



15 January 2016

s22

Team Leader CNS Support  
 Air Navigation, Airspace and Aerodromes Branch  
 CASA Aviation Group  
 Civil Aviation Safety Authority

s22

Dear s22

On 11 January 2018 the VOR procedures at Hobart Aerodrome, and the DME or GNSS Arrivals associated with that navaid, were revalidated. The report of that revalidation is attached.

The electronic GPS tracking file has been forwarded separately.

Regards. /

s22

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**From:** s47F, s22  
**To:** s22  
**Cc:** s47F, s22 @.  
**Subject:** RE: YMHB Questions [SEC=UNCLASSIFIED]  
**Date:** Monday, 8 January 2018 2:10:58 PM  
**Attachments:** [image001.gif](#)  
[HB\\_VOR-Z\\_RWY30\\_Splay\\_Comparison.pdf](#)  
[MHBVO1-DRAFT7.pdf](#)

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Hi s22

Find below responses to the queries you raised regarding the Hobart pre-validation check.

Kind Regards,

s47F, s22

Airservices Australia

s47F, s22

[airservicesaustralia.com](http://airservicesaustralia.com)

Website




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**From:** s47F, s22  
**Sent:** Monday, 8 January 2018 11:04 AM  
**To:** s47F, s22 @AirservicesAustralia.com>  
**Subject:** YMHB Questions [SEC=UNCLASSIFIED]

Hi s47  
F

See responses to s22 points below:

s47F, 22 there are a few issues that I have mentioned in the checklist, namely:

1. DGA Sector A circling minimum CAT A/B has been reduced from 1530' to 1240', with no explanation on the design pro-forma. DGA Sector Broad - HB circling minimum is 1750', with no change and pro-forma has not been provided.

The Sector A CAT A/B minimum was reduced to match the circling A/B minimum, due to re-assessment of terrain in the final segment after the 3 DME step. The highest terrain identified after the 3 DME step (120m Contour) permits a minimum as low as the CAT A/B circling minimum.

Previous assessment of this final segment used the 278m Trig (Mt Lord) as the controlling obstacle, so the higher CAT C circling minimum was also used for CAT A/B.

Regarding the BROAD-HB arrival, the previous design was retained in terms of the minima, however the VPA was adjusted to 3° to standardise with the other arrivals. A proforma for this arrival was provided in the original email requesting flight validation.

2. VOR RW 12 (editorial):
  - On the profile view the depiction of inbound turn is inconsistent with similar approaches.
  - On the profile view recommend adjusting the outbound track a little higher to keep it clear of the 4130' crossing altitude.

Agree with both points in regards to the reversal depiction. I have attached the updated chart (v7.0) with amendments to the profile view.

3. VOR-Z RW 30: MDA for 2.5% MAP gradient is required.

The published MDA of 660 assumes a 2.5% MAP gradient. The reason we haven't also published an MDA with a higher MAP gradient is that the difference is no longer significant (600ft vs 660ft), unlike the previous design.

The standard MDA (2.5% MAP Gradient) has been reduced significantly from the previous design because of the lateral movement of the VOR and therefore the entire procedure. The controlling terrain in the missed approach of the new design is much closer to the outer edge of the secondary area, so a lower MOC could be used. Please refer to the attached PDF.

4. VOR-Y RW 30: Pro-forma indicates that 4.5% MAP gradient is required for CTA containment but this is not noted on chart.
  - Review whether an MDA for 2.5% MAP gradient should also be published.

The gradient required for CTA containment is not noted on the chart because it is less than 5%. The note in MOS Part 173 8.1.1.4 (c) stipulates that only gradients greater than 5% need to be identified on the chart which is consistent with how we depict missed approaches on other procedures within controlled airspace.

Regarding the second point, the MDA published on the chart is for the 2.5% MAP gradient; we just haven't published an MDA for 4.5%, unlike the previous design.

5. There are discrepancies in the pro-forma regarding the elevation of Mt Lord. Different calculations use 278m Trig, 260m Contour + 20m, and 280m Contour + 20m.

A review of the hard copy maps found that a 280m contour is printed which was not immediately obvious on the scanned version. Accordingly, affected proforma pages have been updated using 280m for calculations.

Regards,

s47F, s22

Airservices Australia  
s47F, s22

e s47F, s22 [@airservicesaustralia.com](mailto:airservicesaustralia.com)

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**To:** s47F, s22  
**Cc:** s47F, s22 ; @..  
**Subject:** RE: YMHB Questions [SEC=UNCLASSIFIED]  
**Date:** Monday, 8 January 2018 3:31:52 PM  
**Attachments:** [image001.gif](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)  
[image005.png](#)

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UNCLASSIFIED

Hi s47F, s22

Thanks for the responses – that all makes sense.

Regarding the VOR 12 procedure turn – just a suggestion - can you show the turn on the profile view as well, a bit like the old chart?

Cheers, s22

s22

Air Navigation, Airspace and Aerodromes Branch  
**CASA Aviation Group**

s22

[www.casa.gov.au](http://www.casa.gov.au)




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APPROVED BY MFO ISSUE 1.0 1 FEB 2014 © 2014 CORPORATE AIR ®	 <b>CORPORATE AIR</b> <b>FLIGHT OPERATIONS MANUAL</b>	CAFOM264 FLIGHT VALIDATION/ REVALIDATION REPORT Page 1 of 6
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## FLIGHT REVALIDATION REPORT

### HOBART (YMHB)

Flight Date:	11 JANUARY 2018	Aircraft Registration:	s22
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s22

Flight Validation Pilot:

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Instrument of Approval Valid Until:

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Flight Validation Observer:

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Flight Validation Procedure Designer:  
(only applicable for Initial Validations)

NA

X

#### CERTIFICATION

1. The specified altitudes of the mentioned instrument procedures have been checked and the procedures are acceptable subject to the mentioned changes (if any) being incorporated (see comment 1 below.)
2. The specified altitudes of the DME or GNSS Arrival have been checked and the procedure is acceptable subject to the mentioned changes (if any) being incorporated.
3. The aerodrome is currently CERTIFIED.
4. The WDI's are suitable for straight-in approaches to runway(s) 12/30 and unsuitable for straight-in approaches to runway(s) NA. The suitable WDI's are illuminated.
5. The approach procedures are operationally suitable for straight-in minima.
6. The PAPI on runways 12/30 are operationally suitable.
7. Lighting systems functioned as published.
8. Altimeters were checked/reset at the threshold of RWY 30, elevation 13' AMSL.
9. NA - RAIM was continuously available.
10. NA - Minimum number of satellites available      Z to      Z      :      .
11. NA - Average PDOP during that period:      .
12. Threshold co-ordinates for the following runways were recorded as:
  - Rwy 12: S42 49.74 E147 30.12
  - Rwy 30: S42 50.74 E147 31.48 (new TH)



<b>PREVIOUSLY UNIDENTIFIED OBSTACLES</b>			
Description	Approximate Elevation	Location	Owner (If Known)
NONE			

**COMMENTS**

1. Flight was conducted solely to revalidate maintenance changes to the YMHB VOR approaches, and the DME or GNSS Arrivals, occasioned by the relocation of the HB VOR due to runway extension which moved the threshold of runway 30.
2. VOR Y&Z RWY 30: inbound track of 301° places aircraft, at straight-in minima, to the right of the extended centreline by approximately the same distance as that between the VOR station and the runway centreline; a breakout at the minima – particularly at the VOR-Z minima of 560' – requires a reasonably aggressive manoeuvre back to the centreline, one which could be challenging for larger RPT (CAT C & D) aircraft; recommend a revision, if possible, to an inbound track which puts aircraft on centreline at the minima.

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COMMON SEGMENTS		
SEGMENT	COMMENT	NEED for CHANGE E (Essential) D (Desirable)
Circling	NA	
25/10 MSA	SATISFACTORY	
VSS	SATISFACTORY	

DME or GNSS ARRIVAL (SECTOR A) (DRAFT v4.0)		
SEGMENT	COMMENT	NEED for CHANGE E (Essential) D (Desirable)
Initial	SATISFACTORY	
Intermediate	SATISFACTORY	
Final	SATISFACTORY	
Missed Approach	SATISFACTORY	

FLYABILITY:

Satisfactory

Unsatisfactory

DME or GNSS ARRIVAL (SECTOR B) (DRAFT v4.0)		
SEGMENT	COMMENT	NEED for CHANGE E (Essential) D (Desirable)
Initial	SATISFACTORY	
Intermediate	SATISFACTORY	
Final	SATISFACTORY	
Missed Approach	SATISFACTORY	

FLYABILITY:

Satisfactory

Unsatisfactory

DME or GNSS ARRIVAL (BROAD TO HB) (DRAFT v4.0)		
SEGMENT	COMMENT	NEED for CHANGE E (Essential) D (Desirable)
Initial	SATISFACTORY	
Intermediate	SATISFACTORY	
Final	SATISFACTORY	
Missed Approach	SATISFACTORY	

FLYABILITY:  Satisfactory  Unsatisfactory

DME or GNSS ARRIVAL (PECOB TO HB) (DRAFT v2.0)		
SEGMENT	COMMENT	NEED for CHANGE E (Essential) D (Desirable)
Initial	SATISFACTORY	
Intermediate	SATISFACTORY	
Final	SATISFACTORY	
Missed Approach	SATISFACTORY	

FLYABILITY:  Satisfactory  Unsatisfactory

DME or GNSS ARRIVAL (HEWIT TO HB) (DRAFT v2.0)		
SEGMENT	COMMENT	NEED for CHANGE E (Essential) D (Desirable)
Initial	SATISFACTORY	
Intermediate	SATISFACTORY	
Final	SATISFACTORY	
Missed Approach	SATISFACTORY	

FLYABILITY:  Satisfactory  Unsatisfactory

VOR RWY 12 (DRAFT v6.0)		
SEGMENT	COMMENT	NEED for CHANGE E (Essential) D (Desirable)
Initial	SATISFACTORY	
Intermediate	SATISFACTORY	
Final	SATISFACTORY	
Missed Approach	SATISFACTORY	
Holding	SATISFACTORY	

FLYABILITY:

Satisfactory  
 Standard

Unsatisfactory  
 Demanding

VOR-Y RWY 30 (DRAFT v4.0)		
SEGMENT	COMMENT	NEED for CHANGE E (Essential) D (Desirable)
Initial	SATISFACTORY	
Intermediate	SATISFACTORY	
Final	SATISFACTORY - (see comment 2 above)	
Missed Approach	SATISFACTORY	
Holding	SATISFACTORY	

FLYABILITY:

Satisfactory  
 Standard

Unsatisfactory  
 Demanding

VOR-Z RWY 30 (DRAFT v7.0)		
SEGMENT	COMMENT	NEED for CHANGE E (Essential) D (Desirable)
Initial	SATISFACTORY	
Intermediate	SATISFACTORY	
Final	SATISFACTORY - (see comment 2 above)	
Missed Approach	SATISFACTORY	
Holding	SATISFACTORY	

**FLYABILITY:**

Satisfactory  
 Standard

Unsatisfactory  
 Demanding

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