RNP Instrument Approach Procedures at Sherburn-in-Elmet Aerodrome, EGCJ

*Pilot Brief*

*July 2023*



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**Pilot brief for Sherburn RNP IAP Ver 1.61**

The following Pilot briefing shall be available to all pilots wishing to fly the Sherburn Aero Club (SAC) IAP. It will be referenced in Sherburn’s AIP entry as being **mandatory reading prior to requesting PPR** to fly the procedure. When booking PPR slots Pilots will asked what version number they have read.

The latest version of the document can be downloaded from the Sherburn Aero Club (SAC) web site ([www.sherburnaeroclub.com](http://www.sherburnaeroclub.com)).

# Section1 Abbreviations and Acronyms

1. A/GCS – Air Ground Communication Service (often seen as A/G)
2. ACP – Airspace Change Proposal
3. AGL – Above Ground Level
4. AIP –Aeronautical Information Publication
5. ATC – Air traffic control
6. ATS – Air Traffic Service
7. ATZ –Air Traffic Zone
8. ATSU – Air Traffic Service Unit
9. CAA – Civil Aviation Authority
10. CAP1122 – CAA Publication 1122
11. CAS – Controlled Airspace
12. CFI – Chief Flying Instructor
13. HofT- Head of Training
14. DI- Duty Instructor
15. CFIT – Controlled Flight Into Terrain
16. EGNOS – European Geostationary Navigation Overlay Service
17. EC -- Electronic Conspicuity
18. FAF – Final Approach Fix
19. GA -- General Aviation
20. GNSS –Global Navigation Satellite System
21. IAF – Initial Approach Fix
22. IAP – Instrument Approach Procedure
23. ICAO – International Civil Aviation Organisation
24. IF – Intermediate Fix
25. IFR – Instrument Flight Rules
26. IMC – Instrument Meteorological Conditions
27. IR – Instrument Rating
28. IR (R) – Instrument Rating Restricted (UK IMC Rating)
29. LEA – Leads East Airport
30. LBA - Leeds Bradford Airport
31. LNAV – Localiser performance without vertical guidance
32. LOC loss of control
33. LPV – Localiser Performance with Vertical Guidance
34. MAC Mid-Air collision
35. MAP – Missed Approach Procedure
36. MTOW – Maximum Take Off Weight
37. NM – nautical mile
38. PANS-OPS – Procedures for Air Navigation Services - Operations
39. PPR – Prior Permission Required
40. RNAV – aRea NAVigation
41. RNP – Required Navigational Performance
42. SAC – Sherburn Aero Club (EGCJ)
43. TAA – Terminal Arrival Altitude
44. VFR – Visual Flight Rules
45. UK FIS – UK Flight Information Services (Basic, Traffic, Deconfliction) – see caa.co.uk/CAP774

# Section 2 Distribution List

|  |  |  |
| --- | --- | --- |
| **Organisation** | **Dept / Position / Location** | **Document Reference No:** |
| Sherburn Aero Club | Flying Order Book (HofT responsibility) | Pilot brief Ver 1.61 |
| Sherburn Aero Club | Chairman | Pilot brief Ver 1.61 |
| Sherburn Aero Club | Head of Training | Pilot brief Ver 1.61 |
| Sherburn Aero Club | IT Manager for Web site download | Pilot brief Ver 1.61 |
| Leeds East Airport | Airport Manager | Pilot brief Ver 1.61 |
| Leeds Bradford Airport | Air Traffic Services Manager | Pilot brief Ver 1.61 |
| CAA | Aerodrome, Airspace & ATM | Pilot brief Ver 1.61 |

# Section 3 Introduction

3.1 The Sherburn IAP is available to IR or IR (R) qualified pilots with aircraft approved for RNAV (RNP) instrument approach procedures. **Pilots must ensure that the equipment and its installation in the particular aircraft to be flown meet the airworthiness requirements of flying an RNP approach.**

* 1. **The IAPs at Sherburn Aerodrome are established in Class G airspace. There is no approach control, or any form of air traffic control, at SAC – it is therefore imperative that pilots understand and abide by the special limitations and procedures associated with this IAP.**
  2. Pilots must understand the increased risks of flying in IMC without a surveillance services.
  3. The use of onboard Electronic Conspicuity (EC) devices is strongly recommended
  4. It is a mandatory requirement that pilots operate a good VFR lookout when in VFR conditions.
  5. It is important to note that the approach is not controlled by local ATC units. UK FIS is available from local ATS units, however it must be understood Leeds Bradford Radar, does NOT provide sequencing or separation for the Sherburn IAP.
  6. Pilots should always have an alternate plan to make the approach without a controlled airspace (CAS) transit, and understand the increased risks associated when flying in IMC in Class G airspace without Radar surveillance.

3.7. NOTE: the IAP is only available when the cloud base is at or below 1200ft at SAC. At other times a VFR overhead join at 2000ft is the normal procedure at SAC. When the cloud base is below 2000ft lower joins can be made with an RT call to Sherburn Radio 122.610 giving the intension to join overhead, for example, @ 1500ft.

3.8. Whilst SAC have made their best efforts to provide guidance on the different scenarios that may be encountered during IAP operations, pilots are reminded to apply common sense and good airmanship, such that a safe and orderly air traffic environment is maintained.

* 1. Pilots must note the proximity of Leeds East Airport (LEA) ATZ to the North of the Sherburn Aerodrome
  2. Pilots must note the proximity of Burn gliding site 0.9nm to south of the inbound track to RW28, with cable launch to 3100ft, (see Chart 1)
  3. SAC and LEA co-ordinate their respective RNP approaches to ensure there is only one IFR aircraft on any one of the SAC or LEA instrument approaches at the same time, using PPR and specific slot times given to pilots after they confirm they have read the latest Pilot Brief.
  4. Sherburn is frequently a very busy VFR environment. To avoid conflict between IAP aircraft and VFR traffic the IAP is not normally available when the cloud ceiling at SAC is estimated to be above 1200 ft, except in an emergency.
  5. Sherburn AGCS can provide LEA known traffic on request, and pilots can monitor on box 2 120.71Mhz to listen out for movements at LEA.
  6. It is recommended that flight plans include addresses to Leeds Bradford (EGNMZTZX).
  7. Standard radio failure procedures apply – UK AIP ENR section 1.1 refers

Map

Description automatically generated

3000ft

2000ft

3500ft

**SAC IAP 28 Tracks**

CHART 1

Map

Description automatically generated

2000ft

3500ft

2000ft

**SAC IAP 10** **Tracks**

CHART 2

Charts 1&2 show the Sherburn RNP tracks on a VFR aeronautical chart.

3.15 Please note the following:

1. Safe flight requires a good lookout when in VMC.
2. Aircraft on the RNP do not have right of way, circuit traffic has priority.
3. Gliding takes place from Burn.
4. Aerobatics takes place 11NM East, in the Breighton overhead.
5. CJM01, CJM02, & CM03 are RW28 Missed Approach tracks back to RUDUD.
6. CLM04, CJM05, CJM06. & CJM07 are RW10 Missed Approach tracks back to EMBIT
7. Diagram

   Description automatically generatedNote the hot gas venting site to the southeast of RW28 threshold, & RW10 missed approach track.

RW10/28

# Section 4 PPR and arrival times

The IAP is PPR through SAC operations on 01977 682674, and by email [flightdesk@sherburnaeroclub.com](mailto:flightdesk@sherburnaeroclub.com)

* 1. Filing of an IFR flight plan does not grant PPR to use the procedure.
  2. Airborne requests for the IAP’s will NOT normally be accepted, unless in emergency.
  3. Prior to requesting PPR, pilots must review the latest Pilots Briefing in full and confirm they have done so before an approach slot will be given. When requesting a slot time for a RNP approach a “PPR number” will be given only when the pilot confirms he or she has read the latest version of the Pilot Briefing. Note the version number you have read as you will be asked to confirm this.
  4. The purpose of the PPR number is for SAC operations to ensure the pilot brief has been read and to act as a reference number for the flight.
  5. The slot times are an important part of the IAP, and are intended to help prevent more than one aircraft using the IAP’s at either SAC and SAC at the same, or similar, times.
  6. It is preferred that the PPR request is made when the pilot has a reasonable idea of the forecasted weather at the intended time of arrival. This will assist the pilot to plan which IAF will be the best option. NOTE if the cloud is above 1200 ft pilots will be expected to make a VFR approach.
  7. If a pilot no longer requires the use of the IAP they should contact SAC to cancel it.
  8. Deliberate booking of multiple slots will not normally be permitted, unless special circumstances requiring flexibility are agreed with SAC Operations in advance.
  9. Slots are assigned from the commencement of opening hours (refer to AIP or contact SAC to confirm). One slot per hour is available, shared with LEA.
  10. When a pilot obtains PPR they will nominate an estimated time of arrival (ETA) at the relevant initial approach fix (IAF). The slot time consists of an arrival time tolerance of -/+ 15 minutes around the ETA at the IAF. Following the expiry of this period (ie 15 minutes after the planned ETA), there is a further 15-minute period during which for the approach may be completed. By the end of this period (30 mins after the EAT at the IAF), the aircraft should have landed, diverted or changed to a VFR approach.
  11. There shall not be an allocation of a subsequent arrival until half an hour after the expiry of the further 15-minute period described in 4.10 (i.e. 1 hour after the ETA at the IAF). This is to ensure a minimum buffer of 15 minutes between the latest time one aircraft could still be on the IAP and the earliest time the next arriving aircraft could be at the IAF.

Example



Figure 1

* 1. The overall rate of aircraft planned to use an IAP at either Sherburn or LEA is therefore no more than one per hour.
  2. Pilots that anticipate being more than 15 minutes late at the IAF may request SAC to establish whether there is a subsequent arrival slot available. If there is no further slot available, the aircraft must either divert or convert to VFR if conditions allow.
  3. In general, pilots should plan to arrive close to the start of the slot time, since if they are early it is easier to reduce enroute speed, or increase track mileage, prior to joining the IAP than it is to make up time if running late.
  4. The allocation of a slot time does not remove the responsibility of the pilot to follow the normal Customs and immigration procedures.

**Delays or changes of time**

* 1. If, prior to departure for SAC, a pilot anticipates arriving at the IAF earlier or later than ETA +/- 15 minutes, they shall contact SAC operations and request a new slot. NOTE: due to the coordination between LEA and SAC a slot cannot be granted immediately, SAC will need to co-ordinate with LEA before granting another slot time.
  2. Alternatively, if good VMC is forecast at Sherburn, it may not be necessary to request the use of the IAP and it may be logical to simply cancel any slots and plan for a normal VFR arrival.
  3. SAC recognize that it is not always possible to calculate a precise arrival time. Sometimes flights are delayed or make better time enroute than anticipated, particularly on long flights from Europe when ATC routings are not always predictable. Aircraft that arrive early should delay commencement of the approach, unless they have confirmed with ‘Sherburn radio’ that the IAP is available.
  4. In the case of a late aircraft conflicting with one in the next time slot, the late aircraft shall either convert to VFR, divert, or establish via Sherburn Radio when the next slot is available.

## Section 5 Flying the IAP

**Prior to the IAF**

5.1 Aircraft should squawk C5077 when within 25 miles of the IAF, unless given a squawk by Leeds or Humberside ATC. When in contact with Sherburn Radio and flying the IAP, return the Squawk C5077.

5.2 Aircraft should have their strobes and landing/conspicuity lights switched for increase

5.3 When in VMC, commanders shall maintain an effective lookout for VFR traffic, noting the proximity of Burn Gliding site.

5.4 Prior to arrival at the chosen IAF, aircraft commanders should contact either Leeds Bradford radar (134.580) or Humberside LARS (119.130) to request an appropriate air traffic service outside of controlled airspace (UK FIS), and (if required) a transit of controlled airspace to the intended IAF. NOTE neither Leeds or Humberside ATC’s will sequence RNP traffic.

5.5 UK FIS are normal air traffic services outside of controlled airspace (Basic, Traffic and Deconfliction) and do not sequence aircraft to the SAC IAP’s.

* 1. Pilots are responsible for their own navigation to the IAF from which they wish to commence the approach, **negotiating any transits of CAS as required and avoiding conflict with other traffic**. Do not enter CAS without a clearance.

5.7 Provided a slot has been allocated, the approach may be commenced upon arrival at the IAF - only if within the slot time given, and when in radio contact with Sherburn AGCS. If the IAP is not available due the cloud base being above 1200ft, pilots shall proceed for a standard overhead join as soon as practicable.

* 1. Pilots are recommended to remain clear of Breighton airfield due aerobatic activities, and Burn Gliding site.
  2. Once within approximately 25 NM of the joining RW 10 IAF ULPUG, aircraft should be in contact with Leeds Bradford ATC. It is a mandatory requirement to contact Leeds Radar, in advance of arrival at ULPUG to state intentions, and then be in contact with SAC AGCS before commencing the RNP approach at ULPUG.
  3. Pilots should note that the procedural approach for LBA IAP for RW32 descends aircraft out of LBA CAS in the vicinity of the RW10 RNP IAF waypoint ULPUG, hence the reason to contact Leeds Radar before arrival at ULPUG to ensure traffic separation.
  4. If LBA ATC Radar is out of service, the RW10 RNP approach using ULPUG will be suspended. Aircraft should divert, or convert to VFR, or use the RW 28 RNP with a circle to land if appropriate.
  5. Aircraft arriving from the airways system should note pilots are responsible for negotiating a departure from airways that allows them to safely transit to the relevant IAF remaining clear of CAS if necessary. Aircraft are encouraged to request a ‘hand-over’ to either Humberside LARS for RW28, or Leeds Bradford radar for RW10. Pilots should be aware that clearance to transit CAS and the provision of a service outside CAS are subject to controller workload; pilots should always have an alternative plan to approach the IAF and remain clear of CAS.
  6. Where LBA ATC cannot accept the airways traffic, LBA will agree with Scottish ATC to position and descend SAC RNP aircraft to the East of LBA CAS. Scottish ATC will not sequence SAC RNP aircraft to the IAP. Pilots should expect own navigation to the chosen IAF, remaining clear of CAS.
  7. NOTE: Leeds Bradford radar and Humberside LARS DO NOT sequence traffic to the IAF.
  8. Aircraft arriving from outside of CAS must remain clear of any CAS in the vicinity of Sherburn unless specifically cleared to enter. It may be operationally advantageous to obtain a transit of controlled airspace while routing to the relevant IAF – these should be negotiated with Leeds Bradford Approach as appropriate. Pilots should state which IAF they intend to route via.
  9. Transits are not guaranteed, and pilots should have a contingency plan should a transit not be available.
  10. It is the responsibility of the pilot to determine which runway to execute an approach to – if it is not clear from on-board wind information which runway to use, it may be possible to obtain the runway in use at Sherburn Radio on ‘box 2’.
  11. Note that RW 10/28 has a parallel grass runway to North, do not confuse this grass runway with the hard runway.
  12. It is not the intention that multiple aircraft should execute the IAP at similar times, the PPR process is intended to prevent this.
  13. On first contact with either Leeds Bradford Approach (as applicable) or Humberside, if an air traffic service is available, pilots should take the opportunity to establish whether there are any other aircraft in the vicinity of the IAP tracks.
  14. Before the joining the IAF, aircraft **shall** be in contact with Sherburn Radio, stating their position and intentions. The Sherburn QNH should be checked and set no later than this point.
  15. When on frequency with ‘Sherburn radio’, specific position calls are mandatory. Calls must be made as follows.
  16. Prior to IAF aircraft should report:
  + altitude, intended IAF
  + position in relation to the intended IAF.
  + PPR number
  1. ‘Sherburn radio’ will confirm:
     + the airfield status (VFR, IAP Activities, or Closed)
     + runway in use, and the normal circuit traffic pattern (Left hand or Right hand)
     + the unofficial weather
     + other known traffic
  2. IAP aircraft must make the following **mandatory** RT calls:
* **At the IAF**, Pilots should report- *“[callsign] at the name of IAF, & altitude ”*
* **IF** (Final approach track established) pilots should report – *“[callsign] Intermediate Fix”*
* **FAF** pilots should report – “*[callsign] Final Approach Fix”*
* **2 NM** final, pilots should report – “*[callsign]* *2 mile final for runway 10 or 28”*
* **Once landed & clear of runway** pilots should report – “*[callsign] Clear of runway”*
* **If going around** pilots should report – “*[callsign] Going around “*
* **When in the go around,** pilots should report when on the crosswind leg of the missed approach – *“[callsign] cross wind”*
  1. NOTE: the IAP is only available when the cloud base is at or below 1200ft at SAC. At other times a VFR overhead join at 2000ft is the normal procedure at SAC. When the cloud base is below 2000ft lower joins can be made with an RT call to Sherburn radio 122.610 giving the intension to join overhead, for example, @ 1500ft.
  2. In the event of any visual manoeuvring within the aerodrome environment pilots must follow the published circling minima.

**Multiple approaches and missed approaches**

* 1. Should an aircraft carry out a MAP, re- commencement of the IAP is not permitted if the aircraft MAP results in the aircraft arriving at the IAF after the original ETA +15mins. Under such circumstances the aircraft must divert, continue VFR, or request the next slot time available from SAC, if available.
  2. Note that approaches must not be commenced after the planned ETA +15mins
  3. There is no published holding pattern associated with the IAPs at Sherburn
  4. Destination and alternate planning should be conducted in accordance with the applicable Air Operations Regulations.
  5. When flying the MAP in IMC, pilots should call Leeds ATC and request an appropriate air traffic service (UK FIS). NOTE, Leeds ATC will provide services when workload permits.
  6. Aircraft performing a go-around following a missed approach on Runway 28 are to be aware of the potential for airborne conflict with traffic departing from LEA Runway 24 and arrivals on 06. Sherburn AGCS can provide LEA known RNP traffic on request, and pilots can monitor on box 2 120.710 Mhz to listen out for movements at LEA.
  7. NOTE Pilots must remain clear of any CAS during the missed approach, requesting a transit if required.
  8. Since there is no approach control service, pilots must be able to plan an IFR diversion outside of controlled airspace and negotiate any transits of controlled airspace for their diversion aerodrome as required.
  9. Pilots are requested to provide feedback following their experiences of using the IAP. Please email the feedback to [flightdesk@sherburnaeroclub.c](mailto:flightdesk@sherburnaeroclub.c)om address for Head of Training

## Section 6 RNP Training Flights under VFR

6.1 ONLY SAC approved instructors or SAC approved safety pilots may conduct RNAV (RNP) approach training. Training flights are subject to the normal slot arrangements. This will be coordinated internally at SAC.

* 1. Aircraft will fly the trajectory of the IAP for training, with SAC approved RNP instructors and/or SAC approved safety pilots, who shall keep a good lookout for other VFR traffic to ensure there is no conflict.
  2. Pilots should be prepared co-ordinate using RT, and to visually manoeuvre as required, breaking off the approach if necessary to avoid a conflict and integrating into the visual traffic pattern if it is active.
  3. The mandatory position calls as detailed in paragraph in 5.24 above must be strictly adhered to.
  4. The Sherburn approved instructor or Sherburn approved safety pilot shall ensure specific training briefing with the HofT/DI take place prior to flight. A PPR and slot time is required for all RNP approach training at SAC.

6.6 Instructors and Safety Pilots must receive a 12monthly (maximum) briefing from the HoT.

## Section 7 Leeds East Conflicts

Aircraft departing to the west of the Sherburn ATZ (particularly from RW28) may conflict with RNP instrument traffic or VFR traffic at Leeds East:

* Making an approach to RW06; or
* Executing a missed approach from RW24.
* Departing RW24

Note the RNP approach at LEA may be used in all conditions and IFR traffic may be operating on the approach or missed approach even in good VMC. LEA known traffic can be requested from Sherburn A/G pre-departure on 122.610 and after departure from Fenton Radio on 120.710 on box 2 whilst maintaining a listening watch on SAC 122.610 if in the SAC ATZ.

When LEA are using RW24

Chart, map

Description automatically generated

SAC RW06/24 departure/inbound tracks

SAC RW28/10 departure/inbound tracks

3000ft

2500ft

LEA 24 MAP

When LEA are using RW06

A map of a city

Description automatically generated with medium confidence

SAC Rw06/24inbound & Outbound tracks

3000ft

3500ft

2200ft

3000ft

3000ft

3000ft

SAC RW28/10 inbound & Outbound tracks

**Sherburn Aero Club RNP Feedback Form**

The RNP IAP’s at Sherburn were introduced in June 2023. It is important that pilots give us feedback about the IAP’s to help us improve the IAP’s, please complete the form and email as below.

You are also invited to speak to our Head of Training to discuss any issues you had or feel should be addressed. Make such a request also via the email below.

Date……………………………………..

**Comments/Feedback**

[flightdesk@sherburnaeroclub.com](mailto:flightdesk@sherburnaeroclub.com)

**Some questions you may wish to answer.**

|  |  |
| --- | --- |
| Did you find booking a slot easy? |  |
| Did you find the pilot brief covered what you needed to know? |  |
| Do you have any comments about the pilot brief? |  |
| What version of the pilot brief did you use? |  |
| Did you fly the full approach to a landing? |  |
| Did you Go Missed at the DH? |  |
| Was the unofficial weather accurate? |  |
| If you did not fly the full approach why? |  |
| Did you have any difficulties flying the approach, if yes please explain? |  |
| Did you receive the support you expected form the Sherburn Staff, if not please explain? |  |
| Any other comments |  |

END