

**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 ID</u> KALS	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 2	<u>ORIGINAL/AMENDMENT</u> 2	<u>CITY</u> ALAMOSA	<u>STATE</u> CO		
<u>AIRPORT ELEVATION</u> 7540	<u>TDZE</u> 7540	<u>SUPERSEDED</u> RNAV (GPS) RWY 2	<u>ORIGINAL/AMENDMENT</u> 1	<u>DATED</u> 04/27/2017	<u>MAG VAR</u> 9E	<u>EPOCH YEAR</u> 2010
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 24 MARCH 2022	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>		

TERMINAL ROUTES

FROM	FIX TYPE	TO	FIX TYPE	LEG TYPE	FO/FB	RNP	COURSE	DISTANCE	ALTITUDE
ALS VORTAC		RODDS		TF	FO	1.00	223.00	14.02	12200
ZOTOS		VEPUY		TF	FB	1.00	294.87	8.43	12200
VEPUY	IAF	RODDS	NOPT	TF	FB	1.00	337.58	8.37	12200
GEMKY	IAF	RODDS	NOPT	TF	FB	1.00	085.89	12.75	12200
WAPRE	IAF	RODDS	NOPT	TF	FB	1.00	042.80	5.98	12200
RODDS	IF/IAF	KROWZ		TF	FB	1.00	022.65	8.04	9900
KROWZ		BREZE		TF	FB	1.00	022.71	2.10	9300
BREZE	FAF	XOGSY/1.73 NM TO RW2		TF	FB	0.30	022.74	3.64	
XOGSY/1.73 NM TO RW2		RW2	MAP	TF	FO	0.30	022.74	1.73	
RW2	MAP	7740 MSL		CA			022.74		
7740 MSL		APKOW		DF	FB	1.00			
APKOW		ICORY		TF	FO	1.00	317.24	20.49	14600



MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW2

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 14600 DIRECT APKOW AND ON TRACK 317.24 TO ICORY AND HOLD, CONTINUE CLIMB-IN-HOLD TO 14600

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT	SIDE OF COURSE	OUTBOUND	FT WITHIN	MILES OF	(IAF)
2. HOLD SW RODDS, RT, 031.65 INBOUND, 12200 FT. IN LIEU OF PT (IAF), MAX 14000.					
3. FAC: 022.74	FAF: BREZE	DIST FAF TO MAP: 5.38	DIST FAF TO THLD: 5.38		
4. MIN ALT: RODDS 12200, KROWZ 9900, BREZE 9300, XOGSY/1.73 NM TO RW2 8140					
5. DIST TO THLD FROM OM:	MM:	IM:	150 HAT:	200 HAT: 0.48	GS ANT:
6. MIN GP INCPT: 9300	GP ALT AT PFAF: BREZE 9300	OM:	MM:	IM:	
7. GP ANGLE: 3.00	34:1: IS CLEAR	20:1: IS CLEAR	TCH: 48.1		
8. MSA FROM: RW02 15600					

PBN REQUIREMENTS NOTE:

RNP APCH - GPS.

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -31°C OR ABOVE 54°C.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT WAPRE ON V368 SOUTHWEST BOUND.
CHART PLANVIEW NOTE: CHART SPEED ICON AT GEMKY: MAX 210 KIAS
CHART PLANVIEW NOTE: CHART SPEED ICON AT WAPRE: MAX 210 KIAS
CHART PLANVIEW NOTE: CHART SPEED ICON AT VEPUY: MAX 210 KIAS
CHART NOTE: FOR INOPERATIVE ALS, INCREASE LNAV/VNAV ALL CATS VISIBILITY TO 3/4 SM.

ADDITIONAL FLIGHT DATA:

HOLD SE, RT, 317.10 INBOUND.
CHART FAS OBST: 7629 TREE (08-075946) 372410N/1055332W.
CHART VDP AT 0.92 NM TO RW02.
WAAS CHANNEL # 90410
REFERENCE PATH ID: W02A
CHART CIRCLING ICON.
LTP HAE: 2281.2 M



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

ALTERNATE: NA STANDARD

<u>CATEGORY:</u>	<u>A</u>			<u>B</u>			<u>C</u>			<u>D</u>			<u>E</u>		
<u>FINAL TYPE</u>	<u>DA/MDA</u>	<u>VIS</u>	<u>HAT/HAA</u>	<u>DA/MDA</u>	<u>VIS</u>	<u>HAT/HAA</u>	<u>DA/MDA</u>	<u>VIS</u>	<u>HAT/HAA</u>	<u>DA/MDA</u>	<u>VIS</u>	<u>HAT/HAA</u>	<u>DA/MDA</u>	<u>VIS</u>	<u>HAT/HAA</u>
LPV DA	7740	1/2	200	7740	1/2	200	7740	1/2	200	7740	1/2	200			
LNAV/VNAV DA	7790	1/2	250	7790	1/2	250	7790	1/2	250	7790	1/2	250			
LNAV MDA	7880	1/2	340	7880	1/2	340	7880	1/2	340	7880	1/2	340			
CIRCLING	8040	1	500	8040	1	500	8080	1 1/2	540	8100	2	560			



CHANGES - REASONS

1. AIRPORT ELEVATION AND TOUCHDOWN ZONE ELEVATION CHANGED FROM 7539 TO 7540 - NEW SURVEY.
2. TERMINAL ROUTES: CHANGED INTERMEDIATE SEGMENT RODDS TO KROWZ - COURSE/DISTANCE/ALTITUDE CHANGED FROM "022.66/7.84/9800" TO "022.65/8.04/9900" - MOVED WAYPOINT KROWZ (COURSE/DISTANCE) AND NEW OBSTACLES/MAINTAIN CONTINUOUS DESCENT ANGLE (ALTITUDE).
3. TERMINAL ROUTES: CHANGED INTERMEDIATE SEGMENT KROWZ TO BREZE - DISTANCE CHANGED FROM "2.30" TO "2.10" - MOVED FIX KROWZ.
4. TERMINAL ROUTES: CHANGED FINAL SEGMENT BREZE TO XOGSY - FIX DESCRIPTION/COURSE/DISTANCE CHANGED FROM "XOGSY/1.50 NM/022.72/3.88" TO "XOGSY/1.73NM/022.74/1.73" - MOVED WAYPOINTS BREZE AND XOGSY.
5. TERMINAL ROUTES: CHANGED FINAL SEGMENT XOGSY TO RW02 - FIX DESCRIPTION/COURSE/DISTANCE CHANGED FROM "XOGSY/1.50 NM/022.72/1.50" TO "XOGSY/1.73NM/022.74/1.73" - MOVED WAYPOINT XOGSY.
6. TERMINAL ROUTES: CHANGED MISSED APPROACH/CA SEGMENT BASE DA/MDA FROM 7739 TO 7740 MSL - NEW AIRPORT SURVEY/ ELEVATION CHANGE.
7. TERMINAL ROUTES: CHANGED MISSED APPROACH/DF SEGMENT - CHANGED FROM "7739 MSL TO JADGU" TO "7740 TO APKOW" - NEW MISSED APPROACH PROCEDURE.
8. TERMINAL ROUTES: ADDED MISSED APPROACH/TF SEGMENT - APKOW TO ICORY - NEW MISSED APPROACH PROCEDURE.
9. MISSED APPROACH INSTRUCTIONS: CHANGED FROM "CLIMB TO 10500 DIRECT JADGU AND HOLD." TO "CLIMB TO 14600 DIRECT APKOW AND ON TRACK 317.24 TO ICORY AND HOLD, CONTINUE CLIMB-IN-HOLD TO 14600" - NEW MISSED APPROACH/HOLDING.
10. PROFILE LINE 2: CHANGED INBOUND COURSE FROM 022.66 TO 031.65 AND ADDED MAX 14000 - ALIGNED WITH INTERMEDIATE SEGMENT/CRITERIA UPDATE .19I 8-6-7. B. (2).
11. PROFILE LINE 3: FAC CHANGED FROM 022.72 TO 031.74 - FAF RE-ALIGNED/NEW FINAL COURSE.
12. PROFILE LINE 4: MINIMUM ALTITUDES CHANGED FROM "RODDS 12200, KROWZ 9800, BREZE 9300, XOGSY/1.50 NM TO RW02 8060" TO "RODDS 12200, KROWZ 9900, BREZE 9300, XOGSY/1.73 NM TO RW2 8140, RW2" - REALIGNED FINAL APPROACH COURSE/MAINTAIN CONTINUOUS DESCENT ANGLE.
13. PROFILE LINE 5: ADDED DIST TO THLD FROM 200 HAT: .48 AND REMOVED FROM ADDITIONAL FLIGHT DATA - NEW CRITERIA FORMAT.
14. PROFILE LINE 7: ADDED 20:1 IS CLEAR - NEW AIRPORT AND RUNWAY SURVEY/LIGHTING IS FIXED BY FUNCTION.
15. PBN REQUIREMENTS NOTE: ADDED "RNP APCH - GPS" AND REMOVED "CHART NOTE: DME/DME RNP-0.3 NA" - NEW CRITERIA .19I 8-6-8. B. (2).
16. NOTES: CHANGED FROM "CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -31°C OR ABOVE 54°C." - NEW CRITERIA REMOVED FAHRENHEIT.
17. NOTES: CHANGED FROM "CHART NOTE: FOR INOPERATIVE ALS, INCREASE LNAV/VNAV ALL CATS VISIBILITY TO 3/4 SM AND LNAV CATS C/D VISIBILITY TO 7/8 SM." TO "CHART NOTE: FOR INOPERATIVE ALS, INCREASE LNAV/VNAV ALL CATS VISIBILITY TO 3/4 SM" - NEW VISIBILITY CHECKS.
18. NOTES: ADDED "CHART PLANVIEW NOTE: CHART SPEED ICON AT GEMKY: MAX 210 KIAS; CHART PLANVIEW NOTE: CHART SPEED ICON AT WAPRE: MAX 210 KIAS; CHART PLANVIEW NOTE: CHART SPEED ICON AT VEPUY: MAX 210" - ATC REQUEST/8260.19 4-6-10. G.
19. NOTES: ADDED "CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT WAPRE ON V368 SOUTHWEST BOUND" - TURN EXCEEDS 90 DEGREES.
20. ADDITIONAL FLIGHT DATA: CHANGED HOLDING FROM "HOLD NW, RT, 154.85 INBOUND" TO "HOLD SE, RT, 317.10 INBOUND" - NEW MISSED APPROACH HOLDING ESTABLISHED.
21. ADDITIONAL FLIGHT DATA: CHANGED FAS OBSTACLE FROM "CHART FAS OBST: 7584 TOWER 372536N/1055222W" TO "CHART FAS OBST: 7629 TREE (08-075946) 372410N/1055332W" - NEW CONTROLLING OBSTACLE/SURVEY.
22. ADDITIONAL FLIGHT DATA: CHANGED VDP FROM "CHART VDP AT 0.79 NM TO RW02" TO "CHART VDP AT 0.92 NM TO RW02" - NEW SURVEY DATA.
23. LANDING MINIMUMS: LPV - ALL CATS DA CHANGED FROM 7739 TO 7740 - NEW SURVEY.
24. LANDING MINIMUMS: LNAV/VNAV - ALL CATS DA CHANGED FROM 7789 TO 7790 - NEW SURVEY.
25. LANDING MINIMUMS: LNAV - (INCORPORATES NOTAM 0/0562) CHANGED ALL CATS MDA FROM 7840 TO 7880 AND ALL CATS HAT FROM 301 TO 340 - NEW CONTROLLING OBSTACLE/NEW SURVEY.
26. LANDING MINIMUMS: CIRCLING - CHANGED CATS A/B HAA FROM 501 TO 500, CAT C HAA FROM 541 TO 540 AND CAT D HAA FROM 561 TO 560 - NEW SURVEY/NEW CONTROLLING OBSTACLE/DID NOT INCORPORATE NOTAM 0/0562 CIRCLING REMARK - THE CONTROLLING OBSTACLE LISTED IN NOTAM IS NOT THE CONTROLLER.
27. CRC REMAINDER CHANGED FROM 061B7E43 TO DF9254F8 - LTP LAT/LONG CHANGED FROM 372530.6590N/ 1055232.1500W TO 372530.6525N /1055232.1540W AND FPAP LAT/LONG CHANGED FROM 372646.5050N/1055133.2570W TO 372646.4890N/1055133.2430W AND THE LTP AND FPAP ORTHOMETRIC HEIGHTS CHANGED FROM 22979 TO 22980.

COORDINATED WITH:

A4A
 ALPA
 AOPA
 APA
 HAI
 NBAA
 OTHER: ZDV, AMGR
Digitally signed by

FLIGHT CHECKED BY
JEFFREY J SCORSE

JON DENTON
Nov 10, 2021

OFFICE
FPO

DATE
11/09/2021

Digitally signed by
APRIL T SARMENTO
Sep 21, 2021

DEVELOPED BY
APRIL SARMENTO

OFFICE
AJV-A432

DATE
07/22/2021

APPROVED BY
LONNIE EVERHART

Digitally signed by
JON DENTON
Nov 10, 2021

OFFICE
AJV-A430

DATE

TITLE
MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KALS
RUNWAY	RW02
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W02A
LTP/FTP LATITUDE	372530.6525N
LTP/FTP LONGITUDE	1055232.1540W
LTP/FTP ELLIPSOIDAL HEIGHT	+22812
FPAP LATITUDE	372646.4890N
FPAP LONGITUDE	1055133.2430W
THRESHOLD CROSSING HEIGHT (TCH)	00048.1
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0152
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	35.0
CRC REMAINDER	DF9254F8

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K2
LTP ORTHOMETRIC HEIGHT	+22980
FPAP ORTHOMETRIC HEIGHT	+22980

