

Question No 5

The correct use of the transponder when departing a Class D CTR is to select the transponder to-

- [a] ON/ALT prior to take-off.
- [b] ON/ALT prior to leaving the Class D CTR boundary.
- [c] STANDBY prior to take-off and ON/ALT once airborne.
- [d] STANDBY until requested to squawk IDENT by ATC.

Question No 6

You are climbing in IMC in class C airspace. One of your passengers produces a box cutter and demands that you fly to Canberra. The transponder code which you should squawk is-

- [a] 7700.
- [b] 7600.
- [c] 7500.
- [d] Triple Zero.

Question No 7

When establishing a lowest safe altitude tolerance area when navigation is to be by GPS that does not meet the RNP2 requirements, the area considered is 5 nm surrounding and including an area defined by drawing lines from the departure aerodrome at an angle of 10.3° either side of the flight planned track up to a maximum distance of-

- [a] 50 nm.
- [b] 30 nm.
- [c] 10 nm.
- [d] 7 nm.

Question No 8

You are flying the Inverell RWY 16 NDB approach in VH-OZY. You carry out the appropriate sector entry and track inbound to the aid on a track of 003°M. You cross the NDB and head outbound on the 003°M track. The maximum speed permitted from this point to intercepting the final approach track of 169°M is-

- [a] 140 kt.
- [b] 130 kt.
- [c] 180 kt.
- [d] 100 kt.

Question No 9

You are conducting an RNAV (GNSS) at night on runway 22 at Hay. You break out of cloud at 990 feet with a visibility of 2.5 km. If you are now too high to land straight ahead on runway 22 you should-

- [a] Carry out a missed approach.
- [b] Continue to the circling area and over fly for a left circuit runway 22.
- [c] Continue to the circling area and over fly for a right circuit runway 22.
- [d] Climb back to 1000 feet and fly a left circuit on runway 22.

Question No 10

You are tracking into the Kowanyama RWY 12 NDB approach on a heading of 360°M. You decide to divert from the present track at 25 nm out and fly directly into the outbound leg of the approach procedure. The inbound track which would require the least diversion from your present track to permit the approach to commence without the need for a sector entry is-

- [a] 269°M
- [b] 239°M
- [c] 104°M
- [d] 299°M

CIR REVISION QUESTIONS - SET NINE [Answers on page 338]

Question No 1

You are flying the Canberra 35 ILS-Z approach in VH-OZY on a day when a notam advises that the HIAL is not available due maintenance. Assuming you are capable of a 3.3% missed approach gradient, the visibility required to permit you to continue the approach beyond the published decision altitude is-

- [a] 800 metres.
- [b] 1.6 km.
- [c] 1.5 km.
- [d] 1.7 km.

Question No 2

You are flying the RWY 26 ILS approach at Melbourne/Essendon in VH-OZY with no PEC applied. When you cross the outer marker you notice that your altimeter reads 1550 feet with an 'on glide path indication' The DA which you should use for this approach is-

- [a] 490 feet.
- [b] 540 feet.
- [c] 590 feet.
- [d] 770 feet.

Question No 3

You have been cleared by Oakey tower for a RWY 14 LOC approach into Oakey in VH-OZY. After crossing the outer marker at 2600 feet, you may commence a descent to-

- [a] 1540ft [b] 1890ft
[c] 1990ft. [d] 2170ft. [e] 2070ft.

Question No 4

If on the approach described in Question No 3 above, you reached the MDA at 1 DME and found that the visibility was 2 km in a heavy shower, you should-

- [a] Commence a missed approach immediately.
[b] Maintain MDA in level flight until you are 0.5 DME then commence a missed approach if the required visibility is not achieved.
[c] Continue the descent to 1540 feet then commence a missed approach if the required visibility is not achieved.
[d] Turn to avoid the shower while remaining within the circling area.

Question No 5

You are flying IFR from Winton to Longreach in VH-OZY. You have not met the recency requirements for an RNAV[GNSS] approach. Assuming that the actual QNH at Longreach will not be available, the lowest level to which you may descend in IMC before you cross the Longreach NDB is-

- [a] 2300 feet. [b] 1260 feet.
[c] 1710 feet. [d] 1190 feet.

Question No 6

You have been cleared for a RWY 09 VOR approach into Melbourne from the north in VH-OZY. You join the 10 DME arc for the procedure. The latest point at which your IAS should be reduced to not more than 180 kt is-

- [a] When you are established within plus/minus 2 nm of the 10 DME arc.
[b] When you have reached 3000 feet on descent on the 10 DME arc.
[c] When you have reached the final approach fix at 6 DME on final.
[d] When you cross the 300 radial from Melbourne on the 10 DME arc.

Question No 7

You are carrying out the RWY 21 ILS approach into Perth in OZY. You will not be applying PEC to your altimeter. The decision altitude and visibility required for this approach is-

- [a] 550 feet and 1.8 km. [b] 250 feet and 0.8 km.
[c] 300 feet and 0.8 km. [d] 300 feet and 1.2 km.

Question No 8

You are carrying out the RWY 21 LOC approach into Perth in OZY. A notam advises that the HIAL on this runway is not available due maintenance. The minima for this approach would be-

- [a] 550 feet and 1.9 km. [b] 550 feet and 2.9 km.
[c] 300 feet and 1.8 km. [d] 760 feet and 2.4 km.

Question No 9

You are carrying out the Alice Springs NDB-B approach in VH-OZY. You do a sector entry to the holding pattern and find that a heading of 300° maintains the track inbound to the NDB. After overflying the aid, you commence that intermediate approach. The most appropriate heading to use to maintain this track outbound from the aid would be-

- [a] 290°M. [b] 298°M. [c] 282°M [d] 308°M

Question No 10

You are conducting the RNAV [GNSS]-E approach into Saibai Island in VH-OZY. You have entered a holding pattern at SHIEC as you wait for an aircraft ahead of you to report that he has finished the approach and landed. The maximum IAS at which you can operate in the holding pattern is-

- [a] 250 kt [b] 230 kt
[c] 210 kt [d] 170 kt

CIR REVISION QUESTIONS - SET TEN [Answers on page339]

Question No 1

Given:

Flight Planned Track = 182°M
Heading held = 172°M
ADF reads = 184°R

The track error has been-

- [a] 6° left
- [b] 4° left
- [c] 6° right
- [d] 4° right

Question No 2

Refer to ERC L1

You are planning an IFR flight in VH- OZY from Smithton to Hobart. During this flight you must give a position report at -

- [a] Salam and Clark
- [b] Salam, Clark and Tea Tree
- [c] Salam only
- [d] Salam and Hobart

Question No 3

Refer to ERC L1

You are flying in IMC on W519 from Smithton to Hobart and have just passed over Clark. The lowest level to which you may now descend is -

- [a] 6700 feet
- [b] 5700 feet
- [c] 5600 feet
- [d] 5000 feet

Question No 4

You are planning a flight from Dubbo to Bankstown in VH-OZY. An appropriate ERC route to plan is -

- [a] V295
- [b] V138 to Bindook then via W113 to Bankstown
- [c] W540 to Bathurst then W575 to Wyatt then Bankstown via V599
- [d] W785 to Mudgee then W604 to Katoomba then via H44 to Bankstown

Question No 5

Refer to TAC 1

Flying from Townsville to Cairns via V134. VOR 1 tuned to Cairns, VOR 2 tuned to Townsville. If the OBS is set to give command indications, the VOR indications you would expect at Baria are -

- [a] VOR 1 294 flag showing To and VOR 2 342 and flag showing From.
- [b] VOR 1 294 flag showing From and VOR 2 342 and flag showing To.
- [c] VOR 1 114 flag showing To and VOR 2 342 and flag showing From.
- [d] VOR 1 114 flag showing To and VOR 2 162 and flag showing From.

Question No 6

You are planning an IFR flight in OZY from Wynyard to Hobart. The area forecast indicates BKN at 5000/12000 and FZL 7500. An appropriate level to plan would be -

- [a] 6000
- [b] 7000
- [c] 8000
- [d] 9000

Question No 7

TAF YBBN 242215Z 2420/2520 16015KT 9999 -SHRA SCT025 SCT040
 FM 250500 170/20KT SCT010 BKN020 CB
 INTER 2505/2520 3000 +TSRA
 T17 18 19 19 Q1020 1018 1017 1017

TTF SPECI YBBN 230100Z 18020 9999 -SHRA BKN020 18/16 Q1017
 FM 230130 SCT CB 020

Refer to the meteorological messages above. An IFR aircraft is estimating arrival at Brisbane at 0435 on Tuesday. If it has only one ILS receiver, the operational requirement which would apply to its arrival is -

- [a] fuel to proceed to an alternate.
- [b] fuel to hold for 30 minutes or proceed to an alternate.
- [c] fuel to either hold for 50 minutes or proceed to an alternate.
- [d] no operational requirement applies

Question No 8

You are planning an IFR PVT flight from Strathbogie to Cooma-Snowy Mountains in VH-OZY. Your ETD Strathbogie is 0320. You decide that if Cooma-Snowy Mountains requires an alternate you will nominate Mourya as the alternate. If holding is an option, you plan to carry the holding fuel rather than the fuel to the alternate. The TAF for Cooma-Snowy Mountains is given below.

TAF YCOM 241915Z 2420/2508 16015KT 9999 -SHRA BKN012CB SCT040
 FM 250400 INTER 3000 TS
 T17 18 19 19 Q1020 1018 1017 1017

The planned ground speed from Strathbogie to Cooma-Snowy Mountains is 180 knots and your planned ground speed from Cooma-Snowy Mountains to Mourya is 170 knots. Assuming there are no operational requirements at Mourya, the minimum fuel required at take-off Strathbogie is closest to _

- [a] 121 minutes
- [b] 140 minutes
- [c] 110 minutes
- [d] 166 minutes

Question No 9

While preparing a flight plan along a route which is not shown on the ERCs you note that the highest obstacle in lowest safe tolerance area is a tower 125 feet AGL on a hill which has an elevation of 855 feet. The minimum LSALT which you should use for this flight is -

- [a] 1500 feet
- [b] 2000 feet
- [c] 2300 feet
- [d] 2500 feet

Question No 10

You are planning an IFR CHTR flight in VH-OZY from East Sale to Albury. Your planned ground speed is 180 knots. You are advised that a TAF for Albury is not currently available and you decide to depart without the TAF and obtain it by radio after take-off. The minimum fuel required at take-off East sale is closest to -

- [a] 93 minutes
- [b] 114 minutes
- [c] 100 minutes
- [d] 120 minutes

Question No 11

You are planning an IFR flight in VH-OZY from Hamilton to Moorabbin via Yarrowee. An appropriate IFR route to plan would be -

- [a] via W291 to Avalon then via W635 to Moorabbin
- [b] via V126 to Melbourne then via W661 to Moorabbin
- [c] Yarrowee direct to Moorabbin
- [d] via W420 to Wendy then via V279 to Melbourne then via W661 to Moorabbin

Question No 12

You are planning an IFR flight from King Island to Hobart via W519. List all required position reports.

- | | | | |
|-----|-------------------------------------|-----|------------------------------|
| [a] | Salem only | [b] | Salem and Tea Tree |
| [c] | Smithton, Salem, Clark and Tea Tree | [d] | Smithton, Salem and Tea Tree |

Question No 13

You are planning an IFR flight from Alpha to Bravo in OZY and you are navigating by ground-based aids. Alpha and Bravo each have an NDB and co-located DME. Your GPS is unserviceable. The rated coverage of the NDB at Alpha is 60 nm and the rated coverage of the NDB at Bravo is 45 nm. You intend to cruise at 8000 feet and there is a 20 knot head wind component along the flight planned track. The greatest distance from Alpha to Bravo that would permit this IFR flight to be planned is -

- | | | | |
|-----|--------|-----|--------|
| [a] | 300 nm | [b] | 320 nm |
| [c] | 340 nm | [d] | 348 nm |

Question No 14

If you intend operating the radar equipment in VH-OZY with the antenna in the rotating mode, the minimum distance permitted to a fuel truck parked within the radar beams coverage is -

- | | | | |
|-----|------|-----|------|
| [a] | 15 m | [b] | 23 m |
| [c] | 45 m | [d] | 52 m |

Question No 15

You are to depart Karratha on runway 08 for Port Hedland in VH-OZY. Because of the absence of any elevated terrain along the route, you decide that in the event of an engine failure in IMC after take-off you will continue with the planned flight to Port Hedland. The take-off minima for this flight would be -

- | | | | |
|-----|--------------------------------|-----|--------------------------------|
| [a] | 690 feet and 4.1 km visibility | [b] | 480 feet and 2.8 km visibility |
| [c] | 830 feet and 2.4 km visibility | [d] | 300 feet and 2 km visibility |

Question No 16

You are flying over the sea parallel to the coast at night. The coast is 35 nm to your right and an NDB is situated 30 nm inland. The night rated coverage of the NDB is 60 nm. The indicated relative bearing to the NDB is 045°R. Select the statement which is true -

- | | |
|-----|---|
| [a] | the actual bearing would be greater than 045° |
| [b] | the actual bearing would be less than 045° |
| [c] | the actual bearing would be 045° |
| [d] | the ADF indication would be unreliable |

Question No 17

You are flying from Deniliquin to Cootamundra via Griffith. To give command indications overhead Griffith, the OBS on your VOR should be set to -

- | | |
|-----|--|
| [a] | 025 inbound to Griffith and 093 outbound from Griffith |
| [b] | 205 inbound to Griffith and 093 outbound from Griffith |
| [c] | 025 inbound to Griffith and 257 outbound from Griffith |
| [d] | 205 inbound to Griffith and 257 outbound from Griffith |

Question No 18

You are approaching Mudgee tracking 180°M inbound track for a Mudgee NDB approach. Your allowance of 14° left drift is maintaining the required track. The appropriate procedure to fly on arrival over the Mudgee NDB would be -

- | | |
|-----|--|
| [a] | make a direct entry by overflying the VOR and intercepting the 035 outbound leg of the approach. |
| [b] | make a sector one entry. |
| [c] | make a sector two entry. |
| [d] | make a sector three entry. |

Question No 19

You are about to commence a Runway 29 VOR approach at Proserpine in VH-OZY. You have completed a sector entry and crossed the aid to commence the approach procedure. The maximum IAS permitted at this point is -

- | | | | |
|-----|-----------|-----|-----------|
| [a] | 180 knots | [b] | 130 knots |
| [c] | 140 knots | [d] | 100 knots |

Question No 20

ATIS issues the following instruction 'Oscar Zulu Yankee, squawk Charlie'. The appropriate response would be to -

- [a] turn the transponder off.
- [b] select the transponder to standby mode.
- [c] call Charlie on your mobile phone.
- [d] select the pressure altitude function on the transponder.

Question No 21

You are inbound to Paraburdoo in VH-OZY. You give an all stations call by -

- [a] 10 nm from Paraburdoo on 125.7
- [b] 10 nm from Paraburdoo on 126.8
- [c] 5 nm from Paraburdoo on 125.7
- [d] 10 nm from Paraburdoo on 126.7

Question No 22

You are tracking from Innisfail to Cairns on a DME arrival. At 13 DME the lowest level which you may maintain in IMC is -

- | | | | |
|-----|-----------|-----|-----------|
| [a] | 4600 feet | [b] | 2600 feet |
| [c] | 1630 feet | [d] | 6700 feet |

Question No 23

You are tracking from Innisfail to Cairns on a DME arrival. You have copied the actual QNH from the Cairns ATIS. The MDA for this approach is -

- | | | | |
|-----|-----------|-----|-----------|
| [a] | 1550 feet | [b] | 1800 feet |
| [c] | 1630 feet | [d] | 1500 feet |

Question No 24

You are tracking to Dubbo from Bathurst on a DME arrival. There are thunderstorms in the area. You must complete any manoeuvring within the sector by -

- | | | | |
|-----|-------|-----|------|
| [a] | 10 nm | [b] | 5 nm |
| [c] | 15 nm | [d] | 4 nm |

Question No 25

You are flying the NDB approach into Moorabbin [Using ML or AV or CWS VOR, ML or AV DME] in VH-OZY. You encounter VMC at 950 feet. The altitude limitations which now apply are -

- [a] You must reach 570 feet before crossing the MAPt.
- [b] You must be below 800 feet by 5 nm from Moorabbin.
- [c] You must not be below 800 until 5 nm from Moorabbin.
- [d] You must maintain a track of 071°M until you are within the circling area.

Question No 26

You are flying the RWY 21 VOR approach into Perth and do not become visual at MAPt. The procedure you should now follow is -

- [a] continue on your present track and climb to 2000 feet then turn left onto a heading of 170°M and continue the climb to 3000 feet.
- [b] continue on your present track and climb to the VOR. At the VOR or at 2000ft [which ever is later], turn left to track 170°M and continue the climb to 3000 feet.
- [c] continue on your present track and climb to 2000 feet. Maintain 2000 feet to the VOR and then turn left onto a heading of 170°M and continue the climb to 3000 feet.
- [d] turn left to track 170°M and climb to 3000 feet.

Question No 27

You are flying the RWY 01 ILS into Brisbane with an IAS of 150 knots. The rate of descent required to maintain the GP is closest to -

- [a] 450 ft/min.
- [b] 500 ft/min.
- [c] 600 ft/min.
- [d] 800 ft/min.

Question No 28

You are holding in VH-OZY at the PODEB waypoint for the Portland (VIC) RNAV/GNSS RWY 26 approach at 2000 feet as you wait for another aircraft to complete the approach and report landed. The maximum IAS which is permitted in this holding pattern is-

- [a] 230 kt.
- [b] 210 kt
- [c] 175 kt.
- [d] 170 kt.

Question No 29

You are flying the Mount Gambier RWY 18 NDB approach in VH-OZY. The point during this procedure at which the IAS be must reduced to not above 130 kt is -

- [a] before crossing the NDB on the inbound leg of the holding pattern
- [b] leaving 2300 ft outbound on the 024°M track
- [c] before commencing descent within 5° of the final approach track of 189°M
- [d] during the missed approach procedure.

Question No 30

The maximum IAS permitted for VH-OZY while in the holding pattern for the RNAV-S GNSS approach at Troughton Island, WA is -

- [a] 230 knots
- [b] 180 knots
- [c] 170 knots
- [d] 130 knots

Question No 31

You have flown the Runway 22 NDB approach into Mudgee NSW. You do not have visual reference when you cross the NDB at 3030ft and you commence the missed approach procedure. The minimum obstacle clearance provided during the missed approach procedure is-

- [a] 300ft
- [b] 250ft
- [c] 100ft
- [d] 50ft

Question No 32

You are being radar vectored by ATC onto an ILS and are being given headings which could infringe terrain clearance or separation standards. Under these circumstances, the time interval between ATC transmissions will not exceed-

- [a] 2 minutes
- [b] 1 minute
- [c] 30 seconds
- [d] 15 seconds

ANSWERS TO SET 9

Question No	Answer	Comment	Reference
1	[c]	If HIAL is not available, the visibility required is 1.5km. In this approach two DA and three visibility requirements are published based on the aircraft's acimb out gradient: 5%, 3.3% and 2.5%. You have the actual QNH but there is no HIAL and the AIP says to use 1.5 if there is no HIAL.	Canberra RWY 35 ILS AIP ENR 1.5 para 4.7.3
2	[b]	The check height at the outer marker is 1550 feet. Your altimeter is spot on. However VH-OZY has no PEC correction so you must add on 50 feet. The published DA in this case is 490 feet [590-100 for actual QNH], so the DA you must use is $490 + 50 = 540$ feet.	AIP ENR 1.5 para 7.3.1 & 1.19.3 <i>Terminal AU-17</i> 2.7.3.1 & 2.6.2
3	[b]	The tower will never clear you to commence an approach without giving you the actual QNH. It is safe to assume that if a question says 'you have been cleared to commence an approach' that you have the actual QNH. The LOC minima table is shaded, so you can subtract 100 feet. You could descend to the LOC MDA of 1890ft.	Oakey RWY 14 LOC AIP ENR 1.5 para 5.3.2 <i>Terminal AU-29</i> 6.3.2
4	[b]	A LOC is a 2D approach. The missed approach is commenced at the missed approach point which is 0.5 DME [marked MAPt LOC on the chart]. If you reach 1890 feet before 0.5 DME, you may continue at 1990 feet to the MAPt before commencing the missed approach.	Oakey RWY 14 LOC
5	[c]	Check the Longreach GPS arrival. The track from Winton to Longreach is 126°M , this puts you in sector B. In this sector you may descend to 1710 feet at 5nm. You could take 100 feet off if you had the actual QNH, but the question says that you don't.	Longreach GPS Arrival & ERC 4
6	[d]	180kt is the speed limit for category B aircraft on the initial approach segment. The initial approach fix [IAF], is indicated by an open triangle symbol. In this case it is on the 10 DME arc at a place called Wilde which is on the 300° radial from Melbourne.	YMML RWY 09 VOR Approach AIP ENR 1.5 para 1.16.1
7	[d]	VH-OZY does not have a coupled autopilot or a flight director so the visibility required is 1.2km not 800m. Also VH-OZY does not have PEC to apply to the altimeter so 50 feet must be added to the published DA.	AIP ENR 1.5 para 1.19.3 & 4.7.3 <i>Terminal AU-17</i> 2.6.2 & <i>AU-27</i> 5.7.3
8	[b]	The published visibility for the LOC approach is 2.0 km. However, if HIAL is not available, you must add another 900m to the published visibility for a LOC approach. $2.0 + .9 = 2.9$.	AIP ENR 1.5 para 4.7.2 <i>Terminal AU-27</i> 5.7.2
9	[a]	On the inbound leg of the holding pattern to the aid you have had 8° of right drift. You could assume that on the intermediate approach track of 298°M , the drift will be very close to the same. Therefore you will have 8° of right drift. The heading to use would be 290°M	Part 1 Drift
10	[d]	VH-OZY is a Cat B aeroplane. The Saibai Island procedure is limited to Cat A and B aircraft only. The speed limit in the holding pattern for Cat B in such a procedure is 170 kt.	AIP ENR 1.5 para 3.2.1 <i>Terminal AU-5 2.1</i>

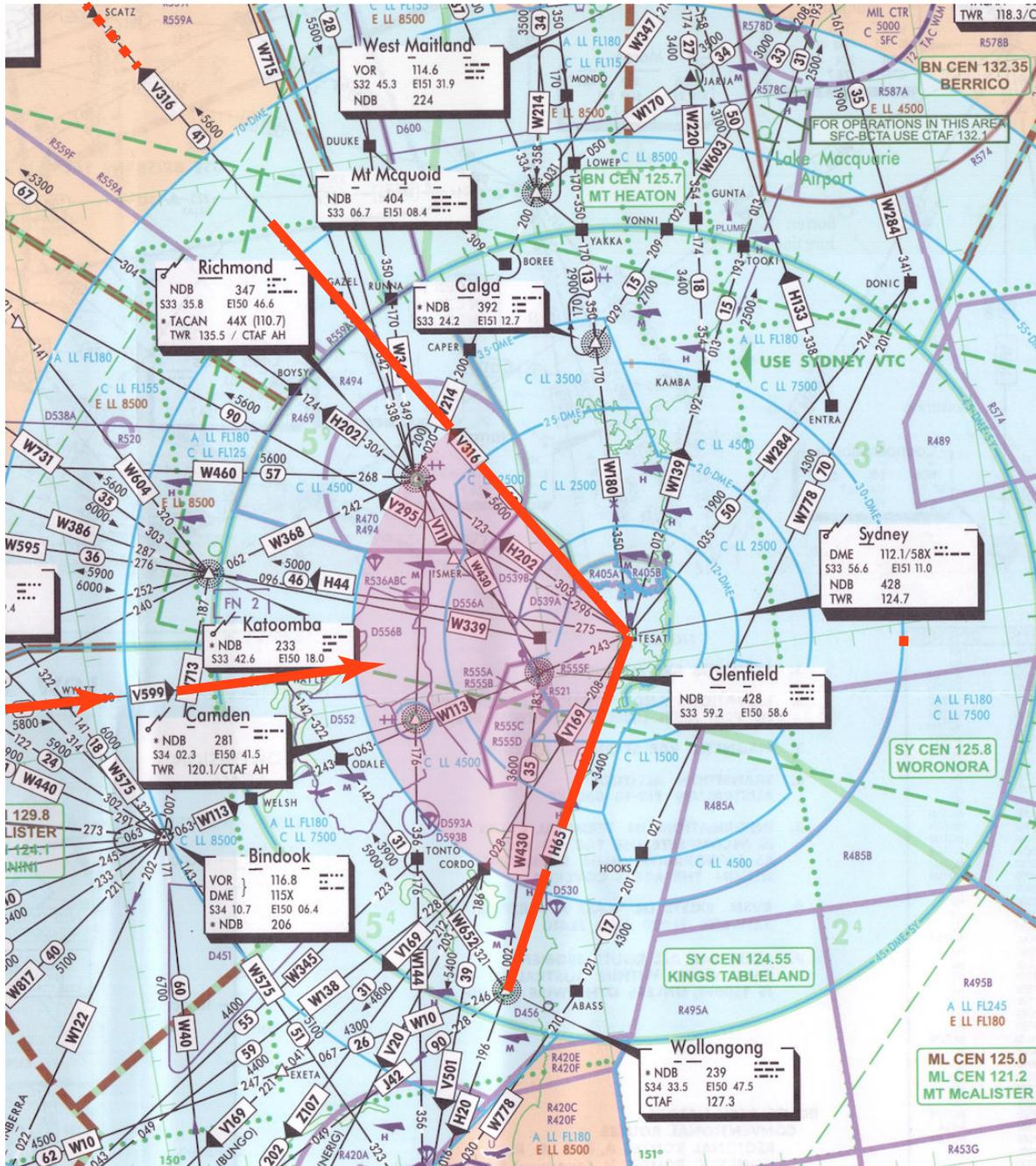
ANSWERS TO SET 10

Question No	Answer	Comment	Reference
1	[a]	The flight planned track is given as 182°M. The 'HAT' trick tells us that the actual track made good [assuming heading and ADF reading have been constant], is 172 +4 from = 176°M. This is 6° to the left of the required track of 182°M. So the track error is 6°L.	See Section 1 of this book.
2	[c]	See ERC 1. The route from Smithton to Hobart is W710 and the only triangle marked on the route is at Salem. Clark is a square which means it is a turning point but no position report is required. There is a triangle at Hobart, but there is no position report required unless you are over-flying [and not radar identified].	See ERC 1 W710 and Chart Legend
3	[d]	When you get a question like this on a flight into a major airport, be sure to look at the TAC as well as the ERC. Quite often there is information on the TAC which cannot be found on the ERC. The lowest safe on the ERC route W710 is 6700 feet, but the lowest safe after Clark on the TAC is 5700 feet. However there is also a DME/GPS Arrival into Hobart for the 120°M track. That procedure would allow you to descend to 5000 ft.	TAC 3. & Hobart DME/ GPS Arrivals
4	[c]	Check ERSA GEN FPR - 3 Bankstown Arrivals. Para 1.7 applies since you are coming in in the sector H65 (Wollongong/Sydney) through west to a line joining ANBAN (Coonabarabran) and AGETA (Walgett). For a Bankstown arrival you should plan into Sydney via V599. See graphic over page.	ERSA Route Flight Planning Requirements. GEN-FPR-4 ENROUTE AU-11 1.7
5	[a]	To use the omni in the command mode you simply set the track you wish to fly as entered on your flight plan. VOR 1 should be set to the track from Baria to Cairns, 294°M, while VOR 2 should be set to the track out of Townsville to Baria, 342°M.	See Section 1 of this book.
6	[b]	VH - OZY has no anti-icing or de-icing equipment. You cannot plan in expected icing conditions unless you have this equipment [CAR 238]. Flight in cloud above the freezing level is in 'expected icing conditions'. Therefore you should choose a level that is below the freezing level and also an appropriate cruising level for the track being flown. 7000 feet would do the trick.	CAR 238 and Cruising levels AIP ENR 1.7 Page 10 ATC AU-805 3.3
7	[c]	The TTF was attached to a SPECI which was made at 0100. The validity of the TTF is three hours and you are arriving at 0435 so the TTF is not valid. You must return to the TAF if you can't get the current TTF. You are within 30 minutes of the commencement of conditions below the alternate minima. There is also a 20 minute traffic holding requirement at the expected arrival time at YBBN.	Brisbane Alternate Minima. [Special Alternate Minima not avail- able]. AIP ENR 1.1 para 59.2.1 ATC AU-303 3.2.1
8	[a]	From 04 there is an INTER due to TS. However, in the first line of the TAF there is BKN CB at 012. This is below the alternate minima for Cooma. 30 minutes holding will not cover you because the entire TAF is below the minima. You will have to carry Moruya as an alternate. Strathbogie to Cooma = 53 mins. Cooma to Moruya = 23 minutes. It's a private flight so you don't need a variable reserve. Min fuel = 53 + 23 + 45 = 121 mins.	AIP GEN 3.2 para 2.2.1 ATC AU-807 3.6.5
9	[c]	You should ignore the 125 foot obstacle because you must assume that a 360 ft obstacle might exist. LSALT = 855 + 360 + 1000 = 2215 feet. 2300 is the minimum lowest safe you could use.	

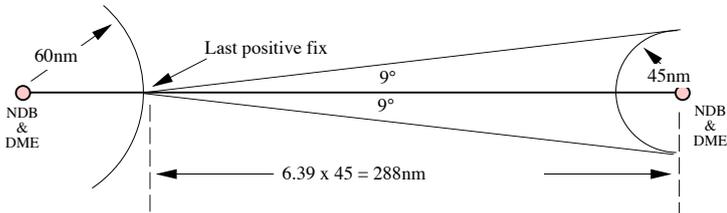
Graphic for Set 10 Question 4.

This section of ERSA is so badly written that it takes a while to fathom just what it's trying to say. Maybe the illustration below will help.

All aircraft planning to arrive at Bankstown in the sector between H65 (the ERC route from Wollongong to Sydney) through west to a line through Connabarabran and Walgett (which is actually ERC route V316) should plan to enter via V599 and expect radar vectors to Bankstown.



ANSWERS TO SET 10

Question No	Answer	Comment	Reference
10	[b]	If the destination TAF is not available you must allow for the possibility of returning within one hour. So minimum fuel is $60 \times 1.15 + 45 = 114$ minutes. The time interval to Albury is 41 minutes but that is irrelevant because you may have to return within the hour.	AIP ENR 1.10 para 1.2.2 <i>ATCAU-601 1.2.2</i>
11	[a]	See ERSA - FPR - 10 Para 4.6 Moorabbin IFR Arrivals.	ERSA
12	[a]	See ERC L1 The only triangle marked on the route W519 is at Salem. Smithton and Tea Tree are NDBs but are not marked with triangles so are not position reports. Clark is a turning point [a point where the track changes from 124°M to 120°M], but no position report is required.	ERC L1 and Chart Legend
13	[d]		AIP ENR 1.1 para 19.1.1 [c] & page 2.24 of this book <i>ACTAU-506 5.1.1</i>
14	[c]	The CAO says that the area being scanned when the antenna is rotating [normal mode] must be free of such objects to 37m. Out of the choices given you would have to select 45 m [c].	CAO 20.9. 6.2.1
15	[d]	If your intention is to continue the flight in the event of an engine failure in IMC you may depart at the standard take-off minima of 300 feet ceiling and 2 km visibility. But you had better be sure that the terrain enroute will present no significant elevations!!	AIP ENR 1.5 para 4.4.4 <i>Terminal AU-27 5.4.4</i>
16	[d]	If you are 35nm from the coast and the NDB is 30nm inland you must be outside the 60 nm rated coverage. The ADF would probably be working but you should treat the indications as unreliable.	AIP ENR 1.1 para 19.5 <i>ATCAU-505 5.5</i>
17	[a]	To use the omni in the command mode you simply set the track you wish to fly as entered on your flight plan. Inbound to Griffith your VOR should be set to the track from Deniliquin to Griffith [025°M]. Outbound from Griffith your VOR should be set to the track from Griffith to Cootamundra [093°M].	ERC L2 & Part 1 of this book
18	[c]	If you are tracking 200°M inbound with 14° of left drift, your heading must be 214°M . Heading determines the sector entry to use so you should make a sector 2 entry.	AIP ENR 1.5 para 3.3.1 & 3.3.2 <i>Terminal AU-6 3.2.2</i>
19	[c]	The speed limit for a Cat B aircraft on the initial approach on the Prosperpine RWY 29 VOR approach is 140kt [See NOTES 1 on the right hand bottom of the chart.	AIP ENR 1.5 para 1.16.1 <i>Terminal AU-16 2.3</i>

ANSWERS TO SET 10

Question No	Answer	Comment	Reference
20	[d]	Mode Charlie means the pressure altitude function is engaged and the transponder is transmitting altitude information from the encoded altimeter.	AIP GEN 3.4 para 6.1.2 note <i>ATC AU-943 9.6</i>
21	[b]	Check ERSA. Paraburdoo is a non-towered aerodrome. An inbound call is required by 10 nm on the CTAF frequency of 126.8.	AIP ENR 1.1 para 47.1 <i>ATC AU-716 6.1.6</i>
22	[a]	See Cairns DME arrival IFL to CS. Between 18 and 12 DME the step becomes 4600 feet.	DAP EAST
23	[c]	The MDA for CAT B aircraft [after 6 DME] is published at 1630 feet. Even though you have the actual QNH, the box is not shaded so you cannot take 100 feet off. The published MDA must be used.	AIP ENR 1.5 para 5.3.2 <i>Terminal AU-29 6.3.2</i>
24	[d]	You cannot manoeuvre in a sector once you have passed the final approach fix [FAF]. In this case the FAF is at 4 DME. You must maintain a constant track to the station from that point. The track from Bathurst to Dubbo is 310°M so you are in Sector A.	AIP ENR 1.5 para 12.1.3 & DAP. <i>Terminal AU-9 1.3</i>
25	[b]	See Melbourne/Moorabbin NDB or NDB/VOR approach. [#] note.	DAP EAST
26	[b]	See Perth RWY 21 VOR/DME. 'Missed approach instructions.'	DAP WEST
27	[d]	The GP is 3° which is 1-20 which is 5%. If you multiply the percentage gradient by the speed you will get an approximate rate of descent required - good enough to use in practice. 150 x 5 = 750 ft/min. The question said 'is closest to' so pick [d] 800 ft/min.	See BN 01 ILS DAP EAST
28	[b]	The approach is not limited to Cat A and B aircraft only therefore the standard holding speed restrictions apply. The maximum IAS permitted is 230 kt.	AIP ENR 1.5 para 3.2.1 <i>Terminal AU-5 2.1</i>
29	[c]	When the final approach [Maltese Cross] fix is not marked on the chart, the final approach speed limit applies before descending on the inbound track.	AIP ENR 1.5 para 1.16.1 <i>Terminal AU-16 2.3</i>
30	[c]	The Troughton Island approach procedure is limited to Cat A and Cat B aircraft only. When the procedure is limited to Cat A and Cat B aircraft, the maximum speed permitted in a holding pattern is 170kt.	AIP ENR 1.5 para 3.2.1 a (1) <i>Terminal AU-5 2.1 [a][1]</i>
31	[c]	All missed approaches provide 100ft obstacle clearance based on a climb gradient of 2.5% which is also 152ft per nautical mile.	AIP ENR 1.5 para 1.10.1 Note 2 <i>Terminal AU-21 3.10.1 Note 2</i>
32	[c]	The time intervals between transmissions are kept to not more than 30 seconds to give the pilot ample warning in the event of a radio failure. If more than 30 seconds passes since the last transmission, the pilot should check that communication is still available.	AIP ENR 1.6 para 3.8 <i>ATC AU-1001 3.8</i>