

FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
RNAV (GPS) STANDARD INSTRUMENT APPROACH PROCEDURE
TITLE 14 CFR PART 97.33

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL, except HAT, HAA, TCH, and RA. Altitudes are minimum altitudes unless otherwise indicated.
 Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles or feet RVR.

<u>AIRPORT</u> ABERDEEN RGNL	<u>AIRPORT ID</u> KABR	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 31	<u>ORIGINAL/AMENDMENT</u> ORIG-B	<u>CITY</u> ABERDEEN	<u>STATE</u> SD	
<u>AIRPORT ELEVATION</u> 1302	<u>TDZE</u> 1301	<u>SUPERSEDED</u> RNAV (GPS) RWY 31	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>DATED</u> 04/28/2016	<u>MAG VAR</u> 7E	<u>EPOCH YEAR</u> 2000
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u>	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>		

TERMINAL ROUTES

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>LEG TYPE</u>	<u>FO/FB</u>	<u>RNP</u>	<u>COURSE</u>	<u>DISTANCE</u>	<u>ALTITUDE</u>
ABR VOR/DME		DOXCU		TF	FO	2.00	129.18	8.96	3000
EFJAM	IAF	DOXCU	NOPT	TF	FB	1.00	038.11	8.03	3000
FIBDA	IAF	DOXCU	NOPT	TF	FB	1.00	253.26	5.14	3000
DOXCU	IF/IAF	CISOD		TF	FB	1.00	308.20	6.10	3000
CISOD	FAF	ATPIC/2.60 NM TO RW31		TF	FB	0.30	308.13	2.50	
ATPIC/2.60 NM TO RW31		RW31	MAP	TF	FO	0.30	308.13	2.60	
RW31	MAP	1501 MSL		CA			308.13		
1501 MSL		HATHR		DF	FO	1.00			3000

MISSED APPROACH

MAP:

LPV: DA
 LNAV/VNAV: DA
 LNAV: RW31

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3000 DIRECT HATHR AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. HOLD SE DOXCU, RT, 308.20 INBOUND, 3000 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 308.13FAF: CISODDIST FAF TO MAP: 5.10DIST FAF TO THLD: 5.10

4. MIN ALT: DOXCU 3000, CISOD 3000, ATPIC/2.60 NM TO RW31 2180*

5. DIST TO THLD FROM OM:MM:IM:150 HAT:200 HAT: 0.47GS ANT:

6. MIN GP INCPT: 3000GP ALT AT FAF : CISOD 3000OM:MM:IM:

7. GP ANGLE: 3.0034:1: IS CLEAR20:1: IS CLEARTCH: 52.0

8. MSA FROM: RW31 3400

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -17C OR ABOVE 54C.
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT ABR VOR/DME ON V398 WESTBOUND AND ON V170 NORTH WESTBOUND.
CHART NOTE: FOR INOPERATIVE ALS, INCREASE LNAV/VNAV VISIBILITY ALL CATS TO 7/8 SM.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
CHART VDP AT 0.85 NM TO RW31*
*LNAV ONLY
WAAS CHANNEL #42914
REFERENCE PATH ID: W31A
CHART FAS OBST: 1388 TREE 452547N/0982408W.
HOLD NW, RT, 127.91 INBOUND
LTP HAE: 371.9 M

MINIMUMS:

TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT

ALTERNATE: NA ☐ STANDARD - CAT D 900-2 3/4

CATEGORY:	A			B			C			D			E		
FINAL TYPE	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA
LPV DA	1501	1/2	200	1501	1/2	200	1501	1/2	200	1501	1/2	200			
LNAV/VNAV DA	1599	1/2	298	1599	1/2	298	1599	1/2	298	1599	1/2	298			
LNAV MDA	1640	1/2	339	1640	1/2	339	1640	1/2	339	1640	1/2	339			
CIRCLING	1760	1	458	1860	1	558	1960	1 3/4	658	2160	2 3/4	858			



CHANGES - REASONS

1. DELETED CHART 1329 TREE 452810N/0982439W FROM ADDITIONAL FLIGHT DATA - LNAV/VNAV CONTROLLING OBSTACLE NO LONGER REQUIRED.
2. ADDED CHART CIRCLING ICON IN ADDITIONAL FLIGHT DATA - IN ACCORDANCE WITH FAAO 8260.19H, PARA 8-6-10T. THE RNAV (GPS) RWY 13 AT THE AIRPORT HAS A CIRCLING ICON PUBLISHED.
3. AMENDED CAT B CIRCLING MDA/HAA FROM 1760/459 TO 1860/558 - NEW CONTROLLING OBSTACLE IDENTIFIED IN LARGER CIRCLING AREA (MATCHES CAT B CIRCLING MINIMUMS ON THE RNAV (GPS) RWY 13).
4. AMENDED CAT C CIRCLING MDA/HAA FROM 1760/459 TO 1960/658 AND VISIBILITY FROM 1 1/2 TO 1 3/4 - NEW CONTROLLING OBSTACLE IDENTIFIED IN LARGER CIRCLING AREA (MATCHES CAT C CIRCLING MINIMUMS ON THE RNAV (GPS) RWY 13).
5. AMENDED CAT D CIRCLING MDA/HAA FROM 1860/559 TO 2160/858 AND VISIBILITY FROM 2 TO 2 3/4 - NEW CONTROLLING OBSTACLE IDENTIFIED IN LARGER CIRCLING AREA (MATCHES CAT D CIRCLING MINIMUMS ON THE RNAV (GPS) RWY 13).
6. ADDED NOTE: FOR INOPERATIVE ALS, INCREASE LNAV/VNAV VISIBILITY ALL CATS TO 7/8 SM - IN ACCORDANCE WITH FAAO 8260.19H, PARA 8-6-11O(3)(D).
7. DELETED NOTE: DME/DME RNP-0.3 NA - REPLACED BY EQUIPMENT REQUIREMENT NOTE.
8. ADDED EQUIPMENT REQUIREMENT NOTE: RNP APCH - IN ACCORDANCE WITH FAAO 8260.19H, PARA 8-6-8.
9. ADDED A CA LEG TO THE MISSED APPROACH - IN ACCORDANCE WITH CURRENT ARINC CODING POLICY.
10. ADDED 20:1 IS CLEAR - IN ACCORDANCE WITH FAAO 8260.19H, PARA 8-6-7G(3).
11. DELETED PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL AT ABR VOR/DME VIA V398 WESTBOUND AND V170 NORTH WESTBOUND - REPLACED BY UPDATED NOTE.
12. ADDED PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL AT ABR VOR/DME ON V398 WESTBOUND AND ON V170 NORTH WESTBOUND - FORMATTED IN ACCORDANCE WITH FAAO 8260.19H, PARA 8-2-5E.
13. REMOVED FAHRENHEIT VALUES FROM UNCOMPENSATED BARO-VNAV TEMPERATURE LIMITS AND AMENDED HIGH LIMIT FROM 46C TO 54C - FORMATTED IN ACCORDANCE WITH FAAO 8260.19H, PARA 8-6-9S. HIGH TEMP CALCULATED USING AFS LOW/HIGH TEMPERATURE LIMIT CALCULATOR.
14. DELETED NOTE: BARO-VNAV NA WHEN USING WATERTOWN ALTIMETER SETTING - LOCAL ASOS IS ON WMCSR, BACK-UP ALTIMETER ADJUSTMENTS AND NOTES MOVED TO FAA FORM 8260-9 FOR CONTINGENCY USE DURING KABR ASOS OUTAGES.
15. DELETED NOTE: VDP NA WHEN USING WATERTOWN ALTIMETER SETTING - LOCAL ASOS IS ON WMCSR, BACK-UP ALTIMETER ADJUSTMENTS AND NOTES MOVED TO FAA FORM 8260-9 FOR CONTINGENCY USE DURING KABR ASOS OUTAGES.
16. DELETED NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE WATERTOWN ALTIMETER SETTING AND INCREASE ALL DA 207 FEET, ALL MDA 220 FEET, LPV ALL CATS VISIBILITY 1/4 MILE, LNAV/VNAV ALL CATS VISIBILITY 3/4 MILE, LNAV CAT C/D VISIBILITY 5/8 MILE, AND CIRCLING CAT C/D 1/2 MILE - LOCAL ASOS IS ON WMCSR, BACK-UP ALTIMETER ADJUSTMENTS AND NOTES MOVED TO FAA FORM 8260-9 FOR CONTINGENCY USE DURING KABR ASOS OUTAGES.
17. DELETED NOTE: FOR INOPERATIVE MALSR WHEN USING WATERTOWN ALTIMETER SETTING INCREASE LPV ALL CATS VISIBILITY TO 1 1/2 - LOCAL ASOS IS ON WMCSR, BACK-UP ALTIMETER ADJUSTMENTS AND NOTES MOVED TO FAA FORM 8260-9 FOR CONTINGENCY USE DURING KABR ASOS OUTAGES.
18. REMOVED ALTERNATE MINIMUMS RESTRICTION NA WHEN LOCAL WEATHER NOT AVAILABLE - NO LONGER REQUIRED, LOCAL ASOS IS ON WMCSR.
19. AMENDED CAT D ALTERNATE MINIMUMS FROM STANDARD TO 900-2 3/4 - COMPUTED USING UPDATED CAT D CIRCLING MINIMUMS.
20. AMENDED MSA MINIMUM ALTITUDE FROM 3300 TO 3400 - NEW CONTROLLING OBSTACLE IDENTIFIED.
21. FAS DATA: AMENDED LTP/FTP ELLIPSOIDAL HEIGHT FROM +03720 TO +03719 - MATCH CURRENT AIRNAV VALUE.
22. FAS DATA: AMENDED LTP LAT/LONG FROM 452630.6300N/0982432.5700W TO 452630.6260N/0982432.5650W - MATCH CURRENT AIRNAV VALUE OF THRESHOLD CARRIED OUT TO THE TEN THOUSANDTH OF AN ARC SECOND.
23. FAS DATA: AMENDED FPAP LAT/LONG FROM 4522721.0200N/0982544.0000W TO 452733.6850N/0982601.9645W - COMPUTED IN ACCORDANCE WITH FAAO 8260.58, PARA 3-1-5C(1).
24. FAS DATA: AMENDED COURSE WIDTH FROM 107.25 TO 106.75 - COMPUTED USING CURRENT AFS FPAP CALCULATOR.
25. FAS DATA: AMENDED LENGTH OFFSET FROM 0096 TO 0648 - COMPUTED IN ACCORDANCE WITH FAAO 8260.58, PARA 3-1-5C(2).
26. FAS DATA: AMENDED CRC REMAINDER FROM 73B51D2E TO 0747B234 - COMPUTED USING UPDATED LTP LAT/LONG, FPAP LAT/LONG, LTP ELLIPSOIDAL HEIGHT, COURSE WIDTH, AND LENGTH OFFSET DATA.
27. INCORPORATED CHANGES FROM ORIG-A - IN ACCORDANCE WITH FAAO 8260.19H, PARA 8-3-4C(2).

11/28/2018: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 08/14/2018:
AMENDED MINIMUM ALTITUDE IN ABR VOR/DME TO DOXCU FEEDER SEGMENT FROM 2800 TO 3000.

COORDINATED WITH:

A4A ☒ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: ZMP, AMGR

FLIGHT CHECKED BY

JOHN ROBERT CLOUGH

Digitally signed by

JACOB POWERS

Nov 28, 2018

OFFICE

FIOG

DATE

11/15/2018

DEVELOPED BY

PETER R. GUIMOND

Digitally signed by

PETER R GUIMOND

Aug 14, 2018

OFFICE

AJV-5422

DATE

08/14/2018

APPROVED BY

JULIE MORGAN

Digitally signed by

JACOB POWERS

Nov 28, 2018

OFFICE

AJV-5420

DATE

TITLE

MANAGER

QUALITY
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CHECKED