vatsim uk
OPERATIONS DEPARTMENT

NEWCASTLE VMATS PART 2

EGNT

REVISION 2024/11 - EFFECTIVE 31 OCTOBER 2024

DISTRIBUTION AND SCOPE

This manual is for controllers of Newcastle Aerodrome and Approach positions, containing specific and local procedures relevant to these positions. Controllers must be familiar with controlling procedures in the UK; this manual should be read in conjunction with CAP 493 (MATS Part 1) and guidance on standard UK Radiotelephony phraseology, detailed in CAP 413.

EXCLUSION OF LIABILITY

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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.

DEFINITIONS

The key words "SHALL", "IS TO", "ARE TO", "MUST", "SHOULD", "MAY" are to be interpreted as described in MATS Part 1 (CAP 493).

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. Changes are also described briefly in the table below.

AMENDMENT HISTORY

Revision	Effective Date	Notes
2024/11	31 October 2024	Initial climb changed during very low pressure (ADC 1.2.1); Updated nonstandard omni-directional departures (ADC 1.2.4); Change to initial climb when the QNH is below 976hPa; Changed the wording to clarify climbing of GIRLI departures (APC 5.6.1); Addition of a note clarifying EGNV outbound routes (APC 7.4.2); All departures require a release (ADC 2.8/APC 5.4); Departure procedures established for very low pressure (APC 5.8); Clarified noise abatement procedures for establishing propeller aircraft (GEN 2.2)
2024/01	25 Jan 2024	Updated Noise Abatement Procedures (GEN 2.2); Consideration of 2000 ft winds when selecting the runway in use (GEN 5.1); Correction of Coordination Hierarchy (ADC 1.5.1); Clarification on the use of line-up and conditional clearances (ADC 2.3, ADC 2.4); Additional detail on APC bandboxing and inbound release procedures (APC 1.4, APC 2.2); Addition of Note 5 to ETSES silent transfer agreement (APC 3.4.1); Updated definition of Deemed Coordination of Enroute Traffic (ADC 6.3.1); Updated to 8.33 frequency spacing throughout; references to 'airway(s)' changed to 'ATS route(s) throughout; correction of minor errors and formatting throughout.
2022/01	27 Jan 2022	Amend LARS boundary to 40 NM (APC 1.3.1, APC 5.7, LOW 5.1)
2021/10	15 Oct 2021	Complete re-write
Version 1	19 Feb 2011	Initial publication

INTRODUCTION AND STRUCTURE

The Newcastle virtual Manual of Air Traffic Services (vMATS) Part 2 is complementary to the MATS Part 1 (CAP493). Together, these two documents provide comprehensive instructions and information for Newcastle ATS staff within VATSIM UK however, Newcastle **APC** controllers shall also familiarise themselves with the procedures contained in the Teesside International Airport vMATS Part 2.

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

This document is divided into sections as follows:

Page Abbreviation	Section
PRE	Preface
GEN	Unit General Operating Instructions
ADC	Aerodrome Control
APC	Approach Control
LOW	Low Level Operations (VFR & SVFR Procedures)

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.

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1.1 Departing Aircraft

Departing aircraft should state the QNH on first contact with GMC, otherwise it should be issued by the GMC controller. Aircraft should be informed of any subsequent change to the QNH at the earliest opportunity.

1.2 Arriving / Transiting Aircraft

At or below the Transition Altitude, an aircraft's vertical position will be controlled by reference to the airfield QNH. Aircraft will be issued the QNH once cleared to descend to an altitude by Newcastle APC, or with clearance to enter the Newcastle Control Zone. Aircraft should be informed of any subsequent change to the QNH at the earliest opportunity.

1.3 QFE Threshold

The QFE for all runway thresholds is 9 hPa less than the airfield QNH.

1.4 Transition Altitude

The Transition Altitude is 6000 feet AMSL within the Newcastle CTR and CTA. In adjacent uncontrolled airspace the Transition Altitude is 3000 ft AMSL.

> ***Note:*** *From here on, unless otherwise specified, vertical references measured in feet (ft) are to be assumed as altitudes AMSL.*

1.5 Transition Level and Minimum Flight Level

The Transition Level (TL) and Minimum Flight Level within the Newcastle CTR and CTA are determined by reference to the following table:

Newcastle QNH (hPa)	Transition Level (TL)	Minimum Flight Level
1050 - 1060	FL60	FL70 (see note)
1049 - 1032	FL65	FL70
1031 - 1014	FL70	FL70
1013 - 995	FL75	FL80
994 - 977	FL80	FL80
976 - 959	FL85	FL90
958 - 940	FL90	FL90

> ***Note:*** *To avoid inadvertent confusion between flight levels and altitudes, the lowest minimum flight level shall be FL70 regardless of the Newcastle QNH.*

1.6 Altimeter Setting Region (ASR)

Newcastle is situated within the Tyne ASR. The Barnsley ASR is situated to the south of a line roughly perpendicular to the P18 ATS route through Teesside Airport.

Chapter 2 Noise Abatement Procedures

2.1 Procedures for Departing Aircraft

The following noise preferential routings (NPR) are mandatory for all jet aircraft and for all other aircraft with a maximum certified weight exceeding 5700 kg except when otherwise authorised by Newcastle ATC who shall only provide instructions to deviate from the NPR when required for safety. The NPR terminate when an aircraft is at or above 4000 ft.

For traffic departing on a standard instrument departure (SID) or a standard omni-directional departure, the SID/departure procedure incorporates the relevant NPR. For non-standard traffic controllers should pass the following noise preferential routing as part of the clearance:

Runway	Intended Track	Noise Preferential Routing
07	Between 069° and 250° and left-hand circuit	Climb straight ahead FL80 (or level as directed by ATC)
	GIRLI (P18), ERKIT (N110) and right-hand circuit	Climb straight ahead to 3.5 DME NEW (3 DME I-NC) then turn right heading 190° climbing FL80 (or level as directed by ATC)
25	Between 251° and 070° and right-hand circuit	Climb straight ahead FL80 (or level as directed by ATC)
	GIRLI (P18), ERKIT (N110) and left-hand circuit	Climb straight ahead to 1.5 DME NEW (1 DME I-NWC) then turn left on to a heading of 210° climbing FL80 (or level as directed by ATC)
	GIRLI (P18), ERKIT (N110) and left-hand circuit **when** Currock Hill Gliding Site is active	Climb straight ahead to 1.5 DME NEW (1 DME I-NWC) then turn left on to a heading of 180° climbing FL80 (or level as directed by ATC)

Except when the requested level is below 4000 ft, no departing IFR traffic is to be restricted to a level below 4000 ft.

2.2 Procedures for Arriving Aircraft

Aircraft whose maximum certified weight is less than 5700 kg must not join the circuit below altitude 1300 ft.

Propeller driven aircraft with a maximum certified weight of between 5700 kg and 12000 kg must not join the final approach track closer than 3.5 NM and~~-~~ lower than 1300 ft.

Non-propeller and heavier propeller aircraft (with a maximum certified weight of greater than 12000 kg) must not join the final approach track closer than 7~~8~~ NM ~~or~~ and lower than 2000 ft.

Chapter 3 All Weather Operations

3.1 Aerodrome Equipment

Both Runway 07 and Runway 25 are equipped with Category II/III ILS installations. Suitably equipped operators may conduct low visibility take-off to minimum IRVR of 200 m.

3.2 Low Visibility Procedures (LVP)

3.2.1 Enforcement

Pilots will be informed when these procedures are in operation by ATIS or by RT. ATC Low Visibility Procedures will be applied when one of the following weather conditions are present:

- The Runway Visual Range (IRVR) or Met Visibility is less than 600 m
- The cloud ceiling is 200 ft or lower ('ceiling' defined as broken or more).

3.2.2 Instrumented Runway Visual Range (IRVR)

The IRVR is measured at three points along each runway: at the touchdown zone, the mid-point and the stop-end. The minimum IRVR that can be measured is 50 m and the maximum is 1500 m.

Only the touchdown zone IRVR value is published in the METAR, thus the remaining two IRVR values are unknown to VATSIM network controllers. When LVP are in force, pilots should be informed of the reported IRVR and any subsequent updates.

3.2.3 Runway Safeguarding Procedures

Runway safeguarding is to be implemented when LVP are enforced.

3.2.4 CAT II/III Holding Points

When the ILS signal is to be protected to safely permit Category II/III approaches the use of Category II/III holding points is required:

- Runway 25 – D2 or D3
- Runway 07 – A2
- Holding Point G – although not designated as CAT II/III this hold provides the necessary separation and may be used during Runway Safeguarding Procedures
- GA Apron – outbound aircraft must hold on stand until issued with taxi and line-up clearance; inbound aircraft are considered clear once they are observed to pass abeam the helicopter parking sites on SMR

3.2.5 Arrival Spacing

During LVP, the minimum spacing used must be 10 NM (6 NM can be used if a gap is not required for a departure). This is to ensure that aircraft have received a landing clearance by 2 NM from touchdown; within 2 NM the aircraft should be cleared to land or instructed to go around. During LVP, aircraft require to establish on the localiser at an early stage, therefore, aircraft must be vectored to intercept the localiser at a range of not less than

10NM from touchdown. Continuous Descent Approach Procedure (CDA) should be used to minimise impact of noise in the vicinity of the aerodrome.

3.3 Windshear Warnings

Once turbulence or windshear has been reported to Newcastle ATC, AIR (or FIN where appropriate) should inform all subsequent landing aircraft that windshear conditions have been reported until confirmation has been received that the conditions no longer exist.

In the event an aircraft initiates a missed approach due to windshear, AIR and RAD must be alert to the significant risk of level bust through the missed approach altitude of 2500 ft (2000 ft for RNP approaches to Runway 07).

3.4 Meteorological Information

An ATIS will be available on frequency 118.380 MHz. The ATIS shall be maintained by the AIR controller, though in busy periods this can be delegated to another controller. Aircraft are required to confirm the current ATIS information on first contact. When LVP are in force then this should be included in the ATIS broadcast.

Chapter 4 Description of Airfield

4.1 Airfield Geographical Data

ICAO Code	EGNT
Aerodrome Reference Point (ARP)	550217N 0014123W
Elevation	266 ft
Magnetic Variation / Annual Change	0.42°W (2022) / 0.21°E
Transition Altitude	6000 ft
Safety Altitude	3400 ft (NW/SW)

4.2 ATC Communication Facilities

Aerodrome Control (ADC)

Callsign	Logon Callsign	Abbreviation	Frequency (MHz)
Newcastle Information	EGNT_ATIS	ATIS	118.380
Newcastle Ground	EGNT_GND	GMC	121.730
Newcastle Tower	EGNT_TWR	AIR	119.705

Approach Control (APC)

Callsign	Logon Callsign	Abbreviation	Frequency (MHz)
Newcastle Radar	EGNT_APP	RAD	124.380
Newcastle Director	EGNT_F_APP	FIN	125.830

Note 1: *The combined APC units may be referred to in coordination as Newcastle APC.*

Note 2: *Newcastle RAD assumes responsibility for top-down control of Teesside International Airport (EGNV) in the absence of any Teesside ATC positions.*

4.3 Radio Navigation and Landing Aids

Type	Identifier	Frequency	Remarks
ILS 07	INC	111.500 MHz	CAT III 3°GP
ILS 25	INWC	111.500 MHz	CAT III 3°GP
DME	NEW	114.250 MHz	No associated VOR
NDB	NT	352.0 kHz	40 NM range

Chapter 5 Use of Runways

5.1 Preferential Runway

Runway 25 is the preferred runway if the tailwind component is less than 5 knots and the runway surface is dry.

The selection of the runway in use shall be in reference to the current and forecast wind. In calm, changing or crosswind scenarios, the TAF and winds at 2000 ft should be used to identify the best runway in use.

5.2 Runway Change Procedures

In case of a change to the active runway, AIR shall initiate coordination with RAD to agree a last arrival and time for the runway change. RAD will coordinate with FIN and with Area Control of the change.

Based on this time, AIR should then coordinate with GMC as to the last departure from the current runway. GMC will re-clear any previously cleared aircraft that will now depart on the new runway.

AIR must then inform RAD of the intended last 3 (if appropriate) departures before, and the first departure after, the runway change (callsign and routing). RAD will inform AIR of the first arrival after the runway change at this time.

AIR must obtain a release from RAD before the first aircraft departs off the new runway.

5.3 Minimum Runway Occupancy Time

Pilots should be encouraged to exit from the runway as soon as practicable and AIR should give arriving aircraft taxi instructions to the intermediate hold points noted in the table below as they vacate the runway and before handing them to GMC.

5.4 Runway Vacation Guidelines

In the event an aircraft lands but cannot contact the GMC controller due to RT congestion, the pilot should completely vacate the landing runway and follow the standard taxi route to the clearance limit specified below:

Runway Exit Used	Clearance Limit	Via
A1	A2	A
B	B2	B
C	CW	C
D1	D4	D

ADC | AERODROME CONTROL

Chapter 1 Ground Movement Control (GMC)

1.1 Area of Responsibility

Ground Movement Control (GMC) (*"Newcastle Ground"*) provides full departure clearance to aircraft departing Newcastle and is responsible for passing the QNH and verifying the aircraft type of departing aircraft. The electronic flight strip will be amended to ensure the correct flight rules, temporary altitude, squawk, and voice tag are shown. GMC is also responsible for the issuing of start-up and pushback clearance on stand, and for the safe and expeditious movement of aircraft on the aprons and taxiways.

1.2 Standard IFR Clearances

1.2.1 Issuing Standard Clearances

It is the responsibility of GMC to issue clearances. Pilots should report the following information when requesting clearance:

1. their stand number,
2. their aircraft type,
3. the ATIS letter they are in receipt of, and
4. the current Newcastle QNH.

GMC should ensure that both the stand number and aircraft type are confirmed by the pilot before issuing a clearance.

An IFR clearance should follow the format:

1. Callsign
2. Destination *or* Clearance Limit (see note and examples 1 and 2)
3. Standard Instrument Departure *or* Standard Omni-Directional Departure Instructions
4. Squawk Code

> ***Note:*** *Only traffic routing via P18 southbound is guaranteed to remain inside controlled airspace (and can be cleared to destination), all other IFR departures should be issued a clearance of "cleared to leave controlled airspace to the (direction)".*
>
> ***Example 1:*** *"ABC123, cleared to Heathrow, GIRLI 3 X-Ray departure, squawk 0356."*
>
> ***Example 2:*** *"ABC123, cleared to leave controlled airspace to the north-east, after departure Runway 07 climb straight ahead FL80, squawk 0356."*

GMC must obtain a full read back of the given clearance. If the QNH and/or ATIS letter were not correctly reported by the pilot, the GMC controller will pass this to the pilot.

> ***Example:*** *"ABC123, correct. Information A, Newcastle QNH 1020."*

On transfer to AIR, it is assumed that the aircraft has been informed of any changes to their clearance and has been issued the latest QNH.

When the QNH is below 976hPa aircraft should be instructed to 'climb unrestricted FL90', as FL80 (the usual initial climb) is not available during very low pressure. GMC should update the initial climb in the aircrafts tag to avoid any confusion.

1.2.2 ATS Routes

IFR traffic departing Newcastle to join the ATS Route Network shall route via the following standard routes:

Direction	ATS Route	Joining Fix	Route	Remarks
North	P18	ALASO	NATEB P18 ADN	Via standard omni-direction departure – ADC 1.2.4
East	P15	ERLOT	ERLOT P15	
Southeast	M982	ERLOT	ERLOT M982	
	N610	LONAM	NATEB N610 LONAM	
	N110	ERKIT	ERKIT N110	
	Y70	OTBED	OTBED Y70	
Southwest	P18	GIRLI	GIRLI P18	Via SID – ADC 1.2.3
West	-	DCS	NATEB DCT DCS	Via standard omni-direction departure – ADC 1.2.4
Northwest	Y96	HAVEN	NATEB Y96 TLA	

1.2.3 Standard Instrument Departure

Route	07 SID	25 SID	Remarks
GIRLI	1T	3X (1Y)	1Y used if Currock Hill gliding site active – RAD will notify ADC if this is required

Note: *The GIRLI SIDs are RNAV1 standard – traffic unable to accept an RNAV1 SID shall be cleared by standard omni-directional departure as described below.*

1.2.4 Standard Omni-Directional Departures

The following standard omni-directional departures (which all climb initially to FL80) shall be assigned to all other IFR flights joining the ATS route network. ~~GMC shall pre-note RAD when traffic issued an omni-directional departure clearance is cleared for start.~~

Runway	Intended Track	Noise Preferential Routing
07	Between 069° and 250° and left-hand circuit	Climb straight ahead FL80
	GIRLI (P18), ERKIT (N110) and right-hand circuit	~~Climb straight ahead to 3.5 DME NEW (3 DME I-NC) then turn right heading 190° climbing FL80~~Climb straight ahead to FL80
25	Between 251° and 070° and right-hand circuit	Climb straight ahead FL80

	GIRLI (P18), ERKIT (N110) and left-hand circuit	~~Climb straight ahead to 1.5 DME NEW (1 DME I-NWC) then turn left on to a heading of 210° (180° **when** Currock Hill Gliding Site active – RAD will notify ADC if this is required) climbing FL80~~Climb Straight ahead to FL80

***Note 1**: When the QNH is below 976hPa, all initial climbs should be changed to FL90.*

1.3 Pre-Departure Clearance (PDC)

When both the controller and pilot are suitably equipped, a PDC may be offered in order to clear pilots electronically. The operation of the controller PDC clients is explained in operations guides for the separate options for hosting this facility – the TopSky plugin, vStrips, vSMR and Hoppie's ATC ACARS client host instructions as to how to use their programs on their respective websites.

Alternative methods of PDC may be used unless otherwise notified.

1.3.1 Availability of PDC

PDC clearances are only available for aircraft routing via GIRLI SID routes.

Additionally, PDC clearances will **not** be available (and should **not** be issued) in the following circumstances:

- Up to half an hour before a runway change, to prevent the incorrect issuing of a SID. The actual availability of PDC will be at the GMC controller's discretion.
- When the route of an aircraft's flight plan needs to be changed, or for expedition due to a flow restriction on a certain routing.

In all the above cases, the pilot should be advised by ACARS message to call the controller by voice in order to obtain ATC clearance.

1.4 Flow Restrictions

1.4.1 Calculated Take-off Times (CTOT)

A Calculated Take-Off Time (CTOT), sometimes referred to as a 'slot', is issued to a sequence of departures as a long-term flow management system when there is a significant excess of aircraft wishing to depart the aerodrome. CTOTs will usually only be employed as a method of flow control on VATSIM during particularly busy events.

On VATSIM, the adherence to slot times is clearly not as important as the real world, and a deviance of 5 minutes before or, 10 minutes after is typically required during events. Since CTOTs are generally locally assigned, instead of being based on restrictions in Europe, adherence rules as strict as this do not tend to be employed, although it may be deemed acceptable to delay aircraft who have not met a reasonable CTOT.

GMC should retain aircraft on stand until a reasonable time to facilitate the meeting of a slot time in order to prevent both RT congestion on ground frequencies and the blocking of

taxiways. The time for pushback and taxi distance should therefore be considered when determining a suitable time for pushback.

1.4.2 Minimum Departure Intervals (MDI)

During or in anticipation of periods of congestion a Minimum Departure Interval (MDI) may be issued via the *European Collaboration and Flow Management Project*. An MDI is applicable between departures on either specified routes or with specified destinations. MDI are published via UKCP and the VATSIM UK Discord and will have a designated start and end time.

1.4.3 Airfield Reasonable Departure Spacing (ARDS)

It is as much the responsibility of GMC to monitor the number of departures at the holding point as it is the job of AIR. There is no formal flow restriction associated with the concept of ARDS, but GMC must consider how factors such as the meteorological conditions will affect AIR's ability to maintain a reasonable departure rate.

1.5 Flights to Local Airfields

1.5.1 Delay Absorption for Flights to the Scottish and Manchester TMAs

A pre-note should be sent to the receiving Area Control sector when a clearance to any airport in the Scottish or Manchester TMAs (including Isle-of-Man (EGNS)) is issued and the Area Control sector should respond with any delay (a response without specifying a delay may be interpreted as no delay).

GMC shall take the following actions depending upon the delay:

1. Less than 10 minutes: inform the pilot of the delay. No further coordination required.
2. 10 to 20 minutes: inform the pilot of the delay. Send a courtesy message to the receiving AC sector when the delay is absorbed and the pilot is starting. *("GABCD starting for EGCC"*), no response is required from AC.
3. Greater than 20 minutes: AC to specify *"greater than 20 minutes"* or *"delay not determined"*. GMC to inform pilot of *"delay not determined, at least 20 minutes"* and ask whether they wish to proceed. GMC to re-coordinate at 20 minutes with AC.

Traffic to the Scottish TMA is coordinated with Talla Sector:

1. STE – Talla (STC_E_CTR)
2. ST – Scottish TMA (STC_CTR)
3. SD – Deancross (SCO_D_CTR)
4. SWD – West-Deancross (SCO_WD_CTR)
5. SS – Scottish South (SCO_S_CTR)
6. S – Scottish Bandbox (SCO_ CTR)

Traffic to the Manchester TMA and EGNS is coordinated with PC North East sector:

1. PCNE – PC North East (MAN_NE_CTR)
2. PCE – PC East (MAN_E_CTR)
3. PC – PC Bandbox (MAN_CTR)
4. LNE – AC North Sea (LON_NE_CTR)

5. LN – AC North (LON_N_CTR)
6. L – AC Bandbox (LON_CTR)

In the event the relevant Area Control sector is offline coordination shall be with RAD, or in the absence of RAD the receiving unit's APC controller.

In most situations, this coordination should ideally take place via text communication.

1.5.2 IFR Flights to Teesside (EGNV)

IFR flights positioning to Teesside shall be coordinated with RAD who will provide a clearance and coordinate with Teesside APC directly.

1.5.3 IFR Flights to the London TMA

IFR flights to London TMA will be cleared with a maximum requested flight level of 285.

1.6 Non-Standard IFR Clearances

All non-standard IFR departures shall be coordinated with RAD.

Clearances will typically be in accordance with the published omni-directional departures (see ADC 1.2.4) but may include an initial level below FL80.

1.7 VFR and SVFR Clearances

When a VFR or SVFR aircraft requests clearance to any location outside of the Newcastle ATZ, GMC shall request clearance from RAD. Clearance shall be issued on stand.

GMC should obtain the full clearance request which includes the aircraft type, destination and intended routing. Once RAD has issued a full clearance, it is the responsibility of GMC to pass this clearance (in full) to the pilot.

> ***Example:*** *"GVUKA cleared to leave the Newcastle Control Zone via Tyne Bridges, not above altitude 2500 ft, VFR, squawk 3720."*

1.8 Pushback/Start-up Clearance

Clearance to push must include the stand number of the aircraft being given clearance. This is to aid/bring attention to nearby aircraft of the movement.

> ***Example:*** *"ABC123 stand 24, push and start approved face east."*

Start clearance will be provided once the aircraft is ready for pushback. Turbine aircraft will be passed the outside air temperature if they have not acknowledged receipt of the ATIS.

Pushback directions are at the discretion of the controller for all stands.

Simultaneous pushbacks are only to be given where there is a whole stand gap between two aircraft and two stand gaps when the aircraft is type B752 or larger.

1.9 Runway Crossings

Runway crossings are only permitted with the crossing aircraft under the control of AIR on the AIR frequency.

1.10 Taxiway Restrictions

Holding Point D2 is restricted to aircraft with a maximum wingspan of 36 m.

Taxiway E is restricted to aircraft with a maximum wingspan of 17 m.

Taxiway F is restricted to aircraft with a maximum wingspan of 27.5 m, aircraft upon the GA Apron with a wingspan greater than 16 m shall park on Stands 53 or 54, south of stand 53 the maximum wingspan is 16 m, further reducing to 12 m within the West Apron.

Helicopters may only hover-taxi on Taxiway F to abeam the P-East and P-West spots, beyond this point only wheeled ground-taxi is permitted

1.11 Non-Direct Taxi Instructions to Stand

Where a clear route and taxi instruction cannot be issued to take an aircraft to its stand, the phrase *"expect stand"* should be used to inform the aircraft of their parking position.

> ***Example:*** *"ABC123 taxi via D, hold short of A, expect stand 11."*

1.12 Stand Allocation

Stand allocation will typically be as per UKCP assignments.

In the event of a UKCP failure, or if the GMC controller is not using UKCP, it is the responsibility of the GMC controller to assign stands to aircraft in accordance with the following tables.

Aircraft Type or Equivalent	Stands
JS41	32L/R
E145	32
DH8D	1-2
A319/B737	15, 31
A320/B738	6, 12-13, 25L/R
A321/B739	3
B752	4-5, 7-8, 10-11, 14, 18-23
B788	9, 16-17, 24
B744/B773/A333	25, 30

ICAO	Airline	Normally Allocated Stand(s)
AFR	Air France	10-12
BAW	British Airways	3-4
DLH	Lufthansa	10-12
EWG	Eurowings	4-6
EXS	Jet2	6-12
EZE	Eastern Airways	19, 32L/R
EZY	easyjet	4-6
KLM	KLM Royal Dutch Airlines	10-12
LOG	Loganair	1-2
RYR	Ryanair	4-6
TOM	TUI Airways	6-12 (except B788 on 9 or 16)

UAE	Emirates	30
VLG	Vueling	10
-	Cargo	23-25 and Golf Apron
-	General Aviation	GA Apron (via F) or Golf Apron
-	Helicopters	54, P-West or P-East (GA Apron)

Chapter 2 Air Control (AIR)

2.1 Area of Responsibility

Air Control (AIR) (*"Newcastle Tower"*) is responsible for the safe and expeditious use of the active runway and rapid-exit taxiways. AIR is also responsible for the provision of information to aircraft conducting an instrument approach and VFR traffic remaining in the visual circuit.

AIR shall obtain relevant releases and transfer departures to the appropriate controllers when required.

2.1.1 Delegated Responsibilities

AIR is responsible for traffic operating under VFR within and in the vicinity of the ATZ operating with visual reference to the surface. Traffic in the vicinity of the ATZ should be coordinated with RAD and FIN shall be notified when the visual circuit is active.

In the absence of an APC (or appropriate top-down) controller, AIR is responsible for the CTR below 2500 ft and for the provision of transit, entry or exit clearances to VFR traffic operating below 2500 ft.

2.2 Use of Runways

The AIR controller should be aware of the potential effects of jet blast when lining up multiple aircraft on the runway. It is generally acceptable to line up two aircraft on the runway if the controller judges there to be a sufficient gap between the two of them.

Controllers should be mindful of arriving traffic when lining up multiple aircraft for departure.

2.3 Line Up Procedures

2.3.1 RTF Phraseology

All instructions to enter a runway shall include:

1. The relevant runway designator,
2. The holding point designator at which the aircraft is to enter the runway if ambiguous, and
3. For traffic entering the runway to facilitate taxiway positioning, the holding point designator at which the aircraft is to vacate the runway.

2.4 Conditional Clearances

2.4.1 Conditionals behind Arriving Traffic

To assist with situational awareness when lining up behind arriving traffic, the distance from touchdown should be included.

> ***Example:*** *"ABC123 behind the landing Boeing 737-800 at 3 miles, via A1, line up Runway 27 behind"*

A conditional line up clearance shall only be issued against the first aircraft on approach.

2.4.2 Runway Safeguarding Phraseology

The word *"follow"* must not be used in conditionals in the runway holding area. Aircraft should not be instructed to *"follow"* another one to prevent two aircraft lining up with only one of them having clearance to do so. Aircraft should not be told their number in the intended departure sequence. Instead, AIR may issue approximate airborne times as either a time past the hour, or an approximate wait in minutes.

2.4.3 Intersection Conditionals

Aircraft at an intersection may only be issued a conditional line up or crossing instruction behind the next departing aircraft. I.e. the aircraft should be able to perform the intended action behind the next aircraft that passes them.

2.4.4 Use of Conditionals

It is recommended that a maximum of two conditionals shall be active at any one time.

I.e. an aircraft may be lining up behind a departure on the runway, and another aircraft may be lining up behind them.

2.5 Flights to Local Airfields

GMC will have coordinated initially with the relevant local controllers – see ADC 1.5.

AIR must obtain a departure release for all traffic to the Scottish TMA and the Manchester TMA (including Isle-of-Man – EGNS) from the receiving Area Control sector.

Flights to Teesside – EGNV - are subject to release from RAD.

Aircraft subject to a release must depart within +5 minutes of the release time unless otherwise specified.

2.6 Wake Separation

2.6.1 Wake Turbulence Separation

Wake turbulence separation should be provided in accordance with MATS Part 1.

2.6.2 Holding Points

All holding points are considered to be different points (ie. intersections) for the purpose of providing wake turbulence separation.

2.7 Departure Separation

Standard departure separation at Newcastle is 2 minutes. There is no capability to reduce this through route separation. The standard departure separation **must** be adjusted for aircraft speed as described below – the resulting separation may be reduced below 2 minutes for appropriate aircraft pairs.

All departure separations must be considered as **minima** and should not be reduced by Newcastle AIR through the use of RSIVA.

2.7.1 Table of Aircraft Speed Groups

Newcastle utilises VATSIM UK's harmonised speed table to categorise aircraft for departure separation. The table at time of writing is shown below. Updates published to the harmonised speed table apply to Newcastle.

Group 4	Group 3	Group 2	Group 1
All jet aircraft except:	BAE146/Avro RJ	ATR variants	BN2P/T
- Those in Group 3	CL35/CL60	DH8A/B/C	C208
- Concorde	CRJ1/2/7/9/X	F50	DA62
- Military Jets	D328/J328	JS31/32/41	DHC6
	DH8D	King Air variants	E110
	E135/145	PC12	
	E50P/55P	SF34	
	P180	SW3/4	
	SB20	TBM7/8/9	
	Citations except C56X/680/68A/700/750		

2.7.2 Application of Departure Separation

The standard departure separation that shall be applied by the AIR controller between successive departures of the same group (or when the following type is in a lower group) is 2 minutes.

When a faster aircraft (higher group) follows a slower aircraft (lower group), the interval between departures is to be increased by 1 minute per successive speed group.

Subject to wake vortex separation, the departure interval may be reduced to 1 minute when the following aircraft is two speed groups slower than the first aircraft.

> ***Note 1:*** *Where time-based separation is used as the sole means of departure separation, 1 minute shall be not less than 60 seconds and 2 minutes shall be not less than 120 seconds.*
>
> ***Note 2:*** *When the following aircraft is multiple groups faster, the resulting time-based separation between departures may become excessive – if the AIR controller believes undue separation is required, they may coordinate an alternative departure interval with RAD.*

2.8 Departures Subject to Radar Approval (Departure Releases)

~~GIRLI SID departures are free-flow.~~

~~AIR must obtain a **departure release** from RAD before clearing the aircraft for take-off in the following situations:~~

- ~~Standard IFR omni-directional departures~~
- ~~Where the following aircraft is 3 speed groups faster than the lead~~
- ~~Aircraft departing following a missed approach~~

- ~~Aircraft departing immediately prior to and following a change of runway direction~~
- ~~VFR departures~~
- ~~Whenever RAD implements a radar check.~~

~~AIR must obtain a **departure release** from RAD before clearing the aircraft for take-off and must also obtain a **release for the subsequent departure** in the following situations:~~

- ~~Aircraft not on the speed table~~
- ~~Non-standard IFR departures (including flights to Teesside) and SVFR departures~~
- ~~Whenever AIR requires an aircraft to deviate from the SID~~

~~AIR will inform RAD if an aircraft is observed to deviate from the SID/omni-directional departure to the extent that departure separation may be eroded.~~AIR must obtain a **departure release** for all departing traffic (except when remaining with AIR).

Aircraft subject to a release must depart within +5 minutes of the release time.

2.9 Transfer of Control and Communication

2.9.1 Departures

Departures may only be transferred to RAD once all aerodrome conflictions have been resolved. Ideally transfer shall occur no later than 2000 ft or 2.5 NM from the departure end of the runway, though if required to retain traffic to resolve a confliction, the AIR controller shall look out for pilots climbing to above their initial (cleared) level and take action.

2.9.2 Departure Handoff Priority

North	ALASO (P18), ERLOT (M982/P15), HAVEN (Y92)~~, LAMMA (N610)~~, LONAM (N610), ROBEM (UM82)
West	DCS, Scottish TMA Airfields
South	GIRLI (P18), ERKIT (N110), OTBED (Y70)

Dep	1	2	3	4	5	6	7	8	9	10	11	12	13
North	RAD	PCNE	PCE	PC	LNE	LN	L	SS	SE	S			
West	RAD	PCNE	PCE	PC	LNE	LN	L	STE	STC	SD	SWD	SS	S
South	RAD	PCNE	PCE	PC	LNE	LN	L						

RAD – Newcastle Radar (EGNT_APP)

PCNE – PC North East (MAN_NE_CTR)

PCE – PC East (MAN_E_CTR)

PC – PC Bandbox (MAN_CTR)

LNE – AC North Sea (LON_NE_CTR)

LN – AC North (LON_N_CTR)

L – AC Bandbox (LON_CTR)

STE – Talla (STC_E_CTR)

STC – Scottish TMA (STC_CTR)

SD – Deancross (SCO_D_CTR)

SWD – West-Deancross (SCO_WD_CTR)

SS – Scottish South (SCO_S_CTR)

SE – Scottish East (SCO_E_CTR)

S – Scottish Bandbox (SCO_CTR)

2.9.3 Aircraft on Approach

The transfer of communications of an aircraft from FIN to AIR should occur no later than 6 NM from touchdown and is prior to the transfer of control.

FIN will retain control of all aircraft on approach until 4 NM from touchdown. It remains the responsibility of FIN to monitor the wake turbulence separation and radar separation up to this point. Any instruction which AIR wishes to issue outside of 4 NM must be co-ordinated with FIN before it is given.

2.10 Landing Clearance

2.10.1 Runway Designator

The runway designator should be included in all landing clearances.

2.10.2 Cancelling Approach Clearance

It is the responsibility of AIR to issue landing clearances to all aircraft. If they are not satisfied that an approach can continue safely they may issue instructions to re-position a particular aircraft or instruct the aircraft to go around.

2.11 Arrival Spacing

All arrival wake turbulence separation is as per MATS Part 1.

In routine operations FIN shall ideally achieve spacing of 6 NM to allow a departure between arrivals. During period of heavy outbound demand this can be increased to 8 NM to allow two departures per arrival.

2.12 Minimum Radar Separation

A minimum radar separation of 3 NM applies between IFR/SVFR aircraft and other IFR/SVFR aircraft.

2.13 Missed Approaches

The standard missed approach procedures are as published on approach charts, and the table below.

Approach	Missed Approach Procedure
07 ILS/LOC/NDB	Climb straight ahead to NDB(L) NT to hold at 2500, or as directed. Aircraft unable to achieve 2000 by NDB(L) NT, climb straight ahead to 2000 then turn right to NDB(L) NT climbing to 2500, or as directed
07 RNP	Climb to 2000 - straight ahead to NTM01, or as directed
25 ILS/LOC	Climb straight ahead to 2500 or I-NWC D4 (NEW D4.3), whichever is later, then turn right to NDB(L) NT at 2500, or as directed
25 NDB	Climb straight ahead to 2500 then turn right to return to NDB(L) NT at 2500, or as directed
25 RNP	Climb to 2500 - straight ahead to NTM02, or as directed

2.14 Go-Around Procedure

On becoming aware of, or after initiating a go-around, the AIR controller is to:

1. Activate the UKCP Go-Around Alarm (if in use)
2. Establish separation between the go-around and departing traffic:
    a. Go-around traffic shall not be cleared above the published missed approach altitude without coordination with RAD
    b. Appropriately endorsed (ATM advanced uses) controllers may provide headings to achieve separation if unable to contact FIN and there is an imminent collision risk.
3. Coordinate with the FIN controller as soon as possible (where AIR has assigned a heading this should ideally be concurrently with the initial corrective action). Coordination should:
    a. Agree routing and cleared level of departure and go-around traffic
    b. Agree frequency for go-around traffic to be transferred to
4. Pass traffic information where required or deemed useful
5. Relay any instructions from FIN to relevant traffic and monitor situation until transfer to FIN.

The next departing aircraft following a missed approach requires a release **from RAD**.

2.15 Circuit Procedures

Circuit direction is variable at the discretion of the AIR controller but shall typically take place to the north of the aerodrome not above an altitude of 1500 ft QNH. FIN shall be informed when the circuit is active and ceases to be active, and whenever the downwind leg for traffic extends beyond 4 NM. Aircraft remaining within the visual circuit should be instructed to squawk 7010.

SVFR circuits require the approval of FIN and shall be coordinated to ensure standard separation is maintained against other IFR or SVFR traffic unless AIR is able to provide reduced separation in the vicinity of the aerodrome (RSIVA).

2.15.1 Integrating circuit traffic with IFR approaches

VFR traffic may be instructed to orbit at the start or end of the downwind leg, to land or to leave the circuit and hold away from the instrument approach. Traffic information is to be passed as appropriate. Circuit traffic must report the relevant traffic in sight before turning base.

If the pilot cannot see the aircraft on final, they must either extend downwind or orbit left/right at the end of their downwind leg until the aircraft on final is sighted or has landed. Once the traffic is in sight or has landed, wake turbulence advisories should be passed (if applicable) with the instruction to report final.

Except when AIR is able to apply RSIVA SVFR traffic must either land or be routed to maintain 3 NM separation from the final approach track whenever inbound IFR traffic is within 10 NM.

2.15.2 Re-Join Procedures

Aircraft shall typically be cleared to join a base leg appropriate to the direction of arrival, however AIR may integrate traffic however necessary. Overhead joins are not normally to be permitted.

2.16 Helicopter Procedures

Helicopters shall follow the same procedures as fixed-wing traffic and land/depart from the runway in use. Helicopters may not carry out direct approaches to or take-off from apron areas or taxiways.

Standard wake turbulence separation requirements must be applied between a helicopter movement and the traffic which precedes it. Wake turbulence separation must be applied between hover-taxiing helicopters within 760 m of the runway and departing traffic and, if entering the runway, the helicopter should be considered as if it is departing from an intermediate point of the runway.

While helicopters are operating on the manoeuvring area extreme caution must be exercised regarding wingtip/rotor blade clearance and turbulence. After landing, helicopters will ground-taxi or hover-taxi to the GA Apron via Taxiway F. Parking is at either Stand 54 or the P-East and P-West spots. Helicopters may only hover-taxi on Taxiway F to abeam the P-East and P-West spots, beyond this point only wheeled ground-taxi is permitted.

2.17 Use of the Aerodrome Traffic Monitor

An Aerodrome Traffic Monitor (ATM) is available, and the information derived from the ATM may be used by all AIR controllers to:

- Determine the landing order, spacing and distance from touchdown of arriving aircraft
- Assist in applying longitudinal separation for departing aircraft
- Enable controllers to confirm that the initial track of departing aircraft conforms with the clearance issued
- Provide information to aircraft on the position of other aircraft in the circuit or carrying out an instrument approach.

Additionally, ***radar validated controllers (S3+)*** may utilise the ATM for advanced uses:

- Following identification, validate SSR codes of departing aircraft and verify associated mode C read-outs
- Monitor the progress of overflying aircraft identified by Approach Radar Control to ensure that they do not conflict with the tracks of arriving or departing aircraft.
- Establish separation between departing aircraft
- Pass traffic information
- Establish separation in the event of a missed approach
- Assist in taking initial corrective action when the separation between arriving aircraft becomes less than the prescribed minima.

APC | APPROACH CONTROL

Chapter 1 Area of Responsibility and Sector Organisation

1.1 General

In this section, the following conventions for the naming of the Newcastle APC positions is adopted:

RAD	- Newcastle Radar
FIN	- Newcastle Director
Newcastle APC	- Collective RAD and FIN functions

1.2 Area of Responsibility

Newcastle APC is responsible for the Newcastle CTR and CTA, and Area Control airspace as delegated to Newcastle APC within 40 NM of Newcastle.

Newcastle APC shall provide approach control and approach radar control services to aircraft from the time and place at which:

- Arriving aircraft are released by Area Control until:
  - Control is transferred to ADC, or
  - They are clear of controlled airspace and transferred to an appropriate agency
- Aircraft approaching from outside controlled airspace place themselves under the control of Newcastle APC until control is transferred to ADC
- Overflying aircraft are within the relevant controlled airspace
- Departing aircraft are transferred from ADC until:
  - Control is transferred to the relevant Area Control sector, or
  - They are clear of controlled airspace and are transferred to an appropriate agency.

1.2.1 Delegated Airspace

Area Control delegates control of the Borders CTA 9, 10 and 11 and Yorkshire CTA 17 to Newcastle APC. Additionally, Area Control delegates control of a portion of the Yorkshire CTA 10 between TILNI and NATEB from FL125 to FL165.

The delegated airspace corresponds to the P18 ATS route between TILNI and NATEB, from the declared base (DB) to FL165 and, additionally, between UVAVU and TILNI, from FL105 (which is the DB) to FL125.

1.3 Function

Newcastle APC shall provide services appropriate for the approach and approach radar control functions, as specified in MATS Part 1, for aircraft arriving and departing Newcastle airport and for overflying aircraft within the Newcastle APC area of responsibility.

1.3.1 Newcastle Radar (RAD)

- Acceptance of releases and control of aircraft inbound to Newcastle from the release point until control is transferred to either FIN or ADC
- Coordination and control of overflying aircraft within the Newcastle APC area of responsibility including transit flights within Newcastle controlled airspace
- Initial radar vectoring and sequencing for ILS, RNP, NDB/DME, and/or visual approaches
- Control of aircraft departing Newcastle on standard departures until control is transferred to the relevant Area Control sector
- Provision of a radar service to non-ATS route network IFR departures and arrivals
- Control of non-IFR traffic entering, operating in, or leaving Newcastle controlled airspace
- Liaison with the AIR controller on pertinent issues excepting range checks, final approach spacing and landing or go-around clearances
- Executive co-ordination with other units
- Coordination with FIN as required including the delegation of control of any aircraft as agreed between the two controllers
- Provision of the Lower Airspace Radar Service (subject to workload) to aircraft operating outside controlled airspace below FL100 and within 40 NM of Newcastle
- Assumes responsibility for FIN functions outside its period of operation
- Assumes responsibility for Teesside International Airport (EGNV) APC functions outside its period of operation.

1.3.2 Newcastle Director (FIN)

FIN is only opened with prior approval of the INT controller, usually under consideration of a high workload.

- The control of aircraft landing at Newcastle from the time they are transferred by RAD until they are transferred to Newcastle ADC
- Provision of final radar vectoring and sequencing for ILS, RNP, NDB/DME, and/or visual approaches
- Coordinating planned and unplanned missed approaches and retaining control of such traffic
- Liaison with the AIR controller as required for range checks, final approach spacing and landing or go-around clearances
- Control of any aircraft for which the delegation of control from RAD has been agreed.

1.4 Newcastle APC Bandbox/Splitting Procedures

RAD may be opened at any time. AIR must be open before opening FIN.

When splitting/bandboxing Newcastle APC, FIN shall inform AIR.

Chapter 2 Radar Director/Controller General Operational Procedures

2.1 General Procedures

RAD is responsible for acceptance of inbound releases and the initial sequencing of inbounds by radar vectors. The arrival order is derived from the stack ATA or EAT subject to tactical considerations. RAD is also responsible for the initial control of all outbounds from Newcastle. FIN is responsible for final sequencing of inbounds by radar vectors following transfer from RAD.

RAD is the master director and responsible for executive coordination and overall flow through the Newcastle area of responsibility. This does not preclude FIN from coordinating with other agencies. Both directors manage their own electronic flight progress strip display.

2.2 Inbound Releases

All inbound releases will be to RAD. Inbounds from the south routing via ETSES/P18 NATEB will be released by PC North East in accordance with the silent release procedure detailed in APC 3.4.1. It is the responsibility of Newcastle APC to cancel the silent release procedure with Area Control, in good time, when it is unable to accept an aircraft in accordance with the silent release.

Inbounds released by Scottish Area Control (ScAC) will have a level coordinated with RAD before being transferred by means of a reduced radar handover as detailed in APC 3.4.2.

Aircraft that are not able to be released in accordance with these procedures shall be released by means of either a full release or, if in conflict with an overflying aircraft, a radar release. For reasons of expedition Newcastle APC may request, and Area Control may offer alternative releases for aircraft that would otherwise be subject to the standard releases.

Except where agreed in a full release or radar release, following transfer of communication Newcastle APC may:

- Apply or remove speed control
- Issue descent to a lower level in accordance with release procedures
- Turn and descend the aircraft after reaching the release point.

Newcastle APC must 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. Once traffic has entered the Newcastle area of responsibility, it shall not be instructed to leave it.

2.2.1 Silent Release Procedures

A silent release may be issued by electronic transfer of the track data-block to Newcastle Radar with traffic descending to FL160 in accordance with the conditions specified in APC 3.4.1. A subsequent silent release may be issued when this traffic has either vacated FL160 or passed ETSES.

Traffic that cannot be transferred to Newcastle APC under the silent release conditions will be individually coordinated. This coordination is to include the cleared level, the release point, the contact point, and any additional instructions or restrictions.

2.2.2 Releases via UKCP

Releases other than in accordance with the silent transfer agreement should be issued by verbal coordination. However, where this is not possible due to sector workload, Area Control controllers may choose to issue a release via UKCP. In this situation, the release specified via UKCP is considered valid at the time of electronic transfer of the track data-block.

Releases of this type shall only be by a full release or a release with both turn and descent instructions. Where this is not the case, Newcastle APC shall clarify the release with Area Control.

At the time of writing, these procedures apply only to UKCP. However, where future controlling tools permit electronic full releases, the same procedures shall apply.

2.3 Transfer of Data and Control between Directors

Transfer of data and control to FIN will be by electronic transfer of the aircraft track data-block coincident with the transfer of communication. RAD is to ensure that all information on the electronic flight progress strip is accurate before transfer to FIN. When this is the case, no verbal coordination is required, unless either controller feels it necessary for reasons of clarity, or to highlight non-standard positioning or coordinated restrictions.

On transfer of control from RAD to FIN, controllers should use the phrase *"Contact Newcastle Director 125.830 with callsign only."*

2.4 Identification and SSR Validation and Verification Procedures

All aircraft under the control of Newcastle APC must be identified, the assigned SSR code validated, and Mode C return verified. Except where described below this is to be by one of the methods described in MATS Part 1. Aircraft transferred from another radar unit either by standing agreement or individual coordination are deemed to have been validated and the Mode C return verified.

Aircraft departing Newcastle which are automatically code-callsign converted (correlated) with the correct callsign and are not displaying a squawk error (DUPE) indicator within the track data-block are deemed identified and validated. The first radar controller working these aircraft must however verify the Mode C return.

Any aircraft that does not automatically code-callsign convert, is displaying an incorrect callsign, or that is displaying a squawk error (DUPE) indicator shall be reassigned a unique code; however, for initial identification a controller may request an IDENT to avoid requiring the pilot to set a new squawk during the workload intensive departure phase.

Aircraft departing any unit outside controlled airspace, which has been passed a UKCP ATS route SSR code or a Newcastle local SSR code allocated by Newcastle APC prior to departure, shall be instructed to IDENT or identified by another method regardless of whether automatic code-callsign conversion has taken place.

2.5 Separation Requirements for Newcastle APC

Newcastle APC controllers may apply reduced radar separation of 3 NM between aircraft provided that:

- Both aircraft are identified, and
- Both aircraft are within 40 NM of Newcastle, and
- If greater than 3 NM, the appropriate wake turbulence separation is applied, and
- If applied against an aircraft under the control of another agency, direct voice communication is available between the controllers, and the other agency must also be approved to apply reduced radar separation.

  Note: *The application of 3 NM separation is* ***not*** *authorised against traffic under the control of PC North East or any Scottish Area Control (ScAC) position.*

2.6 Terrain and Obstacle Clearance

Within the Surveillance Minimum Altitude Area (SMAA) the lowest level that can be assigned in the sector east of the NT NDB is 1700 ft. In the sector west of the NT NDB it is 2200 ft except for the defined area around Pontop Pike radio mast where it is 2500 ft.

Aircraft within the Final Approach Vectoring Areas (FAVAs) for Newcastle, which are either established on the approach track or are on an intercept of 40° or less and cleared to establish the final approach track, may be descended to 1500 ft.

The Minimum Sector Altitude (MSA) within 25 NM of Newcastle is:

NW	NE	SW	SE
3400 ft	2100 ft	3400 ft	2600 ft

Newcastle ATC SMAA chart: **AD 2.EGNT-5-1**.

Chapter 3 Inbound Procedures

3.1 Information to Arriving Aircraft

After an arriving aircraft has made its initial call to RAD, the following information shall be passed as soon as practicable:

- Runway in use and the type of approach, if not already received from the ATIS
- Current ATIS code
- LVP in operation, if not already received from the ATIS
- Any delay to be expected.

RAD is to confirm the cleared level of an aircraft transferred from Area Control sectors on first contact. If it is not volunteered by the pilot it is to be requested and verified by the receiving controller before giving any executive instruction. In addition, RAD is to confirm aircraft type, including type variants. Any aircraft type which is not as filed must be changed as soon as possible and advised to any controller who may be reliant on up-to-date information, say for the provision of wake vortex separation.

Aircraft that have received the information above must be kept informed of the following until they have landed:

- Significant changes in the meteorological and runway conditions
- Relevant reports from other pilots
- Implementation or cancellation of LVP.

3.2 Standard Arrival Routes (STARs)

Hold	Designator	Arrival Via	Route
ETSES	POL 1N	(U)N601, (U)P17, (U)N57	POL - GOKOV - IRKOR - XODRU - ETSES
	RIMTO 1N	L46, L613, Y70(E), Y250	RIMTO - GOKOV - IRKOR - XODRU - ETSES

Note: *All STARs are RNAV1, non-RNAV1 traffic shall route via either NATEB (via P18, Y96 or DCT) or DCT NT.*

3.3 Holding Procedures

The table below indicates the holding areas available for Newcastle traffic:

Hold	Inbound Course	Direction	Holding Levels	Holding Speed	Notes
ETSES	011°	Left	FL90 – FL110	Max 220 knots	Only available to RNAV1 STAR inbounds
NT	246°	Left	2000 ft – FL250	Max 210 knots	Traffic **not** typically held below 3500 ft ScAC South controls the NT hold above FL165

3.3.1 Holding Pattern Separation

Traffic holding at ETSES and NT are separated at all levels up to and including FL120.

3.3.2 Level Allocation and Use of Holds

RAD is responsible for level allocation in the ETSES hold at all levels and for level allocation in the NT hold between 2500 ft and FL160; ScAC South is responsible for level allocation between FL170 and FL250. RAD must notify PC North East, ScAC South and Swanwick Mil (North) when holding is required above FL125 and again when holding is required above FL160. Holding at NT **below** FL90 requires RAD to implement a departure check and/or issue amended initial level clearance for standard IFR outbounds (which normally climb to FL80).

Where any standing agreement (including tactical standing agreement) is in place between Newcastle APC/PC North East/ScAC South/Swanwick Mil traffic shall be transferred only when clear of holding traffic. When holding is taking place above FL170, it is likely that any standing agreements will need to be cancelled.

It is recommended the NT hold is used at all times in preference to the ETSES hold. Traffic should only be held at ETSES prior to onward clearance to NT. ETSES holding may therefore occur if there is a delay in issuing onward clearance from ETSES and the pilot initiates holding or if inbound traffic via ETSES is received at or below the level of existing traffic holding at NT.

3.4 Inbound Releases

3.4.1 Inbounds from PC North East via ETSES/P18 NATEB

PC North East will present both RNAV1 inbounds (POL 1N or RIMTO 1N to ETSES) and RNAV5 inbounds (P18 NATEB) in accordance with the following silent transfer agreement.

From	Route	Agreed Level	RFD	Release Point
PC North East	STAR via ETSES	↓ FL160	FL140 (*Note 3*)	5 NM north of Teesside Runway 23 extended centreline (*Notes 3 and 4*)
	P18 NATEB (RNAV5)	↓ FL160	FL140 (*Note 3*)	

Note 1: *RNAV1 traffic is to be positioned on the east side of the ATS route complex, preferably on own navigation following the appropriate RNAV1 STAR or, if necessary, on a heading to remain a minimum of 5 NM east of TILNI. RNAV5 traffic is to be positioned on a heading to remain a minimum of 5 NM east of TILNI. If Newcastle APC require an alternative routing, it is the responsibility of Newcastle APC to coordinate with PC North East.*

Note 2: *Traffic is to be positioned 10 NM in trail, constant or increasing. If this is not possible it is PC North East's responsibility to initiate coordination.*

Note 3: *Descent below FL140 shall not be before 5 NM north of the Teesside Runway 23 extended centreline (the 'Newcastle Descent Line' depicted in Figure 1). If Newcastle APC wish to descend below FL140 prior to traffic passing 5 NM north of*

the Runway 23 extended centreline they may do so but only after coordination with Teesside APC.

Note 4: *Newcastle APC may turn traffic that has been transferred to them once it has passed 5 NM north of the Teesside Runway 23 extended centreline. If Newcastle APC wish to turn traffic prior to this point they must coordinate with PC North East.*

Note 5: *Successive inbounds may be transferred when the prior inbound has either vacated FL160 or passed ETSES. Where this will cause undue delay then PC North East shall coordinate an alternate release with Newcastle APC.*

3.4.2 Inbounds from Scottish Area Control (ScAC)

There are no standing agreements for inbounds to Newcastle from ScAC South/TMA (Talla sector) and as such, AC controllers shall coordinate an inbound level with RAD and transfer traffic via a reduced radar handover. Any agreed inbound level **must** be below FL195 and, where possible, traffic should be transferred inside controlled airspace.

Reduced radar handover format: *"(Callsign), descending to (level), (route or heading), (speed), (UK FIS type)."*

Traffic transferred between Newcastle APC and ScAC/TMA will have a minimum of 5 NM separation applied.

3.4.2.1 Traffic Leaving Controlled Airspace via DCS (including Teesside Inbounds)

Talla will pass an estimate on traffic leaving DCS to RAD. For inbounds to Teesside which RAD elects to work, RAD will pass an estimate and SSR code to Teesside APC. Talla will transfer the traffic to RAD when clear of controlled airspace.

If RAD 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.

3.4.3 Inbounds from Swanwick Mil (North) via ERKIT/OTBED

Inbounds to Newcastle from the south-east routing L602 ERKIT or N110 ERKIT may, during the operational hours of Swanwick Mil (North), be transferred from PC North East to Swanwick Mil (North) for provision of a Middle Airspace Radar Service (MARS) once clear of controlled airspace at ERKIT. Inbounds routing via Y70 OTBED will also leave controlled airspace in the vicinity of ERKIT and are included in this agreement.

Inbounds via ERKIT/OTBED receiving a MARS from Swanwick Mil (North) will be transferred to Newcastle RAD in accordance with the following agreement.

Swanwick Mil (North) will prenote RAD with callsign and estimate for NATEB. RAD shall provide Swanwick Mil (North) with an acceptance level outside of controlled airspace (below FL195) and the runway in use at Newcastle. At 40 NM from Newcastle, Swanwick Mil (North) will transfer the inbound to RAD, descending to or level at the acceptance level, by means of a silent handover. The inbound will be transferred on the allocated UKCP ATS route SSR code and RAD may identify the traffic by observing code-callsign conversion.

Note: *Swanwick Mil (North) may assign a military SSR code whilst traffic is under its control but will transfer aircraft back to the allocated UKCP ATS route code prior to transfer to Newcastle APC unless RAD coordinates a Newcastle local SSR code.*

Silent handovers from Swanwick Mil (North) to Newcastle APC are subject to:

- A satisfactory prenote to RAD and confirmation of the acceptance level, and
- Traffic must be operating a transponder and its SSR code validated/Mode C return verified, and
- Traffic must be clear of controlled airspace/active danger areas, and
- Traffic must be transferred clear of confliction (3000 ft vertically or 5 NM against uncoordinated traffic).

When these conditions cannot be met traffic will be subject to verbal radar handover.

3.5 Transfer of Communication Procedures

Transfer of communication should occur in the correct order for each holding facility.

Aircraft will be transferred to RAD in sufficient time for contact to be established before reaching the holding facility so that heading or holding instructions may be passed. If this is not possible, the aircraft will be instructed by the releasing Area Control sector to hold on reaching the facility.

3.6 Expected Approach Times (EATs)

EATs are not normally passed if the expected delay is less than 20 minutes; instead, the anticipated hold delay shall be passed in 5-minute intervals, standard phrases for this are: *"Less than 5 minutes"*, *"5 to 10 minutes"*, *"10 to 15 minutes"* and *"15 to 20 minutes."*

If the expected delay is greater than 20 minutes, then EATs shall be issued in 5-minute intervals for both radar vectored or procedural approaches.

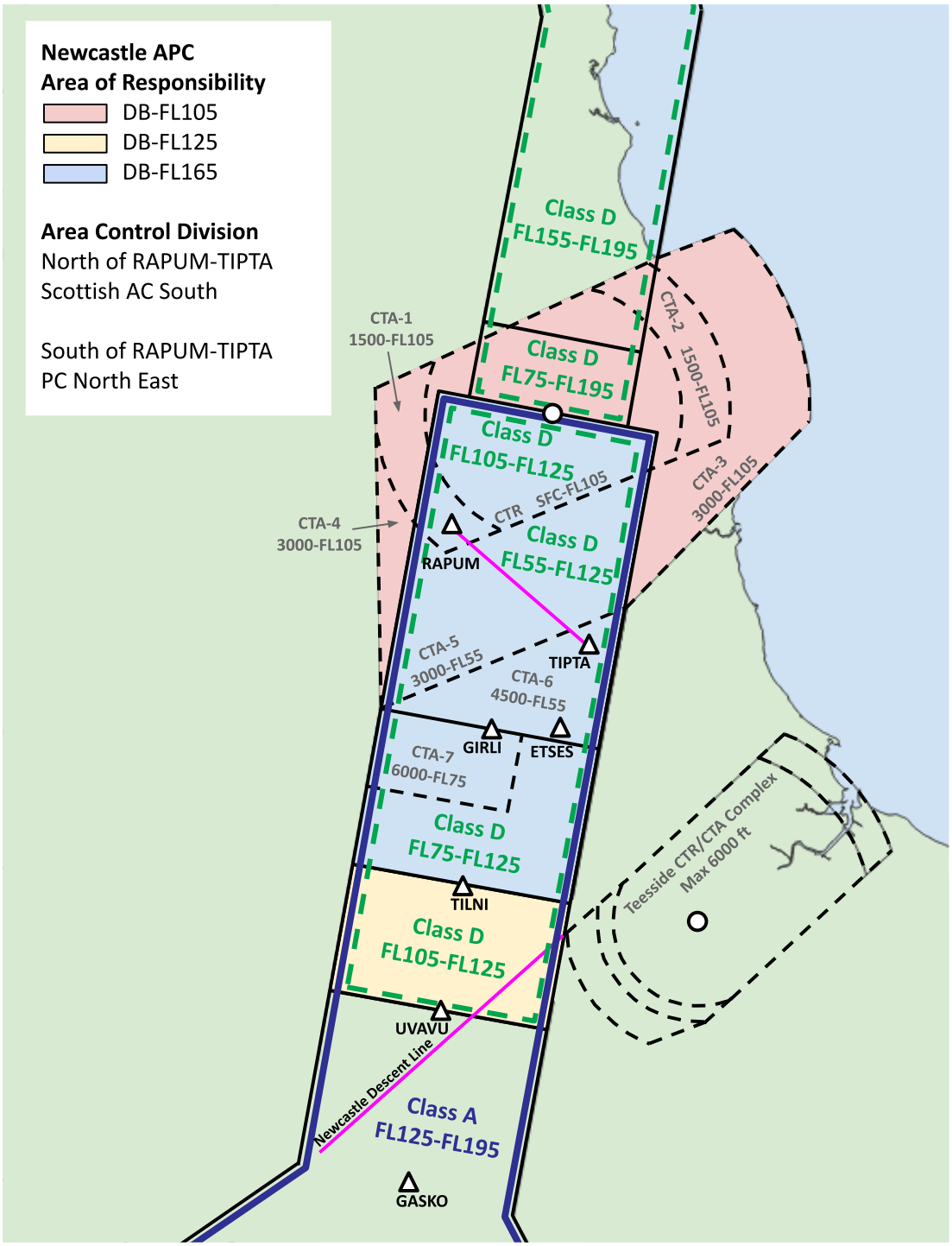
Newcastle APC shall only issue an EAT alongside a specific additional instruction to hold.

Chapter 4 Procedures for Intermediate and Final Approach

4.1 Newcastle APC Area of Responsibility

Newcastle APC is responsible for the Newcastle CTR and CTAs. Additionally, Newcastle APC is the delegated controlling authority for those portions of the Borders/Yorkshire CTA delegated by Area Control as outlined in APC 1.2.1 and shown in Figure 1.

Figure 1 - Newcastle CTR/CTA and Area Control Delegated Airspace



4.1.1 Class D ATS Routes

It is a requirement (UK AIP ENR 1.1 Paragraph 1.6.1.3.2) that all traffic flying **along** an ATS route (ie. routing on P18) fly in accordance with IFR procedures. However, traffic may transit **across** the Class D airspace in VFR in accordance with the normal rules and procedures for VFR traffic in Class D airspace. Although not a requirement, controllers are encouraged to maintain standard separation between IFR and VFR flights within Class D ATS routes.

4.1.2 P18 between NATEB and ADN

ATS Route P18 (Class D) between NATEB and ADN is established at certain times as a Conditional Route (CDR) 1 for traffic from/to Aberdeen only. It is available Tue – Fri 0530 - 0900 local and from 1500 local Fri to 1000 local Mon (extended to include the preceding or following day in the event of a Bank Holiday). From May to Sept, availability is extended to include Mon – Fri 2000 - 1000 local. Outside of these times, aircraft may file the route and receive a UK FIS service from either Scottish Area Control or Swanwick Mil (during their hours of operation), but otherwise traffic generally routes via Y96.

The availability of P18 north of NATEB in real life is further determined by a permanent agreement between Prestwick ACC and the military that allows the military to access it when required. However, Swanwick Mil may notify TRA007A as active during the times that the P18 is published as available, with it still retaining its ATS route status, unless the military invoke the additional closure power described above.

For simplification, and because of a lack of mandatory flight plan validation, on VATSIM Swanwick Mil shall notify ScAC sectors when the P18 ATS route is explicitly unavailable, but ScAC controllers may otherwise allow aircraft to route through it. Outside of the CDR 1 times detailed above, ScAC shall provide a UK FIS.

4.2 Intermediate Approach Procedures

4.2.1 Vectoring and Descent before Release Point

4.2.1.1 Inbound Traffic via ETSES/P18 NATEB (from PC North East)

Traffic is **released for descent** to FL140 on transfer of communication and below FL140 when 5 NM north of the Teesside Runway 23 extended centreline. Descent below FL140 prior to this point is subject to coordination with Teesside APC.

Traffic is **released for turns** once it has passed 5 NM north of the Teesside Runway 23 extended centreline. If Newcastle APC wish to turn traffic prior to this point they must coordinate with PC North East.

4.2.1.2 Inbound Traffic from Scottish Area Control/Swanwick Mil (North)

Unless specified in coordination, traffic transferred from ScAC or Swanwick Mil are released for turns and descent on transfer of communication subject only to Newcastle outbounds already transferred to ScAC or Swanwick Mil.

For inbounds transferred from ScAC within controlled airspace RAD will endeavour to descend this traffic to leave controlled airspace at the earliest opportunity.

4.2.2 Initial Sequencing

Initial sequencing is typically by radar vectors.

For RNAV1 traffic via ETSES pilots may request the RNAV1 transitions to self-position for an RNP approach – these transitions are the ETSES 1J to Runway 07 (terminating at the ERUXI IAF) and the ETSES 1K transition to Runway 25 (terminating at the UPMOP IAF). These transitions should only be assigned on pilot request and traffic must be cleared to conduct the appropriate RNP approach prior to reaching the terminal fix on the transition (ie. the RNP IAF).

For traffic on *"own navigation"*, inbound RNAV1 traffic (on an ETSES STAR/transition) is laterally separated from outbound RNAV1 traffic (on a GIRLI SID) provided the distance between aircraft is no less than 7 NM. If traffic is projected to close to within 7 NM (for example when inbound and outbound traffic crosses) and if no other form of separation is applied, ie. vertical separation, then the controller shall assign vectors to both aircraft to ensure radar separation.

4.2.3 Altitude Control

For traffic inbound via ETSES/P18 NATEB controllers should issue descent to achieve the following profile:

FL140 abeam UVAVU
FL110 abeam TILNI
FL90 abeam GIRLI.

Descent below FL90 shall only be issued when traffic is laterally separated from identified outbound traffic or the expected departure track of any unidentified or released departing traffic.

Traffic shall be issued an approximate track mileage to touchdown upon first clearance to an altitude. This is to facilitate a continuous descent approach by the pilot. Track mileage should be updated upon first contact with FIN or whenever a new estimate is likely to affect the pilot's descent (ie. if the vectoring pattern is significantly adjusted).

Traffic cleared via RNAV1 transition shall be given explicit descent clearances as traffic allows and should **not** be instructed to *"descend with the procedure"* or any alternate phraseology.

4.2.4 Speed Control

Controllers shall apply speed control as required to achieve and maintain final approach spacing. Additionally, when vectoring to Runway 07 controllers should consider the use of speed control to aid vectoring within the limited airspace available.

When applying speed control, controllers shall apply a maximum of 185 knots within 10 NM to touchdown and allow aircraft to slow to a maximum of 160 knots by 6 NM to touchdown.

Speed control must not be applied inside of 4 NM to touchdown.

4.2.5 Transfer of Traffic to FIN

Traffic shall normally be transferred to FIN in the intended landing order, descending to 4000 ft on an appropriate downwind leg at a maximum airspeed of 220 knots, clean of outbounds and other traffic under the control of RAD.

Traffic positioned via the RNAV1 transitions should be assigned a maximum airspeed of 200 knots and transferred descending to the appropriate altitude for the respective IAF – 5500 ft for ERUXI (Runway 07) and 4000 ft for UPMOP (Runway 25).

4.3 Final Approach Procedures

4.3.1 Responsibility

FIN shall retain responsibility for separation of inbound aircraft until such time that they can either safely continue a visual approach or reach 4 NM from touchdown, whichever is the earlier.

Although it is the responsibility of FIN for establishing and maintaining the necessary separation between inbound aircraft, AIR is to monitor the ATM and check that the required spacing between inbound aircraft does not degrade. AIR will not issue any instructions for speed adjustment on final approach without first obtaining the approval of FIN.

The minimum spacing between aircraft on final approach is 3 NM, however controllers will typically apply increased spacing to facilitate departures. It is the responsibility of AIR to monitor runway arrival spacing and to notify any required increases in arrival spacing to FIN.

Wake turbulence spacing between aircraft on final approach shall be applied in accordance with MATS Part 1.

4.3.2 Coordination with AIR

FIN shall provide AIR with a 10 NM range check with regards to:

- Traffic conducting other than an ILS approach (type of approach must be specified)
- Traffic which is not code-callsign converted
- Traffic which is conducting a training approach or not intending to land.

4.3.3 Final Approach Spacing

Final approach spacing should reflect the wake turbulence categories of flights involved. FIN shall coordinate with AIR to agree the required spacing taking into account the spacing required for pending departures and the number of inbounds and any delay. Typical spacing would be 6 NM to allow for a departure between every inbound. Consideration should be given to increasing spacing behind heavy traffic which is unlikely to vacate via the rapid exit taxiways B or C.

FIN is responsible for ensuring either the greater of the agreed final approach spacing or the required wake turbulence separation per MATS Part 1 is maintained until the lead aircraft reaches 4 NM from touchdown.

4.3.4 RNP and Non-Precision Approaches

RNP approaches are available to both runways. RNAV1 traffic via ETSES will typically route via the appropriate RNAV1 transition. All other aircraft requesting an RNP approach will typically be radar vectored towards the most appropriate RNP IAF based on the direction of flight. In light traffic conditions, aircraft can be directly cleared via the appropriate IAF.

When able controllers shall either instruct aircraft to resume own navigation or position them on an intercept heading prior to the intermediate fix (IF) and instruct *"cleared RNP approach runway (designator), QNH (hPa)."* When vectoring for an approach, controllers shall not issue vectors to any point beyond the IF.

> ***Note:*** *When instructed to resume own navigation, the aircraft's current track must be within 45 degrees of the IAF.*

Aircraft requesting a non-precision approach should typically be radar vectored to final. Full procedural approaches shall be coordinated with INT/AIR as required due to the likely delay to outbound traffic.

The Newcastle QNH must be issued alongside any RNP or non-precision approach clearance.

4.3.5 Visual Approaches

FIN may clear aircraft, which are visual with the aerodrome, for a visual approach provided that they are not cleared to descend below 2500 ft until either:

- Coordination is effected with AIR, or
- The aircraft is on a base leg to join the final approach track at not less than 5 NM from touchdown or is established on the final approach track.

Where coordination with AIR has taken place, provided the position of traffic permits, aircraft may be cleared for a visual approach at any point.

FIN should provide level restrictions to ensure containment within controlled airspace and shall continue to radar monitor the flight and ensure that separation is maintained against other traffic.

> ***Note:*** *These instructions are in addition to the Visual Approach procedures detailed in MATS Part 1, Section 3, Chapter 1, Part 12.*

4.3.6 Transfer of Communication

Aircraft shall be transferred to AIR in the intended landing order before reaching 6 NM on final approach. Unless otherwise required, on transfer of control from FIN to AIR, controllers should use the phrase *"Contact Newcastle Tower, callsign only, 119.705".*

4.4 Missed Approach Procedures

The standard missed approach procedures are as per the table below.

Approach	Missed Approach Procedure
07 ILS/LOC/NDB	Climb straight ahead to NDB(L) NT to hold at 2500, or as directed. Aircraft unable to achieve 2000 by NDB(L) NT, climb straight ahead to 2000 then turn right to NDB(L) NT climbing to 2500 or as directed
07 RNP	Climb to 2000 - straight ahead to NTM01, or as directed
25 ILS/LOC	Climb straight ahead to 2500 or I-NWC D4 (NEW D4.3), whichever is later, then turn right to NDB(L) NT at 2500 or as directed
25 NDB	Climb straight ahead to 2500 then turn right to return to NDB(L) NT at 2500 or as directed
25 RNP	Climb to 2500 - straight ahead to NTM02, or as directed

4.4.1 Go-Around Procedure

In the event of a go-around:

- AIR is responsible for achieving initial separation between aircraft under their control using the procedures outlined in ADC 2.14

  Note: *All controllers will immediately coordinate with FIN and obtain appropriate instructions where there is an immediate conflict. Those endorsed for advanced ATM use may issue headings where there is an urgent need and unable to contact FIN*

- AIR will coordinate with FIN as soon as possible
- FIN shall issue a heading, altitude, and frequency for the aircraft to contact.

IFR aircraft carrying out low approaches shall remain with FIN who will obtain the relevant clearance from AIR. Until any such clearance is obtained the aircraft must not overfly the runway below 1000 ft aal.

Chapter 5 Outbound Procedures

5.1 General

RAD is responsible for the initial control of all Newcastle outbounds.

Notwithstanding that all departures are subject to release from RAD, initial separation between departing aircraft is the responsibility of AIR and is normally achieved by the application of timed intervals between successive departures. AIR will inform RAD if an aircraft is observed to deviate from the expected departure track to the extent that departure separation may be eroded.

5.2 Identification of Departing Traffic and SSR Validation/Verification

RAD is responsible for identification, and SSR validation and verification of all Newcastle outbounds under its control in accordance with APC 2.4.

5.3 Departure Speed Limits

In order to improve departure flow and assist controllers to maintain separation between aircraft a speed limit of 250 knots IAS applies to all outbound aircraft below FL100. RAD must not remove the 250kt below FL100 speed restriction unless this is coordinated in advance with Area Control.

Additionally, SIDs include an initial speed limit of 180/210 knots IAS to ensure track keeping on initial turns. This restriction must not be removed by RAD.

5.4 Departures Subject to Radar Approval

~~AIR will inform RAD if an aircraft is observed to deviate from the SID/omni-directional departure to the extent that departure separation may be eroded.~~AIR must obtain a **departure release** from **RAD** for all departing traffic (except when remaining with AIR).

Aircraft subject to a release must depart within +5 minutes of the release time.

5.5 Vectoring and Climbing Departures

All Newcastle IFR outbounds joining the ATS route network have an initial climb to FL80.

> ***Note:*** *During periods of holding at the NT* ***below*** *FL90 outbounds will require a departure check and/or amended after departure instructions that ensure vertical separation against holding traffic.*

Except when required for reasons of safety (including but not limited to emergencies, ensuring separation, weather avoidance), aircraft are not to be vectored off the NPR track until above 4000 ft.

For traffic on *"own navigation"*, outbound RNAV1 traffic (on a GIRLI SID) is laterally separated from inbound RNAV1 traffic (on an ETSES STAR/transition) provided the distance between aircraft is no less than 7 NM. If traffic is projected to close to within 7 NM (for example when inbound and outbound traffic crosses) and if no other form of separation is applied, ie. vertical separation, then the controller shall assign vectors to both aircraft to ensure radar separation.

Unless otherwise coordinated, all outbound traffic on a GIRLI SID must be established on a radar heading prior to transfer to PC North East in order to meet the traffic positioning agreement with Area Control.

5.6 Agreements with Area Control

5.6.1 Outbounds to PC North East via GIRLI/NATEB P18

Outbounds via GIRLI/NATEB P18 shall be transferred to PC North East in accordance with the following silent transfer agreement.

To	Standing Agreement	Positioning of Traffic
PC North East	Climbing FL150	**Runway 07:** On a radar heading to a point 5 NM west of TILNI having crossed the P18 centreline before reaching 20 NM from Newcastle **Runway 25:** On a radar heading approximately parallel with the western edge of P18, which will ensure that the traffic passes at a minimum of 5 NM to the west of TILNI. The traffic must be established on this heading before it reaches abeam TILNI

Note 1: *Traffic is released for climb above FL150, with PC NE, when south of the RAPUM-TIPTA track.* ~~*Traffic is released from PC NE for climb above FL150 when south of the RAMUM-TIPTA track.*~~

Note 2: *Transfer of communications for traffic departing either runway must be before 20 NM from NATEB or passing FL130, whichever is sooner. If this is not possible, for whatever reason, then RAD is to coordinate a higher and/or alternative vector agreed with PC North East. Transfer of control is coincident with the transfer of communications.*

Note 3: *Traffic is to be positioned 10 NM in trail, constant or increasing. If this is not possible it is RAD's responsibility to initiate coordination.*

Note 4: *Traffic must be at FL140 or above 5 NM before TILNI. If Newcastle APC are unable to meet this restriction, they must coordinate with Teesside APC.*

5.6.2 Outbounds to Scottish Area Control (ScAC)

There are no standing agreements with ScAC South/TMA (Talla sector) and as such, RAD shall coordinate an ATS route joining clearance with the responsible ScAC sector.

Route	ScAC Sector	Notes
P18 Northbound	ScAC South	Traffic cruising below FL155 (routing outside of controlled airspace) may be worked by Swanwick Mil – ScAC will notify RAD of the receiving unit and transfer shall be by reduced radar handover
Y96 (joining at HAVEN)	ScAC South	Transfer of communication by 20 NM from NATEB
Westbound traffic joining at DCS	Talla	Transfer of communication by 20 NM from NATEB

Open FIR	ScAC South	Transfer of communication by 40 NM from NATEB

Traffic transferred between Newcastle APC and ScAC/TMA will have a minimum of 5 NM separation applied.

5.6.3 Outbounds to Swanwick Mil (North) via ERKIT/OTBED

Outbounds from Newcastle to the south-east routing via ERKIT and OTBED may, during the operational hours of Swanwick Mil (North), be transferred from RAD to Swanwick Mil (North) for provision of a Middle Airspace Radar Service (MARS) prior to re-joining controlled airspace at ERKIT/OTBED under the control of PC North East.

Outbounds via ERKIT/OTBED shall be transferred from Newcastle RAD to Swanwick Mil (North) in accordance with the following agreement.

RAD shall prenote Swanwick Mil (North) with callsign, airborne estimate and allocated UKCP ATS route SSR code. Swanwick Mil (North) will provide RAD with an acceptance level outside of controlled airspace (typically FL190). RAD shall issue the outbound with a clearance to climb to the acceptance level and, once clear of Newcastle controlled airspace, transfer the outbound to Swanwick Mil (North) by means of a silent handover. The outbound shall be transferred on the allocated UKCP ATS route SSR code by which Swanwick Mil (North) may identify the traffic by observing code-callsign conversion.

Silent handovers from Newcastle APC to Swanwick Mil (North) are subject to:

- A satisfactory prenote and confirmation of the acceptance level, and
- Traffic must be operating a transponder and its SSR code validated/Mode C return verified, and
- Traffic must be clear of controlled airspace/active danger areas, and
- Traffic must be transferred clear of confliction (3000 ft vertically or 5 NM against uncoordinated traffic).

When these conditions cannot be met traffic will be subject to verbal radar handover.

In the absence of Swanwick Mil, RAD should provide UK FIS out to 40 NM from NATEB and coordinate a radar handover with PC North East.

5.7 Non-ATS Route Network Departures

RAD is responsible for providing a radar service to aircraft wanting to join the ATS route network until they are clear of controlled airspace and is (subject to workload) responsible for providing a Lower Airspace Radar Service (LARS) to traffic operating below FL100 within 40 NM of Newcastle and any traffic leaving controlled airspace should be offered a service. Traffic not joining ATS route network should be coordinated with ScAC South or TMA (Talla sector) for provision of UK FIS and a handover effected by 40 NM from Newcastle.

GMC will request clearance from RAD for any non-standard IFR, VFR or SVFR departure.

After departure instructions for non-ATS route network departures (except for propeller driven aircraft of 5700 kg or less) must comply with the noise preferential routings in GEN 2.1.

5.8 Departures During Very Low Pressure

During very low pressure *(less than 976hPa)*, the initial climb of FL80 is no longer available as it is below MSL. All departures have an amended climb of FL90.

Chapter 6 Area Control Delegated Airspace and Overflight Procedures

6.1 General

Newcastle APC is delegated from Area Control that part of the P18 ATS route between TILNI and NATEB from the declared base of controlled airspace (DB) to FL165 and, additionally, between UVAVU and TILNI, from FL105 (which is the DB) to FL125.

RAD is responsible for the control of all overflights within the delegated airspace including flights routing along ATS routes. Additionally, Teesside APC will be required to coordinate aircraft which request to cross or enter the controlled airspace that RAD is responsible for.

PC North East retains responsibility for the P18 above FL165 south of the RAPUM-TIPTA track, ScAC South is responsible for the P18 above FL165 north of the RAPUM-TIPTA track and for all of the P18 north of NATEB (excluding those portions within the Newcastle CTR/CTA).

6.2 Radar Separation Minima

Within delegated airspace Newcastle APC is authorised to apply 3 NM horizontal radar separation between identified traffic within 40 NM of Newcastle.

Reduced radar separation is not authorised against traffic under the control of PC North East and ScAC South and 5 NM horizontal radar separation will be used as the minima for aircraft transferred from Area Control units and 5 NM must be re-established prior to control being transferred back to Area Control units.

6.3 Coordination of Overflights with Area Control

6.3.1 Deemed Coordination of Enroute Traffic

Newcastle APC and Area Control units may apply deemed coordination of enroute traffic in accordance with GEN Chapter 5.2 of both the London FIR (EGTT) vMATS Part 2 and Scottish FIR (EGPX) vMATS Part 2.

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 EGTT/EGPX vMATS Part 2 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 sector boundary; and
- No objection has been raised by the receiving controller.

Transfer of control is at the receiving sector boundary, unless otherwise stated in this document. Where the RFL is unusually low for the flight planned route, controllers should notify these flights to the next sector individually.

6.3.2 Electronic Coordination – COPX

APC controllers using Euroscope and UKCP may use the COPX functionality for electronic coordination with Area Control. Electronic coordination requires less time to perform and generally lowers controller workload. Unlike verbal coordination, it does not require both controllers' attendance at the same time. However, it is not suitable for time critical situations where a timely response is essential.

Chapter 7 Teesside (EGNV) Procedures

7.1 General

Teesside International Airport (EGNV) is located 33 NM southeast of Newcastle. Teesside has controlled airspace comprising a CTR and CTA complex extending to a maximum of 6000 ft AMSL, there is no controlled airspace connecting to the ATS route network and all Teesside traffic joining/leaving ATS routes will traverse uncontrolled airspace.

This section summarises the interactions between Teesside APC and Newcastle APC when both units are staffed.

7.2 ATC Communication Facilities

Callsign	Logon	Identifier	Frequency (MHz)
Teesside Information	EGNV_ATIS	NV ATIS	132.380
Teesside Tower	EGNV_TWR	NV ADC	119.805
Teesside Radar	EGNV_APP	NV RAD	118.855
Teesside Director	EGNV_F_APP	NV FIN	128.855

7.3 Provision of Air Traffic Services

Teesside ADC and APC are responsible for the provision of ATC at Teesside and the control of traffic operating within the Teesside CTR. In the absence of an approach controller at Teesside, Newcastle APC (RAD) will cover Teesside top-down.

7.4 Standing Agreements with Area Control

Teesside APC has the following standing agreement with PC North East for traffic joining and leaving the P18 ATS via GASKO (ie. to/from the south).

7.4.1 Inbound Agreement

PC North East shall pass an inbound estimate to Teesside APC advising them of the GASKO time and the UKCP ATS route SSR code. Teesside APC will **not** pass an SSR code to PC North East. Traffic is to be transferred on the existing UKCP ATS route SSR Code for Teesside APC to change once it has left controlled airspace.

From	To	Agreed Level	Positioning
PC North East	Teesside APC	Descending FL140	Positioned on a heading, on the east side of ATS route P18 parallel to the edge of the ATS route

Note 1: *Inbound traffic at or below FL130 will be individually coordinated with Teesside APC.*

Note 2: *Transfer of control (ie. the release point) will be 10 NM before GASKO.*

Note 3: *In the event that Teesside APC need to vector the aircraft towards the centreline of ATS Route P18, they may do so but only once it has reached FL130.*

7.4.2 Outbound Agreement

Teesside APC shall coordinate with PC North East to obtain the UKCP ATS route SSR code when the aircraft calls for its clearance. At this time, Teesside APC will advise PC North East sector of an estimated airborne time.

If this time changes by 5 minutes or more, Teesside APC must inform PC North East of the new time.

From	To	Agreed Level	Positioning
Teesside APC	PC North East	Climbing FL130	Cleared to join controlled airspace on track GASKO

Note 1: *Transferred from Teesside APC to PC North East passing FL110 with transfer of control coincident with transfer of communication.*

Note 2: *Traffic will be transferred from Teesside APC to PC North East clean of all known traffic. If a higher level is required to achieve this, Teesside APC will coordinate with PC North East.*

Note 3: *Traffic not routing via GASKO should be coordinated individually*

7.5 Interactions with Newcastle APC

Teesside traffic routing to/from the north and west to join/leave ATS Routes under the control of ScAC South or Talla will typically transit the Newcastle APC area of responsibility (be that the Newcastle CTR/CTA or the delegated portions of P18).

Teesside APC is responsible for coordinating traffic that will enter the Newcastle area of responsibility with Newcastle APC. Newcastle RAD will typically work such traffic and is responsible for onward coordination with ScAC.

However, for Teesside inbounds/outbounds via DCS, Newcastle APC may elect to skip the traffic and provide a crossing clearance of the P18 ATS route. The unit to which Newcastle APC has provided the crossing clearance is then responsible for onward coordination (ie. Teesside APC shall coordinate directly with Talla for outbounds that are skipped and Talla shall coordinate directly with Teesside APC for inbounds that are skipped).

Traffic crossing P18 not under the control of Newcastle APC must be under the control of Talla and transfer to/from Teesside APC can only take place once clear of controlled airspace to the east of P18. Talla is responsible for ensuring the aircraft transits P18 in accordance with its crossing clearance, Newcastle APC is responsible for separation against other traffic in the P18 under its control.

LOW | LOW LEVEL OPERATIONS

Chapter 1 General Principles

1.1 Provision of Air Traffic Services

Responsibility for low level traffic within the Newcastle CTR/CTA lies with RAD who is additionally responsible for the provision of the Lower Airspace Radar Service (LARS) as detailed in LOW 5.1.

AIR is delegated responsibility for VFR aircraft operating within the ATZ and, additionally, in the absence of RAD or appropriate top-down control may extend their service to include the provision of CTR transit, entry or exit clearance to VFR traffic operating below 2500 ft. AIR must **not** extend their service to transit traffic operating above 2500 ft and, in the absence of RAD or appropriate top-down control, this traffic should be instructed to monitor Unicom.

1.2 Coordination

GMC will coordinate with RAD to obtain VFR/SVFR/non-standard IFR clearances and AIR will obtain a release from RAD for all VFR/SVFR/non-standard IFR departures.

RAD shall effect coordination with AIR for any traffic that wishes to enter the CTR below 2500 ft as required, providing sufficient details to allow the provision of traffic information to aircraft under the control of AIR and, for aircraft entering the ATZ, establishing a clearance limit point before handover.

Due to high upper limit of the Newcastle CTR and the associated delegated airspace (the majority of which is Class D), RAD may be required to coordinate with Scottish Area Control regarding low flying IFR aircraft wishing to transit the Newcastle APC area of responsibility. Additionally, VFR traffic may request to transit at levels well above those experienced at other UK aerodromes – wherever possible these requests should be accommodated.

1.3 SSR Code Allocations

Newcastle APC shall allocate codes in the range 3720-3766 (excluding 3737) to aircraft operating in the Newcastle CTR/CTA or receiving a Lower Airspace Radar Service.

Code 3737 is the designated frequency monitoring code (*"listening squawk"*), aircraft squawking this code in the vicinity of the Newcastle CTR/CTA should be maintaining a listening watch on the Newcastle Radar frequency, however the Mode A and C readout displayed must be considered unvalidated and unverified, respectively.

Aircraft operating in the VFR circuit should squawk 7010.

Newcastle APC controllers shall be familiar with the following codes used by adjacent units:

- *4677 – Carlisle Conspicuity (aircraft in communication with Carlisle Radio)
- 6401-6457 – Swanwick Mil
- 7030-7066 – Teesside APC
- *7067 – Teesside APC Conspicuity Code

Those codes marked * are unvalidated and unverified.

Chapter 2 Airspace

2.1 Classification

The Newcastle Control Zone (CTR) is classified Class D airspace from surface to FL105. The Newcastle CTR is bordered by the Newcastle Control Area (CTA) which is classified Class D airspace with a vertical extent of varying between 1500/3000/4500/6000 ft to either the base of overlying airspace or FL105 (which is the lower).

Aircraft are permitted to operate in the Newcastle CTR and the Newcastle CTA in VMC and IMC conditions under either VFR or IFR/SVFR as appropriate.

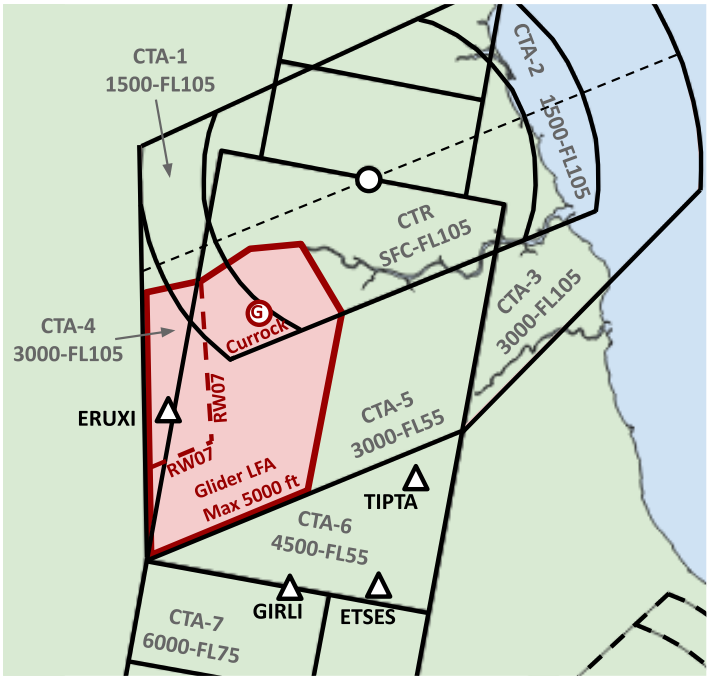
2.2 Currock Hill Gliding Site - Local Flying Area (LFA)

Immediately adjacent to the south-eastern CTR boundary lies Currock Hill Gliding Site, 8 NM southwest of the aerodrome. Although rarely active on VATSIM, the Gliding Site can activate an LFA (depicted in Figure 2) which encompasses that portion of the Newcastle CTR/CTA and delegated airspace enclosed by the River Tyne to the north, the P18 centreline to the east and the Newcastle CTA 5 southern boundary, from surface to 5000 ft AMSL. When Runway 07 is in use the north-western portion of the LFA (depicted by the dashed red line labelled RW07) is retained by Newcastle APC to enable approaches to Runway 07 from the south.

When a request is made by glider traffic to activate the LFA then RAD shall:

- Ensure IFR traffic is routed clear (either laterally or vertically) of the LFA and provided generic traffic information
- Ensure VFR traffic is warned that the LFA is active and provided generic traffic information
- When Runway 25 is in use – ensure ADC is notified to issue GIRLI 1Y and “gliding site active” omni-directional departure instructions.

Figure 2 - Currock Hill Local Flying Area



2.3 Visual Reference Points (VRPs)

The following VRPs are for use by aircraft operating to and from Newcastle Airport.

VRP	Coordinates
Blaydon	545806N 0014137W
Blyth Windfarm	550724N 0012937W
Bolam Lake	550753N 0015228W
Derwent Reservoir	545200N 0015848W
Durham	544626N 0013436W
Hexham	545815N 0020610W
Morpeth Railway Station	550945N 0014058W
Ouston (Disused Aerodrome)	550130N 0015231W
Stagshaw Masts	550200N 0020125W
Sunderland Harbour	545506N 0012130W
Tyne Bridges	545803N 0013625W

***Note:** Use of Bolam Lake, Derwent Reservoir and Ouston (Disused Aerodrome) VRPs is **not** recommended at night as they are likely to be difficult (if not impossible) for pilots to visually acquire due to the lack of artificial lighting at these locations.*

2.4 Other Aerodromes in the Vicinity

Currock Hill Gliding Site is located 8 NM southwest of Newcastle. Procedures for the use of the LFA are detailed in LOW 2.2.

Eshott is an unlicensed airfield situated 15 NM north of Newcastle. A busy airfield used by the MoD during exercises with training services for microlights and light aircraft.

Newcastle City Heliport us an unlicensed heliport located 5 NM south of Newcastle immediately inside the southern CTR boundary and to the southwest of Tyne Bridges VRP. Procedures for inbounds/outbounds are documented in LOW 4.2.

Peterlee is an unlicensed airfield situated 20 NM southeast of Newcastle. Actively used for parachuting and microlight training.

Chapter 3 VFR and SVFR Operations

3.1 VFR and Special VFR Minima

VFR and SVFR flights within the Newcastle CTR/CTA are permitted in accordance with the criteria detailed in the UK AIP. For flights not entering the ATZ the VMC minima relate to in-flight conditions as opposed to airport reported weather.

In marginal weather conditions, when the reported meteorological visibility falls below 5 km or the reported cloud ceiling falls below 1500 ft, RAD shall inform pilots of transiting aircraft requesting a VFR clearance of the reported weather and ask them to specify the type of clearance required. It is the pilot's responsibility to determine their flight conditions, whether or not the relevant VMC can be maintained, and whether they can accept a SVFR clearance bearing in mind they must remain clear of cloud and in sight of the surface.

Controllers should note that pilots may be simulating alternate weather to real world conditions and therefore may be able to maintain VMC at any time. If the pilot reports this to be the case, the controller may choose to issue a VFR or SVFR clearance.

3.2 VFR Operations

GMC will request clearance for outbound traffic from RAD. For inbounds RAD shall notify AIR and coordinate a clearance limit and transfer point (typically to hold at the ATZ boundary with transfer of communication and control once the inbound is visual with the aerodrome).

Standard VFR inbound and outbound routes are published in the AIP – these all involve direct routings between a designated VRP at the CTR boundary and the aerodrome or an appropriate leg of the circuit (ie. base or downwind). They are not named or otherwise designated, and clearance must include a specific VRP to route via, any level restriction and, for inbound traffic, an appropriate clearance limit which is typically the ATZ boundary.

VFR traffic is generally restricted to not above 2500 ft to deconflict against IFR operations, traffic operating within the vicinity of the extended centrelines or via Ouston should be further restricted to not above 1500 ft.

VFR traffic should not be routed overhead the town of Ponteland, located 2.5 NM west of the aerodrome at the ATZ boundary, below 1300 ft. Traffic operating below 1300 ft should be routed laterally clear of the town.

Transit traffic shall be cleared by the most appropriate route for the situation, typically not above 2500 ft, and traffic transiting the ATZ or the vicinity shall be coordinated with AIR.

3.3 SVFR Operations

RAD is to provide standard separation between IFR and SVFR traffic, and between SVFR and other SVFR traffic, except when AIR agrees to provide RSIVA. There are no deemed separation standards for SVFR traffic.

SVFR circuits require the approval of FIN and only one aircraft may conduct SVFR circuits at any one time.

Chapter 4 Helicopter Operations

4.1 Operations to/from Newcastle and Transit Flights

Helicopter operations to/from Newcastle and transit flights shall be handled as per the procedures outlined in LOW 3.2 and 3.3.

AIR will handle helicopters as detailed in ADC 2.13.

4.2 Operations to/from Uncontrolled Sites within the Newcastle CTR

Inbounds and outbounds to uncontrolled sites, including Newcastle City Heliport, shall be cleared into the CTR as per the procedures in LOW 3.2 and 3.3. Helicopters departing from uncontrolled sites should contact RAD for route clearance prior to take-off however, in the event that RT contact cannot be achieved on the ground, they are permitted to lift to not above 500 ft agl to establish two-way communication.

Clearance for take-off and landing cannot be given, but the pilot should be informed of the surface wind at Newcastle and instructed to report *"lifting"* or *"setting down."* RAD will coordinate with AIR regarding helicopters using sites within the ATZ.

Chapter 5 Lower Airspace Radar Service and UK Flight Information Services

5.1 Lower Airspace Radar Service (LARS)

Newcastle is a designated LARS provider for traffic within 40 NM of the aerodrome operating up to FL100 within the limits of radio and surveillance coverage.

RAD will provide a LARS, subject to workload, to all aircraft requesting a service outside of controlled airspace within the area of coverage.

Pilots intending to operate above FL100 should be coordinated with or advised to free-call ScAC South or Swanwick Mil (North).

5.2 Provision of UK Flight Information Services (UK FIS)

MATS Part 1 and CAP 774 (UK Flight Information Services) detail the services which may be provided outside controlled airspace. The provision of UK FIS is to be limited so that it does not adversely affect the service provided to aircraft inside controlled airspace.

Standard traffic information thresholds and deconfliction minima are to be used. Reduced horizontal radar separation of 3 NM is approved for use against appropriately identified and coordinated traffic provided both radar tracks are within 40 NM of Newcastle. Outside of these limits 5 NM separation must be used at all times.

Controllers must not give a Deconfliction Service or radar vectors under a Traffic Service to aircraft below SMAA levels or minimum sector altitudes.

5.3 Adjacent ATC Units

The following units are notified LARS providers:

North – Leuchars Approach (126.500 MHz)
South – Teesside Radar (118.855 MHz) or Leeming Approach (133.375 MHz)
Southwest – Warton Radar (129.530 MHz)

Adjacent LARS units should coordinate any traffic deemed necessary for maintaining situational awareness between the units and, whenever possible, aircraft will be handed over from controller to controller in an area of overlapping radar cover and the pilot instructed to contact the next unit. A radar handover between adjacent units must be completed prior to transfer of communication.

When this cannot be effected pilots shall be informed of their position and advised which unit to free-call for further service.

5.4 Controller Workload

Significant LARS activity can become workload intensive for the controller, particularly if aircraft are converging from different directions. Controllers can, and should, refuse requests for a service outside controlled airspace or downgrade services as appropriate. Similarly, adjacent ATC units (including ScAC or Swanwick Mil) should be used if they could provide a better service.

The provision of LARS/UK FIS shall not adversely affect the primary controlling task of separating and sequencing traffic within controlled airspace.

GLOSSARY

Abbreviation	Definition
AC	Area Control
ADC	Aerodrome Control
AGL	Above Ground Level
AIP	Aeronautical Information Publication
AIR	Air Controller (ie. Tower Controller)
APC	Approach Control
CTA	Control Area
CTR	Control Zone
DME	Distance Measuring Equipment
EAT	Estimated Approach Time
FIN	Final Director
FIS	Flight Information Service
FL	Flight Level
ft	Foot (feet)
GMC	Ground Movement Control
GS	Groundspeed
hPa	Hectopascal
IAS	Indicated Airspeed
ICAO	International Civil Aviation Organisation
ILS	Instrument Landing System
kHz	Kilohertz
LFA	Local Flying Area
MDI	Minimum Departure Interval
MHz	Megahertz
NM	Nautical Mile
PC	Manchester **P**restwick **C**ontrol (MTMA sectors)
RAD	Approach Radar Controller
RFC *	Released for Climb
RFD *	Released for Descent
RFT *	Released for Turn
ScAC	Scottish Area Control
SID	Standard Instrument Departure
SSR	Secondary Surveillance Radar
STAR	Standard Terminal Arrival Route
UKCP	UK Controller Plugin

* Although these acronyms are not used in this document, they may be useful for controllers to be aware of as common notation in text coordination.