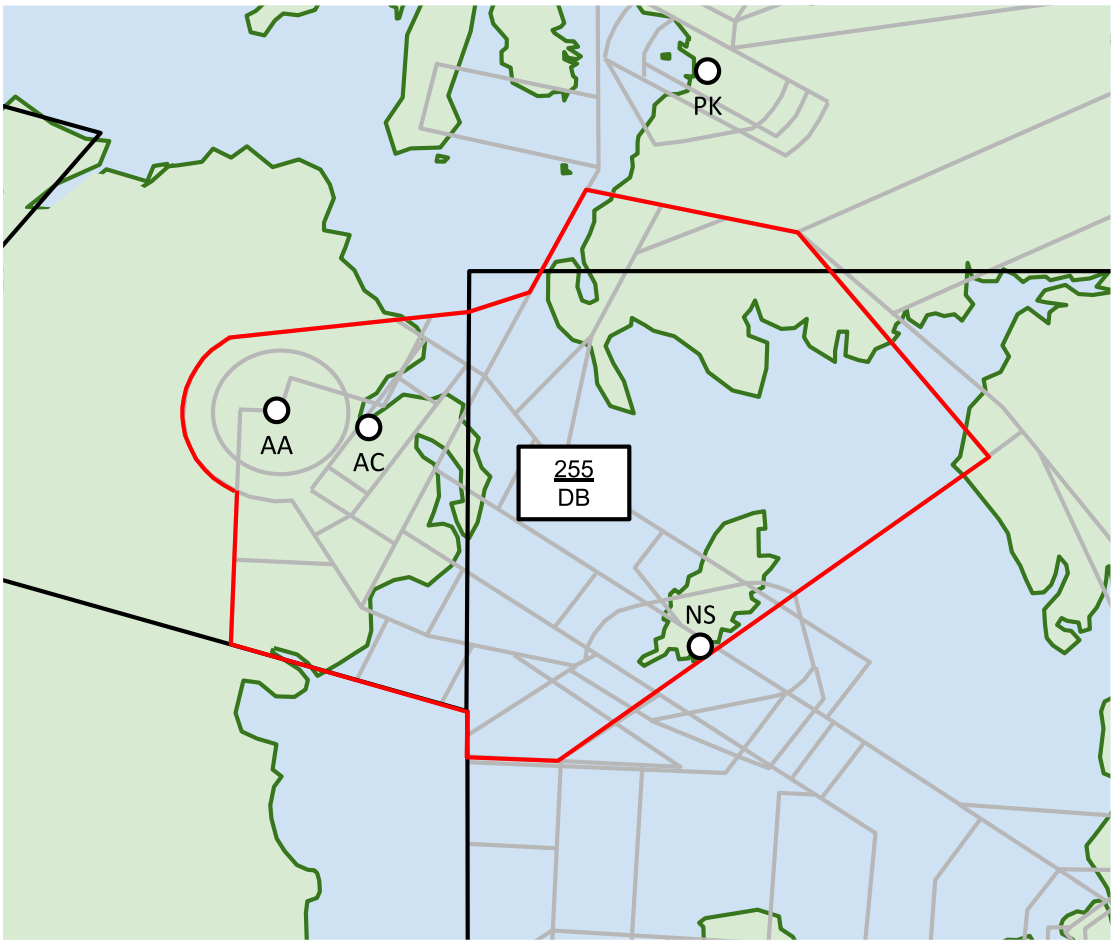
ANT | ANTRIM

Chapter 1 General Operating Procedures

1.1 Area of Responsibility

The area of responsibility for the Antrim sector is illustrated in Figure ANT-1.

Figure ANT-1 – Antrim AoR



1.1.1 Sector Frequency

Sector	Coordination Name	VATSIM Callsign		Frequency
Antrim	Antrim	STC_A_CTR	*STA*	123.775 MHz

***Note:** The relief callsign is determined by the addition of a **second** underscore between the middle identifier and the suffix (i.e., STC_A__CTR).*

1.2 Altimeter Setting Procedures

1.2.1 Transition Altitude

The transition altitude in the Belfast TMA is 6000 ft.

1.2.2 Transition Level and Minimum Stack Level

QNH (hPa)	Transition Altitude	
	6000 ft	
	Transition Level (TL)	Minimum Stack Level (MSL) / Minimum Flight Level
1060 **1050**	FL60	FL70 (See *Note*)
1049 **1032**	FL65	
1031 **1014**	FL70	
1013 **995**	FL75	FL80
994 **977**	FL80	
976 **959**	FL85	FL90
958 **940**	FL90	

Note 1: *The classification of 1013 hPa as 'low pressure' in the above table aligns with MATS Part 1.*

Note 2: *The lowest Minimum Flight Level for use shall be FL70 against a Transition Altitude of 6000 ft, irrespective of the Transition Level, to avoid confusion.*

1.2.2.1 Change to MSL Procedure

When the pressure changes across an MSL boundary:

- The first APC/Enroute controller to notice the change shall notify all affected units who also refer to the MSL;
- The first controller shall coordinate the agreement of an effective time that is at least 5 minutes from the time the pressure change was noticed.

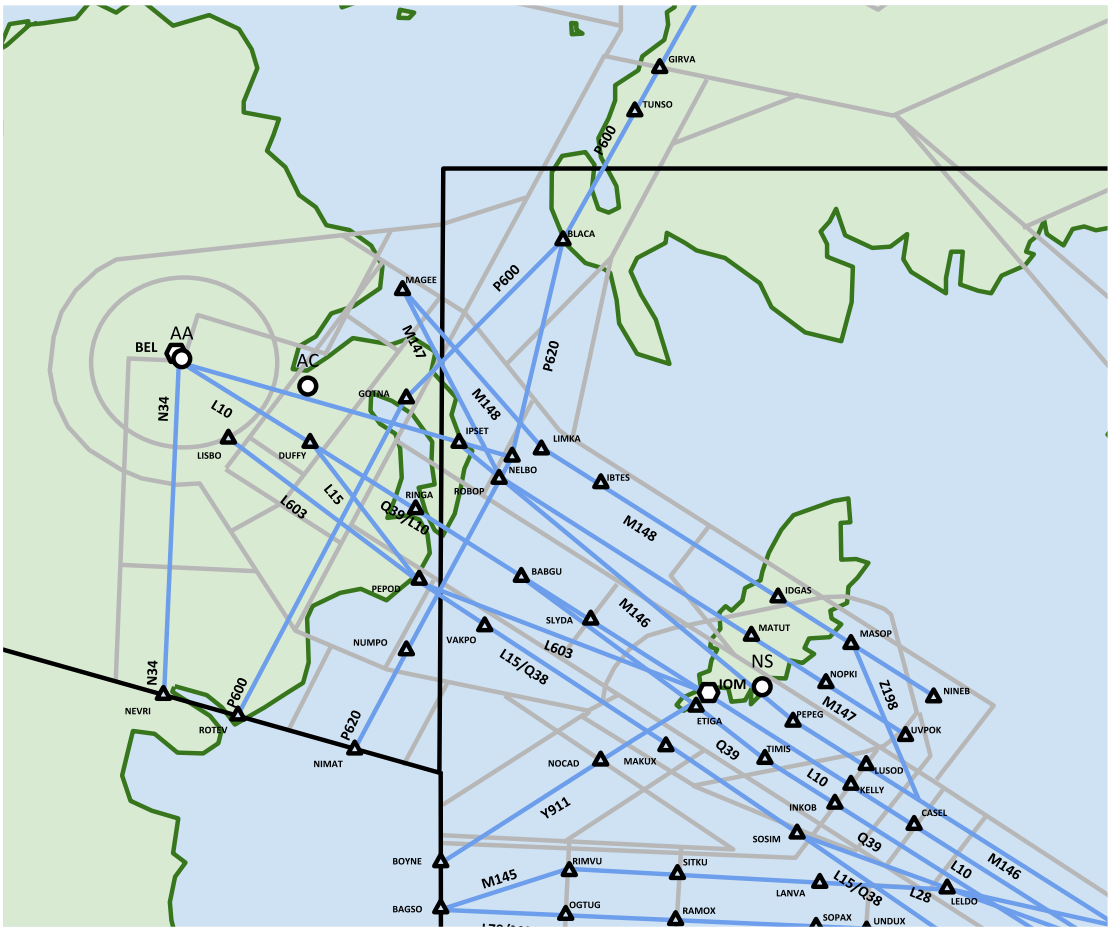
Aircraft operating at the old MSL are deemed separated from aircraft operating at the Transition Altitude until the new MSL is agreed to be in effect.

1.3 Route Structure

The Antrim sector's complexity is determined predominantly by its free-flow system of routes for arrivals and departures to and from the Belfast TMA and the Isle of Man (EGNS). The table below and Figure ANT-2 summarise the configuration within the sector.

ATS Route	Route	Restriction(s)
L10	BELZU – IOM – WAL	
L15	DUFFY – MALUD	Eastbound only.
L603	IOM – PEPOD	Not available for eastbound Belfast TMA departures. The L603 is not available for entry into FRA.
N34	NEVRI – BELZU	Northbound only.
P600	ROTEV – GOTNA – BLACA – TRN	Northbound only between ROTEV and BLACA.
P620	BLACA – NELBO – NIMAT	Southbound only.
M148	REMSI – NINEB – MASOP – IDGAS – IBTES – LIMKA – MAGEE	Westbound only RNAV1 route for EGAC arrivals via Z198 MASOP (FL195-255) and REMSI (FL255+).
M147	REMSI – UVPOK – NOPKI – MATUT – ROBOP	Westbound only RNAV1 route for EGAA arrivals via FRA (FL255+) and EGAC arrivals via M146 ROBUP (FL195-).
M146	DIGMA – ERDUV – LUSOP – PEPEG – ROBOP – IPSET	Westbound only RNAV1 route for all traffic FL255 and below, as well as Manchester Group, EGNO/NE/NH/NM departures at all levels.
Z198	ERDUV – MASOP	
Q39	RINGA – BABGU – ETIGA – TIMIS – INKOB = DANDI	Belfast TMA RNAV1 departures RFL285+.
Q38	PEPOD – VAKPO – MAKUX – SOSIM – GIGTO	Belfast TMA RNAV1 departures RFL285-.
Y911	BOYNE – NOCAD – IOM	

Figure ANT-2 – Antrim Route Structure



1.4 Initial Route Clearance

See GEN 1.1.

1.5 Use of 3 NM Separation

The use of 3 NM lateral separation is approved inside controlled airspace within Antrim airspace, from DB-FL255.

The use of 3 NM lateral separation is also approved up to FL260 inside of ScAC Rathlin's airspace by Antrim and PC West controllers, as long as climb above FL250 has been coordinated. Both Antrim and PC West must ensure either 5 NM lateral separation or vertical separation is achieved before transfer of communications to Rathlin, since Rathlin controllers are not permitted to use 3 NM separation at any time.

Chapter 2 Procedures and Coordination with Adjacent Sectors and Units

2.1 Standing Agreements

2.1.1 Scottish Standing Agreements

2.1.1.1 Galloway

From Antrim to ScTMA Galloway

To	Agreement	Conditions
EGPF	FL150 lvl GIRVA	
EGPH	FL170 lvl TUNSO	

From ScTMA Galloway to Antrim

From	Agreement	Conditions
EGPF	FL160 lvl TRN	
EGPK	FL140	See *Note*.

Note: *Galloway must coordinate with Antrim if this traffic is likely to conflict with a P600 arrival into Prestwick that has already been coordinated and allocated a level.*

2.1.1.2 Rathlin

From Antrim to Rathlin

From	Agreement	Conditions
All	↟ FL250	Via P600 (northbound)
EGAA, EGAC (RFL285+)	FL250 lvl ETIGA	Via INKOB (Q39). (*Notes 1* & *2*)
EGAA, EGAC (RFL 255-285)	FL250 lvl MAKUX	Via MAKUX (Q38). (*Note 2*)
EGAA, EGAC (RFL 255+)	FL250 lvl MAKUX	Via MAKUX (L15). Transferred on a heading between KELLY and SOSIM.
EGAB	↟ FL250	Via PEPOD
EGAE	↟ FL250	Via DUFFY
Dublin Group	↟ FL250	Via BELZU (N34)

Note 1: *EGAA and EGAC departures via INKOB with an RFL290+ are required to reach FL290 by abeam INKOB to avoid PC West airspace. The Antrim controller will stop the aircraft at FL250, inform Rathlin, and confirm with Rathlin whether the aircraft is RFC in their airspace. Antrim shall then coordinate this with PC West.*

Note 2: *Rathlin is not able to use 3 NM separation. Antrim and PC West can use 3 NM within Rathlin's airspace up to FL260 but must ensure that either 5 NM lateral or vertical separation exists before transfer of communications to Rathlin.*

From Rathlin to Antrim

To	Agreement	Conditions
ScTMA	FL260	Via GOTNA
EGAC	FL260	Via NINEB/MASOP (*Notes 1, 4 & 5*)
EGAA	FL260	Via UVPOK/MASOP. (*Notes 1, 4 & 5*)
EGAB/EGAE	FL260	Via NELBO. (*Notes 1 & 4*)
Dublin Group	FL260 lvl BELZU	Via BELZU. (*Note 2*)
Dublin Group	FL260	Via BLACA. (*Note 3*)

Note 1: *Rathlin is responsible for conflict detection and resolution between Manchester TMA departures and Belfast TMA arrivals.*

Note 2: *Antrim shall ensure that this traffic is descended to FL250 or below by 10 NM after BELZU. Rathlin is responsible for conflict detection and resolution against south/westbound traffic via NELBO.*

Note 3: *Rathlin shall ensure that aircraft are given descent that enable Antrim to ensure that traffic is FL240 or below by NIMAT.*

Note 4: *If EGAC are using Runway 04 and EGAA Runway 25, Antrim will inform Rathlin, who should then position EGAC arrivals south of EGAA arrivals.*

Note 5: *MASOP for RNAV 5 only.*

2.1.2 External Standing Agreements

2.1.2.1 Belfast

See APT Chapter 4.

Antrim to Aldergrove Radar

To	Agreement	Conditions
EGAA, EGAD, EGAL, EGAC	↓ FL100	Via L10/P6/P600/ N34/M146/M147/M148

Aldergrove Radar to Antrim

From	Agreement	Conditions
Belfast TMA	↑ FL90	Via L10/P600/P620/ Q39/Q38/L15

2.1.2.2 Isle of Man (Ronaldsway)

Antrim to Ronaldsway

To	Agreement	Conditions
EGNS	FL70 lvl SLYDA	Via L10
EGNS	FL90 lvl IOM	Via Y911

Ronaldsway to Antrim

From	Agreement	Conditions
EGNS	↑ FL60	Via L10
EGNS	↑ FL80	Via Y911

2.1.2.3 Dublin ACC

From Antrim to Dublin

To	Agreement	Conditions
Dublin Group	↓ FL160	FL240 or below by NIMAT. Antrim should endeavour to stream this traffic.
Dublin Group	↓ FL140	Via Y911

From	Agreement	Conditions
Belfast Group	↑ FL240	Via P620
EGNS	↑/↓ to FL130	Via Y911. RFC/RFD on transfer

From Dublin to Antrim

From	Agreement	Conditions
Dublin Group	↑ FL230	Via P600/N34
Dublin Group	↑ FL130	Via Y911. RFC to FL240

To	Agreement	Conditions
Belfast Group	↓ FL140	Via N34. RFD with both Dublin Upper North and Lower North sectors.
EGNS	↑/↓ FL130	RFD

2.2 Adjacent Units, Sectors and Airfields

2.2.1 Belfast Aldergrove (EGAA) & City (EGAC)

See APT Chapter 4.

2.2.2 Dublin ACC

2.2.2.1 Dublin Sectorisation

The airspace contained within Dublin ACC's AoR is Class C from the SFC to FL245.

2.2.2.1.1 Dublin Lower North (DB-FL125)

EIDW_LN_CTR 132.580 MHz	**Dublin Upper North**

2.2.2.1.2 Dublin Upper North (FL125-FL245)

EIDW_UN_CTR 129.180 MHz	**Shannon LIFFY (Upper)** *See ScAC 5.4.4.1*

2.2.2.2 Flight Level Allocation

From Dublin ACC to Antrim

Route	COP	Flight Level Allocation
N34	NEVRI	Odd
P600	ROTEV	Odd
Y911	BOYNE	Odd
Dublin CTA – FIR west of N34	FIR Boundary	Even
Dublin CTA – FIR between NEVRI-BOYNE		Odd

From Antrim to Dublin ACC

Route	COP	Flight Level Allocation
P620	NIMAT	Even
Y911	BOYNE	Even
FIR west of N34 – Dublin CTA	FIR Boundary	Odd
FIR between NEVRI-BOYNE – Dublin CTA		Even

2.2.2.3 Transfer of Control and Communications

Route	Transfer of Control Point	Transfer of Communications Point	
		Dublin ACC to Antrim	Antrim to Dublin ACC
N34	NEVRI	NEVRI	-
P600	ROTEV	ROTEV	-
P620 (*Note 1*)	NIMAT	-	NIMAT
Y911	BOYNE	BOYNE	20 NM southwest of IOM
Off Route	FIR Boundary	At or before FIR boundary	At or before FIR boundary

Note 1: *Antrim will endeavour to transfer communications at or close to NUMPI.*

2.2.2.4 Radar Buffer Zone and Traffic Positioning

2.2.2.4.1 NIMAT ROTEV Buffer

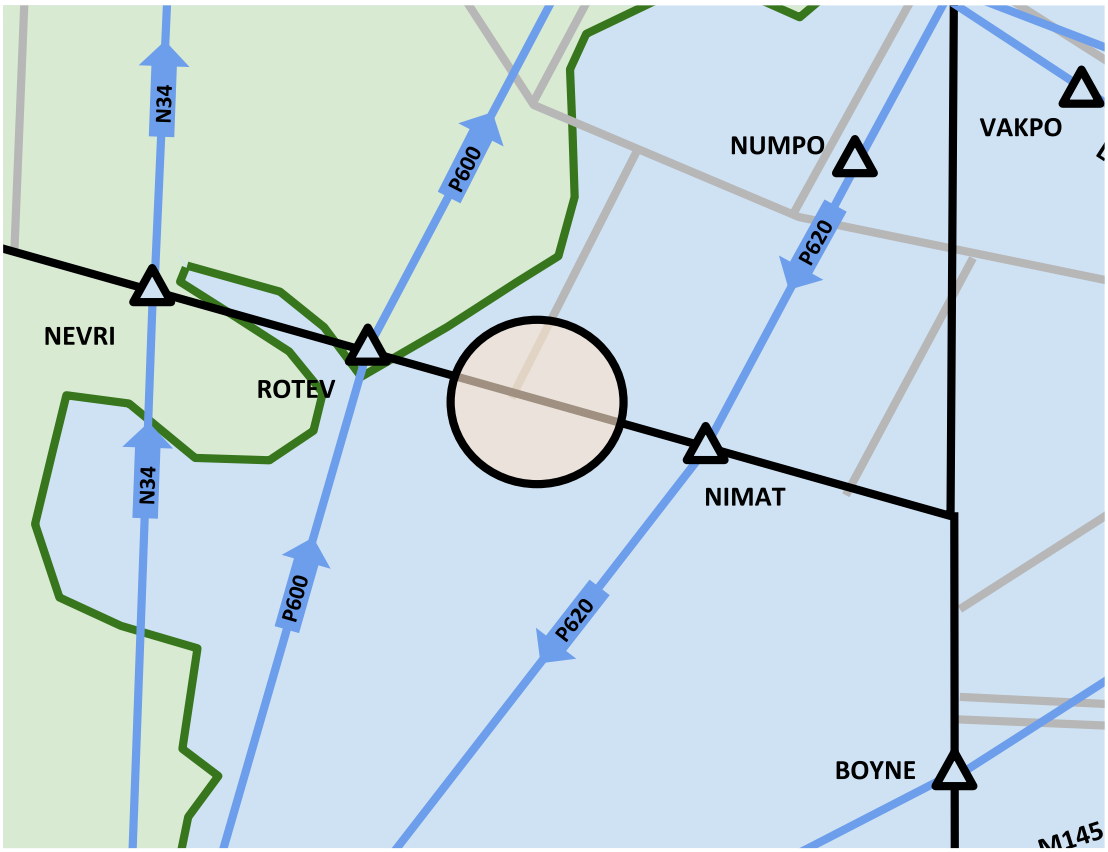
A radar buffer zone is established, consisting of a circle of 3 NM radius on the FIR boundary at the midpoint between ROTEV and NIMAT, from the CAS base to FL245. See Figure ANT-3.

This buffer is for the purpose of keeping northbound traffic (west of the buffer) and southbound traffic (east of the buffer) separated.

Antrim and Dublin ACC should position traffic to avoid this buffer to ensure it remains separated.

Controllers shall ensure the buffer is shown on the radar display (**Display Settings → Stars → NIMAT-ROTEV Buffer**).

Figure ANT-3 – NIMAT-ROTEV Buffer



2.2.2.4.2 Traffic Routing GOMUP and North

Dublin will route outbound traffic via NEVRI N34 and climb it to the standing agreement level, unless otherwise coordinated.

Antrim will route inbound traffic via NIMAT.

2.2.2.4.3 Y911

Control of all traffic on the Y911 is the responsibility of Antrim, excluding that which is contained within the Isle of Man CTR/CTA (below FL65).

Ronaldsway will transfer EGNS outbound traffic to Antrim who shall ensure separation from any overflying traffic on the Y911 and any traffic cleared to cross between BOYNE and IOM, before transfer to Dublin ACC.

2.2.2.5 Common Reporting Points/Conflicting Routes

2.2.2.5.1 Y911/L70 Conflictions

If traffic via BOYNE comes into conflict with traffic from PC West, Dublin ACC will coordinate a resolution with PC West.

2.2.2.5.2 BOYNE and NIMAT

Dublin ACC consider BOYNE and NIMAT to be a common reporting point. As such, standard separation should be applied by Antrim between traffic exiting at both BOYNE and NIMAT simultaneously to assist Dublin in separation this traffic. Reduced separation may be possible, but only after coordination with Dublin ACC.

2.2.2.6 Silent Handover (Silent Transfer of Radar Control)

The minimum lateral and longitudinal separation standard between aircraft shall be 5 NM and 10 NM respectively, constant or increasing, for all traffic transferred by means of a silent handover between Antrim and Dublin ACC.

With verbal coordination, the minimum longitudinal separation applied between successive aircraft may be reduced to 5 NM.

2.2.2.6.1 Release for Turn

Unless transferred on a heading or otherwise specified, all traffic transferred between Dublin ACC and Antrim (and vice versa) is released for turn by up to 45°, subject to known traffic.

2.2.2.7 Vectoring of Traffic

The distance to the AoR boundary must never be less than 5 NM when either Antrim or Dublin ACC vector traffic that is unknown to the other.

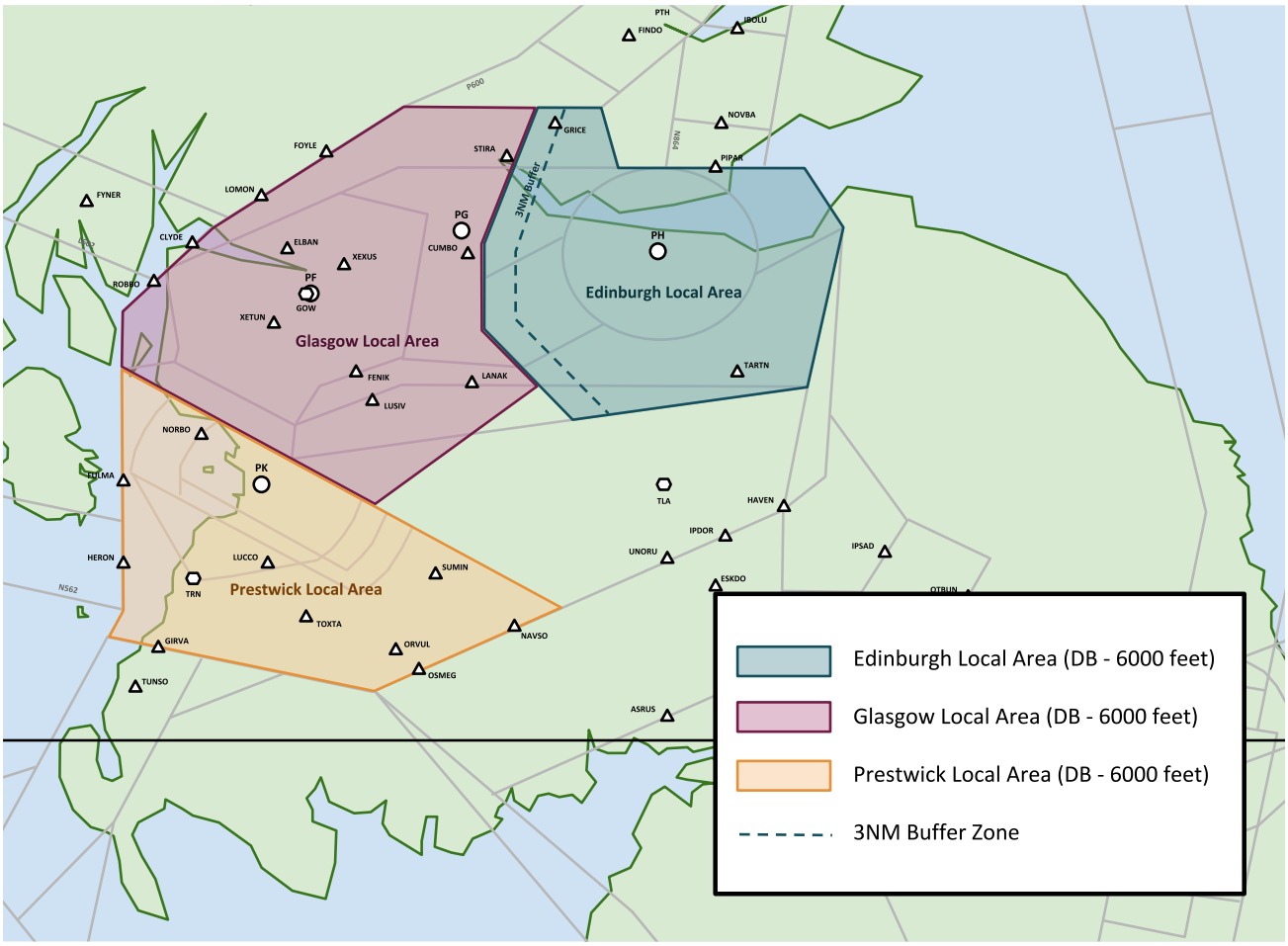
2.2.3 Shannon ACC

2.2.3.1 P600 and N34

Any climb above FL240 for traffic northbound on the P600 and N34 must first be coordinated with Shannon ACC. When Shannon ACC and Dublin ACC are the same controller, this traffic is RFC unless otherwise coordinated.

APT | AIRPORTS

Figure APT-1 – Scottish TMA Airfield Local Areas



Chapter 1 Edinburgh (EGPH)

1.1 Controller Positions and Coordination Indicator

Position Identifier	EuroScope Identifier	Frequency (MHz)	RTF Callsign	Coordination Name
PH INT	PHR	121.205	Edinburgh Radar	Edinburgh INT
PH FIN	PHF	128.980	Edinburgh Director	Edinburgh FIN
PH AIR	PHT	118.705	Edinburgh Tower	Edinburgh AIR
PH GMC	PHG	121.755	Edinburgh Ground	Edinburgh GMC
PH GMP	PHD	121.980	Edinburgh Delivery	Edinburgh GMP

1.2 Area of Responsibility

Edinburgh APC are responsible for the Edinburgh CTR/CTA and the airspace delegated to them by ScTMA below 6000 feet – the 'Edinburgh Local Area'.

The Scottish TMA Local Areas and Buffer Zone are depicted in Figure APT-1.

1.3 Procedures for Inbound Aircraft

1.3.1 Inbound Releases

The table below summarises the agreed levels for inbounds transferred from Scottish to Edinburgh APC. The subsequent sections add further specific conditions.

Via	From	Agreement
TARTN	Talla	↓ MSL
STIRA	ScAC South	MSL lvl STIRA
N864	ScAC South	Individually coordinated

During low traffic levels, direct routings may be individually coordinated.

Reduced radar handover format: "Callsign, descending to level, heading, (speed)".

1.3.1.1 Arrivals via TARTN

Talla will transfer inbounds via TARTN by **silent handover** descending to the MSL. Talla shall endeavour to stream successive inbounds and shall not descend a subsequent inbound to the MSL until the preceding aircraft has vacated the level. Where this is not possible, Talla may transfer subsequent inbounds via an **electronic abbreviated release** at 'stacked' levels.

Talla should typically only release traffic up to MSL+2.

Vectoring for Runway 06

Traffic shall be vectored to remain west of the holding pattern/direct route to TARTN. It must also cross the 180°M track from the UW at or below 6000 feet to remain separated from the LANAK hold.

Vectoring for Runway 24

Traffic shall be vectored to remain east of the holding pattern/direct route to TARTN, except when direct routings have been individually coordinated.

1.3.1.2 Arrivals via STIRA

Arrivals via STIRA may be transferred by **silent handover** descending to the MSL. Due to the shared nature of the STIRA arrival route with traffic inbound to Glasgow, a **reduced radar handover** may be required.

1.3.1.3 Arrivals via the N864

Inbounds are subject to coordination. PH INT will suggest a routing – likely direct/on a heading toward the EDN for Runway 24, and as required for Runway 06 – and ScAC South shall offer a level. ScAC South shall notify Galloway of all inbounds via the N864.

Traffic shall be transferred to PH INT by means of a **reduced radar handover** no later than 30 NM from Edinburgh. Should Edinburgh be unable to descend the inbound to the MSL or below by the ScAC South and Galloway boundary, they shall notify Galloway and agree a descent profile.

1.3.1.4 Arrivals from the FIR

FIR arrivals (mainly from the east of the TMA) can normally expect a joining clearance on track EDN for Runway 24. The routing shall be coordinated when on Runway 06. ScAC South shall give Edinburgh APC at least 10 minutes notice and transfer traffic as agreed by **reduced radar handover**, no later than 30 NM from Edinburgh.

1.3.2 Vectoring of Inbounds

All inbounds are released for turns in the *same general direction* while within the airspace of the transferring unit, until entering the Edinburgh Local Area.

Edinburgh shall duly consider the track of Runway 06 jet departures when vectoring inbounds from the N864.

1.3.3 Descent of Inbounds

If Edinburgh descend arriving aircraft below MSL, it is then their responsibility to ensure separation against departures.

1.3.4 Holding Procedures

TARTN Hold

Edinburgh APC shall typically be transferred all inbounds established in or approaching the TARTN hold at MSL, MSL+1 and MSL+2.

TARTN	3.5 NM hold
Axis	015°
Direction	LEFT hand
Maximum Holding Level	FL140
Speed	Maximum 230 kts IAS

Note: *Separated from GOW, TRN, LANAK, SUMIN, STIRA and FYNER at FL140 and below.*

STIRA Hold

Edinburgh shall inform ScAC South when holding is required at STIRA.

STIRA	4 NM hold
Axis	235°
Direction	RIGHT hand
Maximum Holding Level	FL140
Speed	Maximum 230 kts IAS

Note: *Separated from FOYLE (FL120 and below) and GOW, SUMIN, TARTN, and FYNER at FL140 and below.*

Note: *The STIRA hold can be used for both Edinburgh and Glasgow arrivals.*

1.4 Procedures for Outbound Aircraft

1.4.1 Standard Instrument Departures

All departures on a SID are free flow and climb to 6000 feet.

Departure	Restrictions	Receiving Sector
GOSAM	Jet aircraft only.	Galloway
GRICE	-	ScAC South
TLA	Available to non-jet aircraft. Available to jet aircraft if: • They are routing via the **Y96** or leaving controlled airspace via **TLA** • They are routing via the N57/L612/N864 between 2300-0600 local (See *Note*)	Talla

Note: *Given the fact that traffic levels on VATSIM differ from real life, Scottish may elect to make the TLA SID unavailable for jet departures between 2300-0600. This shall be coordinated with PH AIR.*

1.4.2 Transfer of Departures

All outbounds will be transferred on the SID directly to the appropriate Scottish sector in accordance with the table in 1.4.1 above. Edinburgh APC may request for departures to be transferred to them by AIR.

1.4.2.1 Silent Handover

If Edinburgh APC elect to work a departure, it may be transferred by **silent handover** to Scottish provided it is climbing to the SID altitude, following the agreed route, and separated from all local area traffic.

Transfer of communications (coincident with transfer of control) must take place before the local area boundary.

1.4.3 Vectoring of Departures

By Edinburgh APC

Edinburgh is responsible for monitoring departures and ensuring separation against inbound traffic. In particular, they shall be responsible for conflict detection and resolution between GOSAM SID departures and GRICE departures/STIRA inbounds, coordinating with Galloway and/or ScAC South as appropriate.

Departures may be vectored by Edinburgh APC within the local area to achieve separation without coordination with area control. This traffic must be resumed own navigation on the SID track by the local area boundary, else coordinated. Edinburgh shall take due care not to erode the separation provided by the departure interval applied by AIR.

By Scottish

GOSAM departures from Runway 24 are released for right turn provided the aircraft has passed either 3000 feet or the UW, whichever is sooner. Galloway shall not turn traffic further right than a track of 290 degrees without coordination with Edinburgh.

All other vectoring or deviation from the SID below MSL is not permitted without coordination with Edinburgh APC.

Chapter 2 Glasgow (EGPF)

2.1 Controller Positions and Coordination Indicators

Position Identifier	EuroScope Identifier	Frequency (MHz)	RTF Callsign	Coordination Name
PF INT	PFR	119.100	Glasgow Radar	Glasgow INT
PF FIN	PFF	128.755	Glasgow Director	Glasgow FIN
PF AIR	PFT	118.805	Glasgow Tower	Glasgow AIR
PF GMC	PFG	121.705	Glasgow Ground	Glasgow GMC

2.2 Area of Responsibility

Glasgow APC are responsible for the Glasgow CTR/CTA and the airspace delegated to them by ScTMA below 6000 feet – the 'Glasgow Local Area'.

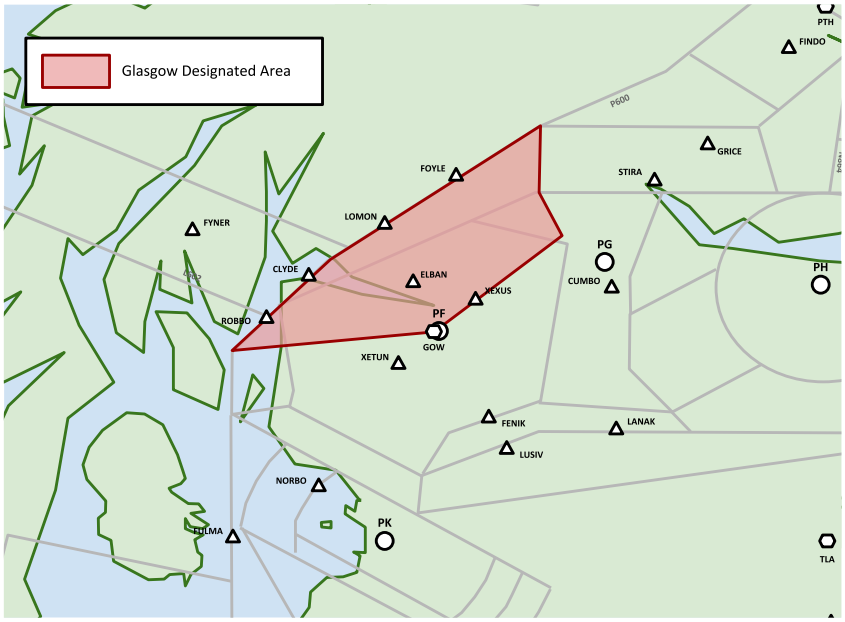
The Scottish TMA Local Areas and Buffer Zone are depicted in Figure APT-1.

2.2.1 Glasgow Designated Area (GDA)

To facilitate arrivals into Glasgow from FOYLE, LOMON, CLYDE and ROBBO, Glasgow APC may – without coordination with Galloway – allow inbound traffic to maintain FL90 in the GDA (see Figure APT-2). Galloway shall thus coordinate all traffic entering the GDA at FL90 or below with Glasgow, who will notify ScAC West/ScAC South as appropriate.

Within the GDA, Glasgow APC is responsible for separating inbound traffic against conflicting outbound traffic and overflying traffic. Departures transferred directly to ScAC West/ScAC South are RFC to FL90 without coordination with Galloway.

Figure APT-2 – Glasgow Designated Area (GDA)



2.3 Procedures for Inbound Aircraft

2.3.1 Inbound Releases

The table below summarises the agreed levels for inbounds transferred from Scottish to Glasgow APC. The subsequent sections add further specific conditions.

Via	From	Agreement
LANAK	Talla	MSL lvl LANAK
P600/TRN	Galloway	Individually coordinated / Agreed level by LANAK
FYNER/ROBBO	ScAC West	FL90 lvl 20 NM before GOW (See *Note*)
LOMON/FOYLE	ScAC South	FL90 lvl 20 NM before GOW (See *Note*)
STIRA	ScAC South	MSL lvl STIRA

> ***Note:*** *FL90 may be allocated to more than one aircraft provided a minimum of 5 NM between aircraft on parallel/diverging headings, or 10 NM (constant or increasing) between aircraft in trail is provided.*

During low traffic levels, direct routings may be individually coordinated.

Reduced radar handover format: "Callsign, descending to level, heading, (speed)".

2.3.1.1 Arrivals via LANAK

Talla will transfer inbounds via LANAK by **silent handover** to the MSL, level by LANAK. Talla shall endeavour to stream successive inbounds and shall not descend a subsequent inbound to the MSL until the preceding aircraft has vacated the level. Where this is not possible, Talla may transfer subsequent inbounds via an **electronic abbreviated release** at 'stacked' levels.

2.3.1.2 Arrivals via TRN (BLACA 1G)

The preference is for traffic to be positioned on a heading by Galloway and transferred to Glasgow APC by means of a **reduced radar handover**, to take place no later than passing north of the Prestwick 12/30 extended centreline.

If required, Galloway shall coordinate a stack level with Talla for aircraft on the BLACA 1G STAR, with stack traffic to be descended to be level by LANAK and then transferred directly to Glasgow.

2.3.1.3 Arrivals via FYNER

Arrivals via FYNER may be transferred by **silent handover**.

2.3.1.4 Arrivals via ROBBO/LOMON

These arrivals shall be routed to ROBBO/LOMON and instructed to **free call** Glasgow Radar (INT) at least 30 NM prior from the airfield (but no greater than 40 NM) to request an airspace joining clearance.

2.3.1.5 Arrivals via FOYLE

Irrespective of whether the airspace to the north of FOYLE is active (Class E) or is Class G, arrivals will be transferred via a **reduced radar handover**, completed prior to 30 NM from Glasgow.

2.3.1.6 Arrivals via STIRA

Arrivals via STIRA may be transferred by **silent handover**. Due to the shared nature of the STIRA arrival route with traffic inbound to Edinburgh, a **reduced radar handover** may be required.

2.3.2 Vectoring of Inbounds

All inbounds are released for turns in the *same general direction* while within the airspace of the transferring unit, until entering the Local Area or GDA.

Glasgow shall duly consider the track of runway 05 jet departures when vectoring inbounds via FOYLE/ROBBO/LOMON.

2.3.3 Descent of Inbounds

If Glasgow descend arriving aircraft below MSL, it is then their responsibility to ensure separation against departing aircraft already transferred to Scottish.

All arrivals via FOYLE, LOMON and CLYDE must cross the TMA boundary at or west of GOW VOR radial 323 at or below 5000 ft when any 05 jet SIDs are airborne.

2.3.4 Holding Procedures

Glasgow APC shall typically be transferred all inbounds established in or approaching the relevant hold at MSL, MSL+1 and MSL+2.

LANAK Hold

LANAK	4 NM hold
Axis	303°
Direction	RIGHT hand
Holding Levels	MSL – FL140
Speed	Maximum 230 kts IAS

Note: *Separated from GOW, TRN, SUMIN, TARTN, STIRA and FYNER at FL140 and below.*

Note: *The protected area of the LANAK hold is not deemed separated from traffic on Edinburgh Runway 06 GOSAM and Runway 24 GOSAM/TLA SIDs, as well as Glasgow Runway 23 LUSIV/TLA and Runway 05 LUSIV/TRN/TLA SIDs. Galloway/Talla shall provide lateral/vertical separation as appropriate.*

FOYLE Hold

FOYLE	1-minute legs
Axis	189°
Direction	LEFT hand
Maximum Holding Level	FL140
Speed	Maximum 230 kts IAS

Note: *Separated from GOW (FL70 and below, entry procedure not separated above FL70), STIRA (FL120 and below) and SUMIN, LANAK, TARTN and FYNER at FL140 and below.*

FYNER Hold

FYNER	1-minute legs
Axis	117°
Direction	LEFT hand
Maximum Holding Level	FL140
Speed	Maximum 230 kts IAS

Note: *Separated from TRN, SUMIN, LANAK, TARTN, STIRA and FOYLE at FL140 and below.*

STIRA Hold

Glasgow shall inform ScAC South when holding is required at STIRA.

STIRA	4 NM hold
Axis	234°
Direction	RIGHT hand
Maximum Holding Level	FL140
Speed	Maximum 230 kts IAS

Note: *Separated from FOYLE (FL120 and below) and GOW, SUMIN, TARTN, and FYNER at FL140 and below.*

Note: *The STIRA hold can be used for both Glasgow and Edinburgh arrivals.*

TRN Hold

TRN	1-minute legs
Axis	029°
Direction	LEFT hand
Maximum Holding Level	FL90
Speed	Maximum 210 kts IAS

Note: *Although the maximum holding level is FL90, the TRN hold is separated from GOW, SUMIN, LANAK, TARTN, STIRA and FYNER at FL140 and below.*

Note: *Galloway shall normally retain control of all traffic holding at TRN, at and above MSL, except those aircraft inbound to Prestwick at MSL.*

2.4 Procedures for Outbound Aircraft

2.4.1 Standard Instrument Departures

All departures on a SID are free flow. Except for LUSIV/TRN departures from Runway 05, all outbounds will be transferred on the SID directly to the appropriate Scottish sector in accordance with the table below.

Departure	Receiving Sector
NORBO/TLA	Galloway
LUSIV/TRN (Runway 23)	Galloway
LUSIV/TRN (Runway 05)	Glasgow INT
FOYLE/LOMON/PTH	ScAC South
ROBBO/CLYDE	ScAC West

2.4.1.1 Silent Handover

If Glasgow APC elect to work a departure, it may be transferred by **silent handover** to Scottish provided it is climbing to the SID altitude, following the agreed route, and separated from all local area traffic.

Transfer of communications (coincident with transfer of control) must take place before the local area boundary.

2.4.2 Vectoring of Departures

By Glasgow APC

Glasgow is responsible for monitoring departures and ensuring separation against inbound traffic. In particular, they shall resolve any conflict between TRN/LUSIV non-jet SID departures and arrivals before transfer to Galloway, or shall vector arriving traffic to provide at least 5 NM separation from traffic on the SID or until vertical separation exists.

Departures may be vectored by Glasgow APC within the local area to achieve separation without coordination with area control. This traffic must be resumed own navigation on the SID track by the local area boundary, else coordinated. Glasgow shall take due care not to erode the separation provided by the departure interval applied by AIR.

By Scottish

Galloway must not vector **TRN/LUSIV** departures off the SID until the traffic has reached MSL+1 or higher.

NORBO departures from runway 23 are released for left turn provided the aircraft has passed either 4000 feet or XETUN, whichever is later, and Galloway provides separation against all previous arrivals transferred to Glasgow and any other preceding departing traffic.

All other vectoring or deviation from the SID below MSL is not permitted without coordination with Glasgow APC.

Chapter 3 Prestwick (EGPK)

3.1 Controller Positions and Coordination Indicator

Position Identifier	EuroScope Identifier	Frequency (MHz)	RTF Callsign	Coordination Name
PK INT	PKR	129.450	Prestwick Radar	Prestwick INT
PK FIN	PKF	124.630	Prestwick Director	Prestwick Director
PK AIR	PKT	118.150	Prestwick Tower	Prestwick AIR

3.2 Area of Responsibility

Prestwick APC are responsible for the Prestwick CTR/CTA and the airspace delegated to them by ScTMA below 6000 feet – the 'Prestwick Local Area'.

The Scottish TMA Local Areas and Buffer Zone are depicted in Figure APT-1.

3.3 Procedures for Inbound Aircraft

3.3.1 Inbound Releases

The table below summarises the agreed levels for inbounds transferred from Scottish to Prestwick APC. The subsequent sections add further specific conditions.

Via	From	Agreement
BLACA 1P	Antrim	Agreed level by GIRVA
APPLE 2P / RIBEL 2P	Galloway	MSL (See *Note*)
TRN (no STAR)	Antrim/Galloway	Individually coordinated

> ***Note:*** *MSL may be allocated to more than one aircraft provided a minimum of 5 NM between aircraft on parallel/diverging headings, or 10 NM (constant or increasing) between aircraft in trail is provided.*

During low traffic levels, direct routings may be individually coordinated.

Where the conditions for a silent handover are not met, a **reduced radar handover**, in the following format, may be used: "Callsign, descending to level, heading, (speed)".

3.3.1.1 Arrivals via BLACA 1P (Antrim)

Antrim shall coordinate a level with Galloway, clearing the traffic to this level, level by GIRVA. It shall then be transferred directly from Antrim to Prestwick APC by **silent handover** provided that the aircraft is routing to, or on a heading towards, the holding fix. Traffic is released subject to any outbound traffic.

3.3.1.2 Arrivals via APPLE 2P / RIBEL 2P

Galloway shall descend this traffic to the MSL, level 10 NM before TRN and transfer to Prestwick APC by **silent handover** provided that the aircraft is routing to, or on a heading towards, the holding fix.

If holding is required, Galloway will coordinate the use of the off-route hold at SUMIN with Prestwick APC as appropriate.

3.3.1.3 Arrivals from LOMON

ScAC South shall pass details of arrivals via LOMON to Glasgow APC, who may elect to work this traffic after **radar handover**. Should they choose not to work the traffic, it shall be coordinated with Galloway who is then responsible for coordinating the arrival with Prestwick APC.

3.3.1.4 Arrivals via the P600 from the North

The default routing for traffic inbound to Prestwick shall be GRICE-FENIK-TRN. ScAC South shall coordinate a level at GRICE with Galloway.

Galloway shall then descend the traffic to MSL, ensuring it remains above Glasgow's local area (see Figure APT-1) before providing Prestwick APC with a **radar handover** when the traffic is clean. It is then Prestwick's responsibility to coordinate with Glasgow APC, should they wish to descend it into Glasgow's local area.

If the aircraft is low performance, it shall be routed to TRN by Galloway and identified to Glasgow APC if it is likely to conflict with Glasgow inbounds. If Glasgow chooses to work the traffic, they are then responsible for coordinating the inbound with Prestwick.

Alternative routing via N864

In real life, when the P600 is in use by the Scottish Gliding Centre, inbounds are routed N864-PIPAR and then coordinated between Galloway and Talla accordingly. The preference is for aircraft to route via P600 on VATSIM, though some may file via N864.

3.3.2 Vectoring of Inbounds

All inbounds are released for turns in the *same general direction* while within the airspace of the transferring unit, until entering the Local Area.

3.3.3 Descent of Inbounds

If Prestwick descend arriving aircraft below MSL, it is then their responsibility to ensure separation against departing aircraft already transferred to Scottish.

3.3.4 Holding Procedures

Aircraft in the hold will typically be released to Prestwick APC at the MSL and below.

SUMIN Hold

The SUMIN Hold is an off-route RNAV hold.

SUMIN	1-minute legs
Axis	269°
Direction	LEFT hand
Holding Levels	6000 – FL90
Speed	Maximum 210 kts IAS

Note: *Although the maximum holding level is FL90, the SUMIN hold is separated from GOW, TRN, LANAK, TARTN, STIRA and FYNER at FL140 and below.*

TRN Hold

TRN	1-minute legs
Axis	028°
Direction	LEFT hand
Holding Levels	6000 – FL90
Speed	Maximum 210 kts IAS

Note: *Although the maximum holding level is FL90, the TRN hold is separated from GOW, SUMIN, LANAK, TARTN, STIRA and FYNER at FL140 and below.*

3.4 Procedures for Outbound Aircraft

3.4.1 Standard Instrument Departures

All departures on a SID are free flow and climb to 6000 feet.

Departure	Runway	Receiving Sector
LUCCO 1K	30	Galloway
SUMIN 1L	12	Galloway
SUDBY 1L	12	Galloway
TRN 2K	30	Galloway
TRN 2L	12	Galloway
DAUNT 1K	30	ScAC West (Rathlin)
OKNOB 1L	12	ScAC West (Rathlin)

3.4.2 Omni Departures for non-RNAV traffic

All Omni departures are free flow and climb to 6000 feet. The receiving sector is Galloway.

Runway	Description	Onward Routing
30	Climb straight ahead (304°M) to 570 feet, then turn on track. Climb to 6000 feet.	TRN P600/N562/N560/T256 OSMEG (U)T256 SUMIN DCT TLA
12	Climb straight ahead (124°M) to 740 feet, then turn on track. Climb to 6000 feet.	
20	Climb straight ahead (206°M) to 1350 feet, then turn on track. Climb to 6000 feet.	

3.4.3 Transfer of Departures

All outbounds will be transferred on the SID directly to the appropriate Scottish sector in accordance with the table in 3.4.1 above. Prestwick INT may request for departures to be transferred to them by AIR.

3.4.3.1 Silent Handover

If Prestwick APC elect to work a departure, it may be transferred by **silent handover** to Scottish provided it is climbing to the SID altitude, following the agreed route, and separated from all local area traffic.

Transfer of communications (coincident with transfer of control) must take place before the local area boundary.

3.4.4 Vectoring of Departures

By Prestwick APC

Prestwick is responsible for monitoring departures and ensuring separation against inbound traffic. Successive departures must be separated by at least 5 NM, constant or increasing, on transfer to Scottish.

Departures (SID or Omni) may be vectored by Prestwick APC within the local area to achieve separation without coordination with area control. This traffic must be resumed own navigation on the SID track by the local area boundary, else coordinated.

By Scottish

All vectoring, or deviation from the SID, below MSL is not permitted without coordination with Prestwick APC.

Chapter 4 Belfast (EGAA & EGAC)

4.1 Controller Positions and Coordination Indicator

Position Identifier	EuroScope Identifier	Frequency (MHz)	RTF Callsign	Coordination Name
AA INT	AAR	133.125	Aldergrove Radar	Aldergrove Radar
AA FIN	AAF	120.905	Aldergrove Director	Aldergrove Director
AA AIR	AAT	118.300	Aldergrove Tower	Aldergrove Tower
AA GMC	AAG	121.755	Aldergrove Ground	Aldergrove Ground
AC INT	ACR	130.850	Belfast Radar	Belfast Radar
AC APP	(ACA)	130.850	Belfast Approach	Belfast Approach
AC AIR	ACT	122.830	Belfast Tower	Belfast Tower

4.2 Area of Responsibility

The following controlled airspace is delegated to Aldergrove INT at and below FL90:

- The Belfast TMA
- P600 between ROTEV and BLACA
- N34 between BELZU and NEVRI
- P620 between NIMAT and BLACA

The transition altitude is 6000 ft and QNH 1013 is treated as 'low pressure', in line with MATS Part 1 (CAP 493).

4.3 Silent Handover Procedures for Inbounds and Outbounds

IFR inbounds/outbounds to/from Belfast TMA airfields may be transferred to/by AA INT without coordination, provided that:

- It is following the agreed route and is climbing/descending to the agreed level.
- Inbound traffic inside CAS is within 60 NM of Aldergrove, or traffic outside CAS is within 40 NM of Aldergrove.
- Successive arrivals and departures are spaced:
    - By 10 NM, constant or increasing, in trail longitudinal separation; or
    - 5 NM, constant or increasing, between aircraft on parallel or diverging headings providing that these headings follow the general direction of the anticipated arrival/departure route.

If the aircraft has filed a cruising level below the agreed level, the traffic may be transferred at that level without coordination.

4.3.1 Transfer of Control

Transfer of control is coincident with Transfer of Communications, provided that:

- The above conditions are met.
- The receiving unit keeps the flight progressing in the general anticipated direction.
- The receiving unit does not climb inbound traffic, descend outbound traffic, or stop traffic at an intermediate level while still in the airspace of the offering unit.
- All conflictions within the airspace of the offering unit are resolved before the aircraft is transferred.

4.4 Procedures for Inbound Aircraft

4.4.1 Agreed Traffic Routing

Approach from	Via	Route
SE (RNAV 5)	L10 (FL75+)	IOM – NELBO – BELZU/MAGEE
	L10 (Below FL75)	IOM – RINGA – BELZU/MAGEE
	UP6/L46 (RNAV5)	REMSI – MASOP – NELBO – BELZU/MAGEE
SE (RNAV 1)	M146 to EGAA	PEPEG – ROBOP – IPSET – BELZU
	M146 to EGAC	PEPEG – ROBOP – MAGEE
	M147 to EGAA	REMSI – UVPOK – NOPKI – MATUT – ROBOP – IPSET – BELZU
	M148 to EGAC	MASOP – IDGAS – IBTES – LIMKA – MAGEE
S	N34	NEVRI – ABSUN – BELZU/MAGEE
SW, W, NW, N	FIR	TMA Boundary – direct to BELZU/MAGEE
NE	P600	BLACA – BELZU/MAGEE
E	FIR	BLACA/TMA Boundary – BELZU/MAGEE

Inbounds shall be routed according to the above table, except when Belfast/City are using Runway 04 and Belfast Aldergrove Runway 25, when Belfast/City arrivals shall be positioned south of Belfast Aldergrove arrivals by PC West, Rathlin and Antrim.

4.4.2 Agreed Level

IFR inbounds to Belfast TMA airfields may be transferred to AA INT in accordance with the procedures set out in 4.3 above descending to/at **FL100**.

4.4.3 Reduced Radar Handover

Coordination must be effected with AA INT if:

- The conditions in 4.3 are not met (provided minimum radar separation is still maintained).
- Due to arrivals from different directions / at different speeds, Antrim decides to transfer an arrival descending to a level higher than FL100 – the Antrim controller should specify in the coordination that this aircraft is “released for further descent subject [preceding arrival]”.
- Antrim decides to transfer an arrival that is still potentially in conflict with another aircraft under Antrim’s control – in this case, details of both aircraft should be

passed to AA INT before transfer of control is effected by means of a radar release as per the MATS Part 1 procedure.

Where a Silent Handover is not possible, a **reduced radar handover** shall be given in the format: *"Callsign, descending to level, heading, (speed)"*.

4.4.4 EGAC Inbounds when AA INT is Offline

EGAC inbounds should be given descent as possible to facilitate a continuous descent (in practice, FL80 is the lowest level above the base of CAS for aircraft arriving via M146 and M148) and offered to EGAC as soon as possible. All conflicts with departing traffic from both airports and arriving traffic to EGAA must be resolved before offering a release to EGAC.

Provided no imminent conflict exists, it is expected that EGAC will be mindful of previous EGAC departures and as such it is not necessary to wait for vertical separation prior to offering a release. Antrim must resolve any conflict with departing aircraft before transfer unless otherwise coordinated.

Transfer from AA INT to AC INT

No silent handover procedure exists for traffic transferred to AC INT by AA INT. Each arrival must be coordinated individually, but this may be done electronically by means of initiating a transfer, provided the cleared level and routing information (radar heading or own navigation) are displayed on the strip / tag. If there is a potential conflict that it is not possible to resolve using vertical separation prior to transfer, verbal coordination must be effected.

Transfer of communication should only be effected when EGAC has accepted the release, either by electronic means or by telephone in the case of a radar release.

4.5 Procedures for Outbound Aircraft

4.5.1 Agreed Traffic Routing

Departing to	Via	Route
SE (RNAV 5)	L603 / L15 (FL150+)	LISBO / DUFFY – PEPOD - MAKUX
	L603 / L15 (FL90-FL140)	LISBO / DUFFY – PEPOD – IOM
	L10 (FL80-)	LISBO / DUFFY – RINGA – SLYDA - IOM
SE (RNAV 1)	Q38 (RNAV1 FL285-)	LISBO / DUFFY – PEPOD – VAKPO – MAKUX – SOSIM
	Q39 (RNAV1 FL285+)	LISBO / DUFFY – RINGA – BABGU – ETIGA – TIMIS – INKOB
SOUTH	P620	LISBO / DUFFY – NUMPI – NIMAT – DUB
NORTH	P600	LISBO / DUFFY – BLACA – TRN*

** or TUNSO if inbound to EGPH*

4.5.2 Agreed Level

IFR outbounds from Belfast TMA airfields may be transferred to Antrim in accordance with the procedures set out in 4.3 above climbing to/at **FL90**.

Coordination must be effected with Antrim if:

- The conditions in 4.3 are not met (provided minimum radar separation is still maintained).
- AA INT wishes to transfer a departure climbing to a level lower than FL90 – AA INT should specify in the coordination that the aircraft is "released for further climb subject [preceding departure]".
- In order to resolve a conflict and facilitate continuous climb, AA INT chooses to ask Antrim for further climb for an outbound aircraft / subsequent outbound aircraft. Traffic permitting, Antrim should allocate a level higher than FL90 for the specified departure, and AA INT will, when the conflict is resolved, transfer the aircraft climbing to this level.

4.5.3 Identification, Validation and Verification

It is the responsibility of AA INT to ensure that aircraft departing Belfast TMA airfields (excluding Londonderry/Eglinton) are identified, validated and verified before transfer to Antrim.

4.5.4 Traffic leaving CAS to the NORTH / WEST of the Belfast TMA

Some aircraft, rather than departing via an ATS route in the table above, will have flight-planned to depart CAS to the north or west of the Belfast TMA. These aircraft will be transferred to Rathlin on-track that point by AA INT climbing FL90 and typically they will be transferred before leaving controlled airspace so that Rathlin has time to agree with the aircraft which service will subsequently be provided.

4.5.5 Departures when AA INT is Offline

When AA INT is offline, AA TWR and AC TWR will request departure releases for each aircraft from Antrim instead.

The typical releases given are as follows:

Departing	Typical Track	Altitude
EGAA	Direct NUMPI / RINGA / PEPOD / BLACA (*Note 2*)	Climbing to altitude 5000 ft
EGAC	Standard noise abatement, then direct NUMPI / RINGA / BLACA	Climbing to altitude 3000 ft (*Note 3*)

Note 1: *In practice, aircraft are never routed via LISBO or DUFFY, despite being flight-planned to do so.*

Note 2: *Departures to BLACA from runway 25 are typically instructed to turn RIGHT to BLACA to deconflict from any EGAC traffic and EGAA inbounds.*

Note 3: *EGAA inbounds are typically descended to 4000 ft above the EGAC CTR/CTA, but if traffic permits, a higher altitude (typically 5000 ft) may be given to facilitate a continuous climb.*

Chapter 5 Aberdeen (EGPD)

5.1 Controller Positions and Coordination Indicator

Position Identifier	EuroScope Identifier	Frequency (MHz)	RTF Callsign	Coordination Name
PD INT	PDR	119.055	Aberdeen Radar	Aberdeen INT
PD FIN	PDF	128.305	Aberdeen Radar	Aberdeen FIN
PD AIR	PDT	118.105	Aberdeen Tower	Aberdeen AIR
PD GMC	PDG	121.705	Aberdeen Ground	Aberdeen GMC

5.2 Area of Responsibility

Aberdeen APC are responsible for the Aberdeen CTR/CTA which extends up to FL115. The transition altitude is 6000 feet and QNH 1013 is treated as high pressure, so the MSL is FL70.

> In real, Aberdeen provides an extended radar service within the Aberdeen HELS and REBROS Offshore sectors (see eAIP ENR 6-23). On VATSIM, there is little to no offshore helicopter traffic, so this function is not described in any further detail – this does not, however, prohibit controllers from providing a service.

5.3 Procedures for Inbound Aircraft

5.3.1 Inbound Releases

Route	From	Agreed Level	Transfer of Control and Communication
P600 (SW)	ScAC South	↓ FL120	At or before the CTA boundary
Via MADAD	ScAC South	↓ FL120	At or before 40 DME ADN
P600 (NE)	ScAC North	FL120 lvl ADN	At or before 40 DME ADN
Y904	ScAC North	FL90 lvl ADN	At or before SMOKI
Y905	ScAC North	FL120 lvl ADN	At or before 35 DME ADN

Aberdeen APC will resolve any potential conflicts between simultaneous arrivals from the same sector descending to the same agreed/acceptance level regardless of routing.

Successive inbounds must be at least 10 NM in trail (constant or increasing) or separated by 5 NM (constant or increasing) if on parallel/diverging headings.

Aircraft transferred to Aberdeen INT are released for descent subject to any outbound traffic. When Aberdeen descend inbounds below the Agreed Level, it is then their responsibility to provide separation against outbounds previously transferred.

5.3.2 Acceptance Levels for Traffic from Class G

Traffic from Class G airspace shall be descended to the following levels and transferred by means of a **reduced radar handover**:

- From the eastern edge of Y904 clockwise to the boundary between ScAC East South/North – **FL120**.
- From the ScAC East South/North boundary to the western edge of Y904 – **FL90**.

Reduced radar handover format: *"Callsign, UK FIS service, descending to level, heading/direct ADN, (speed)"*.

5.3.3 Holding Procedures

ADN Hold

ADN	1-minute legs
Axis	160°
Direction	LEFT hand
Speed	Maximum 210 kts IAS

When holding commences, Aberdeen INT shall inform ScAC South who will, in turn, inform ScAC North. All standing agreements are then cancelled until holding ceases.

Aberdeen INT is responsible for aircraft in the hold at FL110 and below. ScAC South is responsible for the hold at FL120 and above.

For aircraft at FL110 and below, ScAC North will coordinate a level with Aberdeen INT. The aircraft must reach this level before reaching the ADN holding area unless coordinated. For aircraft at FL120 and above, ScAC North will coordinate a level with ScAC South, transferring the aircraft before they enter the ADN hold.

5.4 Procedures for Outbound Aircraft

5.4.1 Clearances

There are no SIDs at Aberdeen, so all departures receive an ATS route clearance on stand. The initial climb is FL110 for all departures except those via the Y904 (FL80) and with a lower requested level. The initial climb is to be issued with the clearance.

> ***Example:*** *"SHT19S cleared to London Heathrow via P600, Climb FL110, Squawk 1234."*

The P18 is a CDR available H24, except when notified by Swanwick Mil (vRAF) – if traffic files via the P18 when it is reserved for use, it should be cleared to leave controlled airspace and will be provided with a UK FIS by Scottish or Swanwick Mil. Alternatively, to remain inside controlled airspace when the P18 is closed, aircraft generally route via the P600 (SW), except if to EGNT/NV.

> ***Example:*** *"EZE39F cleared to leave controlled airspace on track BALID, Climb FL110, Squawk 1234."*

PD AIR shall obtain a release from PD INT for all departures. AIR will specify whether the requested cruise level is lower than FL110 (or FL80 via Y904). INT will specify the initial fix or heading to be passed as an after-departure instruction.

Example: *"SHT19S, after departure, right turn direct to GLESK."*

5.4.2 Transfer of Control and Communication

Aberdeen INT will transfer all departures inside controlled airspace to Scottish by **silent handover**, when clean of all traffic being worked by Aberdeen and in accordance with the table below. Departures outside controlled airspace will be coordinated individually and transferred by means of a **reduced radar handover**.

When ScAC East climb outbounds above the Agreed Level, it is then their responsibility to provide separation against inbounds previously transferred.

Route	Initial Fix	To	Agreed Level	Transfer of Control and Communication
P600 (SW)	GLESK	ScAC South	↟ FL110	At or before the CTA boundary
Class G (Via FRA)	ODMIX	ScAC South	-	As coordinated
Class G (Via FRA)	RIVOT	ScAC South	-	As coordinated
P18	BALID	ScAC South	FL110 lvl BALID	At or before BALID
P600 (NE)	LESNI	ScAC North	↟ FL110	At or before 40 DME ADN
Y904	SMOKI	ScAC North	↟ FL80	At or before SMOKI
Y905	PETOX	ScAC North	↟ FL110	At or before 35 DME ADN

5.4.3 Acceptance Levels for Traffic to Class G

Traffic to Class G airspace shall be climbed to the following levels and transferred by means of a **reduced radar handover**:

- From the eastern edge of Y904 clockwise to the boundary between ScAC East South/North – **FL110**.
- From the ScAC East South/North boundary to the western edge of Y904 – **FL80**.

Reduced radar handover format: *"Callsign, UK FIS service, climbing to level, heading/direct XXXXX, (speed)"*.

Chapter 6 Inverness (EGPE)

6.1 Controller Positions and Coordination Indicator

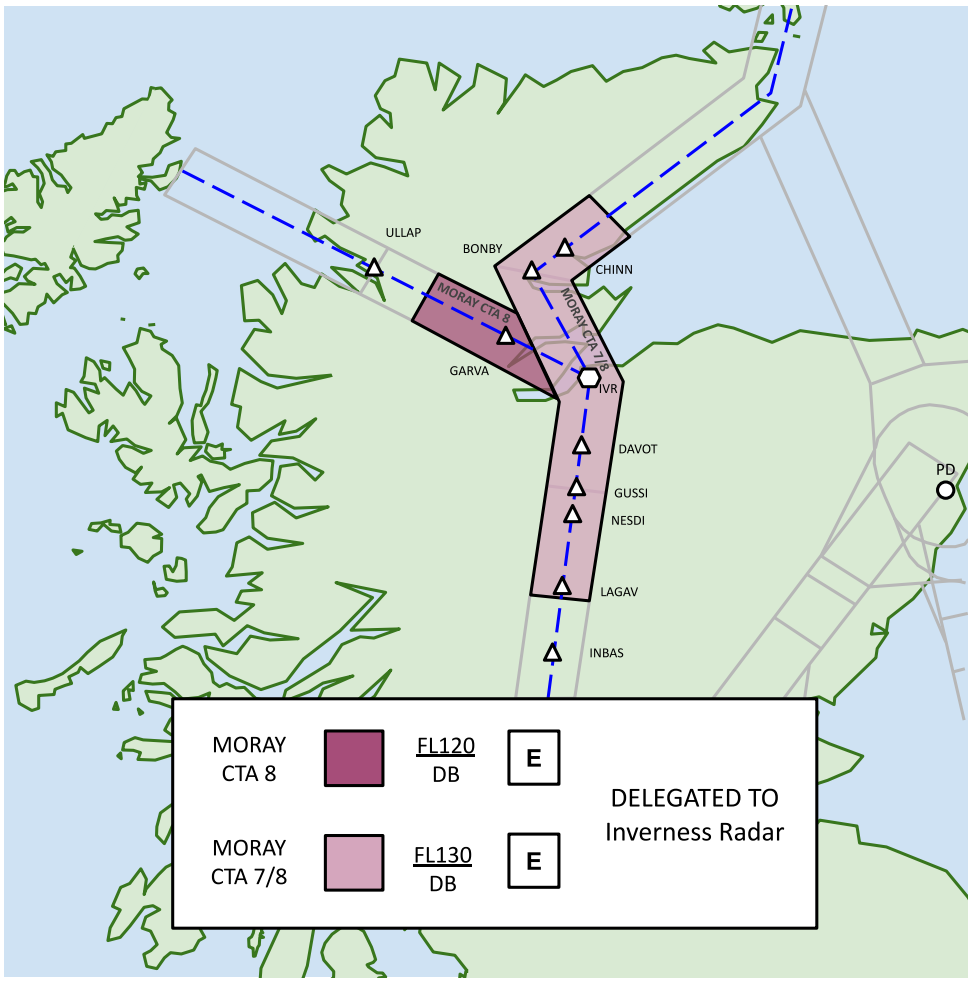
Position Identifier	EuroScope Identifier	Frequency (MHz)	RTF Callsign	Coordination Name
PE RAD	PER	122.605	Inverness Radar	Inverness Radar
PE APP	(PEA)	122.605	Inverness Approach	Inverness Approach
PE AIR	PET	118.405	Inverness Tower	Inverness AIR

6.2 Area of Responsibility

Inverness is situated outside of CAS, but Inverness is delegated responsibility for the provision of ATS within the following portions of Class E airspace when Radar is available:

- N560 – from 10 NM north of INBAS, to 10 NM northeast of CHINN – FL130 and below
- Y906 – from 10 NM southeast of ULLAP, to INS/RIMOL – FL120 and below

Figure APT-3 – ATS Delegation to Inverness Radar



6.3 Procedures for Inbound Aircraft

6.3.1 Inbound Releases

Route	From	Agreed Level	Clearance Limit	Coordination Point (COP)
N560 (N)	ScAC North	FL120 lvl CHINN	BONBY	10 NM NE of CHINN
N560 (S)	ScAC South	FL130 lvl NESDI	GUSSI	10 NM N of INBAS
Y906	ScAC North	FL110 lvl 10 NM before GARVA	GARVA	10 NM SE of ULLAP

The above standing agreements are subject to the provision of a radar service by Inverness Radar. Controllers shall use the callsign EGPE_APP ("Inverness Radar") or EGPE_A_APP ("Inverness Approach") depending on whether they are providing a radar service.

All inbounds are assumed coordinated when radar is available and may be transferred by **silent handover**, unless a radar handover is requested by PE RAD. The following conditions apply:

- Successive inbounds must be at least 10 NM in trail (constant or increasing).
- Inbounds cruising below the standing agreement level must be coordinated.
- Aircraft are released subject to outbound traffic.
- Aircraft transferred on a heading are not released for turn until below the standing agreement level for climbing outbounds.
- Aircraft must be transferred no earlier than the COP and between 25 and 40 NM of INS VOR.
- Aircraft must not be cleared beyond the clearance limit (see table above) by Scottish, unless coordinated.

Overflights at or below FL130 shall be coordinated with Inverness at least 15 minutes prior to INS/RIMOL, or no less than 5 minutes before the COP.

6.3.2 Inverness Without Radar

In the case that Inverness is simulating operations without Radar, all inbounds must be individually coordinated between Scottish and PE APP. The clearance limit remains BONBY/GUSSI/GARVA unless otherwise coordinated.

6.3.3 Holding

Holding may take place at INS, GUSSI, BONBY and GARVA. All are separated up to and including FL100 with a maximum holding speed of 210 kts.

Inverness APC will advise both ScAC North & South of the commencement of holding at INS. Holding at GUSSI shall be coordinated with South, and at BONBY/GARVA with North.

Hold	Axis	Direction	Time or Distance	Speed
INS (RWY 23)	047°	LEFT	1 min	-
INS (RWY 05)	239°	RIGHT	1 min	-
BONBY	158°	LEFT	1 min	Max 210 kts
GARVA	123°	RIGHT	5 NM	Max 210 kts
GUSSI	010°	RIGHT	5 NM	Max 210 kts

The minimum holding level at INS shall be the Flight Level equivalent of 5600 feet EGPE QNH, plus 1000 feet, as shown in the table below.

1052 – 1035	1034 – 1017	1016 – 999	998 – 981	980 – 963	963 – 946
FL60	FL65	FL70	FL75	FL80	FL85

6.4 Procedures for Outbound Aircraft

There are no SIDs at Inverness, so all departures receive an ATS route clearance on stand. The initial climb shall be the Flight Level equivalent of 5600 feet EGPE QNH for all departures:

1052 – 1035	1034 – 1017	1016 – 999	998 – 981	980 – 963	963 – 946
FL50	FL55	FL60	FL65	FL70	FL75

Example: *"LOG123A cleared to Manchester via GUSSI N560 GOW, Initial Climb FL55, Squawk 1234."*

PE AIR shall request a release from PE RAD/APP prior to departure.

Route	To	Agreed Level	Coordination Point (COP)
N560 (N)	ScAC North	↟ FL110	10 NM NE of CHINN
N560 (S)	ScAC South	↟ FL120	10 NM N of INBAS
Y906	ScAC North	↟ FL100	10 NM SE of ULLAP

All outbounds are assumed coordinated when radar is available and may be transferred by **silent handover** unless a radar handover is requested by Scottish. The following conditions apply:

- Successive outbounds must be at least 10 NM in trail (constant or increasing).
- Outbounds cruising below the standing agreement level must be coordinated.
- Aircraft are released subject to inbound traffic.
- Aircraft transferred on a heading are not released for turn until above the standing agreement level for descending inbounds.
- Aircraft must be transferred by 40 NM from INS VOR at the very latest.

Chapter 7 Sumburgh (EGPB)

7.1 Controller Positions and Coordination Indicator

Controller Identifier	EuroScope Identifier	Frequency (MHz)	RTF Callsign	Coordination Name
PB RAD	PBR	131.300	Sumburgh Radar	Sumburgh Radar
PB AIR	PBT	118.255	Sumburgh Tower	Sumburgh AIR

7.2 Area of Responsibility

Sumburgh APC are responsible for the Sumburgh CTR/CTA which extends up to FL100. The transition altitude is 6000 feet and QNH 1013 is treated as high pressure, so the MSL is FL70.

Sumburgh APC assumes top-down responsibility for Lerwick/Tingwall (EGET).

7.3 Procedures for Inbound Aircraft

7.3.1 Inbound Releases

Sumburgh Radar shall coordinate all traffic that wishes to enter the Y905 which is in contact with Sumburgh but unknown to ScAC North before they enter controlled airspace.

To	Via	Agreement
EGPB and EGET	Y905	↓ FL130

All inbounds are assumed coordinated when radar is available and may be transferred by **silent handover**, unless a radar handover is requested by PB RAD. The following conditions apply:

- Inbounds must be separated by either 10 NM (constant or increasing) in trail, or 5 NM (constant or increasing) for aircraft on parallel/diverging headings.
- Inbounds cruising below the standing agreement level must be coordinated.
- Aircraft are released (including for turn when transferred on a heading), subject to outbound traffic.
- Aircraft may be transferred on a heading or direct to WAFIL outside CAS without individual coordination.
- Sumburgh Radar is responsible for separation as soon as the inbound is descended below the standing agreement level.

7.3.1.1 IFR Traffic from Class G and VFR Traffic from Class E/G Acceptance Level

A standard acceptance level of FL130 is also established for all other IFR traffic from Class G and VFR traffic from Class E/G airspace. Traffic descended to this level may also be transferred by **silent handover**.

7.3.1.2 Traffic Cruising Below the Standing Agreement/Acceptance Level

All other traffic inbound to EGPB or EGET cruising below the Agreed Level or Acceptance Level must be individually coordinated no later than 50 NM before WAFIL.

7.3.2 Holding Procedures

Holding may take place at SUM or alternatively and for propeller aircraft only, at GAVEL on the Y905.

SUM Hold

SUM	1-minute legs
Axis	263°
Direction	LEFT hand

Note: *When holding is required at FL90 or above, Sumburgh shall inform ScAC North and amend standing agreements as required.*

GAVEL Hold

Conventional hold based upon VOR SUM R188/D30. Propeller driven aircraft only.

GAVEL	4 NM hold
Axis	008°
Direction	LEFT hand

7.4 Procedures for Outbound Aircraft

There are no SIDs at Sumburgh, so all departures receive an ATS route clearance on stand.

A standing agreement exists for the transfer of outbound traffic to ScAC North:

From	Via	Agreement
EGPB and EGET	Y905	↑ FL120

For traffic bound for the Polaris FIR, Sumburgh may request from ScAC North to transfer the traffic directly to the Stavanger frequency.

All outbounds are assumed coordinated when radar is available and may be transferred by **silent handover**, unless a radar handover is requested by PB RAD. The following conditions apply:

- Outbounds must be separated by either 10 NM (constant or increasing) in trail, or 5 NM (constant or increasing) for aircraft on parallel/diverging headings.
- Outbounds cruising below the standing agreement level must be coordinated.
- Aircraft are released (including for turn when transferred on a heading), subject to inbound traffic.
- ScAC North is responsible for separation as soon as the outbound is climbed above the standing agreement level.

Chapter 8 Newcastle (EGNT)

8.1 Controller Positions and Coordination Indicator

Position Identifier	EuroScope Identifier	Frequency (MHz)	RTF Callsign	Coordination Name
NT INT	NTR	124.380	Newcastle Radar	Newcastle INT
NT FIN	NTF	125.830	Newcastle Director	Newcastle FIN
NT AIR	NTT	119.705	Newcastle Tower	Newcastle AIR
NT GMC	NTG	121.730	Newcastle Ground	Newcastle GMC

8.2 Area of Responsibility

Newcastle APC are responsible for the Newcastle CTR/CTA which extends up to FL105. They are additionally delegated two portions Borders/Yorkshire CTAs south of NATEB from PC Northeast up to FL125 and FL165. NT INT has top-down responsibility for Teesside (EGNV).

8.3 Procedures for Inbound Aircraft

There are no standing agreements for inbounds to EGNT/NV from ScAC/TMA to Newcastle. As such, controllers shall coordinate an inbound level and transfer traffic via a **reduced radar handover**.

Reduced radar handover format: “Callsign, descending to level, heading, (speed)”.

Traffic transferred to and from Newcastle APC will have a minimum of 5 NM separation applied.

Traffic Leaving CAS via DCS

Talla will pass an estimate on traffic leaving DCS to Newcastle. Newcastle will pass an estimate and SSR code to Teesside, if applicable (see paragraph below). Talla will transfer the traffic to Newcastle when clear of controlled airspace.

If Newcastle elects not to work an inbound to Teesside, they will issue a crossing clearance of P18 to Talla, who will then transfer the traffic to Teesside when clear of controlled airspace.

8.3.1 Holding Procedures

Newcastle APC will advise PC Northeast, ScAC South and Swanwick Mil when holding is required above FL125, and again above FL160.

Newcastle APC will be responsible for the NT hold up to and including FL160. ScAC South is responsible for the NT hold from FL170 to FL250 inclusive and shall notify PC Northeast and Swanwick Mil (North) when holding commences at these levels.

Where any standing agreement remains in place between any Newcastle/PC Northeast/ScAC South/Swanwick Mil, all traffic shall be transferred only when clear of holding traffic. When holding is taking place above FL170, it is likely that standing agreements will need to be cancelled. Again, above FL220, further standing agreements will need review.

8.4 Procedures for Outbound Aircraft

Route	Procedure
Westbound Traffic Joining CAS via DCS	Teesside will coordinate departures with Newcastle. Talla shall issue a joining/crossing clearance to Newcastle. Newcastle shall transfer communication no later than 20 DME NATEB, clear of all local traffic. If Newcastle elects not to work a Teesside departure, they will issue a crossing clearance of P18 to Teesside, who will then advise Talla. The aircraft shall be transferred prior to it entering controlled airspace.
Joining Y96 (at HAVEN)	Teesside will coordinate departures with Newcastle. ScAC South shall issue a joining clearance to Newcastle. Newcastle shall transfer communication no later than 20 DME NATEB, clear of all local traffic.
Joining P18	Teesside will coordinate departures with Newcastle. When the P18 is open (see below), ScAC South shall issue a joining clearance to Newcastle for aircraft with RFL 155+. For aircraft with a cruising level below this, or when the P18 is closed, Newcastle shall coordinate with ScAC South who shall ascertain whether Swanwick Mil will need to work the traffic. They shall inform Newcastle of the position and frequency to transfer the traffic via a **reduced radar handover**.
Traffic into the FIR	Transfer of communications shall be no later than 40 NM from Newcastle (i.e. the LARS boundary).

8.4.1 P18

The P18 ATS route north of NATEB is established as a CDR for traffic from/to Aberdeen only available H24. Unavailability of the route in real life is specified by NOTAM when required for MOD access or by activation of a flight planning buffer zone, EGD514Z.

For VATSIM purposes, and because of a lack of mandatory flight plan validation, Swanwick Mil (vRAF) shall notify ScAC sectors when the P18 is explicitly unavailable, and whether civil aircraft are required to be re-routed. Only when Swanwick Mil reserves the airspace for use will it revert to Class G and ScAC shall therefore provide UK FIS.

See ScAC 3.2.1.2 for more details.

ANX | ANNEXES

Annex A | Standard Terminal Arrival Routes (STARs)

1.1 Edinburgh (EGPH)

Designator	Arrival Via	Route
AGPED 1E	Y96, N110	AGPED – HAVEN – TARTN
GIRVA 1E	P600	GIRVA – TLA – TARTN
INPIP 1E	(U)N601	INPIP – INREV – ESKDO – TARTN
PTH 1G	P600	PTH – GRICE – STIRA
TUNSO 1E	P600	TUNSO – TLA – TARTN

1.2 Glasgow (EGPF)

Designator	Arrival Via	Route
AGPED 1G	Y96, N110	AGPED – HAVEN – TLA – LANAK
APPLE 1G	UN590	APPLE – ASLIB – ENIPI – ODIGI – VAPPI – LANAK
BLACA 1G	P600	BLACA – GIRVA – TRN – LANAK
BRUCE 1G	L602, Y958, FRA	BRUCE – FYNER
ERSON 1G	N560	ERSON – FOYLE
PTH 1G	P600	PTH – GRICE – STIRA
RIBEL 1G	(U)N601	RIBEL – NISKA – ASLIB – ENIPI – ODIGI – VAPPI - LANAK

1.3 Prestwick (EGPK)

Designator	Arrival Via	Route
APPLE 2P	UN590	APPLE – ASLIB – ENIPI – TOXTA – TRN
BLACA 1P	P600	BLACA – GIRVA – TRN
RIBEL 2P	(U)N601	RIBEL – NISKA – ASLIB – ENIPI – TOXTA – TRN

GLOSSARY

Abbreviation	Meaning
(v)MATS	(Virtual) Manual of Air Traffic Services
AC	Area Control
ACC	Area Control Centre
ADC	Aerodrome Control
ADR	Advisory Route
AIR	Air Controller (i.e. Tower Controller)
APC	Approach Control
ATCO	Air Traffic Control Officer
ATS	Air Traffic Service
CAS	Controlled Airspace
CDR	Conditional Route - a route which is permanently plannable during the times published in ENR 3 and may be used tactically at the discretion of ATC
COP	Coordination Point
COPN	Coordination Entry Point
COPX	Coordination Exit Point
CTA	Control Area
CTR	Control Zone
DME	Distance Measuring Equipment
EAT	Expected Approach Time
ETA	Estimated Time of Arrival
ETD	Estimated Time of Departure
FBZ	Flight Plan Buffer Zone
FIR	Flight Information Region
FIS	Flight Information Service
FL	Flight Level
FRA	Free Route Airspace
FRA (A)	FRA Arrival Connecting Point
FRA (D)	FRA Departure Connecting Point
FRA (E)	FRA Horizontal Entry Point
FRA (I)	FRA Intermediate Point
FRA (X)	FRA Horizontal Exit Point
Ft	Feet (Dimensional Unit)
GMC	Ground Movement Control
GMP	Ground Movement Planner
GS	Groundspeed
hPa	Hectopascal
IAS	Indicated Airspeed
ICAO	International Civil Aviation Organisation
IFR	Instrument Flight Rules
ILS	Instrument Landing System
Kts	Knots
LAC	London Area Control
LAG	Local Area Group

Abbreviation	Meaning
LoA	Letter of Agreement
LTMA	London TMA
lvl	Level (by)
MDI	Minimum Departure Interval
MHz	Megahertz
MPC	Manchester Prestwick Control
MSA	Minimum Safe Altitude / Minimum Sector Altitude
MSL	Minimum Stack Level
MTMA	Manchester TMA
MUAC	Maastricht Upper Area Control
NM	Nautical Mile
NPR	Noise Preferential Route
NPZ	No Planning Zone (FRA)
OAC(C)	Oceanic Area Control Centre
OCA	Oceanic Control Area
OCAS	Outside of Controlled Airspace
PC	Prestwick (MTMA) Control
RFC	Released for Climb
RFD	Released for Descent
RFL	Requested Flight Level
RFT	Released for Turn
ScAC	Scottish Area Control
ScTMA	Scottish TMA
SID	Standard Instrument Departure
SIGMET	Information concerning en-route weather phenomena which may affect safety of aircraft operation
SSR	Secondary Surveillance Radar
STAR	Standard Terminal Arrival Route
SUA	Special Use Airspace
TAS	True Airspeed
TC	Terminal Control
TL	Transition Level
TOSR	Take-off Subject (Sector) Radar
UAC	Upper Area Control
UIR	Upper Information Region
UK FIS	UK Flight Information Service
VFR	Visual Flight Rules
VOR	Very High Frequency Omnidirectional Radio Range
XFL	Exit Flight Level