

RNP Instrument Approach Procedures at Sherburn-in-Elmet Aerodrome

Pilot Brief for ACP-2015-04

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Pilot brief for Sherburn RNP IAP Ver 1.53

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 a PPR Pilots will be asked what version number they have read.

The document can be downloaded from the Sherburn Aero Club (SAC) web site (www.sherburnaeroclub.com).

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. HoT – Head of Training
14. DI – Duty Instructor
15. CFIT – Controlled Flight Into Terrain
16. DSA – Doncaster Sheffield Airport
17. EGNOS – European Geostationary Navigation Overlay Service
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 – Leeds 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
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

Distribution List

Organisation	Dept / Position / Location	Document Reference No:
Sherburn Aero Club	Flying Order Book (HoFT responsibility)	Pilot brief Ver 1.53
Sherburn Aero Club	Chairman	Pilot brief Ver 1.53
Sherburn Aero Club	Head of Training	Pilot brief Ver 1.53
Sherburn Aero Club	IT manager for Web site download	Pilot brief Ver 1.53
Doncaster Sheffield Airport	ATC Manager	Pilot brief Ver 1.53
Leeds East Airport	Airport Manager	Pilot brief Ver 1.53
Leeds Bradford Airport	Air Traffic Services Manager	Pilot brief Ver 1.53
CAA	Aerodrome, Airspace & ATM	Pilot brief Ver 1.53

Introduction

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.**
2. **The IAPs at Sherburn Aerodrome are established in Class G airspace. There is no approach control, or any form of air traffic control, at Sherburn – it is therefore imperative that pilots understand and abide by the special limitations and procedures associated with this IAP.**
3. Pilots must understand the increased risks of flying in IMC without a surveillance service available – there is no such service while flying the IAP at Sherburn
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. Leeds Bradford Radar, and Doncaster Sheffield Radar do NOT provide sequencing or separation for the Sherburn IAP. 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.
6. NOTE: the IAP is only available when the cloud base is at or below 1200ft. At other times a normal VFR overhead join at 2000ft is the normal procedure at SAC.
7. 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.
8. Pilots must note the proximity of Leeds East Airport (LEA) to the North of the Sherburn Aerodrome
9. Pilots must note the proximity of Burn gliding site 0.9nm to south of the inbound track to RW 28, with cable launch to 3100ft, (see Chart 1)
10. 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.
11. 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.
12. It is recommended that flight plans include addresses to Leeds and Doncaster ATC (EGNMZTZ & EGCNZPX).
13. Standard radio failure procedures apply – UK AIP ENR section 1.1 refers

14. Chart 1 Shows the RNP tracks on an aeronautical chart.

- a) Safe flight requires a good lookout when in VMC
- b) Aircraft on the RNP do not have right of way, normal rules of the air apply
- c) Gliding takes place at Rufforth, Pocklington, and Burn.
- d) Aerobatics takes place in the Brighton Overhead

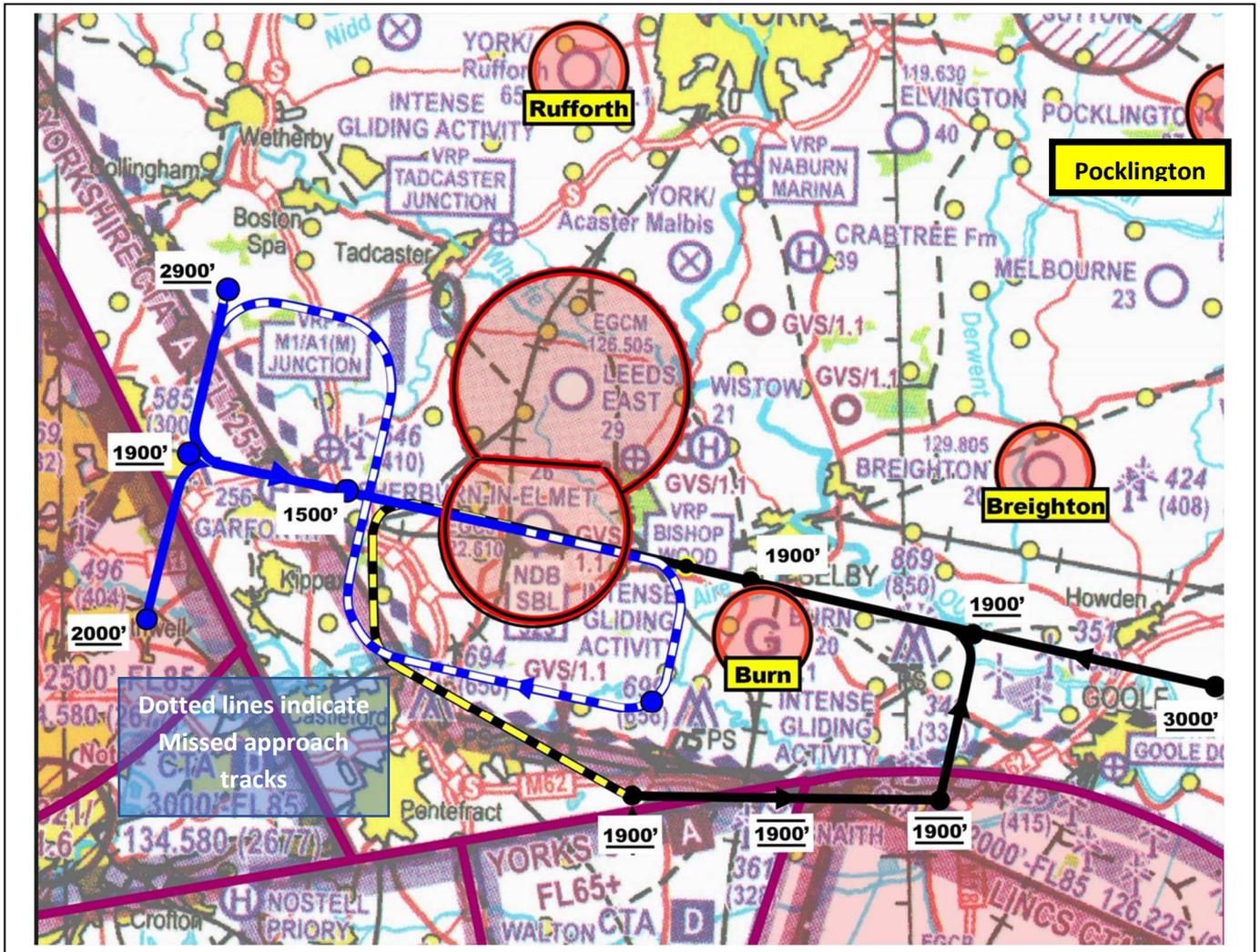


CHART 1

PPR and arrival times

Contacting SAC

15. The IAP is PPR through SAC operations on 01977 682674, and by email flightdesk@sherburnaeroclub.com
16. Filing of an IFR flight plan does not grant PPR to use the procedure
17. Airborne requests for the IAP's will NOT normally be accepted.
18. 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.
19. 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.
20. 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 the same, or similar, times.
21. 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.
22. If a pilot no longer requires the use of the IAP they should contact SAC to cancel it.
23. Deliberate booking of multiple slots will not normally be permitted, unless special circumstances requiring flexibility are agreed with SAC Operations in advance.
24. Slots are assigned from the commencement of opening hours (refer to AIP or contact SAC to confirm). One slot per hour is available.
25. 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.
26. 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 17 (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

Agreed ETA at IAF	Earliest time at IAF	Latest time at IAF	Clear of Procedure	No IAP movements
12:00	11:45	12:15	12:30	12:30 - 12:45

Figure 1

27. The overall rate of aircraft planned to use an IAP at either Sherburn or LEA is therefore no more than one per hour.
28. 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.

29. 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.
30. The allocation of a slot time does not remove the responsibility of the pilot to follow the normal Customs and immigration procedures.

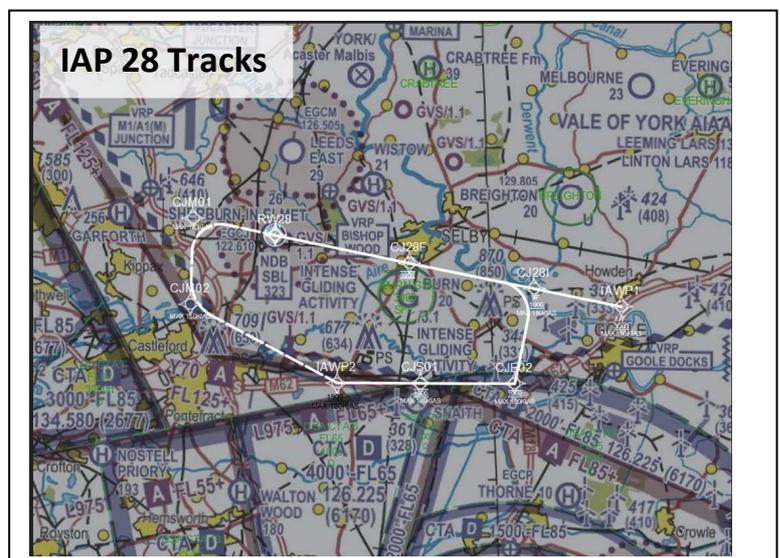
Delays or changes of time

31. 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.
32. 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.
33. 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.
34. 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.

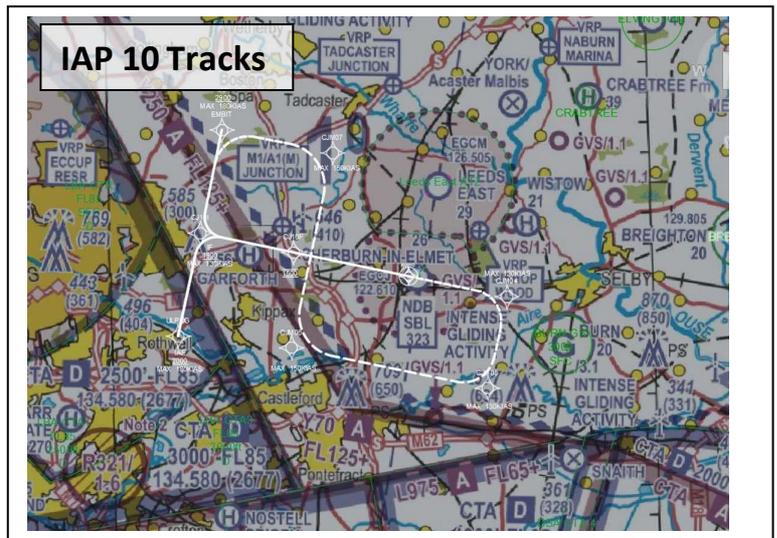
Flying the IAP

Prior to the IAF

35. Aircraft should squawk 5077 when within 25 miles of the IAF, unless given a squawk by Leeds or Doncaster ATC. When in contact with Sherburn Radio and flying the IAP, return the Squawk 5077.
36. When in VMC commanders shall maintain an effective lookout for VFR traffic, noting the proximity of Burn Gliding site.
37. Prior to arrival at the chosen IAF, aircraft should contact either Leeds Bradford radar (133.125) or Doncaster Sheffield radar (126.225) 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



- 38. UK FIS are normal air traffic services outside of controlled airspace (Basic, Traffic and Deconfliction) and do not sequence aircraft to the IAP.
- 39. 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.
- 40. 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 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.



- 41. Aircraft inbound to the IAP IAPW2 are recommended to contact Doncaster Sheffeld radar and request a transit at or above 2500ft. The purpose of this is to reduce risk of CAS infringement when flying at 1900ft under the Doncaster Sheffeld CTA at 2000ft.
- 42. **NOTE when using RW28, the route from CJS01 to CJE02 is at 1900 ft – just 100ft below Doncaster Sheffeld airspace, the base of which is 2000ft above CJE02.**
- 43. Pilots are recommended to remain clear of Brighton airfield due aerobatic activities
- 44. Once within approximately 25 NM of the joining IAF, aircraft should normally be in contact with Doncaster Sheffeld radar if using runway 28 or Leeds Bradford radar for runway 10.
- 45. 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 in necessary. Aircraft are encouraged to request a ‘hand-over’ to either Doncaster Sheffeld radar for runway 28, or Leeds Bradford radar for Runway 10. 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.
- 46. NOTE: Leeds Bradford radar and Doncaster radar DO NOT sequence traffic to the IAF.
- 47. 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 either Doncaster Sheffeld Approach or Leeds Bradford Approach as appropriate. Pilots should state which IAF they intend to route via.
- 48. IAF to CJ02



The IAP is at 1900ft here, with Doncaster CAS at 2000ft. Pilots are recommended to request a transit of Doncaster CAS up to 2500ft to provide a buffer to the IAP height (1900ft) and the base of CAS (2000ft)

49. Transits are not guaranteed, and pilots should have a contingency plan should a transit not be available. It is acceptable if necessary to accurately maintain 1900ft without a clearance as the 1900ft is outside CAS.
50. 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 on 'box 2' or listen for any traffic in the vicinity of Sherburn.
51. Note that runway 10/28 has a parallel grass runway to North, do not confuse this grass runway with the hard runway
52. It is not the intention that multiple aircraft should execute the IAP at similar times, the PPR process is intended to prevent this.
53. On first contact with either Doncaster Sheffield Approach or Leeds Bradford Approach (as applicable), 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.
54. Once at the joining IAF, aircraft shall be in contact with Sherburn Radio stating their position and intentions The Sherburn QNH should be checked and set at this point
55. When on frequency with 'Sherburn radio', specific position calls are mandatory. Calls must be made as follows

Prior to IAF aircraft should report

- altitude, intended IAF
- position in relation to the intended IAF.

'Sherburn radio' will confirm

- the unofficial weather
- the status airfield (VFR, IAP Activities, or Closed)
- runway in use, and the normal circuit traffic pattern (Left hand or Right hand)
- QNH & QFE
- Unofficial wind direction and Strength.
- other known traffic

IAP aircraft must make the following **mandatory** RT calls

- **At the IAF**, Pilots should report- “[callsign] at the (name of IAF, & altitude 1900/2000ft)”
- **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 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 turning on the crosswind leg of the missed approach – “[callsign] Turning cross wind”

Entering the aerodrome environment

56. The IAP is only available when the cloud base is at or below 1200 ft AAL. If the cloud base is above 1200 ft, aircraft must make a VFR join.

57. Use of the traffic circuit for training normally stops when the cloud base is at or below 1200ft. Other VFR traffic could be in the circuit.
58. In the event of any visual manoeuvring within the aerodrome environment pilots must follow the published circling minima.

Multiple approaches and missed approaches

59. 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.
60. Note that approaches must not be commenced after the planned ETA +15mins
61. There is no published holding pattern associated with the IAPs at Sherburn
62. Destination and alternate planning must be conducted in accordance with the applicable Air Operations Regulations.
63. If flying the MAP in IMC, pilots should call one of the local ATSU's
 - a. For 28, request an appropriate air traffic service (UK FIS) if available. Initially from Leeds ATC; when clear of Leeds CAS then Doncaster. NOTE the local ATSUs will provide services when workload permits
 - b. For 10, request an appropriate air traffic service (UK FIS) if available. Initially from Doncaster ATC, after CJM05 contact Leeds ATC. NOTE the local ATSUs units will provide services when workload permits
64. NOTE Pilots must remain clear of any CAS during the missed approach, requesting a transit as required.
65. 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
66. Pilots are requested to provide feedback following their experiences of using the IAP. Please email the feedback to flightdesk@sherburnaeroclub.co.uk address for Head of Training

IMC Training Flights under VFR

67. SAC approved aircraft conducting RNAV (RNP) approach training may use the IAP, subject to the normal slot arrangements. This will be coordinated internally at SAC.
68. Aircraft will fly the trajectory of the IAP for training, with SAC approved RNP instructors and/or SAC approved safety pilots, keeping a good lookout for other VFR traffic to ensure there is no conflict.
69. 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 always integrating into the visual traffic pattern if it is active.
70. The mandatory position calls as detailed in paragraph 46 above must be strictly adhered to.
71. If flying the IAP in VFR, the full procedure must be followed – do not take shortcuts.
72. Practice approaches shall be conducted with a Sherburn approved instructor or Sherburn approved safety pilot on board. A specific training briefing, PPR and slot time is required for all RNP approach training at Sherburn.

END