

U.S. Department
of Transportation

800 Independence Ave., S.W.
Washington, D.C. 20591

**Federal Aviation
Administration**

Transmittal Letter 18-16

June 15, 2018

**PREPARED BY THE AERONAUTICAL INFORMATION GROUP, AJV-53
(AVAILABLE ON THE WEB AT [HTTP://NFDC.FAA.GOV](http://NFDC.FAA.GOV))**

**The enclosed Standard Instrument Approach Procedures, Departure
Procedures/Takeoff Minimums and Fix Actions are effective as indicated.**

**The following are corrected copies of procedures originally published in TL 18-13 on May 4,
2018, in TL 18-14 on May 18, 2018, and in TL 18-15 on June 1, 2018.**

Buckland, AK, Buckland, RNAV (GPS) RWY 11, Amdt 2
Buckland, AK, Buckland, RNAV (GPS) RWY 29, Amdt 1
Manley Hot Springs, AK, Manley Hot Springs, RNAV (GPS) RWY 18, Orig
Manley Hot Springs, AK, Manley Hot Springs, RNAV (GPS) RWY 36, Orig
Visalia, CA, Visalia Muni, RNAV (GPS) RWY 12, Amdt 1C
Visalia, CA, Visalia Muni, RNAV (GPS) RWY 30, Amdt 1B
Visalia, CA, Visalia Muni, VOR RWY 12, Amdt 6C
Eagle, CO, Eagle County Rgnl, LDA RWY 25, Amdt 1
Morris, IL, Morris Muni - James R Washburn Field, VOR-A, Orig-D
Menominee, MI, Menominee Rgnl, RNAV (GPS) RWY 32, Amdt 1C
New York, NY, John F Kennedy Intl, RNAV (RNP) Z RWY 22L, Amdt 1C
New York, NY, John F Kennedy Intl, RNAV (RNP) Z RWY 31L, Amdt 1A
Richmond, VA, Richmond Intl, RNAV (RNP) Y RWY 20, Orig-B

**The following procedure, previously published in TL 18-14, on May 18, 2018, has been
rescinded in its entirety.**

Oakland, CA, Metropolitan Oakland Intl, RNAV (RNP) Z RWY 12, Amdt 2

US DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION							RNAV - STANDARD INSTRUMENT APPROACH PROCEDURE TITLE 14 CFR PART 97.33										Bearings, headings, courses, 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 in feet RVR.									
TERMINAL ROUTES														MISSED APPROACH												
FROM				TO				COURSE AND DISTANCE				ALTITUDE		LPV: DA LNAV/VNAV: DA LNAV: RW11 CLIMB TO 3100 DIRECT JAMUR AND HOLD, CONTINUE CLIMB-IN-HOLD TO 3100. ADDITIONAL FLIGHT DATA: HOLD E, RT, 291.17 INBOUND. CHART FAS OBST: 79 TREE 655845N/1611100W. 310 AAO 660148N1612019W DISTANCE TO THLD FROM 250 HAT: 0.69 NM. CHART VDP AT 0.90 NM TO RW11* *LNAV ONLY. WAAS CHANNEL # 58041 REFERENCE PATH ID: W11A CHART CIRCLING ICON LTP HAE: 13 M												
WADUN (IAF)				HAGVA (NOPT) (TF) (FB) (RNP 1.00)				200.51 / 8.00				2900														
KENKE (IAF) ←				HAGVA (NOPT) (TF) (FB) (RNP 1.00)				020.20 / 8.00				2900														
HAGVA (IF/IAF)				BIHGO (TF) (FB) (RNP 1.00)				110.35 / 7.70				1900														
BIHGO (FAF)				WIBLO/1.90 NM TO RW11 (TF) (FB) (RNP 0.30)				110.60 / 3.89																		
WIBLO/1.90 NM TO RW11				RW11 (MAP) (TF) (FB) (RNP 0.30)				110.60 / 1.90																		
(SEE FORM 8260-10)																										
THIS IS A CORRECTED COPY OF A PROCEDURE ORIGINALLY PUBLISHED IN TL 18-15.																										
1. PT _____ SIDE OF COURSE _____ OUTBOUND _____ FT WITHIN _____ MILES OF _____ (IAF)														MAG VAR: 11E EPOCH YEAR: 2020												
2. HOLD W HAGVA, RT, 110.35 INBOUND, 2900 FT. IN LIEU OF PT (IAF)																										
3. FAC: 110.60 FAF: BIHGO DIST FAF TO MAP: 5.79 THLD: 5.79																										
4. MIN. ALT: HAGVA 2900, BIHGO 1900, WIBLO/1.90 NM TO RW11 660*																										
5. DIST TO THLD FROM OM: _____ MM: _____ IM: _____ 150 HAT: _____ 100 HAT: _____ GS ANT: _____																										
6. MIN GS INCPT: 1900 GS ALT AT: BIHGO 1900 OM: _____ MM: _____ IM: _____																										
7. GS ANGLE: 3.00 TCH: 30.0 34:1 IS CLEAR																										
8. MSA FROM: _____																										
MINIMUMS																										
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT							ALTERNATE: N A			STANDARD @																
CATEGORY =====>		A			B			C			D			E												
	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA											
LPV DA	279	1	250	279	1	250	279	1	250		NA															
LNAV/VNAV DA	279	1	250	279	1	250	279	1	250		NA															
LNAV MDA	340	1	311	340	1	311	340	1	311		NA															
CIRCLING	540	1	511	540	1	511	640	1 3/4	611		NA															
NOTES: CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -21C (-5F) OR ABOVE 54C (130F). @ NA WHEN LOCAL WEATHER NOT AVAILABLE. CHART NOTE: BARO-VNAV AND VDP NA WHEN USING SELAWIK ALTIMETER SETTING. CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}). ← PBN REQUIREMENTS NOTE: RNP APCH ← (CONTINUED ON PAGE 2)																										
CITY AND STATE BUCKLAND, AK				ELEVATION: 29 TDZE: 29 AIRPORT NAME: BUCKLAND				FACILITY IDENTIFIER: RNAV		PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (GPS) RWY 11, AMDT 2 19 JULY 2018				SUP: AMDT: 1 DATED 07/05/2007												

US DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION
RNAV - STANDARD
INSTRUMENT APPROACH PROCEDURE - TITLE 14 CFR PART 97.33

Bearings, headings, courses, 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 in feet RVR.

TERMINAL ROUTES, (CONT.):

FROM	TO	COURSE AND DISTANCE	ALTITUDE
RW11 (MAP)	279 MSL (CA)	110.60	279
279 MSL	JAMUR (DF) (FO) (RNP 1.00)		3100

NOTES, (CONT.):

CHART NOTE: WHEN LOCAL ALTIMETER SETTING IS NOT RECEIVED USE SELAWIK ALTIMETER SETTING: INCREASE DA TO 387 FT AND ALL VISIBILITIES 3/8 SM; INCREASE ALL MDAS 120 FT AND VISIBILITY CAT C 1/4 SM.

TAA

	FROM	TO	ALT
1.	020/30 CW 200/30 (NOPT)	020/12 CW 200/12	4400
	020/12 CW 200/12	HAGVA (IF/IAF) (FB)	2900
2.	200/30 CW 290/30	200/15 CW 290/15	5600
	200/15 CW 290/15	WADUN (IAF) (FB)	4200
3.	290/30 CW 020/30	290/15 CW 020/15	4800
4.	290/15 CW 020/15	KENKE (IAF) (FB)	3900

QUALITY
4
CHECKED

CITY AND STATE
BUCKLAND, AK

ELEVATION: 29 TDZE: 29
AIRPORT NAME:
BUCKLAND

FACILITY
IDENTIFIER:
RNAV

PROCEDURE NO./AMDT NO./EFFECTIVE DATE:
RNAV (GPS) RWY 11, AMDT 2
19 JULY 2018

SUP:
AMDT: 1
DATED: 07/05/2007

**RNAV STANDARD INSTRUMENT APPROACH PROCEDURE
FLIGHT STANDARDS SERVICE - FAR PART 97.33**

Bearings, headings, courses, 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 in feet RVR.

FAS DATA BLOCK INFORMATION**DATA FIELD****DATA**

OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	PABL
RUNWAY	RW11
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W11A
LTP/FTP LATITUDE	655901.9205N
LTP/FTP LONGITUDE	1610929.7375W
LTP/FTP ELLIPSOIDAL HEIGHT	+00130
FPAP LATITUDE	655815.1275N
FPAP LONGITUDE	1610624.5850W
THRESHOLD CROSSING HEIGHT (TCH)	00030.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1776
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0

CRC REMAINDER

ED0FD3ED

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	PA
LTP ORTHOMETRIC HEIGHT	+00083
FPAP ORTHOMETRIC HEIGHT	+00083

QUALITY
4
CHECKED

CITY AND STATE

BUCKLAND, AK

ELEVATION: 29

TDZE: 29

AIRPORT NAME:

BUCKLAND

FACILITY
IDENTIFIER:

RNAV

PROCEDURE NO./AMDT NO./EFFECTIVE DATE:

RNAV (GPS) RWY 11, AMDT 2

19 JULY 2018

SUP:

AMDT:

1

DATED:

07/05/2007

US DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION							RNAV - STANDARD INSTRUMENT APPROACH PROCEDURE TITLE 14 CFR PART 97.33									Bearings, headings, courses, 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 in feet RVR.								
TERMINAL ROUTES																MISSED APPROACH								
FROM				TO				COURSE AND DISTANCE				ALTITUDE		LP: RW29 LNAV: RW29										
KAGDE (IAF) ←				JAMUR (NOPT) (TF) (FB) (RNP 1.00)				021.01 / 8.00				3100		CLIMB TO 2900 DIRECT HAGVA AND HOLD.										
EBUPE (IAF)				JAMUR (NOPT) (TF) (FB) (RNP 1.00)				201.33 / 8.00				3100												
JAMUR (IF/IAF)				FARPU (TF) (FB) (RNP 1.00)				291.17 / 6.73				1900												
FARPU (FAF)				IBOKE/3.00 NM TO RW29 (TF) (FB) (RNP 0.30)				290.95 / 1.95																
IBOKE/3.00 NM TO RW29				RW29 (MAP) (TF) (FO) (RNP 0.30)				290.95 / 3.00						ADDITIONAL FLIGHT DATA: HOLD W, RT, 110.35 INBOUND. CHART FAS OBST: 279 TREE 655755N/1610229W, 213 TERRAIN 655711N/1610214W. CHART 213 TERRAIN 655711N1610214W CHART VDP AT 1.13 NM TO RW29. WAAS CHANNEL # 82441 REFERENCE PATH ID: W29A CHART CIRCLING ICON. FARPU TO RW29: 3.50/30. LTP HAE: 13.6 M										
(SEE FORM 8260-10)																								
THIS IS A CORRECTED COPY OF A PROCEDURE ORIGINALLY PUBLISHED IN TL 18-15.																								
1. PT _____ SIDE OF COURSE _____ OUTBOUND _____ FT WITHIN _____ MILES OF _____ (IAF)																								
2. HOLD E JAMUR, RT, 291.17 INBOUND, 3100 FT. IN LIEU OF PT (IAF)																								
3. FAC: 290.95 FAF: FARPU DIST FAF TO MAP: 4.95 THLD: 4.95																								
4. MIN. ALT: JAMUR 3100, FARPU 1900, IBOKE/3.00 NM TO RW29 1160																								
5. DIST TO THLD FROM OM: _____ MM: _____ IM: _____ 150 HAT: _____ 100 HAT: _____ GS ANT: _____																								
6. MIN GS INCPT: _____ GS ALT AT: _____ OM: _____ MM: _____ IM: _____																								
7. GS ANGLE: _____ TCH: 34:1 IS NOT CLEAR																								
8. MSA FROM: _____																								
MAG VAR: 11E EPOCH YEAR: 2020																								
MINIMUMS																								
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT							ALTERNATE: N A		STANDARD @															
CATEGORY ==>		A			B			C			D			E										
	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA									
LP MDA	480	1	451	480	1	451	480	1	451		NA													
LNAV MDA	540	1	511	540	1	511	540	1 3/8	511		NA													
CIRCLING	540	1	511	540	1	511	640	1 3/4	611		NA													
NOTES: CHART NOTE: RWY 29 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. CHART NOTE: VDP NA WHEN USING SELAWIK ALTIMETER SETTING. PBN REQUIREMENTS NOTE: RNP APCH ← CHART NOTE: WHEN BUCKLAND ALTIMETER SETTING NOT RECEIVED, USE SELAWIK ALTIMETER SETTING AND INCREASE ALL MDA 120 FT, LNAV CAT C VISIBILITY 3/8 SM AND CIRCLING CAT C 1/4 SM.																								
CITY AND STATE BUCKLAND, AK				ELEVATION: 29 TDZE: 29 AIRPORT NAME: BUCKLAND				FACILITY IDENTIFIER: RNAV		PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (GPS) RWY 29, AMDT 1 19 JULY 2018				SUP: AMDT: ORIG DATED 07/05/2007										

QUALITY
4
CHECKED

US DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION
RNAV - STANDARD
INSTRUMENT APPROACH PROCEDURE - TITLE 14 CFR PART 97.33

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TERMINAL ROUTES, (CONT.):

FROM	TO	COURSE AND DISTANCE	ALTITUDE
RW29 (MAP)	429 MSL (CA)	290.95	

429 MSL	HAGVA (DF) (FO) (RNP 1.00)	2900

TAA

	FROM	TO	ALT
1.	201/30 CW 021/30 (NOPT)	201/6 CW 021/6	5600
	201/6 CW 021/6	JAMUR (IF/IAF) (FB)	3100
2.	021/30 CW 111/30	KAGDE (IAF) (FB)	5200
3.	111/30 CW 201/30	EBUPE (IAF) (FB)	5600

QUALITY
4
CHECKED

CITY AND STATE BUCKLAND, AK	ELEVATION: 29	TDZE: 29	FACILITY IDENTIFIER: RNAV	PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (GPS) RWY 29, AMDT 1 19 JULY 2018	SUP:
	AIRPORT NAME: BUCKLAND				AMDT: ORIG
					DATED: 07/05/2007

**RNAV STANDARD INSTRUMENT APPROACH PROCEDURE
FLIGHT STANDARDS SERVICE - FAR PART 97.33**

Bearings, headings, courses, 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 in feet RVR.

FAS DATA BLOCK INFORMATION**DATA FIELD****DATA**

OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	PABL
RUNWAY	RW29
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W29A
LTP/FTP LATITUDE	655845.3320N
LTP/FTP LONGITUDE	1610824.0480W
LTP/FTP ELLIPSOIDAL HEIGHT	+00136
FPAP LATITUDE	655932.0865N
FPAP LONGITUDE	1611129.3205W
THRESHOLD CROSSING HEIGHT (TCH)	00030.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.50
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1776
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	0.0

CRC REMAINDER

08FE903E

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	PA
LTP ORTHOMETRIC HEIGHT	+00087
FPAP ORTHOMETRIC HEIGHT	+00087

QUALITY
4
CHECKED

CITY AND STATE

BUCKLAND, AK

ELEVATION: 29

TDZE: 29

AIRPORT NAME:

BUCKLAND

FACILITY
IDENTIFIER:

RNAV

PROCEDURE NO./AMDT NO./EFFECTIVE DATE:

RNAV (GPS) RWY 29, AMDT 1

19 JULY 2018

SUP:

AMDT:

ORIG

DATED:

07/05/2007

US DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION							RNAV - STANDARD INSTRUMENT APPROACH PROCEDURE TITLE 14 CFR PART 97.33										Bearings, headings, courses, 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 in feet RVR.									
TERMINAL ROUTES																	MISSED APPROACH									
FROM				TO				COURSE AND DISTANCE				ALTITUDE		LP: MOKIE LNAV: MOKIE												
HOBOM (IAF)				SHUNT (TF) (FB) (RNP 1.00)				252.79 / 16.96				3000		CLIMBING LEFT TURN TO 4400 DIRECT OLSEE AND HOLD.												
SHUNT (IF)				JODOG (TF) (FB) (RNP 1.00)				231.24 / 6.90				2600														
JODOG (FAF)				ENEBE/3.80 NM TO MOKIE (TF) (FB) (RNP 0.30)				202.56 / 1.27																		
ENEBE/3.80 NM TO MOKIE				MOKIE (MAP) (TF) (FO) (RNP 0.30)				202.56 / 3.80																		
MOKIE (MAP)				675 MSL (CA)				202.56				4400		ADDITIONAL FLIGHT DATA: HOLD SE, RT, 296.54 INBOUND. CHART ARRIVAL HOLDING AT HOBOM: HOLD E, RT, 252.79 INBOUND, 5100. FAS OBST: 1500 AAO 650321N/1503232W. FAS OBST: 1430 AAO 650312N/1503341W. WAAS CHANNEL # 69541 REFERENCE PATH ID: W18A CHART CIRCLING ICON. JODOG TO RW18: 3.73/40. CHART TANANA ASOS FREQUENCY FICTICIOUS THRESHOLD POINT (CFDWB) DO NOT CHART FAC CROSSES RWY C/L EXTENDED 4500 FT FROM THLD. CHART PLANVIEW NOTE: FINAL APPROACH COURSE OFFSET 19.90 DEGREES. LTP HAE: 92.8 M												
675 MSL				OLSEE (DF) (FO) (RNP 1.00)																						
THIS IS A CORRECTED COPY OF A PROCEDURE ORIGINALLY PUBLISHED IN TL 18-14.																										
1. PT _____ SIDE OF COURSE _____ OUTBOUND _____ FT WITHIN _____ MILES OF _____ (IAF)																										
2. PROFILE STARTS AT SHUNT																										
3. FAC: 202.56 FAF: JODOG DIST FAF TO MAP: 5.07 THLD: 5.77																										
4. MIN. ALT: SHUNT 3000, JODOG 2600, ENEBE/3.80 NM TO MOKIE 2100																										
5. DIST TO THLD FROM OM: _____ MM: _____ IM: _____ 150 HAT: _____ 100 HAT: _____ GS ANT: _____																										
6. MIN GS INCPT: _____ GS ALT AT: _____ OM: _____ MM: _____ IM: _____																										
7. GS ANGLE: _____ TCH: 20:1 IS NOT CLEAR 34:1 IS NOT CLEAR																										
8. MSA FROM: RW18 5800																										
MAG VAR: 18E EPOCH YEAR: 2015																										
MINIMUMS																										
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT																										
ALTERNATE: N A X																										
CATEGORY ==>>>		A			B			C			D			E												
	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA											
LP MDA	1860	1 1/4	1585	1860	1 1/2	1585	1860	3	1585		NA															
LNAV MDA	1960	1 1/4	1685	1960	1 1/2	1685	1960	3	1685		NA															
CIRCLING	1960	1 1/4	1685	1960	1 1/2	1685	1960	3	1685		NA															
NOTES: CHART NOTE: WHEN TANANA ALTIMETER SETTING NOT RECEIVED, PROCEDURE NA. CHART NOTE: CIRCLING NA W OF RWY 18-36. CHART NOTE: RWY 18 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED.																										
(CONTINUED ON PAGE 2)																										
CITY AND STATE MANLEY HOT SPRINGS, AK				ELEVATION: 275 TDZE: 275 AIRPORT NAME: MANLEY HOT SPRINGS				FACILITY IDENTIFIER: RNAV		PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (GPS) RWY 18, ORIG 19 JULY 2018						SUP: AMDT: NONE DATED										



US DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION
RNAV - STANDARD
INSTRUMENT APPROACH PROCEDURE - TITLE 14 CFR PART 97.33

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NOTES, (CONT.):
CHART NOTE: PROCEDURE NA AT NIGHT.
PBN REQUIREMENTS NOTE: RNP APCH

QUALITY
4
CHECKED

CITY AND STATE MANLEY HOT SPRINGS, AK	ELEVATION: 275 AIRPORT NAME: MANLEY HOT SPRINGS	TDZE: 275	FACILITY IDENTIFIER: RNAV	PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (GPS) RWY 18, ORIG 19 JULY 2018	SUP:
					AMDT: NONE
					DATED:

RNAV STANDARD INSTRUMENT APPROACH PROCEDURE
FLIGHT STANDARDS SERVICE - FAR PART 97.33

Bearings, headings, courses, 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 in feet RVR.

FAS DATA BLOCK INFORMATIONDATA FIELDDATA

OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	PAML
RUNWAY	RW18
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W18A
LTP/FTP LATITUDE	645942.0740N
LTP/FTP LONGITUDE	1503904.5140W
LTP/FTP ELLIPSOIDAL HEIGHT	+00928
FPAP LATITUDE	645834.4560N
FPAP LONGITUDE	1504120.4840W
THRESHOLD CROSSING HEIGHT (TCH)	00040.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.73
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0000
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	0.0

CRC REMAINDER

2E8CDC1F

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	PA
LTP ORTHOMETRIC HEIGHT	+00839
FPAP ORTHOMETRIC HEIGHT	+00839

QUALITY
4
CHECKED

CITY AND STATE

MANLEY HOT SPRINGS, AK

ELEVATION: 275

TDZE: 275

AIRPORT NAME:

MANLEY HOT SPRINGS

FACILITY
IDENTIFIER:
RNAV

PROCEDURE NO./AMDT NO./EFFECTIVE DATE:

RNAV (GPS) RWY 18, ORIG

19 JULY 2018

SUP:

AMDT: NONE

DATED:

US DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION							RNAV - STANDARD INSTRUMENT APPROACH PROCEDURE TITLE 14 CFR PART 97.33									Bearings, headings, courses, 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 in feet RVR.							
TERMINAL ROUTES												MISSED APPROACH											
FROM				TO				COURSE AND DISTANCE				ALTITUDE		LP: FIRBI LNAV: FIRBI									
OLSEE (IAF)				SPLAY (TF) (FB) (RNP 1.00)				296.54 / 15.75				2800		CLIMBING RIGHT TURN TO 4400 DIRECT OLSEE AND HOLD.									
TADUE (IAF)				SPLAY (TF) (FB) (RNP 1.00)				083.95 / 16.00				2800											
SPLAY (IF)				HIKAT (TF) (FB) (RNP 1.00)				021.99 / 6.16				2100											
HIKAT (FAF)				DAFTY/2.10 NM TO FIRBI (TF) (FB) (RNP 0.30)				021.77 / 2.83															
DAFTY/2.10 NM TO FIRBI				FIRBI (MAP) (TF) (FO) (RNP 0.30)				021.77 / 2.10						ADDITIONAL FLIGHT DATA: HOLD SE, RT, 296.54 INBOUND. CHART FAS OBST: 379 TREE 645748N/1503943W, 373 TREE 645826N/1503937W. CHART 378 TREE 645636N/1504226W WAAS CHANNEL # 63141 REFERENCE PATH ID: W36A CHART CIRCLING ICON. HIKAT TO RW36: 2.98/40. FICTITIOUS THRESHOLD POINT (CFRKB) DO NOT CHART CHART TANANA ASOS FREQUENCY FAC CROSSES RWY C/L EXTENDED 4500 FT FROM THLD. CHART PLANVIEW NOTE: FINAL APPROACH COURSE OFFSET 19.37 DEGREES. LTP HAE: 92.8 M									
(SEE FORM 8260-10)																							
THIS IS A CORRECTED COPY OF A PROCEDURE ORIGINALLY PUBLISHED IN TL 18-14.																							
1. PT _____ SIDE OF COURSE _____ OUTBOUND _____ FT WITHIN _____ MILES OF _____ (IAF)																							
2. PROFILE STARTS AT SPLAY																							
3. FAC: 021.77 FAF: HIKAT DIST FAF TO MAP: 4.93 THLD: 5.63																							
4. MIN. ALT: SPLAY 2800, HIKAT 2100, DAFTY/2.10 NM TO FIRBI 1200																							
5. DIST TO THLD FROM OM: _____ MM: _____ IM: _____ 150 HAT: _____ 100 HAT: _____ GS ANT: _____																							
6. MIN GS INCPT: _____ GS ALT AT: _____ OM: _____ MM: _____ IM: _____																							
7. GS ANGLE: _____ TCH: 20:1 IS CLEAR 34:1 IS NOT CLEAR																							
8. MSA FROM: RW36 5800																							
												MAG VAR: 18E						EPOCH YEAR: 2015					
MINIMUMS																							
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT												ALTERNATE: N A X											
CATEGORY ==>		A			B			C			D			E									
	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA								
LP MDA	720	1	445	720	1	445	720	1 3/8	445		NA												
LNAV MDA	1020	1	745	1020	1 1/4	745	1020	2	745		NA												
CIRCLING	1140	1 1/4	865	1280	1 1/4	1005	1580	3	1305		NA												
NOTES: CHART NOTE: WHEN TANANA ALTIMETER SETTING NOT RECEIVED, PROCEDURE NA. CHART NOTE: CIRCLING NA W OF RWY 18-36. CHART NOTE: RWY 36 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.																							
(CONTINUED ON PAGE 2)																							
CITY AND STATE MANLEY HOT SPRINGS, AK				ELEVATION: 275 TDZE: 275 AIRPORT NAME: MANLEY HOT SPRINGS				FACILITY IDENTIFIER: RNAV		PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (GPS) RWY 36, ORIG 19 JULY 2018						SUP: AMDT: NONE DATED							



US DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION
RNAV - STANDARD
INSTRUMENT APPROACH PROCEDURE - TITLE 14 CFR PART 97.33

Bearings, headings, courses, 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 in feet RVR.

TERMINAL ROUTES, (CONT.):

FROM	TO	COURSE AND DISTANCE	ALTITUDE
FIRBI (MAP)	675 MSL (CA)	021.77	
675 MSL	OLSEE (DF) (FO) (RNP 1.00)		4400

NOTES, (CONT.):

CHART NOTE: PROCEDURE NA AT NIGHT.

PBN REQUIREMENTS NOTE: RNP APCH

QUALITY
4
CHECKED

CITY AND STATE

MANLEY HOT SPRINGS, AK

ELEVATION: 275

TDZE: 275

AIRPORT NAME:

MANLEY HOT SPRINGS

FACILITY
IDENTIFIER:

RNAV

PROCEDURE NO./AMDT NO./EFFECTIVE DATE:
RNAV (GPS) RWY 36, ORIG
19 JULY 2018

SUP:

AMDT: **NONE**

DATED:

RNAV STANDARD INSTRUMENT APPROACH PROCEDURE
FLIGHT STANDARDS SERVICE - FAR PART 97.33

Bearings, headings, courses, 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 in feet RVR.

FAS DATA BLOCK INFORMATIONDATA FIELDDATA

OPERATION TYPE 0
SBAS SERVICE PROVIDER IDENTIFIER 0
AIRPORT IDENTIFIER PAML
RUNWAY RW36
APPROACH PERFORMANCE DESIGNATOR 0
ROUTE INDICATOR 0
REFERENCE PATH DATA SELECTOR 0
REFERENCE PATH IDENTIFIER (APPROACH ID) W36A
LTP/FTP LATITUDE 645851.5400N
LTP/FTP LONGITUDE 1503838.4930W
LTP/FTP ELLIPSOIDAL HEIGHT +00928
FPAP LATITUDE 645959.6555N
FPAP LONGITUDE 1503623.8905W
THRESHOLD CROSSING HEIGHT (TCH) 00040.0
TCH UNITS SELECTOR (METERS OR FEET USED) F
GLIDEPATH ANGLE (GPA) 02.98
COURSE WIDTH AT THRESHOLD 106.75
LENGTH OFFSET 0000
HORIZONTAL ALERT LIMIT (HAL) 40.0
VERTICAL ALERT LIMIT (VAL) 0.0

CRC REMAINDER

EFA188DA

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE PA
LTP ORTHOMETRIC HEIGHT +00839
FPAP ORTHOMETRIC HEIGHT +00839

QUALITY
4
CHECKED

CITY AND STATE

MANLEY HOT SPRINGS, AK

ELEVATION: 275

TDZE: 275

AIRPORT NAME:

MANLEY HOT SPRINGS

FACILITY
IDENTIFIER:
RNAV

PROCEDURE NO./AMDT NO./EFFECTIVE DATE:

RNAV (GPS) RWY 36, ORIG

19 JULY 2018

SUP:

AMDT: NONE

DATED:

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> VISALIA MUNI	<u>AIRPORT ID</u> KVIS	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 12	<u>ORIGINAL/AMENDMENT</u> 1C	<u>CITY</u> VISALIA	<u>STATE</u> CA
<u>AIRPORT ELEVATION</u> 295	<u>TDZE</u> 293	<u>SUPERSEDED</u> RNAV (GPS) RWY 12	<u>ORIGINAL/AMENDMENT</u> 1B	<u>DATED</u> 08/21/2014	<u>MAG VAR</u> 14E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 2010

TERMINAL ROUTES

THIS IS A CORRECTED COPY OF A PROCEDURE ORIGINALLY PUBLISHED IN TL 18-15.

<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>
DINUB		CALRY		TF	FO	2.00	273.54	11.68	3200
FRAME	IAF	CALRY	NOPT	TF	FB	1.00	128.85	9.74	3200
CALRY	IF/IAF	ZIRES		TF	FB	1.00	135.66	6.10	2300
ZIRES	FAF	FIPAT/1.40 NM TO RW12		TF	FB	0.30	120.75	4.75	
FIPAT/1.40 NM TO RW12		RW12	MAP	TF	FO	0.30	120.79	1.40	
RW12	MAP	543 MSL		CA			120.79		
543 MSL		PANES		DF	FO	1.00			2900

MISSED APPROACH

MAP:

LPV: DA
 LNAV/VNAV: DA
 LNAV: RW12

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2900 DIRECT PANES AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)
2. HOLD NW CALRY, RT, 135.66 INBOUND, 3200 FT. IN LIEU OF PT (IAF), MAX 6000.
3. FAC: 120.75 FAF: ZIRES DIST FAF TO MAP: 6.15 DIST FAF TO THLD: 6.15
4. MIN ALT: CALRY 3200, ZIRES 2300, FIPAT/1.40 NM TO RW12 780*
5. DIST TO THLD FROM OM: MM: IM: 150 HAT: 250 HAT: 0.63
6. MIN GP INCPT: 2300 GP ALT AT FAF : ZIRES 2300 OM: MM: IM:
7. GP ANGLE: 3.00 34:1: IS CLEAR 20:1: IS CLEAR TCH: 50.0
8. MSA FROM: RW12 7700

PBN EQUIPMENT REQUIREMENTS NOTES

RNP APCH

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -15C OR ABOVE 54C.
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
*LNAV ONLY
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL AT DINUB ON V165 SOUTHEAST BOUND
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL AT FRAME ON V23 NORTHWEST BOUND

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
WAAS CHANNEL #82423
REFERENCE PATH ID: W12A
CHART FAS OBST: 417 TANK 362027N/1192420W.
HOLD SE, RT, 300.90 INBOUND
LTP HAE: 56.9 M

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD

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	543	3/4	250	543	3/4	250	543	3/4	250	543	3/4	250			
LNAV/VNAV DA	697	1 3/8	404	697	1 3/8	404	697	1 3/8	404	697	1 3/8	404			
LNAV MDA	680	1	387	680	1	387	680	1 1/8	387	680	1 1/8	387			
CIRCLING	720	1	425	760	1	465	760	1 1/2	465	940	2	645			



<u>AIRPORT</u>	<u>AIRPORT ID</u>	<u>PROCEDURE NAME</u>	<u>ORIGINAL/AMENDMENT</u>	<u>CITY</u>	<u>STATE</u>
VISALIA MUNI	KVIS	RNAV (GPS) RWY 12	1C	VISALIA	CA

CHANGES - REASONS

- 1. ADDED ADDITIONAL FLIGHT DATA: CHART CIRCLING ICON. - NEW CIRCLING CRITERIA APPLIED.
- 2. UPDATED LINE 7: 34:1 IS CLEAR, 20:1 IS CLEAR. - NO 34:1 OR 20:1 PENETRATIONS EXIST IN CAT A/B EVALUATION AREA.
- 3. UPDATED CIRCLING CAT D MDA/HAA FROM 860/565 TO 940/647. - NEW CIRCLING CRITERIA APPLIED/NEW CONTROLLING OBSTACLE.
- 4. REMOVED CHART NOTE: VISIBILITY REDUCTION BY HELICOPTERS NA. - NO 34:1 OR 20:1 PENETRATIONS EXISTS IN CAT A/B EVALUATION AREA.
- 5. REMOVED CHART NOTE: DME/DME RNP-0.3 NA. ADDED PBN REQUIREMENT NOTE: RNP APCH. - 8260.19H.
- 6. MOVED ALTERNATE ALTIMETER CHART NOTE TO 8260.- PART C - REMARKS. - IAW 8260.19H 8.6.9 F.2(E)3.
- 7. MOVED CHART NOTE: VDP AND BARO-VNAV NA WHEN USING HANFORD ALTIMETER SETTING. - IAW 8260.19H 8.6.9 F.2(E)3.
- 8. UPDATED CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, FROM LNAV.VNAV NA "BELOW -15C(5F) OR ABOVE 41C(105F)" TO "BELOW -15C OR ABOVE 54C." - IAW 8260.54A.
- 9. LTP/FTP LATITUDE AND LONGITUDE CHANGED FROM 361923.6400N/1192354.8800W TO 361923.5675N/1192354.7905W. LTP/FTP ELLIPSOIDAL HEIGHT CHANGED FROM +00572 TO +00569. - DUE TO NEW AIRNAV DATA INCORPORATED.
- 10. FPAP LATITUDE AND LONGITUDE CHANGED FROM 361820.7600N/1192236.6600W TO 361820.6885N/1192236.5715W. - DUE TO NEW AIRNAV DATA INCORPORATED.
- 11. LTP/FPAP ORTHOMETRIC HEIGHT CHANGED FROM +00891 TO +00890. - DUE TO NEW AIRNAV DATA INCORPORATED.
- 12. CRC REMAINDER CHANGED FROM E64944A9 TO 1C626091. - DUE TO NEW AIRNAV DATA INCORPORATED.
- 13. REMOVED "NA WHEN LOCAL WEATHER NOT AVAILABLE" FROM ALTERNATE MINIMUMS. - ALTERNATE MINIMUMS ARE AUTHORIZED FOR RNAV (GPS) PROCEDURES.
- 14. TERMINAL ROUTES: CHANGED INTERMEDIATE RNP FROM 0.50 TO 1.00. - IAW 8260.19H, PARA 4-6-10.F.
- 15. ADDED CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}). - VGSI ADDED TO RUNWAY 12.

5/23/2018: THIS IS A CORRECTED COPY OF THE FORM DEVELOPED ON 3/19/2018:

- 1. ADDED CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).



COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZOA ARTCC, FRESNO APP CON, AMGR, ATA

FLIGHT CHECKED BY

THOMAS E. MOLOKIE

Digitally signed by
DONALD H LANIER

OFFICE
FIOG

DATE
05/15/18

DEVELOPED BY

LONNIE EVERHART (BARBARA GORMAN)

Jun 01, 2018
Digitally signed by
DONALD H LANIER

OFFICE
AJV-5400

DATE
03/19/2018

APPROVED BY

LONNIE EVERHART

Jun 01, 2018
Digitally signed by
DONALD H LANIER
Jun 01, 2018

OFFICE
AJV-5400

DATE

TITLE
MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KVIS
RUNWAY	RW12
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W12A
LTP/FTP LATITUDE	361923.5675N
LTP/FTP LONGITUDE	1192354.7905W
LTP/FTP ELLIPSOIDAL HEIGHT	+00569
FPAP LATITUDE	361820.6885N
FPAP LONGITUDE	1192236.5715W
THRESHOLD CROSSING HEIGHT (TCH)	00050.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1032
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0

CRC REMAINDER	1C626091

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K2
LTP ORTHOMETRIC HEIGHT	+00890
FPAP ORTHOMETRIC HEIGHT	+00890



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> VISALIA MUNI	<u>AIRPORT ID</u> KVIS	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 30	<u>ORIGINAL/AMENDMENT</u> 1B	<u>CITY</u> VISALIA	<u>STATE</u> CA
<u>AIRPORT ELEVATION</u> 295	<u>TDZE</u> 295	<u>SUPERSEDED</u> RNAV (GPS) RWY 30	<u>ORIGINAL/AMENDMENT</u> 1A	<u>DATED</u> 08/21/2014	<u>MAG VAR</u> 14E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 2010

TERMINAL ROUTES

THIS IS A CORRECTED COPY OF A PROCEDURE ORIGINALLY PUBLISHED IN TL 18-15.

<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>
TTE VOR/DME		BRETT		TF	FB	2.00	320.51	13.32	3000
PIXEY		PANES		TF	FO	2.00	045.42	10.37	2900
LATON		PANES		TF	FO	2.00	112.11	19.77	2900
EXTRA		PANES		TF	FO	2.00	167.26	8.76	2900
BRETT	IAF	PANES	NOPT	TF	FB	1.00	300.95	5.75	2900
PANES	IF/IAF	PACOD		TF	FB	1.00	300.90	5.93	2000
PACOD	FAF	HOTLI/1.50 NM TO RW30		TF	FB	0.30	300.85	3.69	
HOTLI/1.50 NM TO RW30		RW30	MAP	TF	FO	0.30	300.85	1.50	
RW30	MAP	495 MSL		CA			300.85		
495 MSL		INOC		DF	FB				
INOC		LATON		TF	FO	1.00	267.04	5.32	3000

MISSED APPROACH

MAP:

LPV: DA
 LNAV/VNAV: DA
 LNAV: RW30

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3000 DIRECT INOC AND ON TRACK 267.04 TO LATON AND HOLD, CONTINUE CLIMB-IN-HOLD TO 3000.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)
2. HOLD SE PANES, RT, 300.90 INBOUND, 2900 FT. IN LIEU OF PT (IAF), MAX 6000.
3. FAC: 300.85FAF: PACODDIST FAF TO MAP: 5.19DIST FAF TO THLD: 5.19
4. MIN ALT: PANES 2900, PACOD 2000, HOTLI/1.50 NM TO RW30 820*
5. DIST TO THLD FROM OM:MM:IM:150 HAT:207 HAT: 0.49
6. MIN GP INCPT: 2000GP ALT AT FAF : PACOD 2000OM:MM:IM:
7. GP ANGLE: 3.0034:1: IS CLEAR20:1: IS CLEARTCH: 53.0
8. MSA FROM: RW30 8000

PBN EQUIPMENT REQUIREMENTS NOTES

RNP APCH

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -15C OR ABOVE 54C.
*LNAV ONLY
CHART NOTE: FOR INOPERATIVE ALS, INCREASE LNAV/VNAV VISIBILITY ALL CATS TO 3/4 SM, LNAV CATS C/D TO 1 SM.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL AT EXTRA ON V459 SOUTHEAST BOUND.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
CHART VDP AT 0.92 NM TO RW30*
*LNAV ONLY
WAAS CHANNEL #77623
REFERENCE PATH ID: W30A
CHART FAS OBST: 393 TREE 361855N/1192241W.
HOLD SE, RT, 321.00 INBOUND
LTP HAE: 57.6 M

MINIMUMS:

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

ALTERNATE: NA

☐

STANDARD

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	502	1/2	207	502	1/2	207	502	1/2	207	502	1/2	207			
LNAV/VNAV DA	555	1/2	260	555	1/2	260	555	1/2	260	555	1/2	260			
LNAV MDA	660	1/2	365	660	1/2	365	660	5/8	365	660	5/8	365			
CIRCLING	720	1	425	760	1	465	760	1 1/2	465	940	2	645			

QUALITY
16
CHECKED

CHANGES - REASONS

1. INCREASED LPV DA/HAT FROM 495/200 TO 502/207. - NEW OBSTACLE EVALUATION.
2. INCREASED LNAV/VNAV DA/HAT 545/250 TO 555/260. - NEW OBSTACLE EVALUATION.
3. INCREASED LNAV MDA/HAT FROM 640/345 TO 660/365. - NEW OBSTACLE EVALUATION.
4. CHANGED LNAV STEPDOWN FIX FROM FANAR TO HOTLI. - PER FPT REQUEST.
5. INCREASED CIRCLING CAT D MDA/HAA FROM 860/565 TO 940/645. - NEW CIRCLING CRITERIA APPLIED PER FPT.
6. UPDATED ADDITIONAL FLIGHT DATA: CHART FAS OBST FROM 371 TREE 361903N/1192311W TO 393 TREE 361855N/1192241W. - NEW LNAV STEPDOWN CONTROLLING OBSTACLE. - IAW 8260.19H 8-6-10C.
7. ADDED ADDITIONAL FLIGHT DATA: CHART CIRCLING ICON. - NEW CIRCLING CRITERIA APPLIED PER FPT.
8. UPDATED LINE 7: 20:1 IS CLEAR. - NO 20:1 PENETRATIONS EXIST IN CAT A/B EVALUATION AREA.
9. REMOVED CHART NOTE: DME/DME RNP-0.3 NA. ADDED PBN REQUIREMENT NOTE: RNP APCH. - 8260.19H.
10. MOVED ALTERNATE ALTIMETER CHART NOTE TO 8260.- PART C - REMARKS. - IAW 8260.19H 8.6.9 F.2(E)3.
11. MOVED CHART NOTE: VDP AND BARO-VNAV NA WHEN USING HANFORD ALTIMETER SETTING TO 8260-9 PART C - REMARKS. - IAW 8260.19H 8.6.9 F.2(E)3.
12. UPDATED AND MOVED CHART NOTE: FOR INOPERATIVE MALSR WHEN USING HANFORD ALTIMETER SETTING. . . TO 8260-9: PART C - REMARKS. - IAW 8260.19H.
13. DELETED CHART NOTE: FOR INOPERATIVE MALSR: INCREASE LNAV/VNAV ALL CATS VISIBILITY 3/4 SM. ADDED CHART NOTE: FOR INOPERATIVE ALS, INCREASE LNAV/VNAV VISIBILITY ALL CATS TO 3/4 SM, LNAV CATS C/D TO 1 SM. - VISCHECK EVAL DATA.
14. UPDATED CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, FROM LNAV/VNAV NA "BELOW -15C(5F) OR ABOVE 41C(105F)" TO "BELOW -15C OR ABOVE 54C." - IAW 8260.54A.
15. LTP/FTP LATITUDE AND LONGITUDE CHANGED FROM 361844.3080N/1192305.9395W TO 361844.2320N/1192305.8525W. LTP/FTP ELLIPSOIDAL HEIGHT CHANGED FROM +00579 TO +00576. - DUE TO NEW AIRNAV DATA INCORPORATED.
16. FPAP LATITUDE AND LONGITUDE UPDATED FROM 361947.1700N/1192424.1800W TO 361947.1040N/1192424.0855W. COURSE WIDTH AT THRESHOLD UPDATED FROM 91.25 TO 106.75. LENGTH OFFSET UPDATED FROM 0744 TO 0752. LTP/FPAP ORTHOMETRIC HEIGHT CHANGED FROM +00899 TO +00897. - DUE TO NEW AIRNAV DATA INCORPORATED.
17. CRC REMAINDER CHANGED FROM 620A73FC TO 3AB8D149. - DUE TO NEW AIRNAV DATA INCORPORATED.
18. UPDATED LINE 3: FAC FROM 300.84 TO 300.85. - UPDATED EVALUATION.
19. UPDATED LINE 5: FROM "200 HAT: 0.46" TO "207 HAT: 0.49." - UPDATED EVALUATION.
20. REMOVED "NA WHEN LOCAL WEATHER NOT AVAILABLE" FROM ALTERNATE MINIMUMS. - ALTERNATE MINIMUMS ARE AUTHORIZED FOR RNAV (GPS) PROCEDURES.
21. TERMINAL ROUTES: CHANGED INTERMEDIATE RNP FROM 0.50 TO 1.00. - IAW 8260.19H, PARA 4-6-10.F.

6/12/2018: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 5/17/2018:

1. CHANGED THLD TO TDZE ON 8260-3.



<u>AIRPORT</u> VISALIA MUNI	<u>AIRPORT ID</u> KVIS	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 30	<u>ORIGINAL/AMENDMENT</u> 1B	<u>CITY</u> VISALIA	<u>STATE</u> CA

COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ **OTHER:** ZOA ARTCC, FRESNO APP CON, AMGR,, ATA

<u>FLIGHT CHECKED BY</u> PENDING	<i>Digitally signed by</i> ADOLFO D URRUTIA	<u>OFFICE</u> FICO	<u>DATE</u>	
<u>DEVELOPED BY</u> LONNIE EVERHART (BARBARA GORMAN)	Jun 13, 2018 <i>Digitally signed by</i> ADOLFO D URRUTIA	<u>OFFICE</u> AJV-5400	<u>DATE</u> 03/21/2018	
<u>APPROVED BY</u> LONNIE EVERHART	Jun 13, 2018 <i>Digitally signed by</i> ADOLFO D URRUTIA	<u>OFFICE</u> AJV-5400	<u>DATE</u>	<u>TITLE</u> MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KVIS
RUNWAY	RW30
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W30A
LTP/FTP LATITUDE	361844.2320N
LTP/FTP LONGITUDE	1192305.8525W
LTP/FTP ELLIPSOIDAL HEIGHT	+00576
FPAP LATITUDE	361947.1040N
FPAP LONGITUDE	1192424.0855W
THRESHOLD CROSSING HEIGHT (TCH)	00053.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0752
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	35.0

CRC REMAINDER 3AB8D149

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K2
LTP ORTHOMETRIC HEIGHT	+00897
FPAP ORTHOMETRIC HEIGHT	+00897



FLIGHT STANDARDS SERVICE
VOR STANDARD INSTRUMENT APPROACH PROCEDURE

TITLE 14 CFR PART 97.23

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.

If an instrument approach procedure of the above type is conducted at the below named airport, it shall be conducted in accordance with a charted instrument approach procedure predicted on the specifications contained herein, unless an approach is conducted in accordance with a different procedure for such airport authorized by the Administrator. Minimum altitudes shall correspond with those established for enroute operations in the particular area or as set forth below.

<u>AIRPORT</u> VISALIA MUNI	<u>AIRPORT ID</u> KVIS	<u>PROCEDURE NAME</u> VOR RWY 12	<u>ORIGINAL/AMENDMENT</u> 6C	<u>CITY</u> VISALIA	<u>STATE</u> CA
<u>AIRPORT ELEVATION</u> 295	<u>TDZE</u> 293	<u>SUPERSEDED</u> VOR RWY 12	<u>ORIGINAL/AMENDMENT</u> 6B	<u>DATED</u> 08/21/2014	<u>MAG VAR</u> 14E
<u>FACILITY</u> VIS	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 2010

TERMINAL ROUTES THIS IS A CORRECTED COPY OF A PROCEDURE ORIGINALLY PUBLISHED IN TL 18-15.

<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>
DINUB INT/8.49 DME		VIS VOR/DME					230.00	8.49	2600
EXTRA INT/CZQ 44.09 DME		VIS VOR/DME					264.49	13.00	2800
PIXEY INT/16.81 DME		VIS VOR/DME					331.34	16.81	2000
CZQ VORTAC	IAF	INBUR INT/8.27 DME	NOPT				145.86	28.02	2000
INBUR INT/8.27 DME	IF	VIS VOR/DME					107.00	8.27	1900

MISSED APPROACH

MAP:

4.84 NM AFTER VIS VOR/DME OR AT 4.84 DME

MISSED APPROACH INSTRUCTIONS:

CLIMBING RIGHT TURN TO 2000 DIRECT VIS VOR/DME AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT R SIDE OF COURSE 287.00 OUTBOUND 2000 FT WITHIN 10 MILES OF VIS VOR/DME (IAF)
- 2.
3. FAC: 107.08 FAF: VIS VOR/DME DIST FAF TO MAP: 4.84 DIST FAF TO THLD: 4.84
4. MIN ALT: VIS VOR/DME 1900
8. MSA FROM: VIS VOR/DME 160-250 1700, 250-340 2500, 340-160 5600

EQUIPMENT REQUIREMENTS NOTES:

NOTES:

CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET})



CHART NOTE: RWY 12 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.

**ADDITIONAL FLIGHT DATA:**

FAS OBST: 479 AAO 362146.23N/1192703.29W
CHART CIRCLING ICON.
VIS VOR/DME TO RW12: 3.03/50.
HOLD E, RT, 286.70 INBOUND

MINIMUMS:

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

ALTERNATE: NA ☐ LOC: STANDARD

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
S-12	740	1	447	740	1	447	740	1 3/8	447	740	1 3/8	447			
CIRCLING	740	1	445	760	1	465	760	1 1/2	465	940	2	645			

CHANGES - REASONS

1. CHANGED CIRCLING RADII TO NEW CRITERIA, CHARTED CIRCLING ICON - IAW 8260.3C, 2-7-1
2. RAISED CAT D CIRCLING MDA/HAA FROM 860/565 TO 940/645 - NEW CONTROLLING OBSTACLE.
3. MOVED ALSTG NOTE TO THE BACK OF THE -9 - IAW 8260.19H.
4. DELETED NA WHEN LOCAL WEATHER NOTE FROM ALTERNATE MINIMUMS - IAW 8260.19H.
5. RAISED FEEDER ALTITUDE FROM 2600 TO 2800-UPDATED REQUIRED MT TERRAIN ROC.

5/23/2018: THIS IS A CORRECTED COPY OF THE FORM DEVELOPED ON 3/20/2018:

1. ADDED CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).

6/13/2018: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 6/1/2018.

1. ADDED "SM" ON HELICOPTER CHART NOTE AFTER 3/4. (LRE)

A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZOA, FAT ATCT, AMGR**COORDINATED WITH:****FLIGHT CHECKED BY**

THOMAS E MOLOKIE

Digitally signed by

DONALD H LANIER

Jun 01, 2018

Digitally signed by

DONALD H LANIER

Jun 01, 2018

OFFICE

FIOG

DATE

05/15/18

DEVELOPED BY

LONNIE EVERHART (KEITH CTR MCKAY)

OFFICE

AJV-5400

DATE

03/20/2018

APPROVED BY

LONNIE EVERHART

Digitally signed by

DONALD H LANIER

Jun 01, 2018

OFFICE

AJV-5400

DATE**TITLE**

MANAGER



FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
LDA STANDARD INSTRUMENT APPROACH PROCEDURE
TITLE 14 CFR PART 97.25

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> EAGLE COUNTY RGNL	<u>AIRPORT ID</u> KEGE	<u>PROCEDURE NAME</u> LDA RWY 25	<u>ORIGINAL/AMENDMENT</u> 1	<u>CITY</u> EAGLE	<u>STATE</u> CO
<u>AIRPORT ELEVATION</u> 6547	<u>TDZE</u> 6540	<u>SUPERSEDED</u> LDA/DME RWY 25	<u>ORIGINAL/AMENDMENT</u> ORIG-C	<u>DATED</u> 08/27/2009	<u>MAG VAR</u> 9E
<u>FACILITY</u> I-ESJ	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 2020

TERMINAL ROUTES THIS IS A CORRECTED COPY OF A PROCEDURE ORIGINALLY PUBLISHED IN TL 18-15.

<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>
RLG VOR/DME		QNDRY/RLG 8.00 DME					184.00	8.00 (RLG R-184)	15100
QNDRY/RLG 8.00 DME		VOAXA/RLG 13.50 DME					184.00	5.50 (RLG R-184)	13800
VOAXA/RLG 13.50 DME	IAF	AQULA INT/17.17 DME					184.00	6.01 (RLG R-184)	12900
AQULA INT/17.17 DME		WEHAL/15.19 DME					249.95	1.99 (I-ESJ)	12200
WEHAL/15.19 DME	IF	AIGLE/10.83 DME					249.95	4.36 (I-ESJ)	10400
AIGLE/10.83 DME		WASHI/9.50 DME					249.95	1.33 (I-ESJ)	9800

MISSED APPROACH

MAP:

LDA/GS: DA
 LDA: CIPKU/I-ESJ 3.54 DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 14600 DIRECT SXW VOR/DME AND CLIMBING RIGHT TURN ON SXW VOR/DME R-001 TO JESIE INT/SXW 24.2 DME AND HOLD, CONTINUE CLIMB-IN-HOLD TO 14600. *MISSED APPROACH REQUIRES MINIMUM CLIMB OF 275 FEET PER NM TO 11700.

ALTERNATE MISSED APPROACH INSTRUCTIONS (DO NOT CHART):

CLIMB TO 15100 DIRECT SXW VOR/DME AND CLIMBING RIGHT TURN ON SXW VOR/DME R-001 AND ON RLG VOR/DME R-231 TO RLG VOR/DME AND HOLD W, RT, 080.00 INBOUND. *MISSED APPROACH REQUIRES MINIMUM CLIMB OF 275 FEET PER NM TO 11700.



PROFILE:

1. PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)
2. PROFILE STARTS AT AQUILA
3. FAC: 249.95 FAF: WASHI/9.50 DME DIST FAF TO MAP: DIST FAF TO THLD: 7.94
4. MIN ALT: AQUILA INT/17.17 DME 12900, WEHAL/15.19 DME 12200, AIGLE/10.83 DME 10400, WASHI/9.50 DME 9800
5. DIST TO THLD FROM OM: MM: IM: 150 HAT: GS ANT: 949
6. MIN GS INCPT: 9800 GS ALT AT FAF : WASHI/9.50 DME 9800 OM: MM: IM:
7. GP ANGLE: 3.80 34:1: 20:1: TCH: 54.9
8. MSA FROM: SXW VOR/DME 360-180 15300, 180-360 14600

EQUIPMENT REQUIREMENTS NOTES:

DME REQUIRED

NOTES:

CHART NOTE: INOPERATIVE TABLE DOES NOT APPLY.
CHART PROFILE NOTE: VGSI AND LDA GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART PLANVIEW AND PROFILE NOTES: * FOR LDA/GS FLY VISUAL TO AIRPORT, 250 DEGREES-4.3 MILES.
CHART NOTE: * FLY VISUAL TO AIRPORT AUTHORIZED DURING DAY ONLY.
CHART NOTE: AT NIGHT INCREASE LDA/GS VISIBLTY TO 5 SM.

ADDITIONAL FLIGHT DATA:

CHART: LOC/AZIMUTH OFFSET 3.00 DEGREES.
CHART ARRIVAL HOLDING AT VOAXA: HOLD N, RT, 184.00 INBOUND 13800.
9069 TREE 394042N/1064346W
CHART IN PLANVIEW: RLG VOR/DME
FAS OBST: 8189 TREE 393918N/1064448W.
FAC CROSSES RWY C/L EXTENDED 3085 FT FROM THLD.
CHART IN PLANVIEW: ALTERNATE MA HOLDING, HOLD W RLG VOR/DME, RT, 080.00 INBOUND.
HOLD N, LT, 180.72 INBOUND

MINIMUMS:

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

ALTERNATE: NA ☐ LDA/GS: 1800-3, LDA: 2100-2 1/2

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
S-LDA/GS 25 *	8330	3	1790	8330	3	1790	8330	3	1790		NA				
S-LDA 25	8620	2 1/2	2080	8620	2 1/2	2080	8620	3	2080		NA				



CHANGES - REASONS

- 1. ADDED SDF FIX QNDRY AT 8.00 DME AND 15100 FIX ALTITUDE TO RLG FEEDER. - PER ATC REQUEST.
- 2. CHANGED FINAL COURSE AND ALL LOCALIZER SEGMENT COURSES FROM 245.95 TO 249.95. - I-ESJ AND AIRPORT MAGVAR UPDATED FROM 13E/1980 TO 9E/2020.
- 3. CHANGED AQULA TO WEHAL DIST FROM 1.89 TO 1.99. - WEHAL MOVED .1 NM TO CLEAR AAO AND MAINTAIN SEGMENT ALTITUDE.
- 4. CHANGED WEHAL TO AIGLE DIST FROM 4.46 TO 4.36. - WEHAL MOVED .1 NM TO CLEAR AAO AND MAINTAIN SEGMENT ALTITUDE.
- 5. CHANGED AIGLE TO WASHI DIST FROM 1.46 TO 1.33. - MOVED WASHI TO PFAF LOCATION.
- 6. CHANGED FAF TO THLD DIST FROM 7.80 TO 7.94. - MOVED WASHI TO PFAF LOCATION.
- 7. CHANGED MISSED APPROACH AND HOLDING ALTITUDE FROM 14500 TO 14600. - JESIE FIX MEA INCREASED ON PREVIOUS AMENDMENT BY AIRWAYS GROUP.
- 8. MOVED MISSED APPROACH CLIMB GRADIENT TO MISSED APPROACH INSTRUCTIONS - PER 8260.19H REQUIREMENTS
- 9. DELETED DME REQUIRED NOTE FROM ADDITIONAL FLIGHT DATA AND ADDED IT AS AN EQUIPMENT REQUIREMENTS NOTE. - NEW CRITERIA FOR DOCUMENTATION IAW THE 8260.19H.
- 10. CHANGED PROCEDURE NAME FROM LDA/DME RWY 25 TO LDA RWY 25. - NEW CRITERIA FOR DOCUMENTATION IAW THE 8260.3C, PARA 1-6-2.
- 11. CHANGED NOTE, "CHART PLANVIEW AND PROFILE NOTES: * FOR LDA/GS FLY VISUAL TO AIRPORT, 246 DEGREES-4.3 MILES" TO READ "CHART PLANVIEW AND PROFILE NOTES: * FOR LDA/GS FLY VISUAL TO AIRPORT, 250 DEGREES-4.3 MILES". - MAGVAR UPDATE.
- 12. CHANGED PRIMARY MISSED APPROACH INSTRUCTIONS FROM "CLIMB TO 14500 DIRECT SXW VOR/DME AND CLIMBING RIGHT TURN VIA SXW VOR/DME R-001 TO JESIE INT/SXW 24.22 DME AND HOLD" TO "CLIMB TO 14600 DIRECT SXW VOR/DME AND CLIMBING RIGHT TURN ON SXW VOR/DME R-001 TO JESIE INT/SXW 24.2 DME AND HOLD, CONTINUE CLIMB-IN-HOLD TO 14600. *MISSED APPROACH REQUIRES MINIMUM CLIMB OF 275 FEET PER NM TO 11700". - CURRENT CRITERIA FOR USE OF "THEN" AND "AND" PER .19H.
- 13. CHANGED ALTERNATE MISSED APPROACH INSTRUCTIONS FROM "WHEN DIRECTED BY ATC, CLIMB TO 14000 DIRECT SXW VOR/DME THEN CLIMBING RIGHT TURN VIA SXW VOR/DME R-001 AND VIA RLG VOR/DME R-231 TO RLG VOR/DME AND HOLD." TO "CLIMB TO 15100 DIRECT SXW VOR/DME AND CLIMBING RIGHT TURN ON SXW VOR/DME R-001 AND ON RLG VOR/DME R-231 TO RLG VOR/DME AND HOLD W, RT, 080.00 INBOUND". - CURRENT CRITERIA FOR USE OF "THEN" AND "AND" PER .19H.
- 14. IN ADDITIONAL FLIGHT DATA CHANGED FAC CROSSING DISTANCE FROM 3092 TO 3085. - NEW SURVEY DATA.
- 15. CHANGED NOTE FROM "CHART NOTE: AT NIGHT INCREASE LDA/GS VISIBILTY TO 5 MILES" TO "CHART NOTE: AT NIGHT INCREASE LDA/GS VISIBILTY TO 5 SM" - CURRENT VISIBILITY FORMAT, NOTE RETAINED FROM ACTIVE PUBLISHED PROCEDURE.

PDF EDITS:
ADDED ASTERISK* TO S-LDA/GS 25 IN MINIMUMS.
CORRECTED ALTERNATE MINIMUMS.
CHANGED FACILITY ESJ ILS TO I-ESJ.

06/11/2018: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 05/31/2018.
1. CHANGED FIX AQULA/17.17 DME TO AQULA INT/17.17 DME IN TERMINAL ROUTES.



COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: ZDV, DEN APP CON, CO AERO, EGE ATCT, AMGR

FLIGHT CHECKED BY

PENDING

DEVELOPED BY

HERMAN C. ROGERS

APPROVED BY

PATRICK MULQUEEN

Digitally signed by
HERMAN C ROGERS
May 18, 2018

Digitally signed by
ADOLFO D URRUTIA
Jun 14, 2018

Digitally signed by	OFFICE	DATE
ADOLFO D URRUTIA	FICO	
Jun 14, 2018	AJV-5432	02/01/2018
	AJV-5430	

TITLE
MANAGER



**FLIGHT STANDARDS SERVICE
VOR STANDARD INSTRUMENT APPROACH PROCEDURE**

TITLE 14 CFR PART 97.23

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.

If an instrument approach procedure of the above type is conducted at the below named airport, it shall be conducted in accordance with a charted instrument approach procedure predicted on the specifications contained herein, unless an approach is conducted in accordance with a different procedure for such airport authorized by the Administrator. Minimum altitudes shall correspond with those established for enroute operations in the particular area or as set forth below.

<u>AIRPORT</u> MORRIS MUNI - JAMES R WASHBURN FIELD	<u>AIRPORT ID</u> KC09	<u>PROCEDURE NAME</u> VOR-A	<u>ORIGINAL/AMENDMENT</u> ORIG-D	<u>CITY</u> MORRIS	<u>STATE</u> IL
<u>AIRPORT ELEVATION</u> 585	<u>TDZE</u>	<u>SUPERSEDED</u> VOR-A	<u>ORIGINAL/AMENDMENT</u> ORIG-C	<u>DATED</u> 11/15/2012	<u>MAG VAR</u> 2E
<u>FACILITY</u> JOT	<u>COORDINATES OF FACILITIES</u> 413247.11N / 0881906.28W	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 1965

MISSED APPROACH

THIS IS A CORRECTED COPY OF A PROCEDURE ORIGINALLY PUBLISHED IN TL 18-15.

MAP:

8.27 NM AFTER JOT VOR/DME OR AT JOT 8.27 DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3000 THEN LEFT TURN ON JOT VOR/DME R-202 TO MINOK INT/JOT 5.07 DME AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT L SIDE OF COURSE 029.97 OUTBOUND 2500 FT WITHIN 10 MILES OF JOT (IAF)

2.

3. FAC: 209.97 FAF: JOT VOR/DME DIST FAF TO MAP: 8.27 DIST FAF TO THLD:

4. MIN ALT: JOT VOR/DME 2500, JOT 4.00 DME 1280 

8. MSA FROM: JOT VOR/DME 2600

EQUIPMENT REQUIREMENTS NOTES:

NOTES:



ADDITIONAL FLIGHT DATA:

CHART FAS OBST: 834 TOWER 412736N/0882316W.
HOLD S, RT, 021.52 INBOUND

MINIMUMS:

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

ALTERNATE: NA ☐

QUALITY
4
CHECKED

<u>AIRPORT</u> MORRIS MUNI - JAMES R WASHBURN FIELD				<u>AIRPORT ID</u> KC09			<u>PROCEDURE NAME</u> VOR-A			<u>ORIGINAL/AMENDMENT</u> ORIG-D			<u>CITY</u> MORRIS		<u>STATE</u> IL	
<u>CATEGORY:</u>	A			B			C			D			E			
<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>	
CIRCLING	1280	1	696	1280	1	696	1280	2	696		NA					
DME MINIMUMS																
CIRCLING	1100	1	516	1200	1	616	1200	2	616		NA					

CHANGES - REASONS

1. CHANGED JOT VORTAC TO JOT VOR/DME IN ALL TERMINAL ROUTES, MSA, MISSED APPROACH SEGMENTS. - FACILITY NAME CHANGED.
2. AIRPORT ELEVATION CHANGED FROM 584 TO 585. - NEW AIRPORT SURVEY 6/22/17.
3. REMOVED CHART NOTE FROM 8260-5 AND ADDED BACKUP NOTES ON THE BACK OF 8260-9. - AWOS ON WMSCR BACKUP NOTES ADDED ON BACK OF -9 FOR RECORD KEEPING.
4. REMOVED CHART NOTES PROCEDURE NA AT NIGHT AND HELICOPTER VISIBILITY REDUCTION NA. - RUNWAYS SURVEYED 6/22/17 AND NO VISUAL PENETRATIONS.
5. CHANGED DME CIRCLING MINIMUMS CAT C VISIBILTY FROM 1 3/4 SM TO 2 SM - NEW VISIBILITY CHECK WAS PERFORMED.

06/04/18: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 05/14/18.

1. REMOVED PROFILE VIEW NOTE: *1320 WHEN USING JOLIET ALTIMETER SETTING.
2. ADDED MIN ALTITUDE: JOT 4.00 DME 1280 TO LINE 4 OF 8260-5 WITH PDF EDIT.

PDF EDIT: CHANGED FACILITY MAG VAR AND EPOCH YEAR FROM 3W 2020 TO 2E 1965.

COORDINATED WITH:

A4A ☐ ALPA ☐ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: ORD APCH CON, ZAU, CHI FPO, ARPT MGR

FLIGHT CHECKED BY

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-333) MEMO, DEC 22, 2017.

DEVELOPED BY

LONNIE EVERHART (ANDRE TUCKER)

APPROVED BY

LONNIE EVERHART

OFFICE

AJV-5400

OFFICE

AJV-5400

DATE

DATE

04/03/2018

DATE

Digitally signed by
ROBERT G HAMILTON
Jun 11, 2018

Digitally signed by
ROBERT G HAMILTON
Jun 11, 2018

TITLE
MANAGER



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> MENOMINEE RGNL	<u>AIRPORT ID</u> KMMN	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 32	<u>ORIGINAL/AMENDMENT</u> 1C	<u>CITY</u> MENOMINEE	<u>STATE</u> MI
<u>AIRPORT ELEVATION</u> 625	<u>TDZE</u> 608	<u>SUPERSEDED</u> RNAV (GPS) RWY 32	<u>ORIGINAL/AMENDMENT</u> 1B	<u>DATED</u> 08/17/2017	<u>MAG VAR</u> 3W
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 1990

TAA **THIS IS A CORRECTED COPY OF A PROCEDURE ORIGINALLY PUBLISHED IN TL 18-14.**

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>ALTITUDE</u>
1. 233/30 CW 053/30	NOPT	MUNMU	IF/IAF	2400
2. 053/30 CW 233/30	PT	MUNMU	IF/IAF	2400

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>
MUNMU	IF/IAF	ERAYE		TF	FB	1.00	322.99	6.96	2200
ERAYE	FAF	RW32	MAP	TF	FO	0.30	322.91	4.89	
RW32	MAP	1025 MSL		CA			322.91		
1025 MSL		ZELNA		DF	FO	1.00			4000

MISSED APPROACH

MAP:

LP: RW32
LNAV: RW32

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 4000 DIRECT ZELNA AND HOLD, CONTINUE CLIMB-IN-HOLD TO 4000.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)
2. HOLD SE MUNMU, RT, 322.99 INBOUND, 2400 FT. IN LIEU OF PT (IAF), MAX 6000.
3. FAC: 322.91FAF: ERAYEDIST FAF TO MAP: 4.89DIST FAF TO THLD: 4.89
4. MIN ALT: MUNMU 2400, ERAYE 2200
5. DIST TO THLD FROM OM:MM:IM:150 HAT:HAT:
6. MIN GP INCPT:GP ALT AT FAF :OM:MM:IM:
7. GP ANGLE:34:1: IS NOT CLEAR20:1: IS NOT CLEARTCH:
8. MSA FROM:

PBN EQUIPMENT REQUIREMENTS NOTES

RNP APCH

NOTES:

CHART NOTE: RWY 32 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED.
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE STURGEON BAY ALTIMETER SETTING AND INCREASE ALL MDA 60 FEET, INCREASE LNAV CAT C/D AND CIRCLING CAT C VISIBILITY 1/8 SM, AND CIRCLING CAT D VISIBILITY 1/4 SM.
CHART NOTE: STRAIGHT-IN RWY 32 NA AT NIGHT, CIRCLING RWY 14, 32 NA AT NIGHT.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
CHART PROFILE NOTE: VISUAL SEGMENT - OBSTACLES.
WAAS CHANNEL #56333
REFERENCE PATH ID: W32A
CHART FAS OBST: 799 TREE 450421N/0873445W, 897 TOWER 450602N/0873730W.
HOLD SE, RT, 293.22 INBOUND
LTP HAE: 147.5 M

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD - CAT D 800-2 1/2, NA WHEN LOCAL WEATHER NOT AVAILABLE.

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
LP MDA	1060	1	452	1060	1	452	1060	1 3/8	452	1060	1 3/8	452			
LNAV MDA	1160	1	552	1160	1	552	1160	1 5/8	552	1160	1 5/8	552			
CIRCLING	1200	1	575	1200	1	575	1200	1 5/8	575	1380	2 1/2	755			



CHANGES - REASONS

- 1. CHANGED AIRPORT NAME FROM MENOMINEE-MARINETTE TWIN COUNTY TO MENOMINEE RGNL - PER AIRNAV DATA
- 2. DELETED PROFILE NOTE: DESCENT ANGLE NA AND CHARTED PROFILE NOTE: VISUAL SEGMENT - OBSTACLES - INCORPORATE P NOTAM 7/4253
- 3. CHANGED LP HAT FROM 455 TO 452 ALL CATS - INCORPORATE P NOTAM 5/4357
- 4. CHANGED LNAV HAT FROM 555 TO 552 ALL CATS - INCORPORATE P NOTAM 5/4357
- 5. UPDATED CIRCLING CAT D CONTROLLING OBSTACLE HEIGHT AND ACCURACY CODE ON 8260-9, LOWERED MDA/HAA/VISIBILITY TO 1380/755/2 1/2 - PREVIOUSLY FLIGHT CHECKED CAT D OBSTACLE HEIGHT CHANGED FROM 1092 MSL TO 1080 MSL, ACCURACY CODE CHANGED FROM 5D TO 1A

5/25/18: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 4/2/18.

- 1. LNAV CAT B VISIBILITY CHANGED FROM 7/8 SM TO 1 SM.



<u>AIRPORT</u> MENOMINEE RGNL	<u>AIRPORT ID</u> KMNM	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 32	<u>ORIGINAL/AMENDMENT</u> 1C	<u>CITY</u> MENOMINEE	<u>STATE</u> MI
<u>COORDINATED WITH:</u>					
A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ <u>OTHER:</u> ZOB ARTCC, AMGR. GREEN BAY APP CON, ATA					
<u>FLIGHT CHECKED BY</u>			<u>OFFICE</u>	<u>DATE</u>	<i>Digitally signed by</i> ROBERT G HAMILTON Jun 04, 2018
FLIGHT INSPECTION REVIEW NOT REQUIRED-PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-333) MEMO, DEC 22, 2017					
<u>DEVELOPED BY</u>			<u>OFFICE</u>	<u>DATE</u>	<i>Digitally signed by</i> ROBERT G HAMILTON Jun 04, 2018
LONNIE EVERHART (KELLIE BARNES)			AJV-5400	09/05/2017	
<u>APPROVED BY</u>			<u>OFFICE</u>	<u>DATE</u>	<i>Digitally signed by</i> ROBERT G HAMILTON Jun 04, 2018
LONNIE EVERHART			AJV-5400		<u>TITLE</u> MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KMNM
RUNWAY	RW32
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W32A
LTP/FTP LATITUDE	450701.6230N
LTP/FTP LONGITUDE	0873756.2100W
LTP/FTP ELLIPSOIDAL HEIGHT	+01475
FPAP LATITUDE	450809.7200N
FPAP LONGITUDE	0873917.3500W
THRESHOLD CROSSING HEIGHT (TCH)	00000.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	00.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1192
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	0.0
CRC REMAINDER	268C20B5

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K5
LTP ORTHOMETRIC HEIGHT	+01844
FPAP ORTHOMETRIC HEIGHT	+01844



RNAV (RNP) - STANDARD, INSTRUMENT APPROACH PROCEDURE, TITLE 14 CFR PART 97.33						Bearings, headings, courses, 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 in feet RVR.									
TERMINAL ROUTES											MISSED APPROACH				
FROM		TO		COURSE AND DISTANCE			ALTITUDE		RNP: DA CLIMB TO 3000 ON TRACK 223.77 TO WEPLA AND ON TRACK 176.80 TO CHANT AND HOLD. ADDITIONAL FLIGHT DATA: HOLD S, RT, 011.00 INBOUND. CHART FAS OBST: 106 TREE 403937N/0734449W. DISTANCE TO THLD FROM 349 HAT: 0.94 NM. DISTANCE TO THLD FROM 409 HAT: 1.12 NM. ROUTE TYPE: A,H ROUTE TYPE QUALIFIER 1: F ROUTE TYPE QUALIFIER 2: S #TCH 62.1 MSL (DO NOT CHART).						
DPK VOR/DME (IAF)		TUSTE (TF) (FB) (RNP 1.00)		285.94 / 8.90			3000								
TUSTE (IF)		ZAKUS (TF) (FB) (RNP 0.50)		258.08 / 6.00			1900								
ZAKUS		JIRVA (TF) (FB) (RNP 0.50)		243.86 / 3.51			1900								
JIRVA (FAF)		*SOGOE (TF) (FB) (RNP 0.30)		243.78 / 1.48			1429								
SOGOE		*HESOR (RF) (FB) (RNP 0.30)		(3.70 NM RADIUS CCW (CFBML))/1.29			1019								
(SEE FORM 8260-10)															
1. PT _____ SIDE OF COURSE _____ OUTBOUND _____ FT WITHIN _____ MILES OF _____ (IAF) 2. PROFILE STARTS AT TUSTE 3. FAC: * _____ FAF: _____ DIST FAF TO MAP: _____ THLD: _____ 4. MIN. ALT: TUSTE 3000, ZAKUS 1900, JIRVA 1900 5. DIST TO THLD FROM OM: _____ MM: _____ IM: _____ 150 HAT: _____ 100 HAT: _____ GS ANT: _____ 6. MIN GS INCPT: 1900 GS ALT AT: JIRVA 1900, SOGOE 1429, HESOR 1019 OM: _____ MM: _____ IM: _____ 7. GS ANGLE: 3.00 TCH: 50.3 # 20:1 IS CLEAR 34:1 IS CLEAR 8. MSA FROM: RW22L 2900											MAG VAR: 13W EPOCH YEAR: 2020				
MINIMUMS															
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT								ALTERNATE: N A		STANDARD					
CATEGORY ==>		A		B		C		D		E					
	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA
AUTHORIZATION REQUIRED															
RNP 0.20 DA	361	4000	349	361	4000	349	361	4000	349	361	4000	349			
RNP 0.30 DA	421	4000	409	421	4000	409	421	4000	409	421	4000	409			
NOTES: CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, PROCEDURE NA BELOW -12C (11F) OR ABOVE 54C (130F). CHART NOTE: SIMULTANEOUS APPROACH AUTHORIZED. CHART NOTE: USE OF FD OR AP PROVIDING RNAV TRACK GUIDANCE REQUIRED DURING SIMULTANEOUS OPERATIONS. CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON DPK VOR/DME AIRWAY RADIALS 221 CW 349. (CONTINUED ON PAGE 2)															
CITY AND STATE		ELEVATION: 13		TDZE: 12		FACILITY IDENTIFIER:		PROCEDURE NO./AMDT NO./EFFECTIVE DATE:				SUP:			
NEW YORK, NY		AIRPORT NAME:		JOHN F KENNEDY INTL		RNAV		RNAV (RNP) Z RWY 22L, AMDT 1C				AMDT: 1B			
								19 JULY 2018				DATED 06/23/2016			



US DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION				Bearings, headings, courses, 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 in feet RVR.	
RNAV (RNP) - STANDARD, INSTRUMENT APPROACH PROCEDURE, - TITLE 14 CFR PART 97.33					
TERMINAL ROUTES, (CONT.):					
FROM		TO	COURSE AND DISTANCE	ALTITUDE	
HESOR		*RW22L (MAP) (TF) (FO) (RNP 0.30)	223.79 / 3.00		
RW22L (MAP)		WEPLA (TF) (FB)	223.77 / 7.64		
WEPLA		CHANT (TF) (FO)	176.80 / 13.71	3000	
NOTES, (CONT.):					
CHART PROFILE NOTE: VGSi AND RNAV GLIDEPATH NOT COINCIDENT (VGSi ANGLE {ANGLE}/TCH {FEET}).					
CHART NOTE: FOR INOPERATIVE ALS, INCREASE RNP 0.20 ALL CATS VISIBILITY TO RVR 5500, INCREASE RNP 0.30 ALL CATS VISIBILITY TO RVR 6000.					
PBN REQUIREMENTS NOTE: RF REQUIRED.					
PBN REQUIREMENTS NOTE: RNP AR APCH.					
CHART PLANVIEW NOTE AT TUSTE (RNP 0.50).					
QUALITY 40 CHECKED					
CITY AND STATE		ELEVATION: 13	TDZE: 12	PROCEDURE NO./AMDT NO./EFFECTIVE DATE:	
NEW YORK, NY		AIRPORT NAME:	FACILITY IDENTIFIER:	RNAV (RNP) Z RWY 22L, AMDT 1C	
		JOHN F KENNEDY INTL	RNAV	19 JULY 2018	
				SUP:	
				AMDT: 1B	
				DATED: 06/23/2016	

US DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION						RNAV (RNP) - STANDARD, INSTRUMENT APPROACH PROCEDURE, TITLE 14 CFR PART 97.33						Bearings, headings, courses, 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 in feet RVR.					
TERMINAL ROUTES												MISSED APPROACH					
FROM			TO			COURSE AND DISTANCE			ALTITUDE			RNP: DA					
DPK VOR/DME			SESKE (TF) (FB) (RNP 2.00)			229.01 / 10.00			2400			CLIMB TO 500 THEN CLIMBING LEFT TURN TO 3000 DIRECT FRNKY AND ON TRACK 201.63 TO CHANT AND HOLD.					
CHANT			RISSY (TF) (FB) (RNP 2.00)			070.79 / 9.20			2000								
SESKE (IAF)			ZACHS (TF) (FB) (RNP 1.00)			228.92 / 9.47			2000								
RISSY (IAF)			ZACHS (TF) (FB) (RNP 1.00)			023.98 / 8.00			2000								
ZACHS (IF)			CUVKU (TF) (FB) (RNP 1.00)			313.91 / 6.69			1800								
(SEE FORM 8260-10)												ADDITIONAL FLIGHT DATA: HOLD S, RT, 011.00 INBOUND. CHART FAS OBST: 69 TREE 403758N/0734540W. DISTANCE TO THLD FROM 397 HAT: 1.09 NM. ROUTE TYPE QUALIFIER 1:F ROUTE TYPE: A,H ROUTE TYPE QUALIFIER 2:S # TCH 63.5 MSL (DO NOT CHART)					
THIS IS A CORRECTED COPY OF A PROCEDURE ORIGINALLY PUBLISHED IN TL 18-15.																	
1. PT _____ SIDE OF COURSE _____ OUTBOUND _____ FT WITHIN _____ MILES OF _____ (IAF)																	
2. PROFILE STARTS AT ZACHS																	
3. FAC: 313.83 FAF: _____ DIST FAF TO MAP: _____ THLD: _____																	
4. MIN. ALT: ZACHS 2000, CUVKU 1800																	
5. DIST TO THLD FROM OM: 5.45 MM: _____ IM: _____ 150 HAT: _____ 100 HAT: _____ GS ANT: _____																	
6. MIN GS INCPT: 1800 GS ALT AT: CUVKU 1800 OM: _____ MM: _____ IM: _____																	
7. GS ANGLE: 3.00 TCH: 51.0 # 20:1 IS CLEAR 34:1 IS CLEAR																	
8. MSA FROM: RW31L 2900																	
MAG VAR: 13W												EPOCH YEAR: 2020					
MINIMUMS																	
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT										ALTERNATE: N A		STANDARD					
CATEGORY =====>		A			B			C			D			E			
	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA		
AUTHORIZATION REQUIRED																	
RNP 0.30 DA	410	1 3/8	397	410	1 3/8	397	410	1 3/8	397	410	1 3/8	397					
NOTES: CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, PROCEDURE NA BELOW -12C OR ABOVE 54C. CHART NOTE: SIMULTANEOUS APPROACH AUTHORIZED. CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON DPK VOR/DME AIRWAY RADIALS 221 CW 258. CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}). (CONTINUED ON PAGE 2)																	
CITY AND STATE NEW YORK, NY				ELEVATION: 13 TDZE: 13 AIRPORT NAME: JOHN F KENNEDY INTL				FACILITY IDENTIFIER: RNAV		PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (RNP) Z RWY 31L, AMDT 1A 19 JULY 2018						SUP: AMDT: 1 DATED 07/24/2014	



US DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION			Bearings, headings, courses, 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 in feet RVR.	
RNAV (RNP) - STANDARD, INSTRUMENT APPROACH PROCEDURE, - TITLE 14 CFR PART 97.33				
TERMINAL ROUTES, (CONT.):				
FROM	TO	COURSE AND DISTANCE	ALTITUDE	
CUVKU (FAF)	RW31L (MAP) (TF) (FO) (RNP 0.30)	313.83 / 5.45		
RW31L (MAP)	500 MSL (CA)	313.83	500	
500 MSL	FRNKY (DF) (FB) (RNP 1.00)			
FRNKY	CHANT (TF) (FO) (RNP 1.00)	201.63 / 5.88	3000	
NOTES, (CONT.):				
CHART NOTE: USE OF FD OR AP REQUIRED DURING SIMULTANEOUS OPERATIONS.				
CHART SPEED ICON IN PLANVIEW AT ZACHS: MAX 210 KIAS.				
PBN REQUIREMENTS NOTE: RNP AR APCH.				
QUALITY 40 CHECKED				
CITY AND STATE	ELEVATION: 13	TDZE: 13	FACILITY IDENTIFIER:	PROCEDURE NO./AMDT NO./EFFECTIVE DATE:
NEW YORK, NY	AIRPORT NAME:		RNAV	RNAV (RNP) Z RWY 31L, AMDT 1A
	JOHN F KENNEDY INTL			19 JULY 2018
			SUP:	
			AMDT:	1
			DATED:	07/24/2014

US DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION							RNAV (RNP) - STANDARD, INSTRUMENT APPROACH PROCEDURE, TITLE 14 CFR PART 97.33										Bearings, headings, courses, 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 in feet RVR.									
TERMINAL ROUTES																	MISSED APPROACH									
FROM				TO				COURSE AND DISTANCE				ALTITUDE		RNP: DA												
IMASE (IF)				TYROX (TF) (FB) (RNP 1.00)				203.47 / 4.04				2000		CLIMB TO 2000 ON TRACK 203.46 TO CASEE AND HOLD.												
TYROX				MUGAW (TF) (FB) (RNP 1.00)				203.53 / 3.05				1300														
DUCXS (IAF)				TTIMM (TF) (FB) (RNP 1.00)				062.61 / 12.38				4000														
TTIMM (IF)				HORNRR (TF) (FB) (RNP 1.00)				062.68 / 3.00				3200														
HORNRR				ESORE (RF) (FB) (RNP 0.85)				(2.73 NM RADIUS CW (CFBMX))/1.73				2600		ADDITIONAL FLIGHT DATA: HOLD SW, RT, 023.42 INBOUND. DISTANCE TO THLD FROM 336 HAT: 0.90 NM. CHART MANDATORY 4000 AT BECAB. CHART MANDATORY 3000 AT JADNN. CHART MANDATORY 4000 AT DUCXS. CHART MANDATORY 4000 AT DEEER. ROUTE TYPE QUALIFIER 1:F ROUTE TYPE: A,H ROUTE TYPE QUALIFIER 2:S CHART MINIMUM 2000 AT IMASE.												
(SEE FORM 8260-10)																										
1. PT _____ SIDE OF COURSE _____ OUTBOUND _____ FT WITHIN _____ MILES OF _____ (IAF)																										
2. PROFILE STARTS AT MUGAW																										
3. FAC: 203.48 FAF: _____ DIST FAF TO MAP: _____ THLD: _____																										
4. MIN. ALT: MUGAW 1300																										
5. DIST TO THLD FROM OM: 3.41 MM: _____ IM: _____ 150 HAT: _____ 100 HAT: _____ GS ANT: _____																										
6. MIN GS INCPT: 1300 GS ALT AT: MUGAW 1300 OM: _____ MM: _____ IM: _____																										
7. GS ANGLE: 3.00 TCH: 49.0 20:1 IS CLEAR 34:1 IS NOT CLEAR																										
8. MSA FROM: RW20 2600																										
MAG VAR: 10W EPOCH YEAR: 2020																										
MINIMUMS																										
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT							ALTERNATE: N A			STANDARD																
CATEGORY ==>		A			B			C			D			E												
	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA											
AUTHORIZATION REQUIRED																										
RNP 0.11 DA	504	1	336	504	1	336	504	1	336	504	1	336														
RNP 0.30 DA	613	1 1/2	445	613	1 1/2	445	613	1 1/2	445	613	1 1/2	445														
NOTES: CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, PROCEDURE NA BELOW -11C (13F) OR ABOVE 54C (130F). CHART PLANVIEW NOTE ADJACENT TO DUCXS: RF REQUIRED. CHART PLANVIEW NOTE ADJACENT TO DEEER: RF REQUIRED. CHART PLANVIEW NOTE ADJACENT TO BECAB: RF REQUIRED. (CONTINUED ON PAGE 2)																										
CITY AND STATE RICHMOND, VA				ELEVATION: 168 TDZE: 168 AIRPORT NAME: RICHMOND INTL				FACILITY IDENTIFIER: RNAV		PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (RNP) Y RWY 20, ORIG-B 19 JULY 2018						SUP: AMDT: ORIG-A DATED 05/28/2015										



US DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION			Bearings, headings, courses, 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 in feet RVR.	
RNAV (RNP) - STANDARD, INSTRUMENT APPROACH PROCEDURE, - TITLE 14 CFR PART 97.33				
TERMINAL ROUTES, (CONT.):				
FROM	TO	COURSE AND DISTANCE	ALTITUDE	
DEEER (IAF)	SOOBY (TF) (FB) (RNP 1.00)	103.46 / 6.44	4000	
SOOBY (IF)	ESORE (TF) (FB) (RNP 1.00)	098.83 / 7.93	2600	
ESORE	MUGAW (RF) (FB) (RNP 0.85)	(2.73 NM RADIUS CW (CFBMX))/4.98	1300	
BECAB (IF)	HUGHS (TF) (FB) (RNP 1.00)	023.62 / 3.03	3200	
HUGHS	AANNN (RF) (FB) (RNP 1.00)	(2.50 NM RADIUS CCW (CFBMZ))/3.01	2500	
JADNN (IF)	AANNN (TF) (FB) (RNP 1.00)	314.78 / 2.96	2500	
AANNN	MUGAW (RF) (FB) (RNP 1.00)	(2.50 NM RADIUS CCW (CFBMZ))/4.85	1300	
MUGAW (FAF)	RW20 (MAP) (TF) (FO) (RNP 0.30)	203.48 / 3.41		
RW20 (MAP)	CASEE (TF) (FO) (RNP 1.00)	203.46 / 13.28	2000	
NOTES, (CONT.): CHART PLANVIEW NOTE ADJACENT TO JADNN: RF REQUIRED. CHART PROFILE NOTE: SEE PLANVIEW FOR MULTIPLE IF LOCATIONS. PBN REQUIREMENTS NOTE: RNP AR APCH. CHART SPEED ICON IN PLANVIEW AT ESORE: MAX 210 KIAS. CHART SPEED ICON IN PLANVIEW AT AANNN: MAX 210 KIAS. CHART SPEED ICON IN PLANVIEW AT IMASE: MAX 210 KIAS. CHART SPEED ICON IN PLANVIEW AT HUGHS: MAX 210 KIAS. CHART SPEED ICON IN PLANVIEW AT HORNR: MAX 210 KIAS. CHART PLANVIEW NOTE AT DUCXS IAF: RNP 0.85. CHART PLANVIEW NOTE AT DEEER IAF: RNP 0.85.				
QUALITY 9 CHECKED				
CITY AND STATE	ELEVATION: 168	TDZE: 168	FACILITY IDENTIFIER:	PROCEDURE NO./AMDT NO./EFFECTIVE DATE:
RICHMOND, VA	AIRPORT NAME:		RNAV	RNAV (RNP) Y RWY 20, ORIG-B
	RICHMOND INTL			19 JULY 2018
			SUP:	
			AMDT:	ORIG-A
			DATED:	05/28/2015

[4910-13]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 97

[Docket No. [31199](#); Amdt. No. [3805](#)]

**Standard Instrument Approach Procedures, and Takeoff Minimums
and Obstacle Departure Procedures; Miscellaneous Amendments**

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This rule establishes, amends, suspends, or removes Standard Instrument Approach Procedures (SIAPs) and associated Takeoff Minimums and Obstacle Departure Procedures (ODPs) for operations at certain airports. These regulatory actions are needed because of the adoption of new or revised criteria, or because of changes occurring in the National Airspace System, such as the commissioning of new navigational facilities, adding new obstacles, or changing air traffic requirements. These changes are designed to provide safe and efficient use of the navigable airspace and to promote safe flight operations under instrument flight rules at the affected airports.

DATES: This rule is effective [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]. The compliance date for each SIAP, associated Takeoff Minimums, and ODP is specified in the amendatory provisions.

The incorporation by reference of certain publications

listed in the regulations is approved by the Director of the Federal Register as of [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: Availability of matters incorporated by reference in the amendment is as follows:

For Examination

1. U.S. Department of Transportation, Docket Ops-M30, 1200 New Jersey Avenue SE, West Bldg., Ground Floor, Washington, D.C., 20590-0001.

2. The FAA Air Traffic Organization Service Area in which the affected airport is located;

3. The office of Aeronautical Navigation Products, 6500 South MacArthur Blvd., Oklahoma City, OK 73169 or,

4. The National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:
http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Availability

All SIAPs and Takeoff Minimums and ODPs are available online free of charge. Visit the National Flight Data Center at nfdc.faa.gov to register. Additionally, individual SIAP and Takeoff Minimums and ODP copies may be obtained from the FAA Air Traffic Organization Service Area in which the affected airport is located.

FOR FURTHER INFORMATION CONTACT: Thomas J. Nichols, Flight Procedure Standards Branch (AFS-420), Flight Technologies and Programs Divisions, Flight Standards Service, Federal Aviation Administration, Mike Monroney Aeronautical Center, 6500 South MacArthur Blvd. Oklahoma City, OK. 73169 (Mail Address: P.O. Box 25082, Oklahoma City, OK 73125) Telephone: (405) 954-4164.

SUPPLEMENTARY INFORMATION:

This rule amends Title 14 of the Code of Federal Regulations, Part 97 (14 CFR part 97), by establishing, amending, suspending, or removes SIAPS, Takeoff Minimums and/or ODPS. The complete regulatory description of each SIAP and its associated Takeoff Minimums or ODP for an identified airport is listed on FAA form documents which are incorporated by reference in this amendment under 5 U.S.C. 552(a), 1 CFR part 51, and 14 CFR part 97.20. The applicable FAA forms are FAA Forms 8260-3, 8260-4, 8260-5, 8260-15A, and 8260-15B when required by an entry on 8260-15A.

The large number of SIAPs, Takeoff Minimums and ODPs, their complex nature, and the need for a special format make publication in the **Federal Register** expensive and impractical. Further, airmen do not use the regulatory text of the SIAPs, Takeoff Minimums or ODPs, but instead refer to their graphic depiction on charts printed by publishers of aeronautical materials. Thus, the advantages of incorporation by reference are realized and publication of the complete description of each

SIAP, Takeoff Minimums and ODP listed on FAA form documents is unnecessary. This amendment provides the affected CFR sections and specifies the types of SIAPs, Takeoff Minimums and ODPs with their applicable effective dates. This amendment also identifies the airport and its location, the procedure, and the amendment number.

Availability and Summary of Material Incorporated by Reference

The material incorporated by reference is publicly available as listed in the ADDRESSES section.

The material incorporated by reference describes SIAPS, Takeoff Minimums and/or ODPS as identified in the amendatory language for part 97 of this final rule.

The Rule

This amendment to 14 CFR part 97 is effective upon publication of each separate SIAP, Takeoff Minimums and ODP as Amended in the transmittal. Some SIAP and Takeoff Minimums and textual ODP amendments may have been issued previously by the FAA in a Flight Data Center (FDC) Notice to Airmen (NOTAM) as an emergency action of immediate flight safety relating directly to published aeronautical charts.

The circumstances that created the need for some SIAP and Takeoff Minimums and ODP amendments may require making them effective in less than 30 days. For the remaining SIAPs and Takeoff Minimums and ODPs, an effective date at least 30 days after publication is provided.

Further, the SIAPs and Takeoff Minimums and ODPs contained in this amendment are based on the criteria contained in the U.S. Standard for Terminal Instrument Procedures (TERPS). In developing these SIAPs and Takeoff Minimums and ODPs, the TERPS criteria were applied to the conditions existing or anticipated at the affected airports. Because of the close and immediate relationship between these SIAPs, Takeoff Minimums and ODPs, and safety in air commerce, I find that notice and public procedure under 5 U.S.C. 553(b) are impracticable and contrary to the public interest and, where applicable, under 5 U.S.C 553(d), good cause exists for making some SIAPs effective in less than 30 days.

The FAA has determined that this regulation only involves an established body of technical regulations for which frequent and routine amendments are necessary to keep them operationally current. It, therefore--(1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979) ; and (3) does not warrant preparation of a regulatory evaluation as the anticipated impact is so minimal. For the same reason, the FAA certifies that this amendment will not have a significant economic impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR part 97:

Air Traffic Control, Airports, Incorporation by reference, Navigation (Air).

Issued in Washington, DC on [June 15, 2018](#)

A handwritten signature in black ink, appearing to read "John S. Duncan", with a stylized flourish at the end.

John S. Duncan
Executive Director, Flight Standards Service

ADOPTION OF THE AMENDMENT

Accordingly, pursuant to the authority delegated to me, Title 14, Code of Federal Regulations, Part 97 (14 CFR part 97) is amended by establishing, amending, suspending, or removing Standard Instrument Approach Procedures and/or Takeoff Minimums and Obstacle Departure Procedures effective at 0901 UTC on the dates specified, as follows:

Part 97—Standard Instrument Approach Procedures

1. The authority citation for part 97 continues to read as follows:

AUTHORITY: 49 U.S.C. 106(f), 106(g), 40103, 40106, 40113, 40114, 40120, 44502, 44514, 44701, 44719, 44721-44722.

2. Part 97 is amended to read as follows:

Effective 19 July 2018

Kokhanok, AK, Kokhanok, RNAV (GPS) RWY 7, Amdt 1
 Kokhanok, AK, Kokhanok, RNAV (GPS) RWY 25, Amdt 1
 Kokhanok, AK, Kokhanok, Takeoff Minimums and Obstacle DP, Amdt 1
 Fayette, AL, Richard Arthur Field, Takeoff Minimums and Obstacle DP, Amdt 2
 Mountain View, CA, Moffett Federal Afl, RNAV (GPS) RWY 14L, Orig
 Mountain View, CA, Moffett Federal Afl, RNAV (GPS) RWY 14R, Orig
 Mountain View, CA, Moffett Federal Afl, RNAV (GPS) RWY 32L, Orig
 Upland, CA, Cable, RNAV (GPS) RWY 6, Amdt 1B
 Rangely, CO, Rangely, RNAV (GPS) RWY 7, Orig
 Rangely, CO, Rangely, RNAV (GPS) RWY 25, Orig
 New Haven, CT, Tweed-New Haven, ILS OR LOC RWY 2, Amdt 18
 New Haven, CT, Tweed-New Haven, VOR RWY 2, Amdt 23, CANCELED
 Boca Raton, FL, Boca Raton, RNAV (GPS) Y RWY 23, Amdt 1B
 Boca Raton, FL, Boca Raton, RNAV (RNP) Z RWY 23, Orig-B
 Boca Raton, FL, Boca Raton, VOR-A, Amdt 1B
 Athens, GA, Athens/Ben Epps, RNAV (GPS) RWY 9, Amdt 2
 Atlanta, GA, Newnan Coweta County, ILS OR LOC RWY 32, Orig-A
 Donalsonville, GA, Donalsonville Muni, RNAV (GPS) RWY 1, Amdt 1C
 Donalsonville, GA, Donalsonville Muni, RNAV (GPS) RWY 19, Amdt 1B
 Donalsonville, GA, Donalsonville Muni, VOR-A, Amdt 3B
 Savannah, GA, Savannah/Hilton Head Intl, RNAV (RNP) Y RWY 28, Amdt 2
 Iowa City, IA, Iowa City Muni, RNAV (GPS) RWY 25, Amdt 1
 Iowa City, IA, Iowa City Muni, RNAV (GPS) RWY 30, Amdt 1
 Iowa City, IA, Iowa City Muni, Takeoff Minimums and Obstacle DP, Amdt 4
 Champaign/Urbana, IL, University Of Illinois-Willard, ILS OR LOC RWY 32R, Amdt 13A
 Plymouth, IN, Plymouth Muni, RNAV (GPS) RWY 28, Orig-A
 Plymouth, MA, Plymouth Muni, ILS OR LOC RWY 6, Amdt 1F
 Plymouth, MA, Plymouth Muni, RNAV (GPS) RWY 6, Amdt 1D
 Plymouth, MA, Plymouth Muni, RNAV (GPS) RWY 15, Orig-A
 Plymouth, MA, Plymouth Muni, RNAV (GPS) RWY 24, Orig-C
 Plymouth, MA, Plymouth Muni, RNAV (GPS) RWY 33, Orig
 Hattiesburg, MS, Hattiesburg Bobby L Chain Muni, RNAV (GPS) Z RWY 13, Amdt 1B
 Omaha, NE, Eppley Airfield, RNAV (RNP) Z RWY 32R, Amdt 1A
 Manchester, NH, Manchester, ILS OR LOC RWY 6, Amdt 3
 Manchester, NH, Manchester, ILS OR LOC RWY 17, Amdt 3
 Manchester, NH, Manchester, ILS OR LOC RWY 35, ILS RWY 35 SA CAT I, ILS RWY 35 CAT II, ILS RWY 35 CAT III, Amdt 3
 Olean, NY, Cattaraugus County-Olean, LOC RWY 22, Amdt 7
 Olean, NY, Cattaraugus County-Olean, RNAV (GPS) RWY 4, Amdt 2
 Olean, NY, Cattaraugus County-Olean, RNAV (GPS) RWY 22, Amdt 2
 Watertown, NY, Watertown Intl, RNAV (GPS) RWY 7, Amdt 3

Watertown, NY, Watertown Intl, RNAV (GPS) RWY 10, Amdt 1
 Toledo, OH, Toledo Executive, RNAV (GPS) RWY 4, Amdt 1
 Toledo, OH, Toledo Executive, RNAV (GPS) RWY 32, Amdt 2
 Toledo, OH, Toledo Executive, VOR RWY 4, Amdt 9D, CANCELED
 Astoria, OR, Astoria Rgnl, COPTER LOC RWY 26, Amdt 2
 Astoria, OR, Astoria Rgnl, COPTER VOR RWY 8, Orig
 Astoria, OR, Astoria Rgnl, COPTER VOR/DME OR GPS 066, Amdt 1, CANCELED
 Astoria, OR, Astoria Rgnl, ILS RWY 26, Amdt 3B
 Astoria, OR, Astoria Rgnl, RNAV (GPS) RWY 8, Amdt 1
 Astoria, OR, Astoria Rgnl, RNAV (GPS) RWY 26, Amdt 1
 Astoria, OR, Astoria Rgnl, VOR RWY 8, Amdt 12A
 Meadville, PA, Port Meadville, LOC RWY 25, Amdt 6E
 Meadville, PA, Port Meadville, RNAV (GPS) RWY 7, Amdt 1D
 Meadville, PA, Port Meadville, RNAV (GPS) RWY 25, Amdt 1E
 Meadville, PA, Port Meadville, VOR RWY 7, Amdt 8B, CANCELED
 Brownwood, TX, Brownwood Rgnl, LOC RWY 17, Amdt 4B
 Brownwood, TX, Brownwood Rgnl, RNAV (GPS) RWY 17, Amdt 1A
 Brownwood, TX, Brownwood Rgnl, RNAV (GPS) RWY 35, Amdt 1A
 Brownwood, TX, Brownwood Rgnl, VOR RWY 35, Amdt 1C
 San Antonio, TX, Boerne Stage Field, RNAV (GPS) RWY 17, Amdt 1B
 San Antonio, TX, Boerne Stage Field, Takeoff Minimums and Obstacle DP, Orig-A
 Wharton, TX, Wharton Rgnl, NDB RWY 14, Orig-A
 Wharton, TX, Wharton Rgnl, NDB RWY 32, Orig-A
 Wharton, TX, Wharton Rgnl, RNAV (GPS) RWY 14, Orig-A
 Wharton, TX, Wharton Rgnl, RNAV (GPS) RWY 32, Orig-A
 Milwaukee, WI, Lawrence J Timmerman, VOR RWY 4L, Amdt 9C, CANCELED
 Jackson, WY, Jackson Hole, ILS Z OR LOC Z RWY 19, Orig-B

RESCINDED: On June 5, 2018 (83 FR 25909), the FAA published an Amendment in Docket No. 31195, Amdt No. 3801, to Part 97 of the Federal Aviation Regulations under section 97.33. The following entry for Oakland, CA, effective July 19, 2018, is hereby rescinded in its entirety:

Oakland, CA, Metropolitan Oakland Intl, RNAV (RNP) Z RWY 12, Amdt 2

RNAV - STANDARD INSTRUMENT APPROACH PROCEDURE TITLE 14 CFR PART 97.33				Bearings, headings, courses, 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 in feet RVR.															
TERMINAL ROUTES										MISSED APPROACH									
FROM		TO		COURSE AND DISTANCE				ALTITUDE		LNAV: JUTOL CLIMBING LEFT TURN TO 4400 DIRECT UBICE AND HOLD, CONTINUE CLIMB-IN-HOLD TO 4400. ADDITIONAL FLIGHT DATA: HOLD NW, RT, 156.24 INBOUND. FAS OBST: 449 AAO 592452N/1545520W. CHART 1437 AAO 592336N/1550633W. CHART CIRCLING ICON. CHART PROFILE NOTE: VISUAL SEGMENT - OBSTACLES. CHART ILIAMNA ASOS, 134.95									
UBICE (IAF)		ZUTEB (NOPT) (TF) (FB) (RNP 1.00)		156.24 / 8.00				4400											
GEVEY (IAF)		ZUTEB (NOPT) (TF) (FB) (RNP 1.00)		336.31 / 8.00				4400											
ZUTEB (IF/IAF)		TASAE (TF) (FB) (RNP 1.00)		066.27 / 5.75				3300											
TASAE (FAF)		HOMRA/4.23 NM TO JUTOL (TF) (FB) (RNP 0.30)		066.45 / 5.46															
HOMRA/4.23 NM TO JUTOL (SEE FORM 8260-10)		JUTOL (MAP) (TF) (FO) (RNP 0.30)		066.45 / 4.23															
1. PT _____ SIDE OF COURSE _____ OUTBOUND _____ FT WITHIN _____ MILES OF _____ (IAF) 2. HOLD SW ZUTEB, RT, 066.27 INBOUND, 4400 FT. IN LIEU OF PT (IAF) 3. FAC: 066.45 FAF: TASAE DIST FAF TO MAP: 9.70 THLD: 9.90 4. MIN. ALT: ZUTEB 4400, TASAE 3300, HOMRA/4.23 NM TO JUTOL 1560 5. DIST TO THLD FROM OM: _____ MM: _____ IM: _____ 150 HAT: _____ 100 HAT: _____ GS ANT: _____ 6. MIN GS INCPT: _____ GS ALT AT: _____ OM: _____ MM: _____ IM: _____ 7. GS ANGLE: _____ TCH: 20:1 IS NOT CLEAR 34:1 IS NOT CLEAR 8. MSA FROM: _____																MAG VAR: 14E		EPOCH YEAR: 2020	
MINIMUMS																			
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT										ALTERNATE: N A		☒							
CATEGORY ==>		A			B			C			D			E					
	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA				
LNAV MDA	820	1	705	820	1	705	820	2	705	820	2	705							
CIRCLING	1040	1 1/4	925	1100	1 1/2	985	1100	3	985	1100	3	985							
NOTES: CHART NOTE: RWY 7 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. CHART NOTE: DME/DME RNP-0.3 NA. CHART NOTE: USE ILIAMNA ALTIMETER SETTING. CHART NOTE: PROCEDURE NA AT NIGHT.																			
CITY AND STATE KOKHANOK, AK		ELEVATION: 115 TDZE: 115 AIRPORT NAME: KOKHANOK				FACILITY IDENTIFIER: RNAV		PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (GPS) RWY 7, AMDT 1 19 JULY 2018				SUP: RNAV (GPS) RWY 6 AMDT: ORIG-D DATED 10/12/2017							



US DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION
RNAV - STANDARD
INSTRUMENT APPROACH PROCEDURE - TITLE 14 CFR PART 97.33

Bearings, headings, courses, 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 in feet RVR.

TERMINAL ROUTES, (CONT.):

FROM	TO	COURSE AND DISTANCE	ALTITUDE
JUTOL (MAP)	515 MSL (CA)	066.45	

515 MSL	UBICE (DF) (FO) (RNP 1.00)	4400

TAA

	FROM	TO	ALT
1.	336/30 CW 156/30 (NOPT)	336/15 CW 156/15	6100
2.	336/15 CW 156/15	ZUTEB (IF/IAF) (FB)	4400
3.	156/30 CW 246/30	UBICE (IAF) (FB)	5500
4.	246/30 CW 336/30	246/11 CW 336/11	7400
5.	246/11 CW 336/11	GEVEY (IAF) (FB)	5700

QUALITY
18
CHECKED

CITY AND STATE KOKHANOK, AK	ELEVATION: 115	TDZE: 115	FACILITY IDENTIFIER: RNAV	PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (GPS) RWY 7, AMDT 1 19 JULY 2018	SUP: RNAV (GPS) RWY 6
	AIRPORT NAME: KOKHANOK				AMDT: ORIG-D
					DATED: 10/12/2017

RNAV - STANDARD INSTRUMENT APPROACH PROCEDURE TITLE 14 CFR PART 97.33				Bearings, headings, courses, 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 in feet RVR.												
TERMINAL ROUTES										MISSED APPROACH						
FROM		TO		COURSE AND DISTANCE				ALTITUDE		LNAV: HOKLO CLIMB TO 4400 DIRECT ZUTEB AND HOLD, CONTINUE CLIMB-IN-HOLD TO 4400. ADDITIONAL FLIGHT DATA: HOLD SW, RT, 066.27 INBOUND. FAS OBST: 479 TREE 592557N/1544525W. CHART CIRCLING ICON. CHART PROFILE NOTE: VISUAL SEGMENT - OBSTACLES. CHART ILIAMNA ASOS, 134.95						
YECUR (IAF)		CIVKA (NOPT) (TF) (FB) (RNP 1.00)		337.28 / 8.50				6100								
ILALE (IAF)		CIVKA (NOPT) (TF) (FB) (RNP 1.00)		157.21 / 8.50				6100								
CIVKA (IF/IAF)		HUBAM (TF) (FB) (RNP 1.00)		247.24 / 5.70				4300								
HUBAM		FOLIL (TF) (FB) (RNP 1.00)		247.09 / 6.20				3000								
FOLIL (FAF)		HOKLO (MAP) (TF) (FO) (RNP 0.30)		246.92 / 6.50												
(SEE FORM 8260-10)																
1. PT _____ SIDE OF COURSE _____ OUTBOUND _____ FT WITHIN _____ MILES OF _____ (IAF) 2. HOLD NE CIVKA, RT, 247.24 INBOUND, 6100 FT. IN LIEU OF PT (IAF) 3. FAC: <u>246.92</u> FAF: <u>FOLIL</u> DIST FAF TO MAP: <u>6.50</u> THLD: <u>6.70</u> 4. MIN. ALT: <u>CIVKA 6100, HUBAM 4300, FOLIL 3000</u> 5. DIST TO THLD FROM OM: _____ MM: _____ IM: _____ 150 HAT: _____ 100 HAT: _____ GS ANT: _____ 6. MIN GS INCPT: _____ GS ALT AT: _____ OM: _____ MM: _____ IM: _____ 7. GS ANGLE: _____ TCH: <u>20:1 IS NOT CLEAR 34:1 IS NOT CLEAR</u> 8. MSA FROM: _____																
										MAG VAR: 14E			EPOCH YEAR: 2020			
MINIMUMS																
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT										ALTERNATE: N A		☒ X				
CATEGORY ==>		A			B			C			D			E		
	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	
LNAV MDA	880	1	765	880	1 1/4	765		NA			NA					
CIRCLING	1040	1 1/4	925	1100	1 1/2	985		NA			NA					
NOTES: CHART NOTE: RWY 25 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. CHART NOTE: DME/DME RNP-0.3 NA. CHART NOTE: USE ILIAMNA ALTIMETER SETTING. CHART NOTE: PROCEDURE NA AT NIGHT.																
CITY AND STATE KOKHANOK, AK		ELEVATION: 115 TDZE: 115 AIRPORT NAME: KOKHANOK		FACILITY IDENTIFIER: RNAV		PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (GPS) RWY 25, AMDT 1 19 JULY 2018				SUP: RNAV (GPS) RWY 24						
										AMDT: ORIG-D						
										DATED 10/12/2017						

QUALITY
18
CHECKED

US DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION
RNAV - STANDARD
INSTRUMENT APPROACH PROCEDURE - TITLE 14 CFR PART 97.33

Bearings, headings, courses, 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 in feet RVR.

TERMINAL ROUTES, (CONT.):

FROM	TO	COURSE AND DISTANCE	ALTITUDE
HOKLO (MAP)	515 MSL (CA)	246.92	

515 MSL	ZUTEB (DF) (FO) (RNP 1.00)		4400

TAA

	FROM	TO	ALT
1.	157/30 CW 337/30 (NOPT)	157/9 CW 337/9	7000
2.	157/9 CW 337/9	CIVKA (IF/IAF)	6100
3.	337/30 CW 067/30	337/15 CW 067/15	7200
4.	337/15 CW 067/15	YECUR (IAF)	6100
5.	067/30 CW 157/30	ILALE (IAF)	6400

QUALITY
18
CHECKED

CITY AND STATE KOKHANOK, AK	ELEVATION: 115	TDZE: 115	FACILITY IDENTIFIER: RNAV	PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (GPS) RWY 25, AMDT 1 19 JULY 2018	SUP: RNAV (GPS) RWY 24
	AIRPORT NAME: KOKHANOK				AMDT: ORIG-D
					DATED: 10/12/2017

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
TAKEOFF MINIMUMS AND OBSTACLE DEPARTURE PROCEDURES (ODP)
TITLE 14 CFR PART 97.37**

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL. Altitudes are minimum altitudes unless otherwise indicated.
Ceilings are in feet above airport elevation. Distances are in nautical miles. Visibilities are in statute miles or feet RVR unless otherwise indicated.

<u>CITY, STATE</u>	<u>AIRPORT</u>	<u>EFFECTIVE DATE</u>	<u>AMDT NO</u>
KOKHANOK, AK	KOKHANOK	19 JULY 2018	1

TAKEOFF MINIMUMS:

RWY 25: STANDARD
RWY 7: 400-1 3/4

TEXTUAL DEPARTURE PROCEDURES:

RWY 7, CLIMBING LEFT TURN DIRECT ILI NDB/DME, CONTINUE CLIMB IN ILI NDB/DME HOLDING PATTERN (HOLD SOUTH, RIGHT TURNS, 006.00 INBOUND) TO CROSS ILI NDB/DME AT OR ABOVE MEA FOR ROUTE OF FLIGHT
RWY 25, CLIMBING RIGHT TURN DIRECT ILI NDB/DME, CONTINUE CLIMB IN ILI NDB/DME HOLDING PATTERN (HOLD SOUTH, RIGHT TURNS, 006.00 INBOUND) TO CROSS ILI NDB/DME AT OR ABOVE MEA FOR ROUTE OF FLIGHT.

VISUAL CLIMB OVER AIRPORT:

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 7, TREE 13 FT FROM DER, 160 FT RIGHT OF CENTERLINE, 80 FT AGL/215 FT MSL.
TREES BEGINNING 542 FT FROM DER, 464 FT RIGHT OF CENTERLINE, UP TO 80 FT AGL/230 FT MSL.
TREE 1694 FT FROM DER, 111 FT LEFT OF CENTERLINE, 80 FT AGL/230 FT MSL.
TREES BEGINNING 1844 FT FROM DER, 545 FT RIGHT OF CENTERLINE, UP TO 80 FT AGL/280 FT MSL.
TREE 3579 FT FROM DER, 889 FT RIGHT OF CENTERLINE, 80 FT AGL/290 FT MSL.
TREES BEGINNING 4350 FT FROM DER, 651 FT RIGHT OF CENTERLINE, UP TO 80 FT AGL/303 FT MSL.
TREE 1.3 NM FROM DER, 2012 FT RIGHT OF CENTERLINE, 80 FT AGL/434 FT MSL.
NOTE: RWY 25, TREES BEGINNING 12 FT FROM DER, 127 FT RIGHT OF CENTERLINE, UP TO 80 FT AGL/180 FT MSL.
TREE 113 FT FROM DER, 346 FT LEFT OF CENTERLINE, 80 FT AGL/188 FT MSL.
TREES BEGINNING 1792 FT FROM DER, 268 FT LEFT OF CENTERLINE, UP TO 80 FT AGL/205 FT MSL.

CONTROLLING OBSTACLES:

RWY 7: 434 FT MSL TREE, 592558.18N/1544517.72W (CEILING), 405 FT MSL TREE, 592551.00N/1544447.75W (VISIBILITY)
OBSTACLE MANDATING ODP ROUTE DEVELOPMENT:
RWY 7, 2985 FT MSL AAO, 591902.51N/1545439.33W
RWY 25, 2985 FT MSL AAO, 591902.51N/1545439.33W

REMARKS:

RWY 7/25, GRAVEL SURFACE, MARKINGS NONE, NO SURVEY
PER IFF CHECKLIST: 80 FT VEGETATION.
24K MAPS NOT AVAILABLE. USED 63K MAPS, (4D) ACCURACY CODE APPLIED.
ASSIGNED AIRPORT MAG VAR PFKK: OLD 18E- NEW 14E.
ASSIGNED FACILITY MAG VAR, ILI NDB/DME. OLD 17E - NEW 14E.
LETTER OF APPROVAL ON FILE FOR RWY 7 DEPARTURES FOR USE OF CEILING AND VISIBLTY IN LIEU OF STANDARD TAKEOFF MINIMUMS WITH 1099 CLIMB GRADIENT.

<u>FLIGHT INSPECTED BY:</u>	<i>Digitally signed by</i> DEZ SILAGYI KENNETH E JACK May 07, 2018	<u>OFFICE SYMBOL:</u> FICO	<u>DATE:</u> 5/1/18
<u>DEVELOPED BY:</u>	<i>Digitally signed by</i> DEANNA M FIELDS DEANNA M. FIELDS Mar 15, 2018	<u>OFFICE SYMBOL:</u> AJV-5421	<u>DATE:</u> 12/01/2017
<u>APPROVED BY:</u>	<i>Digitally signed by</i> DEZ SILAGYI JULIE A. MORGAN May 07, 2018	<u>OFFICE SYMBOL:</u> AJV-5420	<u>DATE:</u>

REQUIRED EFFECTIVE DATE:
ROUTINE

COORDINATED WITH:

A4A	ALPA	AOPA	APA	HAI	NBAA
☐	☐	☒	☐	☐	☒

QUALITY
35
CHECKED

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
TAKEOFF MINIMUMS AND OBSTACLE DEPARTURE PROCEDURES (ODP)
TITLE 14 CFR PART 97.37**

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL. Altitudes are minimum altitudes unless otherwise indicated.
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<u>CITY, STATE</u>	<u>AIRPORT</u>	<u>EFFECTIVE DATE</u>	<u>AMDT NO</u>
KOKHANOK, AK	KOKHANOK	19 JULY 2018	1

OTHER:
ZAN, ILIAMNA FSS.

CHANGES - REASONS:

ALL REFERENCE TO RWY 6/24 CHANGED TO 7/25 - AIRPORT MAG VAR CHANGED FROM 18E TO 14E, EPOCH 2020.

TAKEOFF MINIMUMS: RWY 6, CHANGED FROM 400-1 1/2 OR STANDARD WITH MINIMUM CLIMB OF 420 FT PER NM TO 600 TO

RWY 7: 400-1 3/4 - 63K MAP STUDY DONE USING 80 FT VEGETATION AND APPLYING (4D) ACCURACY CODE.

DEPARTURE PROCEDURE FOR RWY 6/24 NOW 7/25 INBOUND HOLDING COURSE CHANGED FROM 003.00 TO 006.00 - FACILITY MAG VAR CHANGED FROM 17E TO 14E.

UPDATED TAKEOFF OBSTACLE NOTES AND CONTROLLING OBSTACLES - 63K MAP STUDY DONE USING 80 FT VEGETATION AND APPLYING (4D) ACCURACY CODE.

3/15/2018: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 12/01/2017.

1. TEXTUAL DEPARTURE PROCEDURES: RWY 25, ILI DNB/DME CHANGED TO ILI NDB/DME.



**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
TAKEOFF MINIMUMS AND OBSTACLE DEPARTURE PROCEDURES (ODP)
TITLE 14 CFR PART 97.37**

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Ceilings are in feet above airport elevation. Distances are in nautical miles. Visibilities are in statute miles or feet RVR unless otherwise indicated.

CITY, STATE	AIRPORT	EFFECTIVE DATE	AMDT NO
FAYETTE, AL	RICHARD ARTHUR FIELD	19 JULY 2018	2

TAKEOFF MINIMUMS:

RWY 1: 400-2 1/4 OR STANDARD WITH MINIMUM CLIMB OF 310 FT PER NM TO 600.
RWY 19: 300-1 1/4 OR STANDARD WITH MINIMUM CLIMB OF 280 FT PER NM TO 700.

TEXTUAL DEPARTURE PROCEDURES:

RWY 19: CLIMB HEADING 185.60 TO 1100 BEFORE PROCEEDING ON COURSE.

VISUAL CLIMB OVER AIRPORT:

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 01, TOWER 39 FT FROM DER, 341 FT LEFT OF CENTERLINE, 40 FT AGL/399 FT MSL.
VEHICLE ON ROAD 55 FT FROM DER, 232 FT RIGHT OF CENTERLINE, 368 FT MSL.
POLE, VEHICLE ON ROAD BEGINNING 67 FT FROM DER, 233 FT RIGHT OF CENTERLINE, UP TO 13 FT AGL/370 FT MSL.
POLE 183 FT FROM DER, 399 FT RIGHT OF CENTERLINE, 47 FT AGL/403 FT MSL.
POLE, BUILDING, TREES BEGINNING 224 FT FROM DER, 188 FT RIGHT OF CENTERLINE, UP TO 50 FT AGL/406 FT MSL.
POLE, BUILDING BEGINNING 230 FT FROM DER, 381 FT LEFT OF CENTERLINE, UP TO 51 FT AGL/412 FT MSL.
TREE 414 FT FROM DER, 544 FT LEFT OF CENTERLINE, 423 FT MSL.
TREES, POLE, BUILDING BEGINNING 432 FT FROM DER, 94 FT LEFT OF CENTERLINE, UP TO 428 FT MSL.
TREE 709 FT FROM DER, 441 FT RIGHT OF CENTERLINE, 412 FT MSL.
TREES, POLE BEGINNING 765 FT FROM DER, 199 FT RIGHT OF CENTERLINE, UP TO 413 FT MSL.
TREE 897 FT FROM DER, 310 FT RIGHT OF CENTERLINE, 415 FT MSL.
TREES BEGINNING 942 FT FROM DER, 211 FT RIGHT OF CENTERLINE, UP TO 458 FT MSL.
TREES, POLE BEGINNING 1168 FT FROM DER, 14 FT RIGHT OF CENTERLINE, UP TO 478 FT MSL.
TREE 1704 FT FROM DER, 621 FT LEFT OF CENTERLINE, 444 FT MSL.
TREES, POLE BEGINNING 1724 FT FROM DER, 67 FT LEFT OF CENTERLINE, UP TO 452 FT MSL.
TREES, POLE BEGINNING 2188 FT FROM DER, 472 FT LEFT OF CENTERLINE, UP TO 454 FT MSL.
TREES, POLE BEGINNING 2398 FT FROM DER, 110 FT LEFT OF CENTERLINE, UP TO 468 FT MSL.
TREES, POLE BEGINNING 2780 FT FROM DER, 99 FT LEFT OF CENTERLINE, UP TO 476 FT MSL.
TREE 4114 FT FROM DER, 254 FT LEFT OF CENTERLINE, 494 FT MSL.
TREES BEGINNING 4204 FT FROM DER, 104 FT LEFT OF CENTERLINE, UP TO 100 FT AGL/519 FT MSL.
TREE 5929 FT FROM DER, 1980 FT LEFT OF CENTERLINE, 100 FT AGL/539 FT MSL.
TREE 1.8 NM FROM DER, 2957 FT LEFT OF CENTERLINE, 100 FT AGL/659 FT MSL.

NOTE: RWY 19, TERRAIN ABEAM DER, 142 FT RIGHT OF CENTERLINE, 331 FT MSL.
TREES BEGINNING 41 FT FROM DER, 377 FT LEFT OF CENTERLINE, UP TO 343 FT MSL.
TERRAIN 95 FT FROM DER, 309 FT RIGHT OF CENTERLINE, 335 FT MSL.
TREE 230 FT FROM DER, 322 FT RIGHT OF CENTERLINE, 378 FT MSL.
TREES BEGINNING 236 FT FROM DER, 252 FT RIGHT OF CENTERLINE, UP TO 401 FT MSL.
TREE 241 FT FROM DER, 359 FT LEFT OF CENTERLINE, 363 FT MSL.
TREE 254 FT FROM DER, 246 FT LEFT OF CENTERLINE, 374 FT MSL.
TREE 391 FT FROM DER, 332 FT RIGHT OF CENTERLINE, 402 FT MSL.
TREES BEGINNING 406 FT FROM DER, 380 FT RIGHT OF CENTERLINE, UP TO 435 FT MSL.
TREES BEGINNING 415 FT FROM DER, 367 FT LEFT OF CENTERLINE, UP TO 411 FT MSL.
TREES BEGINNING 536 FT FROM DER, 273 FT LEFT OF CENTERLINE, UP TO 418 FT MSL.
ARCH 1 NM FROM DER, 1396 FT RIGHT OF CENTERLINE, 549 FT MSL.

CONTROLLING OBSTACLES:

RWY 1: 519 FT MSL TREE 334339.80N/0874910.27W (CLIMB GRADIENT/CLIMB GRADIENT TERMINATION ALTITUDE), 659 FT MSL TREE 334450.73N/0874922.32W (CEILING/VISIBILITY).
RWY 19: 549 FT MSL ARCH (01-000492) 334106.00N/0874916.00W.
OBSTACLES MANDATING ODP ROUTE DEVELOPMENT: RWY 19: 1003 FT MSL ARCH (01-001669) 334009.65N/0874710.70W, 885 FT MSL TOWER 334021.00N/0875139.00W.

REMARKS:

OBSTACLES 01-000492 AND 01-001669 INDICATE 4E ACCURACY IN OBSTACLE DATABASE. REQUESTED ACCURACY IMPROVEMENT THROUGH NGS STEREO IMAGING OFFICE AND PROCEDURES EVALUATED AT 1A ACCURACY.

FLIGHT INSPECTED BY:

ROBERT E WILLIAMS

Digitally signed by

DEZ SILAGYI

Jun 04, 2018

OFFICE SYMBOL:

FICO

DATE:

5/31/18

QUALITY
13
CHECKED

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
TAKEOFF MINIMUMS AND OBSTACLE DEPARTURE PROCEDURES (ODP)
TITLE 14 CFR PART 97.37**

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<u>CITY, STATE</u>	<u>AIRPORT</u>	<u>EFFECTIVE DATE</u>	<u>AMDT NO</u>
FAYETTE, AL	RICHARD ARTHUR FIELD	19 JULY 2018	2

DEVELOPED BY:	<i>Digitally signed by</i>	OFFICE SYMBOL:	DATE:
DEZ SILAGYI (DARREN HOOPER)	DEZ SILAGYI	AJV-5421	03/20/2018
	Jun 04, 2018		

APPROVED BY:	<i>Digitally signed by</i>	OFFICE SYMBOL:	DATE:
JULIE A. MORGAN	DEZ SILAGYI	AJV-5420	
	Jun 04, 2018		

REQUIRED EFFECTIVE DATE:
ROUTINE

COORDINATED WITH:

<u>A4A</u>	<u>ALPA</u>	<u>AOPA</u>	<u>APA</u>	<u>HAI</u>	<u>NBAA</u>
☐	☒	☒	☐	☐	☒

OTHER:
ZME, CBM APP CON, AIRPORT MANAGER

CHANGES - REASONS:

1. CHANGED RWY NUMBER FROM RWY 18-36 TO RWY 1-19 - AIRPORT MAG VAR UPDATE TO WEST 3 2020.
2. CHANGED TAKEOFF MINIMUMS FROM "RWY 18, 300-1 1/4 OR STANDARD WITH MINIMUM CLIMB OF 349 FT PER NM TO 700" TO "RWY 19: 300-1 1/4 OR STANDARD WITH MINIMUM CLIMB OF 280 FT PER NM TO 700" - MAG VAR UPDATE AND NEW OBSTACLE EVALUATION COMPLETED.
3. CHANGED TAKEOFF MINIMUMS FROM "RWY 36, 300-1 OR STANDARD WITH MINIMUM CLIMB OF 306 FT PER NM TO 600" TO "RWY 1: 400-2 1/4 OR STANDARD WITH MINIMUM CLIMB OF 310 FT PER NM TO 600" - MAG VAR UPDATE AND NEW OBSTACLE EVALUATION COMPLETED.
4. CHANGED TEXTUAL DEPARTURE PROCEDURE FROM "RWY 18, CLIMB HEADING 182.60 TO 1200 BEFORE PROCEEDING ON COURSE" TO "RWY 19: CLIMB HEADING 185.60 TO 1100 BEFORE PROCEEDING ON COURSE" - MAG VAR UPDATE AND NEW OBSTACLE EVALUATION COMPLETED.
5. TAKEOFF OBSTACLE NOTES UPDATED - MAG VAR UPDATE AND NEW OBSTACLE EVALUATION COMPLETED.
6. CONTROLLING OBSTACLES UPDATED - MAG VAR UPDATE AND NEW OBSTACLE EVALUATION COMPLETED.

QUALITY
13
CHECKED

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

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<u>AIRPORT</u> MOFFETT FEDERAL AFLD	<u>AIRPORT ID</u> KNUQ	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 14L	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>CITY</u> MOUNTAIN VIEW	<u>STATE</u> CA	
<u>AIRPORT ELEVATION</u> 37	<u>TDZE</u> 6	<u>SUPERSEDED</u>	<u>ORIGINAL/AMENDMENT</u>	<u>DATED</u>	<u>MAG VAR</u> 16E	<u>EPOCH YEAR</u> 1980
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<u>REQUIRED EFFECTIVE DATE</u> 07/19/2018	<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>
OAK VOR/DME		PEYIC		TF	FB	2.00	129.74	3.35	3200
PEYIC	IAF	EVOCU		TF	FB	1.00	141.63	5.00	2600
EVOCU	IF	NIRYI		TF	FB	1.00	141.66	6.10	1700
NIRYI	FAF	RW14L	MAP	TF	FO	0.30	141.68	5.15	
RW14L	MAP	500 MSL		CA	FB	1.00	141.68		500
500 MSL		PEYIC		DF	FO	1.00			3200

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW14L

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 500 THEN CLIMBING LEFT TURN TO 3200 DIRECT PEYIC AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)
2. PROFILE STARTS AT PEYIC
3. FAC:

141.68

FAF: NIRYI

DIST FAF TO MAP: 5.15

DIST FAF TO THLD: 5.15
4. MIN ALT: PEYIC 3200, EVOCU 2600, NIRYI 1700
5. DIST TO THLD FROM OM:

MM:

IM:

150 HAT:

250 HAT: 0.62
6. MIN GP INCPT:

1700

GP ALT AT FAF : NIRYI 1700

OM:

MM:

IM:
7. GP ANGLE:

3.00

34:1: IS CLEAR

20:1: IS CLEAR

TCH: 53.0
8. MSA FROM: RW14L 5600

PBN EQUIPMENT REQUIREMENTS NOTES

RNP APCH.

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW 0C (32F) OR ABOVE 54C (130F).
CHART NOTE: CIRCLING RWY 32L NA AT NIGHT.
CHART: 177 TRANSMISSION LINE 373013.20N/1220724.00W
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT OAK VOR/DME ON V25 AND V87 NORTHWEST BOUND.

ADDITIONAL FLIGHT DATA:

CHART ARRIVAL HOLDING AT PEYIC: HOLD NW, RT, 141.63 INBOUND, 3200.
CHART CIRCLING ICON.
CHART VDP AT 1.12 NM TO RW14L*
*LNAV ONLY
WAAS CHANNEL #70442
REFERENCE PATH ID: W14A
CHART FAS OBST: 177 TRANSMISSION_LINE 372653N/1220438W.
HOLD NW, RT, 141.63 INBOUND
LTP HAE: -31 M

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD - CAT D 800-2 1/4

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	255	3/4	250	255	3/4	250	255	3/4	250	255	3/4	250			
LNAV/VNAV DA	391	1 1/8	386	391	1 1/8	386	391	1 1/8	386	391	1 1/8	386			
LNAV MDA	440	1	435	440	1	435	440	1 1/4	435	440	1 1/4	435			
CIRCLING	540	1	503	600	1	563	620	1 1/2	583	720	2 1/4	683			

CHANGES - REASONS

THIS IS AN ORIGINAL PROCEDURE.



COORDINATED WITH:

A4A

☐

ALPA

☒

AOPA

☒

APA

☐

HAI

☐

NBAA

☒

OTHER: APRT MGR, ZOA, NORCAL APP CON, NUQ ATCT.

FLIGHT CHECKED BY

Pending

DEVELOPED BY

SYLVAN DRAKES

Digitally signed by
SYLVAN DRAKES

APPROVED BY

PATRICK MULQUEEN

Digitally signed by
ADOLFO D URRUTIA
May 04, 2018
Jun 07, 2018

Digitally signed by
ADOLFO D URRUTIA

Jun 07, 2018

OFFICE

FICO

OFFICE

AJV-5433

OFFICE

AJV-5430

DATE

DATE

04/19/2018

DATE

TITLE

MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KNUQ
RUNWAY	RW14L
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W14A
LTP/FTP LATITUDE	372544.1280N
LTP/FTP LONGITUDE	1220316.5940W
LTP/FTP ELLIPSOIDAL HEIGHT	-00310
FPAP LATITUDE	372419.9870N
FPAP LONGITUDE	1220233.3630W
THRESHOLD CROSSING HEIGHT (TCH)	00053.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0000
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	C024E5A8
<u>ADDITIONAL PATH POINT RECORD INFORMATION</u>	
ICAO CODE	K2
LTP ORTHOMETRIC HEIGHT	+00016
FPAP ORTHOMETRIC HEIGHT	+00016



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

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<u>AIRPORT</u> MOFFETT FEDERAL AFLD	<u>AIRPORT ID</u> KNUQ	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 14R	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>CITY</u> MOUNTAIN VIEW	<u>STATE</u> CA	
<u>AIRPORT ELEVATION</u> 37	<u>TDZE</u> 14	<u>SUPERSEDED</u>	<u>ORIGINAL/AMENDMENT</u>	<u>DATED</u>	<u>MAG VAR</u> 16E	<u>EPOCH YEAR</u> 1980
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<u>REQUIRED EFFECTIVE DATE</u> 07/19/2018	<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>
OAK VOR/DME		PEYIC		TF	FB	2.00	129.74	3.35	3200
PEYIC	IAF	EVOCU		TF	FB	1.00	141.63	5.00	2600
EVOCU	IF	WHELP		TF	FB	1.00	142.58	6.28	1700
WHELP	FAF	RW14R	MAP	TF	FO	0.30	141.70	5.16	
RW14R	MAP	540 MSL		CA	FB		141.70		540
540 MSL		PEYIC		DF	FO	1.00			3200

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW14R

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 540 THEN CLIMBING LEFT TURN TO 3200 DIRECT PEYIC AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)
2. PROFILE STARTS AT PEYIC
3. FAC: 141.70 FAF: WHELP DIST FAF TO MAP: 5.16 DIST FAF TO THLD: 5.16
4. MIN ALT: PEYIC 3200, EVOCU 2600, WHELP 1700
5. DIST TO THLD FROM OM: MM: IM: 150 HAT: 250 HAT: 0.65
6. MIN GP INCPT: 1700 GP ALT AT FAF : WHELP 1700 OM: MM: IM:
7. GP ANGLE: 3.00 34:1: IS CLEAR 20:1: IS CLEAR TCH: 53.0
8. MSA FROM: RW14R 5600

PBN EQUIPMENT REQUIREMENTS NOTES

RNP APCH.

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW 0C (32F) OR ABOVE 54C (130F).
CHART NOTE: CIRCLING RWY 32L NA AT NIGHT.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT OAK VOR/DME ON V25 AND V87 NORTHWEST BOUND.

ADDITIONAL FLIGHT DATA:

CHART 212 TRANSMISSION_LINE 373027.60N-1220448.60W.
CHART ARRIVAL HOLDING AT PEYIC: HOLD NW, RT, 141.63 INBOUND, 3200.
CHART CIRCLING ICON.
CHART VDP AT 1.26 NM TO RW14R*
*LNAV ONLY
WAAS CHANNEL #81942
REFERENCE PATH ID: W14A
CHART FAS OBST: 210 TRANSMISSION_LINE 372655N/1220446W.
HOLD NW, RT, 141.63 INBOUND
LTP HAE: -31 M

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD

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	264	3/4	250	264	3/4	250	264	3/4	250	264	3/4	250			
LNAV/VNAV DA	413	1 1/8	399	413	1 1/8	399	413	1 1/8	399	413	1 1/8	399			
LNAV MDA	460	1	446	460	1	446	460	1 3/8	446	460	1 3/8	446			
CIRCLING	540	1	503	600	1	563	620	1 1/2	583	720	2 1/4	683			

CHANGES - REASONS

THIS IS AN ORIGINAL PROCEDURE.



COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: APRT MGR, ZOA, NORCAL APP CON, NUQ ATCT.

FLIGHT CHECKED BY

PENDING

Digitally signed by
ADOLFO D URRUTIA

Jun 07, 2018

OFFICE

FICO

DATE

DEVELOPED BY

SYLVAN DRAKES

Digitally signed by
SYLVAN DRAKES

May 04, 2018

OFFICE

AJV-5433

DATE

04/24/2018

APPROVED BY

PATRICK MULQUEEN

Digitally signed by
ADOLFO D URRUTIA
Jun 07, 2018

OFFICE

AJV-5430

DATE

TITLE

MANAGER

FAS DATA BLOCK INFORMATION

DATA FIELD	DATA
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KNUQ
RUNWAY	RW14R
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W14B
LTP/FTP LATITUDE	372530.7975N
LTP/FTP LONGITUDE	1220318.1025W
LTP/FTP ELLIPSOIDAL HEIGHT	-00313
FPAP LATITUDE	372408.2480N
FPAP LONGITUDE	1220235.7070W
THRESHOLD CROSSING HEIGHT (TCH)	00053.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0280
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	64D7F170
ADDITIONAL PATH POINT RECORD INFORMATION	
ICAO CODE	K2
LTP ORTHOMETRIC HEIGHT	+00012
FPAP ORTHOMETRIC HEIGHT	+00012



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

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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> MOFFETT FEDERAL AFLD	<u>AIRPORT ID</u> KNUQ	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 32L	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>CITY</u> MOUNTAIN VIEW	<u>STATE</u> CA	
<u>AIRPORT ELEVATION</u> 37	<u>TDZE</u> 36	<u>SUPERSEDED</u>	<u>ORIGINAL/AMENDMENT</u>	<u>DATED</u>	<u>MAG VAR</u> 16E	<u>EPOCH YEAR</u> 1980
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<u>REQUIRED EFFECTIVE DATE</u> 07/19/2018	<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>
HOSNU	IAF	CEVGI		TF	FB	1.00	321.85	3.48	5000
CEVGI	IF	WUMAG		TF	FB	1.00	321.64	2.05	4500
WUMAG		HOTLU		TF	FB	1.00	321.63	2.84	3600
HOTLU		FEGUM		TF	FB	1.00	321.30	3.47	2500
FEGUM	FAF	PUROE/1.75 NM TO JIRAP		TF	FB	0.30	321.75	4.74	
PUROE/1.75 NM TO JIRAP		JIRAP	MAP	TF	FO	0.30	321.75	1.27	
JIRAP	MAP	600 MSL		CA			321.75		600
600 MSL		PEYIC		DF	FO	1.00			3200

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: JIRAP

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3200 DIRECT PEYIC AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)
2. PROFILE STARTS AT CEVGI
3. FAC: 321.75 FAF: FEGUM DIST FAF TO MAP: 6.00 DIST FAF TO THLD: 6.48
4. MIN ALT: HOSNU 5500, WUMAG 4500, HOTLU 3600, FEGUM 2500, PUROE/1.75 NM TO JIRAP 740*
5. DIST TO THLD FROM OM: MM: IM: 150 HAT: 301 HAT: 0.66 GS ANT:
6. MIN GP INCPT: 2500 GP ALT AT FAF : FEGUM 2500 OM: MM: IM:
7. GP ANGLE: 3.50 34:1: IS NOT CLEAR 20:1: IS NOT CLEAR TCH: 55.0
8. MSA FROM: RW32L 5600

PBN REQUIREMENTS NOTES:

RNP APCH.

NOTES:

CHART NOTE: PROCEDURE NA AT NIGHT.
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW 0C OR ABOVE 54C.
CHART NOTE: RWY 32L HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED.

ADDITIONAL FLIGHT DATA:

CHART 242 TANK 372242.70N-1220136.73W.
*LNAV ONLY.
CHART CIRCLING ICON.
WAAS CHANNEL #50242
REFERENCE PATH ID: W32A
CHART FAS OBST: 217 TREE 372238N/1220222W.
HOLD NW, RT, 141.63 INBOUND
LTP HAE: -22 M

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD - CAT D 800-2 1/4

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	337	1	301	337	1	301	337	1	301	337	1	301			
LNAV/VNAV DA	468	1 1/4	432	468	1 1/4	432	468	1 1/4	432	468	1 1/4	432			
LNAV MDA	480	1	444	480	1	444	480	1 3/8	444	480	1 3/8	444			
CIRCLING	540	1	503	600	1	563	620	1 1/2	583	720	2 1/4	683			

CHANGES - REASONS

THIS IS AN ORIGINAL PROCEDURE.



COORDINATED WITH:

A4A

☐

ALPA

☒

AOPA

☒

APA

☐

HAI

☐

NBAA

☒

OTHER: APRT MGR, ZOA, NORCAL APP CON, NUQ ATCT.

FLIGHT CHECKED BY

Pending

DEVELOPED BY

SYLVAN DRAKES

Digitally signed by

SYLVAN DRAKES

APPROVED BY

PATRICK MULQUEEN

Digitally signed by

ADOLFO D URRUTIA

Jun 07, 2018

Digitally signed by

ADOLFO D URRUTIA

Jun 07, 2018

OFFICE

FICO

OFFICE

AJV-5433

OFFICE

AJV-5430

DATE

DATE

05/10/2018

DATE

TITLE

MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KNUQ
RUNWAY	RW32L
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W32A
LTP/FTP LATITUDE	372421.9975N
LTP/FTP LONGITUDE	1220242.7570W
LTP/FTP ELLIPSOIDAL HEIGHT	-00215
FPAP LATITUDE	372544.5435N
FPAP LONGITUDE	1220325.1655W
THRESHOLD CROSSING HEIGHT (TCH)	00055.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.50
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0456
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	898B989B
<u>ADDITIONAL PATH POINT RECORD INFORMATION</u>	
ICAO CODE	K2
LTP ORTHOMETRIC HEIGHT	+00111
FPAP ORTHOMETRIC HEIGHT	+00111



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

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<u>AIRPORT</u> CABLE	<u>AIRPORT ID</u> KCCB	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 6	<u>ORIGINAL/AMENDMENT</u> 1B	<u>CITY</u> UPLAND	<u>STATE</u> CA
<u>AIRPORT ELEVATION</u> 1444	<u>TDZE</u> 1430	<u>SUPERSEDED</u> RNAV (GPS) RWY 6	<u>ORIGINAL/AMENDMENT</u> 1A	<u>DATED</u> 05/29/2014	<u>MAG VAR</u> 14E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 2000

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>
ELMOO	IAF	HOPUN		TF	FB	1.00	084.85	8.52	4500
HOPUN	IF	POM VORTAC		TF	FB	1.00	074.92	6.25	3100
POM VORTAC	FAF	TOVQU	MAP	TF	FO	0.30	054.10	4.65	
TOVQU	MAP	1900 MSL		CA			054.10		
1900 MSL		ADAMM		DF	FO	1.00			

MISSED APPROACH

MAP:

LP: TOVQU
 LNAV: TOVQU

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 1900 THEN CLIMBING RIGHT TURN TO 5500 DIRECT ADAMM AND HOLD, CONTINUE CLIMB-IN-HOLD TO 5500.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT **SIDE OF COURSE** **OUTBOUND** **FT WITHIN** **MILES OF (IAF)**
2. PROFILE STARTS AT HOPUN
3. **FAC:** 054.10 **FAF:** POM VORTAC **DIST FAF TO MAP:** 4.65 **DIST FAF TO THLD:** 5.05
4. **MIN ALT:** HOPUN 4500, POM VORTAC 3100
5. **DIST TO THLD FROM OM:** **MM:** **IM:** **150 HAT:** **HAT:**
6. **MIN GP INCPT:** **GP ALT AT FAF :** **OM:** **MM:** **IM:**
7. **GP ANGLE:** **34:1:** IS CLEAR **20:1:** IS CLEAR **TCH:**
8. **MSA FROM:** TOVQU 11300



PBN EQUIPMENT REQUIREMENTS NOTES

RNP APCH.

NOTES:

CHART NOTE: CIRCLING NA NW OF RWY 6-24.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT ELMOO ON V186 WESTBOUND.
CHART NOTE: RWY 6 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART NOTE: CIRCLING RWY 24 NA AT NIGHT.
CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE ONTARIO ALTIMETER SETTING AND INCREASE ALL MDA 100 FEET.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON
CHART PLANVIEW NOTE: FINAL APPROACH COURSE OFFSET 1.02 DEGREES
POM VORTAC TO RW06: 3.11/40.
WAAS CHANNEL #45934
REFERENCE PATH ID: W06A
CHART FAS OBST: 1436 POLE 340636N/1174154W.
1599 TOWER 340651N/1174148W.
HOLD E, LT, 276.00 INBOUND
LTP HAE: 391.5 M

MINIMUMS:

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

ALTERNATE: NA ☒

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
LP MDA	1780	1	350	1780	1	350	1780	1 1/8	350		NA				
LNAV MDA	1940	1	510	1940	1	510	1940	1 5/8	510		NA				
CIRCLING	2020	1	576	2020	1	576	2140	2	696		NA				



CHANGES - REASONS

1. REMOVED CHART NOTE: USE ONTARIO ALTIMETER SETTING, WHEN NOT RECEIVED, USE RIVERSIDE ALTIMETER SETTING AND INCREASE ALL MDA 60 FT AND INCREASE LP AND CIRCLING CAT C VISIBILITY 3/8 MILE AND LNAV CAT C VISIBILITY 1/4 MILE, REPLACED WITH CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE ONTARIO ALTIMETER SETTING AND INCREASE ALL MDA 100 FEET - UPDATED PRIMARY ALTIMETER TO LOCAL, BACKUP NOW KONT.
2. REMOVED CHART NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NA, REPLACED WITH CHART NOTE: RWY 6 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED - IAW WITH EMAIL FROM AFS DATED 3/28/16, NIGHT MINIMUMS CAN BE RESTORED TO RNAV (GPS) RWY 6 STRAIGHT IN "ONLY". NIGHT EVAL HAS BEEN SCHEDULED FOR RESTORATION OF REMAINING PROCEDURES. 20:1 PENETRATION HAVE BEEN REMOVED PER EMAIL FROM FPT 3/16/2016.
3. REMOVED CHART NOTE: PROCEDURE NA AT NIGHT - REASON 2.
4. ADDED CHART NOTE: CIRCLING RWY 24 NA AT NIGHT PER RWY 24 20:1 PENS.
5. REMOVED CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT, REPLACED WITH CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET})- CRITERIA.
6. MISSED APPROACH INSTRUCTION CHANGED FROM "CLIMB TO 1900 THEN CLIMBING RIGHT TURN TO 5000 DIRECT ADAMM AND HOLD, CONTINUE CLIMB-IN-HOLD TO 5000" TO "CLIMB TO 1900 THEN CLIMBING RIGHT TURN TO 5500 DIRECT ADAMM AND HOLD, CONTINUE CLIMB-IN-HOLD TO 5500" - PER NEW CONT OBS IN CIH PATTERN.
7. ADDED PBN REQUIREMENTS NOTE: RNP APCH - REMOVED DME RNP-0.3 NOTE.
8. MISSED HOLD AT ADAMM FROM RIGHT TURN TO LEFT TURN - TO AVOID CIH PENETRATIONS AND RETAIN LOWER MINIMA.
9. CRC REMAINDER FROM 04E7CF89 TO A1E11845 - LENGTH OFFSET FROM 1608 TO 0.

CHANGES FROM PNOTAM AMDT 1A:
LP HAT 350, LNAV HAT 510. USING TDZE 1430 VS THRE 1393.
THIS CLEARS FDC 8/6723.



COORDINATED WITH:

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

FLIGHT CHECKED BY

KENNETH E JACK

OFFICE

FICO

DATE

5/25/18

Digitally signed by

ALLAN WILL

Jun 01, 2018

DEVELOPED BY

PHILLIP BRANDENBURG

Digitally signed by

PHILLIP BRANDENBURG

OFFICE

AJV-5412

DATE

04/17/2018

APPROVED BY

GEORGE DAVIS

May 09, 2018

OFFICE

AJV-5410

DATE

Digitally signed by

ALLAN WILL

Jun 01, 2018

TITLE

MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KCCB
RUNWAY	RW06
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W06A
LTP/FTP LATITUDE	340635.3580N
LTP/FTP LONGITUDE	1174134.8820W
LTP/FTP ELLIPSOIDAL HEIGHT	+03915
FPAP LATITUDE	340708.5200N
FPAP LONGITUDE	1173955.2500W
THRESHOLD CROSSING HEIGHT (TCH)	00040.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.11
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0000
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	0.0
CRC REMAINDER	A1E11845

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K2
LTP ORTHOMETRIC HEIGHT	+04247
FPAP ORTHOMETRIC HEIGHT	+04247



RNAV - STANDARD INSTRUMENT APPROACH PROCEDURE TITLE 14 CFR PART 97.33				Bearings, headings, courses, 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 in feet RVR.											
TERMINAL ROUTES										MISSED APPROACH					
FROM		TO		COURSE AND DISTANCE				ALTITUDE		LPV: DA LNAV/VNAV: DA LNAV: RW07 CLIMB TO 5700 THEN CLIMBING RIGHT TURN TO 10800 DIRECT ELIZZ AND HOLD. **MISSED APPROACH REQUIRES A MINIMUM CLIMB OF 425 FT PER NM TO 8200 FT. ADDITIONAL FLIGHT DATA: HOLD SE, RT, 323.00 INBOUND. FAS OBST: 5859 AAO 400451N/1085347W. 5942 AAO 400315N/1085415W. CHART VDP AT 5.87 NM TO RW07* *LNAV ONLY. WAAS CHANNEL # 99541 REFERENCE PATH ID: W07A CHART CIRCLING ICON. DISTANCE TO THLD FROM 350 FT HAT: 1.01 NM LTP HAE: 1579.8 M					
BONGO (IAF)		IDTOJ (TF) (FB) (RNP 1.00)		096.33 / 16.08				8200							
ELIZZ (IAF)		IDTOJ (TF) (FB) (RNP 1.00)		032.01 / 13.90				8200							
IDTOJ (IF)		UGXER (TF) (FB) (RNP 1.00)		067.25 / 5.00				7400							
UGXER (FAF)		RW07 (MAP) (TF) (FO) (RNP 0.30)		067.32 / 6.66											
RW07 (MAP)		5700 MSL (CA)		067.32											
5700 MSL		ELIZZ (DF) (FO) (RNP 1.00)						10800							
1. PT _____ SIDE OF COURSE _____ OUTBOUND _____ FT WITHIN _____ MILES OF _____ (IAF) 2. PROFILE STARTS AT IDTOJ 3. FAC: 067.32 FAF: UGXER DIST FAF TO MAP: 6.66 THLD: 6.66 4. MIN. ALT: IDTOJ 8200, UGXER 7400 5. DIST TO THLD FROM OM: _____ MM: _____ IM: _____ 150 HAT: _____ 100 HAT: _____ GS ANT: _____ 6. MIN GS INCPT: 7400 GS ALT AT: UGXER 7400 OM: _____ MM: _____ IM: _____ 7. GS ANGLE: 3.00 TCH: 40.0 34:1 IS CLEAR 8. MSA FROM: RW07 10300										MAG VAR: 10E EPOCH YEAR: 2020					
MINIMUMS															
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT								ALTERNATE: N A		@					
CATEGORY =====>		A		B		C		D		E					
	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA
LPV DA**	5599	1	350	5599	1	350	5599	1	350		NA				
LPV DA	6013	2 1/2	764	6013	2 1/2	764	6013	2 1/2	764		NA				
LNAV/VNAV DA	6041	2 1/2	792	6041	2 1/2	792	6041	2 1/2	792		NA				
LNAV MDA	7180	1 1/4	1931	7180	1 1/2	1931	7180	3	1931		NA				
CIRCLING	7180	1 1/4	1902	7180	1 1/2	1902	7180	3	1902		NA				
NOTES: CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -28C (-18F) OR ABOVE 54C (130F). @ CAT A, B 2000-2, CAT C 2000-3 CHART NOTE: CIRCLING RWY 25 NA AT NIGHT. CHART NOTE: DME/DME RNP-0.3 NA. CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL AT BONGO ON V200 WESTBOUND.															
CITY AND STATE		ELEVATION: 5278 TDZE: 5249				FACILITY IDENTIFIER: RNAV		PROCEDURE NO./AMDT NO./EFFECTIVE DATE:				SUP:			
RANGELY, CO		AIRPORT NAME: RANGELY						RNAV (GPS) RWY 7, ORIG 19 JULY 2018				AMDT: NONE			
												DATED			

QUALITY
10
CHECKED

**RNAV STANDARD INSTRUMENT APPROACH PROCEDURE
FLIGHT STANDARDS SERVICE - FAR PART 97.33**

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FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	4V0
RUNWAY	RW07
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W07A
LTP/FTP LATITUDE	400531.4320N
LTP/FTP LONGITUDE	1084627.1915W
LTP/FTP ELLIPSOIDAL HEIGHT	+15798
FPAP LATITUDE	400550.8530N
FPAP LONGITUDE	1084433.8760W
THRESHOLD CROSSING HEIGHT (TCH)	00040.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0800
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
 <u>CRC REMAINDER</u>	 E85F9E1A

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K2
LTP ORTHOMETRIC HEIGHT	+15964
FPAP ORTHOMETRIC HEIGHT	+15964

CITY AND STATE

RANGELY, CO

ELEVATION: 5278

TDZE: 5249

AIRPORT NAME:

RANGELY

FACILITY
IDENTIFIER:

RNAV

PROCEDURE NO./AMDT NO./EFFECTIVE DATE:

RNAV (GPS) RWY 7, ORIG

19 JULY 2018

SUP:

AMDT:

DATED:

 QUALITY
10
CHECKED

NONE

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

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<u>AIRPORT</u> RANGELY	<u>AIRPORT ID</u> K4V0	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 25	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>CITY</u> RANGELY	<u>STATE</u> CO	
<u>AIRPORT ELEVATION</u> 5278	<u>TDZE</u> 5278	<u>SUPERSEDED</u>	<u>ORIGINAL/AMENDMENT</u>	<u>DATED</u>	<u>MAG VAR</u> 10E	<u>EPOCH YEAR</u> 2020
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<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>
STRIM	IAF	YOWES		TF	FB	1.00	231.68	31.26	9800
YOWES		WEGIB		TF	FB	1.00	231.30	2.40	9100
EKR VOR/DME	IAF	OVGIW		TF	FB	1.00	279.86	24.58	9700
OVGIW		WEGIB		TF	FB	1.00	279.53	2.82	9100
WEGIB	IF	ZEVEP		TF	FB	1.00	228.37	5.01	8300
ZEVEP	FAF	XUWBE/4.20 NM TO WUMOS		TF	FB	0.30	227.53	4.70	
XUWBE		WUMOS	MAP	TF	FO	0.30	227.53	4.20	
WUMOS	MAP	5678 MSL		CA			227.53		
5678 MSL		ELIZZ		DF	FO	1.00			10800

MISSED APPROACH

MAP:

LP: WUMOS
 LNAV: WUMOS

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 10800 DIRECT ELIZZ AND HOLD, CONTINUE CLIMB-IN-HOLD TO 10800.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)
2. PROFILE STARTS AT WEGIB
3. FAC:

227.53

FAF: ZEVEP

DIST FAF TO MAP: 8.90

DIST FAF TO THLD: 9.36
4. MIN ALT: WEGIB 9100, ZEVEP 8300, XUWBE/4.20 NM TO WUMOS 6900
5. DIST TO THLD FROM OM:

MM:

IM:

150 HAT:

HAT:
6. MIN GP INCPT:

GP ALT AT FAF :

OM:

MM:

IM:
7. GP ANGLE:

34:1

IS NOT CLEAR

20:1

IS NOT CLEAR

TCH:
8. MSA FROM: WUMOS 10300

PBN EQUIPMENT REQUIREMENTS NOTES

RNP APCH.

NOTES:

CHART NOTE: RWY 25 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT STRIM ON V101 EASTBOUND.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS ON EKR VOR/DME AIRWAY RADIALS 199 CW 258.
CHART NOTE: STRAIGHT-IN RWY 25 NA AT NIGHT, CIRCLING RWY 25 NA AT NIGHT.

ADDITIONAL FLIGHT DATA:

CHART PROFILE NOTE: VISUAL SEGMENT - OBSTACLES.
CHART PLANVIEW NOTE: FINAL APPROACH COURSE OFFSET 20.00 DEGREES.
FAC CROSSES RWY C/L EXTENDED 3000 FEET FROM THLD.
FICTICIOUS THRESHOLD POINT (CFDVP) DO NOT CHART.
CHART CIRCLING ICON.
WAAS CHANNEL #93741
REFERENCE PATH ID: W25A
CHART FAS OBST: 6143 TERRAIN 400707N/1084105W.
HOLD SE, RT, 323.00 INBOUND
FTP HAE: 1592.2 M

MINIMUMS:

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

ALTERNATE: NA ☐ CAT A, B 1700-2, CAT C 1800-3

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
LP MDA	6400	1 1/4	1122	6400	1 1/2	1122	6400	3	1122		NA				
LNAV MDA	6400	1 1/4	1122	6400	1 1/2	1122	6400	3	1122		NA				
CIRCLING	6900	1 1/4	1622	6900	1 1/2	1622	7000	3	1722		NA				



CHANGES - REASONS

ORIGINAL

05/02/18: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 04/23/18.
8260-3 REMOVED "XUWBE TO WUMOS: 3.00/40.0" - PER FLIGHT INSPECTION.
ADDED PROFILE NOTE: "VISUAL SEGMENT - OBSTACLES." - COMPUTED DESCENT ANGLE 3.00/TCH 40, REMOVED PER FLIGHT INSPECTION.
UPDATED CRC REMAINDER FROM 8BF11E14 TO C4BA3996 - VDA REMOVAL.



COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: WST, ZDV

FLIGHT CHECKED BY

BRIAN ROBERT HANSEN

DEVELOPED BY

DAVID TEFFETELLER (FRANK MOORE)

APPROVED BY

PATRICK MULQUEEN

Digitally signed by

DAVID TEFFETELLER

Jun 04, 2018

OFFICE

FIOG

Digitally signed by

DAVID TEFFETELLER

Jun 04, 2018

OFFICE

AJV-5433

Digitally signed by

DAVID TEFFETELLER

Jun 04, 2018

OFFICE

AJV-5430

DATE

03/30/2018

DATE

09/20/2017

DATE

TITLE
MANAGER



FAS DATA BLOCK INFORMATION

DATA FIELD	DATA
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	4V0
RUNWAY	RW25
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W25A
LTP/FTP LATITUDE	400536.6860N
LTP/FTP LONGITUDE	1084459.6150W
LTP/FTP ELLIPSOIDAL HEIGHT	+15922
FPAP LATITUDE	400448.6600N
FPAP LONGITUDE	1084637.4270W
THRESHOLD CROSSING HEIGHT (TCH)	00000.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	00.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0000
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	0.0
CRC REMAINDER	C4BA3996
ADDITIONAL PATH POINT RECORD INFORMATION	
ICAO CODE	K2
LTP ORTHOMETRIC HEIGHT	+16087
FPAP ORTHOMETRIC HEIGHT	+16087



US DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION							ILS - STANDARD INSTRUMENT APPROACH PROCEDURE TITLE 14 CFR PART 97.29										Bearings, headings, courses, 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 in feet RVR.									
TERMINAL ROUTES														MISSED APPROACH												
FROM				TO				COURSE AND DISTANCE				ALTITUDE		ILS: DA LOC: 4.53 NM AFTER SALLT INT/I-HVN 5.58 DME OR AT I-HVN 1.05 DME												
MAD VOR/DME				SALLT INT/I-HVN 5.58 DME				241.79 / 12.11				2000		CLIMB TO 600 THEN CLIMBING RIGHT TURN TO 2000 DIRECT MAD VOR/DME AND HOLD. ALTERNATE MA (DO NOT CHART): CLIMB TO 600 THEN CLIMBING RIGHT TURN TO 3000 ON HEADING 150 AND ON BDR VOR/DME R-095 TO FLIBB INT/BDR 32.06 DME AND HOLD. ADDITIONAL FLIGHT DATA: HOLD SW, RT, 047.00 INBOUND. CHART IN PLANVIEW: ALTERNATE MA HOLDING, HOLD W FLIBB INT/BDR 32.06 DME, RT, 094.64 INBOUND. CHART FAS OBST: 125 SHIP 411230N/0725300W. CHART VDP AT 2.11 DME* DISTANCE VDP TO THLD 1.08 NM. *LOC ONLY. CHART IN PLANVIEW: FLIBB INT/BDR 32.06 DME. CHART IN PLANVIEW: BDR 11.16 DME AT PEPER. CHART CIRCLING ICON												
BDR VOR/DME				SALLT INT/I-HVN 5.58 DME				095.43 / 10.54				1800														
CCC VOR/DME (IAF)				PEPER INT/I-HVN 11.33 DME (NOPT)				346.83 / 10.38				1800														
PEPER INT/I-HVN 11.33 DME (IF)				SALLT INT/I-HVN 5.58 DME				015.92 / 5.74 (I-HVN)				1500														
1. PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)														MAG VAR: 13W EPOCH YEAR: 1980												
2. HOLD S SALLT, RT, 015.92 INBOUND, 1500 FT. IN LIEU OF PT (IAF)																										
3. FAC: 015.92 FAF: SALLT INT/I-HVN 5.58 DME DIST FAF TO MAP: 4.53 THLD: 4.53																										
4. MIN. ALT: SALLT 1500																										
5. DIST TO THLD FROM OM: MM: IM: 150 HAT: 100 HAT: GS ANT: 1004																										
6. MIN GS INCPT: 1500 GS ALT AT: SALLT 1500 OM: MM: IM:																										
7. GS ANGLE: 3.00 TCH: 50.4																										
8. MSA FROM: MAD VOR/DME 110-290 2100, 290-110 3100																										
MINIMUMS																										
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT							ALTERNATE: N A			ILS: STANDARD #			LOC: STANDARD @													
CATEGORY ==>		A			B			C			D			E												
	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA											
S-ILS 02	293	4000	287	293	4000	287	293	4000	287	293	4000	287														
S-LOC 02	400	4000	394	400	4000	394	400	4500	394	400	4500	394														
CIRCLING	720	1	708	720	1	708	780	2 1/4	768	880	2 3/4	868														
NOTES: CHART NOTE: CIRCLING RWY 14, 32 NA AT NIGHT. CHART NOTE: RWY 2, HELICOPTER VISIBILITY REDUCTION BELOW RVR 4000 NOT AUTHORIZED. CHART NOTE: FOR INOPERATIVE ALS, INCREASE S-ILS ALL CATS VISIBILITY TO RVR 4500.																										
CITY AND STATE NEW HAVEN, CT							ELEVATION: 12 TDZE: 6 AIRPORT NAME: TWEED-NEW HAVEN			FACILITY IDENTIFIER: I-HVN		PROCEDURE NO./AMDT NO./EFFECTIVE DATE: ILS OR LOC RWY 2, AMDT 18 19 JULY 2018					SUP: AMDT: 17 DATED 11/10/2016									



US DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION
ILS - STANDARD
INSTRUMENT APPROACH PROCEDURE - TITLE 14 CFR PART 97.29

Bearings, headings, courses, 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 in feet RVR.



CITY AND STATE
NEW HAVEN, CT

ELEVATION: 12 TDZE: 6
AIRPORT NAME:
TWEED-NEW HAVEN

FACILITY
IDENTIFIER:
I-HVN

PROCEDURE NO./AMDT NO./EFFECTIVE DATE:
ILS OR LOC RWY 2, AMDT 18
19 JULY 2018

SUP:
AMDT: 17
DATED: 11/10/2016

U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION VOR STANDARD INSTRUMENT APPROACH PROCEDURE FLIGHT STANDARDS SERVICE - TITLE 14 CFR PART 97.23										Bearings, headings, courses, 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 in feet RVR.									
TERMINAL ROUTES										MISSED APPROACH									
FROM			TO			COURSE AND DISTANCE				ALTITUDE									
										ADDITIONAL FLIGHT DATA:									
1. PT ____ SIDE OF COURSE ____ OUTBOUND ____ FT WITHIN ____ MILES OF ____ (IAF)																			
2. ____																			
3. FAC ____ FAF ____ DIST FAF TO MAP ____ THLD ____																			
4. MIN. ALT ____																			
8. MSA FROM:										MAG VAR: EPOCH YEAR:									
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT										ALTERNATE: N A									
CATEGORY =====>																			
		MDA	VIS			MDA	VIS			MDA	VIS			MDA	VIS				
NOTES:																			
PROCEDURE CANCELED EFFECTIVE 19 JULY 2018																			
CITY AND STATE NEW HAVEN, CT				ELEVATION: 12 TDZE: 6 AIRPORT NAME: TWEED-NEW HAVEN				FACILITY IDENTIFIER: HVN				PROCEDURE NO./AMD'T NO./EFFECTIVE DATE: VOR RWY 2, AMDT 23, 06/08/2006				SUP AMD'T NONE DATE			



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> BOCA RATON	<u>AIRPORT ID</u> KBCT	<u>PROCEDURE NAME</u> RNAV (GPS) Y RWY 23	<u>ORIGINAL/AMENDMENT</u> 1B	<u>CITY</u> BOCA RATON	<u>STATE</u> FL
<u>AIRPORT ELEVATION</u> 13	<u>TDZE</u> 13	<u>SUPERSEDED</u> RNAV (GPS) Y RWY 23	<u>ORIGINAL/AMENDMENT</u> 1A	<u>DATED</u> 07/20/2017	<u>MAG VAR</u> 5W
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 2000

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>
PBI VORTAC		SOBPO		TF	FB	2.00	162.26	6.70	3000
MRLIN	IAF	KISEC	NOPT	TF	FB	1.00	278.28	10.66	2000
SOBPO	IAF	KISEC	NOPT	TF	FB	1.00	139.37	5.62	2000
KISEC	IF/IAF	HIVUR		TF	FB	1.00	229.40	6.14	1500
HIVUR	FAF	RW23	MAP	TF	FO	0.30	229.37	4.50	
RW23	MAP	263 MSL		CA			229.37		
263 MSL		TANAH		DF	FB	1.00			
TANAH		ATONE		TF	FO	1.00	297.09	10.74	2100

MISSED APPROACH

MAP:

LPV: DA
 LNAV/VNAV: DA
 LNAV: RW23

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2100 DIRECT TANAH AND TRACK 297.09 TO ATONE AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT	SIDE OF COURSE	OUTBOUND	FT WITHIN	MILES OF (IAF)
2.	HOLD NE KISEC, RT, 229.40 INBOUND, 2000 FT. IN LIEU OF PT (IAF), MAX 6000.			
3. FAC:	229.37	FAF: HIVUR	DIST FAF TO MAP: 4.50	DIST FAF TO THLD: 4.50
4. MIN ALT:	KISEC 2000, HIVUR 1500			
5. DIST TO THLD FROM OM:	MM:	IM:	150 HAT:	250 HAT: 0.61
6. MIN GP INCPT:	1500	GP ALT AT FAF : HIVUR 1500	OM:	MM:IM:
7. GP ANGLE:	3.00	34:1: IS NOT CLEAR	20:1: IS CLEAR	TCH: 55.0
8. MSA FROM:	RW23 2600			

PBN REQUIREMENTS NOTE

RNP APCH

NOTES:

CHART NOTE: RWY 23 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, PROCEDURE NA BELOW -15C OR ABOVE 54C.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON PBI VORTAC AIRWAY RADIALS 071 CW 190.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT MRLIN ON BR68V NORTHEAST BOUND, BR64V EASTBOUND, AND ON BR54V-55V SOUTHEAST BOUND.
CHART NOTE: IN MINIMUM VISIBILITY CONDITIONS, BRIGHT LIGHTS ON HIGHWAY 1/4 MILE NORTH OF AIRPORT MAY BE MISTAKEN AS RUNWAY LIGHTS.
CHART NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH{FEET}).
CHART SPEED ICON IN PLANVIEW AT SOBPO: MAX 210 KIAS.

ADDITIONAL FLIGHT DATA:

FAS OBST: 220 AAO 262610N/0800343W
CHART CIRCLING ICON.
CHART A-291A
CHART VDP AT 1.34 NM TO RW23*
*LNAV ONLY
WAAS CHANNEL #42801
REFERENCE PATH ID: W23A
HOLD N, LT, 169.00 INBOUND
LTP HAE: -22 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	263	3/4	250	263	3/4	250	263	3/4	250	263	3/4	250			
LNAV/VNAV DA	357	1 1/8	344	357	1 1/8	344	357	1 1/8	344	357	1 1/8	344			
LNAV MDA	480	1	467	480	1	467	480	1 3/8	467	480	1 3/8	467			
CIRCLING	680	1	667	680	1	667	680	1 3/4	667	880	2 3/4	867			



AIRPORT	AIRPORT ID	PROCEDURE NAME	ORIGINAL/AMENDMENT	CITY	STATE
BOCA RATON	KBCT	RNAV (GPS) Y RWY 23	1B	BOCA RATON	FL

CHANGES - REASONS

- 1. UPDATED MISSED APPROACH CLIMB-TO ALTITUDE FROM 2000 TO 2100. -RAISED TO MATCH AIRWAY MEA AND REMOVE NOTAM FDC 8/6487.
- 2. ADDED LINE 7: 20:1 IS CLEAR. - IAW 8260.19H.
- 3. REMOVED CHART NOTE: DME/DME RNP-0.3 NA. ADDED PBN REQUIREMENTS NOTE: RNP APCH. - IAW 8260.19H.
- 4. INCREASED CIRCLING CAT A/B MDA/HAA FROM 640/667 TO 680/667. - NEW CONTROLLING OBSTACLE/UPDATED TO MATCH VOR-A.
- 5. CHANGED COURSE AND DISTANCE FROM TANAH TO ATONE FROM 296.82/10.76 TO 297.09/10.74. - TANAH MOVED IN 2004; 8260-3 DID NOT REFLECT CHANGE.
- 6. REMOVED FAHRENHEIT TEMPERATURES FROM UNCOMPENSATED BARO-VNAV SYSTEMS CHART NOTE. - IAW 8260.19H.



COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZMA, BCT ATCT, PBI APP CON, AMGR

FLIGHT CHECKED BY

WILLIAM R GEISER

DEVELOPED BY

LONNIE EVERHART (BARBARA GORMAN)

APPROVED BY

LONNIE EVERHART

Digitally signed by

BEV L BORDY

Jun 04, 2018

Digitally signed by

BEV L BORDY

Jun 04, 2018

Digitally signed by

BEV L BORDY

Jun 04, 2018

OFFICE

FICO

OFFICE

AJV-5400

OFFICE

AJV-5400

DATE

5/31/18

DATE

02/28/2018

DATE

TITLE

MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KBCT
RUNWAY	RW23
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	Y
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W23A
LTP/FTP LATITUDE	262302.0925N
LTP/FTP LONGITUDE	0800606.4990W
LTP/FTP ELLIPSOIDAL HEIGHT	+00221
FPAP LATITUDE	262158.1700N
FPAP LONGITUDE	0800715.8300W
THRESHOLD CROSSING HEIGHT (TCH)	00055.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0952
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	7FD7E35B

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K7
LTP ORTHOMETRIC HEIGHT	+00038
FPAP ORTHOMETRIC HEIGHT	+00038



FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
RNAV (RNP) 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> BOCA RATON	<u>AIRPORT ID</u> KBCT	<u>PROCEDURE NAME</u> RNAV (RNP) Z RWY 23	<u>ORIGINAL/AMENDMENT</u> ORIG-B	<u>CITY</u> BOCA RATON	<u>STATE</u> FL
<u>AIRPORT ELEVATION</u> 13	<u>TDZE</u> 13	<u>SUPERSEDED</u> RNAV (RNP) Z RWY 23	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>DATED</u> 07/20/2017	<u>MAG VAR</u> 5W
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 2000

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>
WEMSO	IF	RANCO		TF	FB	1.00	103.49	4.53	2900
RANCO		XICZO		RF	FB	1.00	(2.73 NM RADIUS CW (CFVVQ))	2.03	2400
WEPOM	IF	ZOREK		TF	FB	1.00	145.79	3.53	3900
ZOREK		GECER		TF	FB	1.00	145.81	3.00	3200
GECER		XICZO		TF	FB	1.00	146.10	3.00	2400
XICZO		HIVUR		RF	FB	1.00	(2.73 NM RADIUS CW (CFVVQ))	3.97	1500
HIVUR	FAF	RW23	MAP	TF	FO	0.30	229.37	4.50	
RW23	MAP	TACUY		TF	FB	1.00	229.37	4.42	
TACUY		ZILKI		RF	FB	1.00	(3.00 NM RADIUS CW (CFBMS))	3.89	
ZILKI		ATONE		TF	FO	1.00	303.73	8.04	2100

MISSED APPROACH

MAP:

RNP: DA

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2100 ON TRACK 229.37 TO TACUY, RIGHT TURN TO ZILKI AND TRACK 303.73 TO ATONE AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)
2. PROFILE STARTS AT XICZO
3. FAC: 229.37

FAF:

DIST FAF TO MAP:

DIST FAF TO THLD:
4. MIN ALT: XICZO 2400, HIVUR 1500
5. DIST TO THLD FROM OM: 4.50

MM:

IM:

150 HAT:

506 HAT: 1.42
6. MIN GP INCPT: 1500

GP ALT AT FAF : HIVUR 1500

OM:

MM:

IM:
7. GP ANGLE: 3.00

34:1: IS NOT CLEAR

20:1: IS CLEAR

TCH: 55.0
8. MSA FROM: RW23 2600

PBN EQUIPMENT REQUIREMENTS NOTES

RNP AR APCH, RF REQUIRED

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, PROCEDURE NA BELOW -15C OR ABOVE 54C.
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART PROFILE NOTE: SEE PLANVIEW FOR MULTIPLE IF LOCATIONS.
CHART NOTE: IN MINIMUM VISIBILITY CONDITIONS, BRIGHT LIGHTS ON HIGHWAY 1/4 MILE NORTH OF AIRPORT MAY BE MISTAKEN FOR RUNWAY LIGHTS.
CHART SPEED ICON IN PLANVIEW AT WEMSO: MAX 210 KIAS.
CHART SPEED ICON IN PLANVIEW AT WEPOM: MAX 210 KIAS.

ADDITIONAL FLIGHT DATA:

CHART MINIMUM 4000 AT WEMSO AND WEPOM.
ROUTE TYPE: A, H
ROUTE TYPE QUALIFIER 1: F
ROUTE TYPE QUALIFIER 2: S
CHART A-291A
HOLD N, LT, 169.00 INBOUND

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD

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
AUTHORIZATION REQUIRED															
RNP 0.30 DA	519	1 3/8	506	519	1 3/8	506	519	1 3/8	506	519	1 3/8	506			



AIRPORT	AIRPORT ID	PROCEDURE NAME	ORIGINAL/AMENDMENT	CITY	STATE
BOCA RATON	KBCT	RNAV (RNP) Z RWY 23	ORIG-B	BOCA RATON	FL

CHANGES - REASONS

- 1. UPDATED MISSED APPROACH CLIMB-TO ALTITUDE FROM 2000 TO 2100. - RAISED TO MATCH AIRWAY MEA AND REMOVE NOTAM FDC 8/1211.
- 2. ADDED LINE 7: 20:1 IS CLEAR. - IAW 8260.19H.
- 3. INCREASED RNP 0.30 CAT A/B/C/D DA/HAA FROM 406/393 TO 519/506. INCREASED CAT A/B/C/D VISIBILITY FROM 1 1/4 TO 1 3/8. - NEW FINAL CONTROLLING OBSTACLE.
- 4. REMOVED CHART NOTE: RF REQUIRED AND CHART NOTE: GPS REQUIRED. ADDED PBN REQUIREMENTS NOTE: RNP AR APCH, RF REQUIRED. - IAW 8260.19H.
- 5. ADDED CHART NOTE: IN MINIMUM VISIBILITY CONDITIONS, BRIGHT LIGHTS ON HIGHWAY 1/4 MILE NORTH OF AIRPORT MAY BE MISTAKEN FOR RUNWAY LIGHTS. - TO MATCH RNAV (GPS) Y RWY 23 AND VOR-A.
- 6. REMOVED FAHRENHEIT TEMPERATURES FROM UNCOMPENSATED BARO-VNAV SYSTEMS CHART NOTE. - IAW 8260.19H.



COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZMA, BCT ATCT, PBI APP CON, AIRPORT MANAGER

FLIGHT CHECKED BY

WILLIAM R GEISER

DEVELOPED BY

LONNIE EVERHART (BARBARA GORMAN)

APPROVED BY

LONNIE EVERHART

Digitally signed by

BEV L BORDY

Jun 04, 2018

Digitally signed by

BEV L BORDY

Jun 04, 2018

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BEV L BORDY

Jun 04, 2018

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AJV-5400

DATE

5/31/18

DATE

03/05/2018

DATE

TITLE

MANAGER



**FLIGHT STANDARDS SERVICE
VOR STANDARD INSTRUMENT APPROACH PROCEDURE**

TITLE 14 CFR PART 97.23

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.

If an instrument approach procedure of the above type is conducted at the below named airport, it shall be conducted in accordance with a charted instrument approach procedure predicted on the specifications contained herein, unless an approach is conducted in accordance with a different procedure for such airport authorized by the Administrator. Minimum altitudes shall correspond with those established for enroute operations in the particular area or as set forth below.

<u>AIRPORT</u> BOCA RATON	<u>AIRPORT ID</u> KBCT	<u>PROCEDURE NAME</u> VOR-A	<u>ORIGINAL/AMENDMENT</u> 1B	<u>CITY</u> BOCA RATON	<u>STATE</u> FL
<u>AIRPORT ELEVATION</u> 13	<u>TDZE</u>	<u>SUPERSEDED</u> VOR/DME-A	<u>ORIGINAL/AMENDMENT</u> 1A	<u>DATED</u> 05/06/2010	<u>MAG VAR</u> 3W
<u>FACILITY</u> PBI	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 2000

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>
PBI VORTAC	IF/IAF	UGLEE/12.73 DME					186.57	12.73	2000

MISSED APPROACH

MAP:

MABVD 17.69 DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 1000 THEN CLIMBING LEFT TURN TO 3000 DIRECT PBI VORTAC AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

- 1. PT** **SIDE OF COURSE** **OUTBOUND** **FT WITHIN** **MILES OF (IAF)**
- 2.** HOLD N PALM BEACH VORTAC/PBI, RT, 186.57 INBOUND, 2000 FT. IN LIEU OF PT (IAF), MAX 10000.
- 3. FAC:** 186.57 **FAF:** UGLEE/12.73 DME **DIST FAF TO MAP:** **DIST FAF TO THLD:**
- 4. MIN ALT:** PBI VORTAC 2000, UGLEE/12.73 DME 2000, JISAS/15.00 DME 1200
- 5. MSA FROM:** PBI VORTAC 010-200 1600, 200-010 2600

EQUIPMENT REQUIREMENTS NOTES:

DME REQUIRED.

NOTES:

CHART PLANVIEW NOTE: NOPT FOR ARRIVAL ON PBI VORTAC AIRWAY RADIALS 273 CW 125.

CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE PALM BEACH ALTIMETER SETTING AND INCREASE ALL MDA 60 FEET, AND VISIBILITY CAT C/D 1/4 SM.

CHART NOTE: IN MINIMUM VISIBILITY CONDITIONS BRIGHT LIGHTS ON HIGHWAY 1/4 MILE NORTH OF AIRPORT MAY BE MISTAKEN FOR RUNWAY LIGHTS.

ADDITIONAL FLIGHT DATA:



FAC CROSSES MIDPOINT OF RWY 5-23.
CHART CIRCLING ICON.
CHART 464 TOWER 262602N/0800530W.

MINIMUMS:

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

ALTERNATE: NA ☐ NA WHEN LOCAL WEATHER NOT AVAILABLE.

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
CIRCLING	680	1	667	680	1	667	680	1 3/4	667	880	2 3/4	867			

CHANGES - REASONS

1. RAISED CIRCLING MDA CAT D 880/HAA 867 - TO REMOVE NOTAM FDC 8/9606, INCORPORATE P-NOTAM AMENDMENT 1A, UPDATED CIRCLING RADII, AND CURRENT OBSTACLE EVALUATION.
2. ADDED "CHART CIRLCING ICON" TO ADDITIONAL FLIGHT DATA - 8260.3, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED.
3. ADDED CHART NOTE: DME REQUIRED - PER 8260.19H PARA 8-6-8A.(2)(A).
4. CHANGED PROCEDURE NAME FROM VOR/DME-A TO VOR-A - PER 8260.3 PARA 1-6-2.

COORDINATED WITH:

A4A ☐ ALPA ☐ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZMA, BCT ATCT, PBI APP CONN, MIA APP CON, AIRPORT MANAGER

FLIGHT CHECKED BY

WILLIAM R GEISER

DEVELOPED BY

LONNIE EVERHART (TODD BOWLING)

APPROVED BY

LONNIE EVERHART

Digitally signed by

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Jun 04, 2018

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Jun 04, 2018

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Jun 04, 2018

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03/05/2018

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TITLE

MANAGER



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> ATHENS/BEN EPPS	<u>AIRPORT ID</u> KAHN	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 9	<u>ORIGINAL/AMENDMENT</u> 2	<u>CITY</u> ATHENS	<u>STATE</u> GA
<u>AIRPORT ELEVATION</u> 813	<u>TDZE</u> 778	<u>SUPERSEDED</u> RNAV (GPS) RWY 9	<u>ORIGINAL/AMENDMENT</u> 1	<u>DATED</u> 10/15/2015	<u>MAG VAR</u> 6W
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 2020

TAA

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>ALTITUDE</u>
1. 164/30 CW 274/30		JODAS	IAF	4800
2. 274/30 CW 024/30		HEKVA	IAF	2500
3. 024/30 CW 164/30	NOPT	024/5 CW 164/5		4700
4. 024/5 CW 164/5		SALIN	IF/IAF	2500

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>
JODAS	IAF	SALIN	NOPT	TF	FB	1.00	164.17	6.00	2500
HEKVA	IAF	SALIN	NOPT	TF	FB	1.00	024.17	6.00	2500
SALIN	IF/IAF	APDAW		TF	FB	1.00	094.19	6.06	2400
APDAW	FAF	OTKAE/2.30 NM TO RW09		TF	FB	0.30	094.25	2.74	
OTKAE/2.30 NM TO RW09		RW09	MAP	TF	FO	0.30	094.25	2.30	
RW09	MAP	1028 MSL		CA					
1028 MSL		IMAVE		DF	FO	1.00			2500



MISSED APPROACH

MAP:
LPV: DA
LNAV/VNAV: DA
LNAV: RW09

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2500 DIRECT IMAVE AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)
2. HOLD W SALIN, RT, 094.19 INBOUND, 2500 FT. IN LIEU OF PT (IAF), MAX 6000.
3. FAC: 094.25

FAF: APDAW

DIST FAF TO MAP: 5.04

DIST FAF TO THLD: 5.04
4. MIN ALT: SALIN 2500, APDAW 2400, OTKAE/2.30 NM TO RW09 1520*
5. DIST TO THLD FROM OM:

MM:

IM:

150 HAT:

250 HAT: 0.66
6. MIN GP INCPT: 2400

GP ALT AT FAF : APDAW 2400

OM:

MM:

IM:
7. GP ANGLE: 3.00

34:1: IS NOT CLEAR

20:1: IS CLEAR

TCH: 39.2
8. MSA FROM:

PBN EQUIPMENT REQUIREMENTS NOTES

RNP APCH.

NOTES:

CHART NOTE: CIRCLING RWY 2, 20 NA AT NIGHT.
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -8C OR ABOVE 54C.
CHART NOTE: RWY 9 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
CHART VDP AT 1.33 NM TO RW09*
*LNAV ONLY
WAAS CHANNEL #93937
REFERENCE PATH ID: W09A
CHART FAS OBST: 952 TWR 335727N/0832252W.
HOLD E, RT, 274.45 INBOUND
LTP HAE: 201.1 M

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD



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	1028	3/4	250	1028	3/4	250	1028	3/4	250	1028	3/4	250			
LNAV/VNAV DA	1115	1	337	1115	1	337	1115	1	337	1115	1	337			
LNAV MDA	1220	1	442	1220	1	442	1220	1 3/8	442	1220	1 3/8	442			
CIRCLING	1260	1	447	1280	1	467	1320	1 1/2	507	1460	2	647			

CHANGES - REASONS

1. CHANGED MISSED APPROACH FROM: CLIMB TO 1700 THEN CLIMBING LEFT TURN TO 2500 DIRECT SALIN AND HOLD, TO: CLIMB TO 2500 DIRECT IMAVE AND HOLD - AMENDMENT 1 MISSED APPROACH WAS NOT FLIGHT INSPECTED AS DEVELOPED. FLIGHT INSPECTION MAPS DEPICT A CLIMB TO 1700 THEN A CLIMBING RIGHT TURN TO 2500 DIRECT SALIN AND HOLD. PROCEDURE ARINC CODING AND FAA FORM 8260-3 INCORRECTLY DOCUMENTS A CLIMB TO 1700 THEN A CLIMBING LEFT TURN TO 2500 DIRECT SALIN AND HOLD. MISSED APPROACH CHANGED TO CLIMB TO 2500 DIRECT IMAVE AND HOLD-ATC REQUEST.
2. MOVED *LNAV ONLY FROM NOTES TO ADDITIONAL FLIGHT DATA - CORRECT DOCUMENTATION ERROR.
3. DELETED CHART NOTE: DME/DME RNP-0.3 NA AND REPLACED IT WITH PBN REQUIREMENTS NOTE: RNP APCH - 8260.19H, PARA 8-6-8 NOTE REQUIREMENT.
4. ADDED 20:1 IS CLEAR IN LINE 7- CRITERIA, REQUIRED NOTE.
5. CHART NOTE CHANGED FROM "NIGHT LANDING: RWY 2, 20 NA" TO "CIRCLING RWY 2, 20 NA AT NIGHT" - CRITERIA, NEW NOTE FORMAT.
6. REMOVED DEGREES FAHRENHEIT FROM BARO-VNAV NOTE - CRITERIA, NOT REQUIRED FOR PROCEDURE.
7. REMOVED "NA WHEN LOCAL WEATHER NOT AVAILABLE" FROM ALTERNATE MINIMUMS - KAHN ASOS REPORTS TO WMSCR.
8. CHANGED DISTANCE FROM JONAS TO SALIN FROM 5 TO 6 MILES-MOVED JODAS 1 NM NORTHWEST, RETAINED WP NAME PER ATC REQUEST CRITERIA, MINIMUM TERMINAL ROUTE SEGMENT LENGTH REQUIREMENT.
9. CHANGED DISTANCE FROM HEVKA TO SALIN FROM 5 TO 6 MILES-MOVED HEVKA 1 NM SOUTHWEST, RETAINED WP NAME PER ATC REQUEST CRITERIA, MINIMUM TERMINAL ROUTE SEGMENT LENGTH REQUIREMENT.
10. LOWERED LPV DA VISIBILITY FROM 7/8 TO 3/4 MILE. LNAV/VNAV DA VISIBILITY LOWERED FROM 1 1/4 TO 1 - NEW TERPS TABLE 3-3-6 VISIBILITY REQUIREMENTS.
11. MOVED CHART NOTE: BARO-VNAV AND VDP NA WHEN USING WINDER ALTIMETER SETTING TO PART C REMARKS -CRITERIA, NEW DOCUMENTATION REQUIREMENTS.
12. MOVED CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE WINDER ALTIMETER SETTING: INCREASE LPV DA TO 1086 FEET AND ALL VISIBILITIES 1/4 SM; INCREASE LNAV/VNAV DA TO 1173 AND ALL VISIBILITIES 1/8 SM; INCREASE ALL MDAS 60 FEET AND CIRCLING CAT D VISIBILITY 1/4 SM TO PART C REMARKS - CRITERIA, NEW DOCUMENTATION REQUIREMENTS.
13. VDP DISTANCE CHANGED FROM 1.34 TO 1.33-NEW CALCULATED DISTANCE.
14. CHANGED BARO-VNAV LOW TEMP FROM -9C TO -8C - NEW LOW TEMP BASED ON 2013-2017 NOAA WEATHER DATA AND AFS-400 CALCULATOR.
15. ADDED "CHART CIRCLING ICON" TO ADDITIONAL FLIGHT DATA - NEW TERPS CHANGE 21 CRITERIA.

PDF EDITS:

- 9, REMOVED EXTRA "AC50" FROM CIRCLING CAT D ADJUSTMENT.
- 9, REMOVED "ORDER 8260.3, VOLUME 1, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED" FROM NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS.
- 9, CHANGED AVERAGE COLD TEMPERATURE DERIVED REMARK FROM "-23C ISA DEVIATION" TO "5-YEAR HISTORY"
- 9, CHANGED "MAP" TO "ARP" IN AIRSPACE.



COORDINATED WITH:

A4A ☒ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZTL, A80, KAHN ATCT, ARPT MGR

FLIGHT CHECKED BY

JEFFREY ECKMAN

DEVELOPED BY

ROBERT W. COOK

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GEORGE DAVIS

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06/05/2018

DATE

11/20/2017

DATE

Digitally signed by

ALLAN WILL

Jun 08, 2018

Digitally signed by

ALLAN WILL

Jun 08, 2018

Digitally signed by

ALLAN WILL

Jun 08, 2018



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KAHN
RUNWAY	RW09
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W09A
LTP/FTP LATITUDE	335656.0770N
LTP/FTP LONGITUDE	0832017.5540W
LTP/FTP ELLIPSOIDAL HEIGHT	+02011
FPAP LATITUDE	335658.6970N
FPAP LONGITUDE	0831830.4950W
THRESHOLD CROSSING HEIGHT (TCH)	00039.2
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0888
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0

CRC REMAINDER	4F90CFB4

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K7
LTP ORTHOMETRIC HEIGHT	+02302
FPAP ORTHOMETRIC HEIGHT	+02302



FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
ILS STANDARD INSTRUMENT APPROACH PROCEDURE
TITLE 14 CFR PART 97.29

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<u>AIRPORT</u> NEWNAN COWETA COUNTY	<u>AIRPORT ID</u> KCCO	<u>PROCEDURE NAME</u> ILS OR LOC RWY 32	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>CITY</u> ATLANTA	<u>STATE</u> GA	
<u>AIRPORT ELEVATION</u> 970	<u>TDZE</u> 952	<u>SUPERSEDED</u> ILS OR LOC/NDB RWY 32	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>DATED</u> 08/20/2015	<u>MAG VAR</u> 3W	<u>EPOCH YEAR</u> 2000
<u>FACILITY</u> I-CCO	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<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>
TIROE INT		EQQ NDB					114.14	8.24	2500

MISSED APPROACH

MAP:

ILS: DA
LOC: 3.88 NM AFTER EQQ NDB

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 1800 THEN CLIMBING LEFT TURN TO 4000 ON LGC VORTAC R-047 TO HONIE INT/LGC 12.05 DME AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS (DO NOT CHART):

CLIMB TO 1800 THEN CLIMBING LEFT TURN TO 2500 DIRECT EQQ NDB AND HOLD.

PROFILE:

1. PT L SIDE OF COURSE 142.46 OUTBOUND 2500 FT WITHIN 10 MILES OF EQQ NDB (IAF)

2.

3. FAC: 322.46 FAF: EQQ NDB DIST FAF TO MAP: 3.88 DIST FAF TO THLD: 3.88

4. MIN ALT: EQQ NDB 2300

5. DIST TO THLD FROM OM: MM: IM: 150 HAT: 250 HAT: 0.74 GS ANT: 802

6. MIN GS INCPT: 2300 GS ALT AT FAF : EQQ NDB 2214 OM: MM: IM:

7. GP ANGLE: 3.00 34:1: 20:1: TCH: 36.2

8. MSA FROM: EQQ NDB 3500

EQUIPMENT REQUIREMENTS NOTES

ADF REQUIRED.

NOTES:

CHART NOTE: RWY 32 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART NOTE: INOPERATIVE TABLE DOES NOT APPLY.



CHART PROFILE NOTE: VGSI AND ILS GLIDEPATH GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL AT TIROE ON V154 NORTHWEST BOUND.

ADDITIONAL FLIGHT DATA:

CHART IN PLANVIEW: (CFBLN) AT 331051.01N-0843809.18W
1179 AAO 331540N/0844328W
CHART CIRCLING ICON.
CHART IN PLANVIEW: EQQ NDB
CHART FAS OBST: 996 TREE 331811N/0844535W.
CHART IN PLANVIEW: ALTERNATE MA HOLDING, HOLD SE EQQ NDB, LT, 322.46 INBOUND.
HOLD NE, RT, 226.94 INBOUND
LTP HAE: 254.1 M

MINIMUMS:

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

ALTERNATE: NA ☐ ILS: STANDARD - NA WHEN FBO CLOSED / CAT D 700-2; LOC: STANDARD - NA WHEN FBO CLOSED.

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
S-ILS 32	1202	1	250	1202	1	250	1202	1	250	1202	1	250			
S-LOC 32	1260	1	308	1260	1	308	1260	1	308	1260	1	308			
CIRCLING	1420	1	450	1420	1	450	1540	1 1/2	570	1600	2	630			

CHANGES - REASONS

1. REVISED CIRCLING CAT A/B MDA FROM 1360/390 HAA TO 1420/HAA 450 - 1119 MSL TOWER (13-022679) (2C) 331831.30N-0844638.90W.
2. ADDED "FAS" TO OBST IN ADDITIONAL FLIGHT DATA.-8260.19H PAR C 8-6-10 ADDITIONAL FLIGHT DATA.
3. CHANGED RWY MARKING FROM NPI-F TO PIR-F.-AIRPORT DATA CHANGE.
4. REMOVED 20:1 PENETRATIONS.-NO 20:1 PENETRATIONS IDENTIFIED.
5. CHANGED HELICOPTER VISIBILITY REDUCTION FROM 1 SM TO 3/4 SM- 34:1 PENETRATION.
6. CHANGED PROCEDURE NAME FROM "ILS OR LOC/NDB RWY 32" TO "ILS OR LOC RWY 32" - UPDATE TO CURRENT CRITERIA.
- 7 ADDED EQUIPMENT NOTE: "ADF REQUIRED" - UPDATE TO CURRENT CRITERIA.

PDF EDIT: LOC INTO ALTERNATE SECTION.
PDF EDIT: LINE 1, "NDB" INTO "MILES OF"
DUE TO FORM 19H PRINT ISSUE.
PDF EDIT: LINE 6, "2214" INTO "GS ALT AT
FAF" DUE TO FORM 19H PRINT ISSUE.
PDF EDIT: TERMINAL ROUTE FROM TIROE INT TO EQQ NDB LEG TYPE OF "CF" REMOVED DUE TO ARINC SEQUENCING ISSUE.
PDF EDIT: "CAT D 700-2" INTO ATLERNATE ILS, STANDARD DUE TO 19H PRINT ISSUE.



COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: ZTL, ATL APP CON, AMGR, ATA

FLIGHT CHECKED BY

KEVIN RIESE

Digitally signed by

ROBERT G HAMILTON

Jun 07, 2018

OFFICE

FICO

DATE

06/05/2018

DEVELOPED BY

LONNIE EVERHART (JAY BAGGETT)

Digitally signed by

ROBERT G HAMILTON

Jun 07, 2018

OFFICE

AJV-5400

DATE

12/04/2017

APPROVED BY

LONNIE EVERHART

Digitally signed by

ROBERT G HAMILTON

Jun 07, 2018

OFFICE

AJV-5400

DATE

TITLE

MANAGER



RNAV - STANDARD US DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION						INSTRUMENT APPROACH PROCEDURE TITLE 14 CFR PART 97.33										Bearings, headings, courses, 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 in feet RVR.									
TERMINAL ROUTES																MISSED APPROACH									
FROM				TO				COURSE AND DISTANCE				ALTITUDE		LPV: DA LNAV/VNAV: DA LNAV: RW01 CLIMB TO 2500 DIRECT TO LEE AND HOLD. ADDITIONAL FLIGHT DATA: HOLD N, RT, 186.48 INBOUND. CHART FAS OBST: 259 TREE 305900N/0845324W. CHART A-211. DISTANCE TO THLD FROM 301 HAT: 0.80 NM. WAAS CHANNEL # 66025 REFERENCE PATH ID: W01A CHART CIRCLING ICON. LTP HAE: 11.9 M											
FAPEX (IF/IAF)				AKEME (TF) (FB) (RNP 1.00)				006.48 / 6.80				1700													
AKEME (FAF)				WULUK/2.50 NM TO RW01 (TF) (FB) (RNP 0.30)				006.46 / 2.30																	
WULUK/2.50 NM TO RW01				RW01 (MAP) (TF) (FO) (RNP 0.30)				006.46 / 2.50																	
RW01 (MAP)				443 MSL (CA)				006.46				2500													
443 MSL				TO LEE (DF) (FO) (RNP 1.00)																					
1. PT _____ SIDE OF COURSE _____ OUTBOUND _____ FT WITHIN _____ MILES OF _____ (IAF) 2. HOLD S FAPEX, RT, 006.48 INBOUND, 2500 FT. IN LIEU OF PT (IAF) 3. FAC: 006.46 FAF: AKEME DIST FAF TO MAP: 4.80 THLD: 4.80 4. MIN. ALT: FAPEX 2500, AKEME 1700, WULUK/2.50 NM TO RW01 960* 5. DIST TO THLD FROM OM: _____ MM: _____ IM: _____ 150 HAT: _____ 100 HAT: _____ GS ANT: _____ 6. MIN GS INCPT: 1700 GS ALT AT: AKEME 1700 OM: _____ MM: _____ IM: _____ 7. GS ANGLE: 3.00 TCH: 40.0 20:1 IS NOT CLEAR 34:1 IS NOT CLEAR 8. MSA FROM: _____																MAG VAR: 4W				EPOCH YEAR: 2015					
MINIMUMS																									
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT								ALTERNATE: N A		STANDARD @															
CATEGORY =====>		A			B			C			D			E											
	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA										
LPV DA	443	1	301	443	1	301	443	1	301	443	1	301													
LNAV/VNAV DA	593	1 5/8	451	593	1 5/8	451	593	1 5/8	451	593	1 5/8	451													
LNAV MDA	540	1	398	540	1	398	540	1 1/8	398	540	1 1/8	398													
CIRCLING	640	1	492	640	1	492	880	2	732	880	2 1/4	732													
NOTES: CHART NOTE: BARO-VNAV NA WHEN USING BAINBRIDGE ALTIMETER SETTING. CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -15C (5F) OR ABOVE 54C (130F). CHART NOTE: RWY 1 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. *LNAV ONLY (CONTINUED ON PAGE 2)																@ NA WHEN LOCAL WEATHER NOT AVAILABLE. @ CAT D 800-2 1/4									
CITY AND STATE				ELEVATION: 148 TDZE: 142				FACILITY IDENTIFIER: RNAV				PROCEDURE NO./AMDT NO./EFFECTIVE DATE:				SUP:									
DONALSONVILLE, GA				AIRPORT NAME: DONALSONVILLE MUNI								RNAV (GPS) RWY 1, AMDT 1C				AMDT: 1B									
												19 JULY 2018				DATED 03/05/2015									

US DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION
RNAV - STANDARD
INSTRUMENT APPROACH PROCEDURE - TITLE 14 CFR PART 97.33

Bearings, headings, courses, 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 in feet RVR.

NOTES, (CONT.):

CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE BAINBRIDGE ALTIMETER SETTING.

CHART NOTE: STRAIGHT-IN RWY 1 AND CIRCLING RWY 1 NA AT NIGHT.

PBN REQUIREMENTS NOTE: RNP APCH.

TAA

	FROM	TO	ALT
1.	276/30 CW 096/30 (NOPT)	FAPEX (IF/IAF) (FB)	2500
2.	096/30 CW 276/30	FAPEX (IF/IAF) (FO)	2500

QUALITY
23
CHECKED

CITY AND STATE DONALSONVILLE, GA	ELEVATION: 148 TDZE: 142 AIRPORT NAME: DONALSONVILLE MUNI	FACILITY IDENTIFIER: RNAV	PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (GPS) RWY 1, AMDT 1C 19 JULY 2018	SUP:
				AMDT: 1B
				DATED: 03/05/2015

**RNAV STANDARD INSTRUMENT APPROACH PROCEDURE
FLIGHT STANDARDS SERVICE - FAR PART 97.33**

Bearings, headings, courses, 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 in feet RVR.

FAS DATA BLOCK INFORMATION**DATA FIELD****DATA**

OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	17J
RUNWAY	RW01
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W01A
LTP/FTP LATITUDE	305959.4355N
LTP/FTP LONGITUDE	0845240.6925W
LTP/FTP ELLIPSOIDAL HEIGHT	+00119
FPAP LATITUDE	310128.6600N
FPAP LONGITUDE	0845236.2400W
THRESHOLD CROSSING HEIGHT (TCH)	00040.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1168
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0

CRC REMAINDER

CCE93E04

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K7
LTP ORTHOMETRIC HEIGHT	+00398
FPAP ORTHOMETRIC HEIGHT	+00398

QUALITY
23
CHECKED

CITY AND STATE

DONALSONVILLE, GA

ELEVATION: 148

TDZE: 142

AIRPORT NAME:

DONALSONVILLE MUNI

FACILITY
IDENTIFIER:

RNAV

PROCEDURE NO./AMDT NO./EFFECTIVE DATE:

RNAV (GPS) RWY 1, AMDT 1C

19 JULY 2018

SUP:

AMDT:

1B

DATED:

03/05/2015

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> DONALSONVILLE MUNI	<u>AIRPORT ID</u> K17J	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 19	<u>ORIGINAL/AMENDMENT</u> 1B	<u>CITY</u> DONALSONVILLE	<u>STATE</u> GA
<u>AIRPORT ELEVATION</u> 148	<u>TDZE</u> 148	<u>SUPERSEDED</u> RNAV (GPS) RWY 19	<u>ORIGINAL/AMENDMENT</u> 1A	<u>DATED</u> 03/05/2015	<u>MAG VAR</u> 4W
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 2015

TAA

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>ALTITUDE</u>
1. 096/30 CW 276/30	NOPT	TOLEE	IF/IAF	2500
2. 276/30 CW 096/30		TOLEE	IF/IAF	2500

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>
TOLEE	IF/IAF	DUMOY		TF	FB	1.00	186.48	6.80	1700
DUMOY	FAF	PASUE/2.20 NM TO RW19		TF	FB	0.30	186.46	2.55	
PASUE/2.20 NM TO RW19		RW19	MAP	TF	FO	0.30	186.46	2.20	
RW19	MAP	548 MSL		CA			186.46		
548 MSL		FAPEX		DF	FO	1.00			2500

MISSED APPROACH

MAP:

LP: RW19
LNAV: RW19

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2500 DIRECT FAPEX AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. HOLD N TOLEE, RT, 186.48 INBOUND, 2500 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 186.46FAF: DUMOYDIST FAF TO MAP: 4.75DIST FAF TO THLD: 4.75

4. MIN ALT: TOLEE 2500, DUMOY 1700, PASUE/2.20 NM TO RW19 880

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

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

7. GP ANGLE:34:1: IS CLEAR20:1: IS CLEARTCH:

8. MSA FROM:

PBN REQUIREMENTS NOTES:

PBN REQUIREMENTS NOTE: RNP APCH.

NOTES:

CHART NOTE: CIRCLING RWY 1 NA AT NIGHT.
CHART NOTE: VDP NA WHEN USING BAINBRIDGE ALTIMETER SETTING.
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE BAINBRIDGE ALTIMETER SETTING.

ADDITIONAL FLIGHT DATA:

CHART PROFILE NOTE: VISUAL SEGMENT - OBSTACLES
CHART CIRCLING ICON.
CHART A-211
CHART VDP AT 1.23 NM TO RW19
WAAS CHANNEL #61325
REFERENCE PATH ID: W19A
CHART FAS OBST: 297 TANK 310206N/0845229W.
HOLD S, RT, 006.48 INBOUND
LTP HAE: 17 M

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD - CAT D 800-2 1/4, NA WHEN LOCAL WEATHER NOT AVAILABLE.

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
LP MDA	580	1	432	580	1	432	580	1 1/4	432	580	1 1/4	432			
LNAV MDA	600	1	452	600	1	452	600	1 3/8	452	600	1 3/8	452			
CIRCLING	640	1	492	640	1	492	880	2	732	880	2 1/4	732			



CHANGES - REASONS

- 1. ADDED LOCAL ALTIMETER SETTING AND MADE KBGE THE BACKUP SOURCE - REASON FOR THIS AMENDMENT. AWOS-3PT COMMISSIONED.
- 2. ADDED ADJUSTMENT VALUE TO MDA MINIMUMS TO MAINTAIN CURRENT VALUES - INTENT IS TO MAINTAIN PREVIOUS MINIMUMS UNTIL REDUCTION DUE TO LOCAL ALTIMETER SETTING AT NEXT SCHEDULED FULL AMENDMENT.
- 3. DELETED 20:1 OBSTACLE FOR RWY 19. DELETED NOTES: 1) PROCEDURE NA AT NIGHT AND 2) HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NA - PREVIOUSLY IDENTIFIED 20:1/34:1 OBSTACLE IS IN CAT C VISUAL AREA AND NOT A VALID 20:1 PENETRATION IAW CURRENT CRITERIA.
- 4. ADDED NOTE: CIRCLING RWY 1 NA AT NIGHT - UPDATED AND CLARIFIED 20:1 INFORMATION FOR RWY 1.
- 5. DELETED FROM ADDITIONAL FLIGHT DATA: CHART BAINBRIDGE AWOS-3 - NO LONGER NECESSARY.
- 6. ADDED CHART NOTE FOR VDP AND CHART NOTE FOR VDP NA WHEN USING BAINBRIDGE ALTIMETER SOURCE - VDP SHOULD BE PUBLISHED: LOCAL ALTIMETER SOURCE AVAILABLE AND NO SI 20:1 PENETRATIONS.
- 7. ADDED ALTERNATE MINIMUMS - APPLICABLE WITH LOCAL ALTIMETER.
- 8. AMENDED RASS ADJUSTMENT INFORMATION - REFLECTS LOCAL ALTIMETER SOURCE AVAILABLE.
- 9. PDF EDIT: AMEND FAS DATA BLOCK INFORMATION TO CHANGE LTP/FPT ELLIPSOIDAL HEIGHT FROM "+00017" TO "+00170" - REQUIRED DUE TO FORMATTING ERROR.

5/23/2018: THIS IS AN UPDATED COPY OF THE FORM APPROVED ON 3/13/2018.

- 1. REMOVED "DUMOY TO RW19: 3.00/40" FROM ADDITIONAL FLIGHT DATA BLOCK
- 2. ADDED "CHART PROFILE NOTE: VISUAL SEGMENT - OBSTACLES" TO ADDITIONAL FLIGHT DATA BLOCK
- 3. ADDED "COMPUTED DESCENT ANGLE 3.00/TCH 40, REMOVED PER FLIGHT INSPECTION DATED 05/15/2018 (VDA TAKES AIRCRAFT .3 NM SHORT OF THRESHOLD)" TO -9 REMARKS
- 4. UPDATED FAS DATA - GPA 00.00, TCH 00000.0
- 5. CHANGED CRC REMAINDER FROM E46C43A8 TO D4ACAB3C



COORDINATED WITH:

A4A☐ALPA☐AOPA☒APA☐HAI☐NBAA☒

OTHER: CAIRNS APP CON, ZJX, AMGR

FLIGHT CHECKED BY

TERRY LEE HESTER

DEVELOPED BY

LONNIE EVERHART (DANIEL WEDEKIND)

APPROVED BY

LONNIE EVERHART

Digitally signed by	OFFICE	DATE	
BEV L BORDY	FIOG	05/15/2018	
Jun 11, 2018			
Digitally signed by	OFFICE	DATE	
BEV L BORDY	AJV-5400	03/13/2018	
Jun 11, 2018			
Digitally signed by	OFFICE	DATE	TITLE
BEV L BORDY	AJV-5400		MANAGER
Jun 11, 2018			



**FLIGHT STANDARDS SERVICE
VOR/DME STANDARD INSTRUMENT APPROACH PROCEDURE**

TITLE 14 CFR PART 97.23

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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.

If an instrument approach procedure of the above type is conducted at the below named airport, it shall be conducted in accordance with a charted instrument approach procedure predicted on the specifications contained herein, unless an approach is conducted in accordance with a different procedure for such airport authorized by the Administrator. Minimum altitudes shall correspond with those established for enroute operations in the particular area or as set forth below.

<u>AIRPORT</u> DONALSONVILLE MUNI	<u>AIRPORT ID</u> K17J	<u>PROCEDURE NAME</u> VOR-A	<u>ORIGINAL/AMENDMENT</u> 3B	<u>CITY</u> DONALSONVILLE	<u>STATE</u> GA
<u>AIRPORT ELEVATION</u> 148	<u>TDZE</u>	<u>SUPERSEDED</u> VOR/DME-A	<u>ORIGINAL/AMENDMENT</u> 3A	<u>DATED</u> 04/30/2015	<u>MAG VAR</u> 0E
<u>FACILITY</u> MAI	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 2008

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>
MAI VORTAC	IF/IAF	DEBTS/MAI 14.00 DME					044.00	14.00	1800

MISSED APPROACH

MAP:

DONAC/18.04 DME FIX

MISSED APPROACH INSTRUCTIONS:

CLIMBING RIGHT TURN TO 1800 ON MAI VORTAC R-044 TO DEBTS/MAI 14.00 DME AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)
2. PROFILE STARTS AT MAI VORTAC
3. FAC: 044.00 FAF: DEBTS/MAI 14.00 DME DIST FAF TO MAP: DIST FAF TO THLD:
4. MIN ALT: MAI VORTAC 2000, DEBTS/MAI 14.00 DME 1800
8. MSA FROM: MAI VORTAC 2500

EQUIPMENT REQUIREMENTS NOTES:

DME REQUIRED.

NOTES:

CHART NOTE: CIRCLING RWY 1 NA AT NIGHT.
CHART NOTE: RWY 1 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED.
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE BAINBRIDGE ALTIMETER SETTING.

ADDITIONAL FLIGHT DATA:



FAC CROSSES MIDPOINT OF RWY 1-19.
CHART CIRCLING ICON.
FAS OBST: 389 AAO 305724N/0845505W.
HOLD SW, RT, 044.00 INBOUND

MINIMUMS:

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

ALTERNATE: NA ☐ CAT A, B 1000-2, CAT C 1000-2 3/4, CAT D 1000-3, NA WHEN LOCAL WEATHER NOT AVAILABLE.

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
CIRCLING	1060	1 1/4	912	1060	1 1/4	912	1060	2 3/4	912	1060	3	912			

CHANGES - REASONS

1. CHANGED PROCEDURE TITLE FROM VOR/DME-A TO VOR-A AND ADDED EQUIPMENT REQUIREMENTS NOTE: DME REQUIRED - IAW 8260.3C CONCERNING PROCEDURE NAMES AND 8260.19H, 8-6-8.
2. APPLIED CURRENT CIRCLING CRITERIA. ADDED CHART CIRCLING ICON TO ADDITIONAL FLIGHT DATA. CHANGED CONTROLLING OBSTACLES FOR CIRCLING CATS C/D. ADDED NEW CIRCLING RADII INFORMATION - IAW 8260.3C CONCERNING CIRCLING CRITERIA.
3. ADDED LOCAL ALTIMETER AND CHANGED KBGE TO BACK UP ALTIMETER: MAINTAIN PREVIOUS MINIMUMS UNTIL LOCAL ALTIMETER SETTING REDUCTION PROVIDED WITH NEXT SCHEDULED FULL AMENDMENT, ADDED WMSCR AVAILABILITY; ADDED RASS INFORMATION; ADDED "CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE BAINBRIDGE ALTIMETER SETTING - PURPOSE FOR THIS AMENDMENT: CHANGE THE ALTIMETER TO LOCAL (AWOS-3PT COMMISSIONED) WITH A BACK UP ALTIMETER AT KBGE.
4. ADDED "XP 361=MRA ADJUSTMENT PER FLIGHT CHECK, XP 60=MAINTAIN PREVIOUS MINIMUMS UNTIL REDUCTION AT NEXT SCHEDULED FULL AMENDMENT" - ADDED EXPLANATION FOR THE ADJUSTMENT TO FINAL MINIMUM ALTITUDE.
5. APPLIED AAO TO FINAL CREATING NEW CONTROLLING OBSTACLE FOR FINAL - APPLIED AAO CRITERIA.
6. ADDED CONTROLLING OBSTACLE AND HIGH TERRAIN TO 8260-9 MISSED APPROACH INFORMATION - ADDED MISSING INFORMATION.
7. ALTERNATE MINIMUMS ESTABLISHED - LOCAL WEATHER AVAILABLE ON WMSCR.
8. CHANGED FROM "SEE ATTACHED AIRSPACE LETTER" TO "NO ADDITIONAL AIRSPACE REQUIRED" - UPDATED INFORMATION.
9. ADDED TO NOTES/EXPLANATIONS 20:1 PENETRATION INFORMATION - UPDATED INFORMATION.
10. DELETED CHART BAINBRIDGE AWOS-3 - NOW BACKUP VICE PRIMARY ALTIMETER SETTING.
11. CHANGE AIRPORT ELEVATION FROM 147 TO 148, CIRCLING HAA FROM 913 TO 914, ADDED CIRCLING ICON - P-NOTAM 5/0262.
12. CHANGED NOTE "NIGHT LANDING: RWY 1 NA" TO "CIRCLING RWY 1 NA AT NIGHT" - MOST CURRENT WORDING.
13. ADDED "FAC CROSSES MIDPOINT OF RWY 1-19" TO ADDITIONAL FLIGHT DATA - MISSING INFORMATION ADDED.
14. CHANGED MISSED APPROACH INSTRUCTIONS FROM "CLIMBING RIGHT TURN TO 1800 VIA MAI R-044 TO DEBTS/14.00 DME AND HOLD" TO "CLIMBING RIGHT TURN TO 1800 ON MAI VORTAC R-044 TO DEBTS/MAI 14.00 DME AND HOLD" - MOST CURRENT WORDING.
15. PDF EDIT: CHANGE FROM AIRPORT MAGVAR "4W 2015" TO FACILITY MAGVAR "0E 2008" - VOR IAP SHOULD SHOW THE FACILITY MAGVAR.
16. PDF EDIT: CHANGE ALTERNATE INFORMATION FROM "LOC: CAT A, B 1000-2, CAT C 1000-2 3.4, CAT D 100-3" TO "CAT A, B 1000-2, CAT C 1000-2 3.4, CAT D 100-3" - CORRECTING FORMAT ERROR.

COORDINATED WITH:

A4A ☐ ALPA ☐ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZJX, OZR APP CON, 17J APT MGR

FLIGHT CHECKED BY

TERRY HESTER

DEVELOPED BY

LONNIE EVERHART (DANIEL WEDEKIND)

APPROVED BY

LONNIE EVERHART

Digitally signed by

BEV L BORDY

Jun 11, 2018

OFFICE

FICO

DATE

5/15/18

Digitally signed by

BEV L BORDY

Jun 11, 2018

OFFICE

AJV-5400

DATE

03/13/2018

Digitally signed by

BEV L BORDY

Jun 11, 2018

OFFICE

AJV-5400

DATE

TITLE

MANAGER



RNAV - STANDARD INSTRUMENT APPROACH PROCEDURE TITLE 14 CFR PART 97.33				Bearings, headings, courses, 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 in feet RVR.											
TERMINAL ROUTES								MISSED APPROACH							
FROM	T O			COURSE AND DISTANCE			ALTITUDE		MAP: DA CLIMB TO 2500 ON TRACK 276.63 TO HANGI AND HOLD ADDITIONAL FLIGHT DATA: HOLD E, RT, 276.63 INBOUND						
MAYAR	ZELGI (TF)(FB) (RNP 1.00)			094.97/18.43			6000								
ZELGI (IAF)	MODAE (TF)(FB) (RNP 0.30)			095.16/6.50			4500								
MODAE	CARIK (RF)(FB) (RNP 0.30)			(3.70 NM RADIUS CW CFJVS)/ 6.49			3000								
CARIK	DUCAN (RF)(FB) (RNP 0.30)			(3.70 NM RADIUS CW CFJVS)/5.23			2000								
KELER	RLENE (TF) (FB) (RNP 1.00)			64.28/6.21			5000								
RLENE (IAF)	HOTAN (TF) (FB) (RNP 0.30)			064.32/4.50			4000		DISTANCE TO THLD FROM 354 HAT: 0..96 NM OTA PROCEDURE #TCH 98.2 MSL (DO NOT CHART)						
(CONTINUED ON PAGE 2)															
1. PT _____ SIDE OF COURSE _____ OUTBOUND _____ FT WITHIN _____ MILES OF _____ (IAF) 2. PROFILE STARTS AT DUCAN 3. FAC: <u>276.68</u> FAF: _____ DIST FAF TO MAP: _____ THLD: _____ 4. MIN. ALT: <u>DUCAN 2000, OSANE 1800</u> 5. DIST TO THLD FROM OM: <u>5.34</u> MM: _____ IM: _____ 150 HAT: _____ 100 HAT: _____ GS ANT: _____ 6. MIN GS INCPT: <u>1800</u> GS ALT AT: <u>OSANE 1800</u> OM: _____ MM: _____ IM: _____ 7. GS ANGLE: <u>3.00</u> TCH: <u>52.0#</u> <u>34:1 IS CLEAR</u> 8. MSA FROM: <u>RW28 2600</u>								MAG VAR: 6W EPOCH YEAR: 2005							
MINIMUMS															
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT								ALTERNATE: N A		STANDARD@					
CATEGORY =====>	A			B			C			D			E		
	DH/ MDA	VIS	HAT/HAA	DH/ MDA	VIS	HAT/HAA	DH/ MDA	VIS	HAT/HAA	DH/ MDA	VIS	HAT/HAA	DH/ MDA	VIS	HAT/HAA
AUTHORIZATION REQUIRED															
RNP 0.15 DA	404	1	354	404	1	354	404	1	354	404	1	354			
RNP 0.30 DA	471	1 1/4	421	471	1 1/4	421	471	1 1/4	421	471	1 1/4	421			
NOTES: CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, PROCEDURE NA BELOW -15C OR ABOVE 54C. CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, PROCEDURE NOT AUTHORIZED. CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT(VGSI ANGLE{angle}/TCH {feet}) @ NA WHEN LOCAL WEATHER NOT AVAILABLE															
CITY AND STATE		ELEVATION: 50 TDZE: 50		AIRPORT NAME:		FACILITY IDENTIFIER:		PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:				SUP:			
SAVANNAH, GA		SAVANNAH/HILTON HEAD INTL		RNAV		19 JULY 2018				AMDT: 1A					
						RNAV (RNP) Y RWY 28, AMDT 2				DATED 1/7/2016					

U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION RNAV INSTRUMENT APPROACH PROCEDURE FLIGHT STANDARDS SERVICES TITLE 14 CFR PART 97.33			Bearings, headings, courses, 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 in feet RVR.	
TERMINAL ROUTES (CONT'D)				
FROM	TO	COURSE AND DISTANCE	ALTITUDE	
HOTAN	GRILO (RF) (FB) (RNP 0.30)	(3.70NM RADIUS CCW CFALL)/4.32	3000	
GRILO	DUCAN (RF) (FB) (RNP 0.30)	(3.70NM RADIUS CCW CFALL)/5.21	2000	
FEXEM (IAF)	DUCAN (TF) (FB) (RNP 0.30)	276.77/4.13	2000	
DUCAN (IF)	OSANE (TF) (FB) (RNP 0.30)	276.71/2.00	1800	
OSANE (FAF)	RW28 (TF) (FO) (RNP 0.30)	276.68/5.34		
RW28 (MAP)	HANGI (TF) (FB) (RNP 1.00)	276.63/13.72	2500	
PBN EQUIPMENT NOTES: RNP AR APCH NOTES (CONT'D): CHART PLANVIEW NOTE: AT RLENE, ZELGI: RF REQUIRED. CHART PBN REQUIREMENTS NOTE AT KELER, AND MAYAR: (RNP 1.0). CHART PBN REQUIREMENT NOTE: AT ZELGI, FEXEM, AND RLENE: (RNP 0.30) CHART SPEED ICON IN PLANVIEW AT HOTAN, MODAE: MAX 210 KIAS. CHART ALTITUDES IN PLANVIEW AT THE FOLLOWING FIXES: MINIMUM 10000 AT MAYAR, MINIMUM 6000 AT KELER, MINIMUM 2500 AT FEXEM, MINIMUM 6000 AT ZELGI, MINIMUM 5000 AT RLENE. CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT KELER ON V437-441 SOUTHBOUND AND AT MAYAR ON V154 NORTHWEST BOUND				
CITY AND STATE	ELEVATION: 50 TDZE: 50 AIRPORT NAME:	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
SAVANNAH, GA	SAVANNAH/HILTON HEAD INTL	RNAV	19 JULY 2018 RNAV (RNP) Y RWY 28, AMDT 2	AMDT: 1A
				DATED: 1/7/2016

RNAV - STANDARD US DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION							INSTRUMENT APPROACH PROCEDURE TITLE 14 CFR PART 97.33										Bearings, headings, courses, 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 in feet RVR.									
TERMINAL ROUTES																	MISSED APPROACH									
FROM				TO				COURSE AND DISTANCE				ALTITUDE		LPV: DA LNAV/VNAV: DA LNAV: RW25 CLIMB TO 1100 THEN CLIMBING LEFT TURN TO 2600 DIRECT IOW VOR/DME AND HOLD. ADDITIONAL FLIGHT DATA: HOLD S, RT, 352.06 INBOUND. CHART FAS OBST: 837 TOWER 413849N/0913036W. DISTANCE TO THLD FROM 329 HAT: 0.93 NM. CHART VDP AT 1.27 NM TO RW25* *LNAV ONLY. WAAS CHANNEL # 58207 REFERENCE PATH ID: W25A CHART CIRCLING ICON. LTP HAE: 166.2 M												
BUCKA (IF/IAF)				HEWRI (TF) (FB) (RNP 1.00)				252.02 / 4.00				2800														
HEWRI				GRAFY (TF) (FB) (RNP 1.00)				251.95 / 3.09				2300														
GRAFY (FAF)				ROLOC/2.50 NM TO RW25 (TF) (FB) (RNP 0.30)				251.91 / 2.54																		
ROLOC/2.50 NM TO RW25				RW25 (MAP) (TF) (FO) (RNP 0.30)				251.91 / 2.50																		
RW25 (MAP)				1100 MSL (CA)				251.91				1100														
1100 MSL				IOW VOR/DME (DF) (FO) (RNP 1.00)								2600														
1. PT _____ SIDE OF COURSE _____ OUTBOUND _____ FT WITHIN _____ MILES OF _____ (IAF) 2. HOLD E BUCKA, RT, 252.02 INBOUND, 3300 FT. IN LIEU OF PT (IAF) 3. FAC: 251.91 FAF: GRAFY DIST FAF TO MAP: 5.04 THLD: 5.04 4. MIN. ALT: BUCKA 3300, HEWRI 2800, GRAFY 2300, ROLOC/2.50 NM TO RW25 1480* 5. DIST TO THLD FROM OM: _____ MM: _____ IM: _____ 150 HAT: _____ 100 HAT: _____ GS ANT: _____ 6. MIN GS INCPT: 2300 GS ALT AT: GRAFY 2300 OM: _____ MM: _____ IM: _____ 7. GS ANGLE: 3.00 TCH: 42.0 34:1 IS NOT CLEAR 8. MSA FROM: _____																	MAG VAR: 1W					EPOCH YEAR: 2020				
MINIMUMS																										
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT										ALTERNATE: N A		STANDARD @														
CATEGORY =====>		A			B			C			D			E												
	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA											
LPV DA	992	1 1/8	329	992	1 1/8	329	992	1 1/8	329	992	1 1/8	329														
LNAV/VNAV DA	1132	1 5/8	469	1132	1 5/8	469	1132	1 5/8	469	1132	1 5/8	469														
LNAV MDA	1100	1	437	1100	1	437	1100	1 1/4	437	1100	1 1/4	437														
CIRCLING	1260	1	576	1260	1	576	1440	2 1/4	756	1440	2 1/2	756														
NOTES: CHART NOTE: CIRCLING TO RWY 7, 12, 30 NA AT NIGHT. CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -23C (-9F) OR ABOVE 54C (130F). CHART NOTE: BARO-VNAV AND VDP NA WHEN USING CEDAR RAPIDS ALTIMETER SETTING. CHART NOTE: RWY 25 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. (CONTINUED ON PAGE 2)																										
CITY AND STATE IOWA CITY, IA				ELEVATION: 684 TDZE: 663 AIRPORT NAME: IOWA CITY MUNI				FACILITY IDENTIFIER: RNAV		PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (GPS) RWY 25, AMDT 1 19 JULY 2018				SUP:												
														AMDT: ORIG-C												
														DATED 10/12/2017												



**RNAV - STANDARD
INSTRUMENT APPROACH PROCEDURE - TITLE 14 CFR PART 97.33**

Bearings, headings, courses, 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 in feet RVR.

NOTES, (CONT.):

CHART NOTE: RWY 7, 12, 30 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED.

CHART NOTE: DME/DME RNP-0.3 NA.

CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE CEDAR RAPIDS ALTIMETER SETTING: INCREASE LPV DA TO 1056, INCREASE LNAV/VNAV DA TO 1196 FEET AND VISIBILITY 1/4 SM; INCREASE ALL MDAS 80 FEET AND VISIBILITY CATS C AND D 1 1/4 SM INCREASE CIRCLING CAT D VISIBILITY 1/4 SM.

TAA

	FROM	TO	ALT
1.	162/30 CW 342/30 (NOPT)	BUCKA (IAF) (FO)	3300
2.	342/30 CW 162/30	BUCKA (IF/IAF) (FB)	3300

QUALITY
19
CHECKED

CITY AND STATE

IOWA CITY, IA

ELEVATION: 684

TDZE: 663

AIRPORT NAME:

IOWA CITY MUNI

FACILITY
IDENTIFIER:
RNAV

PROCEDURE NO./AMDT NO./EFFECTIVE DATE:

RNAV (GPS) RWY 25, AMDT 1

19 JULY 2018

SUP:

AMDT: **ORIG-C**DATED: **10/12/2017**

US DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION
RNAV - STANDARD
INSTRUMENT APPROACH PROCEDURE - TITLE 14 CFR PART 97.33

Bearings, headings, courses, 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 in feet RVR.



CITY AND STATE
IOWA CITY, IA

ELEVATION: 684 TDZE: 663
AIRPORT NAME:
IOWA CITY MUNI

FACILITY
IDENTIFIER:
RNAV

PROCEDURE NO./AMDT NO./EFFECTIVE DATE:
RNAV (GPS) RWY 25, AMDT 1
19 JULY 2018

SUP:	
AMDT:	ORIG-C
DATED:	10/12/2017

US DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION
RNAV - STANDARD
INSTRUMENT APPROACH PROCEDURE - TITLE 14 CFR PART 97.33

Bearings, headings, courses, 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 in feet RVR.

QUALITY
19
CHECKED

CITY AND STATE
IOWA CITY, IA

ELEVATION: 684 TDZE: 663
AIRPORT NAME:
IOWA CITY MUNI

FACILITY
IDENTIFIER:
RNAV

PROCEDURE NO./AMDT NO./EFFECTIVE DATE:
RNAV (GPS) RWY 25, AMDT 1
19 JULY 2018

SUP:
AMDT: ORIG-C
DATED: 10/12/2017

**RNAV STANDARD INSTRUMENT APPROACH PROCEDURE
FLIGHT STANDARDS SERVICE - FAR PART 97.33**

Bearings, headings, courses, 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 in feet RVR.

FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KIOW
RUNWAY	RW25
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W25A
LTP/FTP LATITUDE	413831.2070N
LTP/FTP LONGITUDE	0913235.8095W
LTP/FTP ELLIPSOIDAL HEIGHT	+01662
FPAP LATITUDE	413801.9400N
FPAP LONGITUDE	0913428.0500W
THRESHOLD CROSSING HEIGHT (TCH)	00042.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1472
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
 <u>CRC REMAINDER</u>	 AC2AB3B9

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K3
LTP ORTHOMETRIC HEIGHT	+01988
FPAP ORTHOMETRIC HEIGHT	+01988

QUALITY
19
CHECKED

CITY AND STATE IOWA CITY, IA	ELEVATION: 684 AIRPORT NAME: IOWA CITY MUNI	TDZE: 663 RNAV	PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (GPS) RWY 25, AMDT 1 19 JULY 2018	SUP:
				AMDT: ORIG-C
				DATED: 10/12/2017

US DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION							RNAV - STANDARD INSTRUMENT APPROACH PROCEDURE TITLE 14 CFR PART 97.33										Bearings, headings, courses, 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 in feet RVR.						
TERMINAL ROUTES														MISSED APPROACH									
FROM				TO				COURSE AND DISTANCE				ALTITUDE		LP: RW30 LNAV: RW30 CLIMB TO 1100 THEN CLIMBING LEFT TURN TO 3000 DIRECT IOW VOR/DME AND HOLD. ADDITIONAL FLIGHT DATA: HOLD S, RT, 352.06 INBOUND. CHART FAS OBST: 802 TREE 413805N/0913148W, 746 POLE 413652N/0913026W. WAAS CHANNEL # 86841 REFERENCE PATH ID: W30A CHART CIRCLING ICON. CURTT TO RW30: 3.00/40. LTP HAE: 165 M									
ICWAR (IF/IAF)				CURTT (TF) (FB) (RNP 1.00)				305.81 / 6.00				2400											
CURTT (FAF)				RW30 (MAP) (TF) (FB) (RNP 0.30)				305.74 / 5.37															
RW30 (MAP)				1100 MSL (CA)				305.74				1100											
1100 MSL				IOW VOR/DME (DF) (FO) (RNP 1.00)								3000											
1. PT _____ SIDE OF COURSE _____ OUTBOUND _____ FT WITHIN _____ MILES OF _____ (IAF)														MAG VAR: 1W EPOCH YEAR: 2020									
2. HOLD SE ICWAR, RT, 305.81 INBOUND, 3000 FT. IN LIEU OF PT (IAF)																							
3. FAC: 305.74 FAF: CURTT DIST FAF TO MAP: 5.37 THLD: 5.37																							
4. MIN. ALT: ICWAR 3000, CURTT 2400																							
5. DIST TO THLD FROM OM: _____ MM: _____ IM: _____ 150 HAT: _____ 100 HAT: _____ GS ANT: _____																							
6. MIN GS INCPT: _____ GS ALT AT: _____ OM: _____ MM: _____ IM: _____																							
7. GS ANGLE: _____ TCH: 34:1 IS NOT CLEAR																							
8. MSA FROM: _____																							
MINIMUMS																							
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT							ALTERNATE: N A			STANDARD @													
CATEGORY =====>		A			B			C			D			E									
	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA								
LP MDA	1000	1	343	1000	1	343	1000	1	343	1000	1	343											
LNAV MDA	1060	1	403	1060	1	403	1060	1 1/8	403	1060	1 1/8	403											
CIRCLING	1260	1	576	1260	1	576	1440	2 1/4	756	1440	2 1/2	756											
NOTES: CHART NOTE: RWY 7,12, 30 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. CHART NOTE: DME/DME RNP-0.3 NA. CHART NOTES: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE CEDAR RAPIDS ALTIMETER SETTING AND INCREASE ALL MDA 80 FEET, LP CAT C AND D VISIBILITY 1/8 SM, LNAV AND CIRCLING CAT C AND D VISIBILITY (CONTINUED ON PAGE 2)																							
CITY AND STATE IOWA CITY, IA				ELEVATION: 684 TDZE: 657 AIRPORT NAME: IOWA CITY MUNI				FACILITY IDENTIFIER: RNAV		PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (GPS) RWY 30, AMDT 1 19 JULY 2018						SUP: AMDT: ORIG-B DATED 10/12/2017							



US DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION
RNAV - STANDARD
INSTRUMENT APPROACH PROCEDURE - TITLE 14 CFR PART 97.33

Bearings, headings, courses, 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 in feet RVR.

NOTES, (CONT.):

1/4 SM.

CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT IOW VOR/DME ON AIRWAY RADIALS 057 CW 142.

CHART NOTE: STRAIGHT-IN RWY 30 NA AT NIGHT, CIRCLING RWY 7, 12 NA AT NIGHT.

TAA

	FROM	TO	ALT
1.	216/30 CW 036/30 (NOPT)	ICWAR (IF/IAF) (FB)	3000
2.	036/30 CW 216/30	036/9 CW 216/9 (FB)	3300
3.	036/9 CW 216/9	ICWAR (IAF) (FO)	3000

QUALITY
19
CHECKED

CITY AND STATE

IOWA CITY, IA

ELEVATION: 684

TDZE: 657

AIRPORT NAME:

IOWA CITY MUNI

FACILITY
IDENTIFIER:
RNAV

PROCEDURE NO./AMDT NO./EFFECTIVE DATE:

RNAV (GPS) RWY 30, AMDT 1

19 JULY 2018

SUP:

AMDT: ORIG-B

DATED: 10/12/2017

US DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION
RNAV - STANDARD
INSTRUMENT APPROACH PROCEDURE - TITLE 14 CFR PART 97.33

Bearings, headings, courses, 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 in feet RVR.

QUALITY
19
CHECKED

CITY AND STATE
IOWA CITY, IA

ELEVATION: 684 TDZE: 657
AIRPORT NAME:
IOWA CITY MUNI

FACILITY
IDENTIFIER:
RNAV

PROCEDURE NO./AMDT NO./EFFECTIVE DATE:
RNAV (GPS) RWY 30, AMDT 1
19 JULY 2018

SUP:
AMDT: ORIG-B
DATED: 10/12/2017

US DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION
RNAV - STANDARD
INSTRUMENT APPROACH PROCEDURE - TITLE 14 CFR PART 97.33

Bearings, headings, courses, 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 in feet RVR.



CITY AND STATE
IOWA CITY, IA

ELEVATION: 684 TDZE: 657
AIRPORT NAME:
IOWA CITY MUNI

FACILITY
IDENTIFIER:
RNAV

PROCEDURE NO./AMDT NO./EFFECTIVE DATE:
RNAV (GPS) RWY 30, AMDT 1
19 JULY 2018

SUP:	
AMDT:	ORIG-B
DATED:	10/12/2017

**RNAV STANDARD INSTRUMENT APPROACH PROCEDURE
FLIGHT STANDARDS SERVICE - FAR PART 97.33**

Bearings, headings, courses, 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 in feet RVR.

FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KIOW
RUNWAY	RW30
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W30A
LTP/FTP LATITUDE	413808.9450N
LTP/FTP LONGITUDE	0913227.5530W
LTP/FTP ELLIPSOIDAL HEIGHT	+01650
FPAP LATITUDE	413859.6435N
FPAP LONGITUDE	0913405.3010W
THRESHOLD CROSSING HEIGHT (TCH)	00040.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1560
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	0.0
 <u>CRC REMAINDER</u>	 20D0205B

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K3
LTP ORTHOMETRIC HEIGHT	+01977
FPAP ORTHOMETRIC HEIGHT	+01977

QUALITY
19
CHECKED

CITY AND STATE IOWA CITY, IA	ELEVATION: 684 TDZE: 657 AIRPORT NAME: IOWA CITY MUNI	FACILITY IDENTIFIER: RNAV	PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (GPS) RWY 30, AMDT 1 19 JULY 2018	SUP:
				AMDT: ORIG-B
				DATED: 10/12/2017

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
TAKEOFF MINIMUMS AND OBSTACLE DEPARTURE PROCEDURES (ODP)
TITLE 14 CFR PART 97.37**

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL. Altitudes are minimum altitudes unless otherwise indicated.
Ceilings are in feet above airport elevation. Distances are in nautical miles. Visibilities are in statute miles or feet RVR unless otherwise indicated.

CITY, STATE	AIRPORT	EFFECTIVE DATE	AMDT NO
IOWA CITY, IA	IOWA CITY MUNI	19 JULY 2018	4

TAKEOFF MINIMUMS:

RWY 12: STANDARD

RWY 7: 200-1 1/4 OR STANDARD WITH A MINIMUM CLIMB OF 205 FT PER NM TO 900.

RWY 25, 200-1 1/4 OR STANDARD WITH A MINIMUM CLIMB OF 225 FT PER NM TO 900.

RWY 30: 200-1 OR STANDARD WITH A MINIMUM CLIMB OF 480 FT PER NM TO 900.

TEXTUAL DEPARTURE PROCEDURES:

RWY 7: CLIMBING RIGHT TURN HEADING 180 TO INTERCEPT IOW VOR/DME R-057 TO IOW VOR/DME BEFORE PROCEEDING ON COURSE.

VISUAL CLIMB OVER AIRPORT:

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 07, SIGN, FENCE BEGINNING 39 FT FROM DER, 167 FT RIGHT OF CENTERLINE, UP TO 2 FT AGL/655 FT MSL. FENCE 159 FT FROM DER, 400 FT LEFT OF CENTERLINE, 7 FT AGL/657 FT MSL. TRAVERSE WAY BEGINNING 267 FT FROM DER, 2 FT RIGHT OF CENTERLINE, UP TO 660 FT MSL. TRAVERSE WAY 317 FT FROM DER, 97 FT LEFT OF CENTERLINE, 660 FT MSL. TRAVERSE WAY 332 FT FROM DER, 215 FT LEFT OF CENTERLINE, 661 FT MSL. POLE, TREE, BUILDING BEGINNING 429 FT FROM DER, 43 FT LEFT OF CENTERLINE, UP TO 36 FT AGL/686 FT MSL. TREE 625 FT FROM DER, 75 FT RIGHT OF CENTERLINE, 671 FT MSL. TREES BEGINNING 625 FT FROM DER, 95 FT RIGHT OF CENTERLINE, UP TO 677 FT MSL. TREES BEGINNING 693 FT FROM DER, 329 FT RIGHT OF CENTERLINE, UP TO 689 FT MSL. TREES BEGINNING 949 FT FROM DER, 43 FT RIGHT OF CENTERLINE, UP TO 698 FT MSL. TREES BEGINNING 1044 FT FROM DER, 107 FT LEFT OF CENTERLINE, UP TO 693 FT MSL. TREE 1682 FT FROM DER, 272 FT RIGHT OF CENTERLINE, 699 FT MSL. POLE 1822 FT FROM DER, 903 FT LEFT OF CENTERLINE, 58 FT AGL/701 FT MSL. POLE 2491 FT FROM DER, 924 FT RIGHT OF CENTERLINE, 73 FT AGL/718 FT MSL. POLE 2492 FT FROM DER, 322 FT LEFT OF CENTERLINE, 70 FT AGL/718 FT MSL. POLE 2553 FT FROM DER, 733 FT RIGHT OF CENTERLINE, 71 FT AGL/719 FT MSL. POLE BEGINNING 2604 FT FROM DER, 355 FT RIGHT OF CENTERLINE, UP TO 72 FT AGL/721 FT MSL. POLE 2733 FT FROM DER, 163 FT RIGHT OF CENTERLINE, 73 FT AGL/722 FT MSL. POLE 2736 FT FROM DER, 126 FT LEFT OF CENTERLINE, 70 FT AGL/719 FT MSL. POLE 2806 FT FROM DER, 31 FT LEFT OF CENTERLINE, 75 FT AGL/723 FT MSL. TREE 4746 FT FROM DER, 465 FT LEFT OF CENTERLINE, 780 FT MSL. TREE 5347 FT FROM DER, 547 FT LEFT OF CENTERLINE, 788 FT MSL. TREES BEGINNING 5487 FT FROM DER, 72 FT LEFT OF CENTERLINE, UP TO 794 FT MSL. TREE 1 NM FROM DER, 1162 FT RIGHT OF CENTERLINE, 806 FT MSL.

NOTE: RWY 12, VEGETATION 83 FT FROM DER, 366 FT RIGHT OF CENTERLINE, 652 FT MSL. FENCE 131 FT FROM DER, 374 FT LEFT OF CENTERLINE, 6 FT AGL/655 FT MSL. POLE, TRAVERSE WAY, TREE BEGINNING 633 FT FROM DER, 129 FT LEFT OF CENTERLINE, UP TO 35 FT AGL/689 FT MSL. BUILDING, TREE, TRAVERSE WAY BEGINNING 783 FT FROM DER, 23 FT LEFT OF CENTERLINE, UP TO 36 FT AGL/692 FT MSL. POLE, TRAVERSE WAY BEGINNING 850 FT FROM DER, 1 FT RIGHT OF CENTERLINE, UP TO 29 FT AGL/681 FT MSL. TREES BEGINNING 1038 FT FROM DER, 144 FT LEFT OF CENTERLINE, UP TO 697 FT MSL. TREES BEGINNING 1074 FT FROM DER, 28 FT LEFT OF CENTERLINE, UP TO 717 FT MSL. POLE, TREE BEGINNING 1082 FT FROM DER, 136 FT RIGHT OF CENTERLINE, UP TO 34 FT AGL/688 FT MSL. TREE 1251 FT FROM DER, 370 FT RIGHT OF CENTERLINE, 709 FT MSL. TREES BEGINNING 1343 FT FROM DER, 39 FT RIGHT OF CENTERLINE, UP TO 721 FT MSL. TREE 2016 FT FROM DER, 874 FT LEFT OF CENTERLINE, 719 FT MSL. TREES BEGINNING 2169 FT FROM DER, 35 FT LEFT OF CENTERLINE, UP TO 725 FT MSL. TREES BEGINNING 2226 FT FROM DER, 327 FT LEFT OF CENTERLINE, UP TO 743 FT MSL. TREE, POLE BEGINNING 2734 FT FROM DER, 183 FT LEFT OF CENTERLINE, UP TO 768 FT MSL. TREES BEGINNING 3305 FT FROM DER, 1210 FT LEFT OF CENTERLINE, UP TO 769 FT MSL.

NOTE: RWY 25, RWY LT 9 FT FROM DER, 40 FT LEFT OF CENTERLINE, 1 FT AGL/684 FT MSL. RWY LT 9 FT FROM DER, 39 FT RIGHT OF CENTERLINE, 1 FT AGL/684 FT MSL. VEHICLE, GRD BEGINNING 974 FT FROM DER, 437 FT LEFT OF CENTERLINE, UP TO 720 FT MSL. FENCE, VEHICLE, GRD BEGINNING 1098 FT FROM DER, 421 FT LEFT OF CENTERLINE, UP TO 12 FT AGL/734 FT MSL. POLE 1199 FT FROM DER, 741 FT RIGHT OF CENTERLINE, 24 FT AGL/735 FT MSL. POLE, GRD, VEHICLE BEGINNING 1289 FT FROM DER, 536 FT LEFT OF CENTERLINE, UP TO 25 FT AGL/751 FT MSL. BLDG, VEHICLE, POLE BEGINNING 1315 FT FROM DER, 173 FT RIGHT OF CENTERLINE, UP TO 26 FT AGL/740 FT MSL. SIGN, VEHICLE BEGINNING 1503 FT FROM DER, 103 FT RIGHT OF CENTERLINE, UP TO 25 FT AGL/743 FT MSL. POLE 1608 FT FROM DER, 519 FT RIGHT OF CENTERLINE, 24 FT AGL/747 FT MSL. BLDG, BUILDING BEGINNING 1616 FT FROM DER, 532 FT LEFT OF CENTERLINE, UP TO 19 FT AGL/752 FT MSL. POLE 1652 FT FROM DER, 789 FT LEFT OF CENTERLINE, 21 FT AGL/758 FT MSL. TRANSMISSION LINE, BLDG BEGINNING 1665 FT FROM DER, 248 FT RIGHT OF CENTERLINE, UP TO 39 FT AGL/754 FT MSL. TREE, POLE, VEHICLE BEGINNING 1671 FT FROM DER, 36 FT RIGHT OF CENTERLINE, UP TO 774 FT MSL. TREE, VEHICLE, POLE, BLDG, FLGPL, SIGN, BUILDING BEGINNING 1753 FT FROM DER, 9 FT RIGHT OF CENTERLINE, UP TO 787 FT MSL. POLE, VEHICLE BEGINNING 1805 FT FROM DER, 44 FT LEFT OF CENTERLINE, UP TO 24 FT AGL/766 FT MSL. POLE, SIGN, VEHICLE, BUILDING, WINDMILL BEGINNING 1884 FT FROM DER, 5 FT LEFT OF CENTERLINE, UP TO 34 FT AGL/780 FT MSL. POLE, BLDG, SIGN, VEHICLE, BUILDING BEGINNING 2365 FT FROM DER, 2 FT LEFT OF CENTERLINE, UP TO 45 FT AGL/784 FT MSL. SIGN, POLE, TREE, VEHICLE, BLDG BEGINNING 2545 FT FROM DER, 3 FT LEFT OF CENTERLINE, UP TO 51 FT AGL/801 FT MSL. POLE, TREE BEGINNING 3325 FT FROM DER, 432 FT LEFT OF CENTERLINE, UP TO 55 FT AGL/805 FT MSL. POLE, TREE, ELECTRICAL SYSTEM, VEHICLE BEGINNING 3449 FT FROM DER, 304 FT LEFT OF CENTERLINE, UP TO 47 FT AGL/809 FT MSL. TREE 4405 FT FROM DER, 416 FT RIGHT OF CENTERLINE, 797 FT MSL. TREES BEGINNING 4418 FT FROM DER, 292 FT RIGHT OF CENTERLINE, UP TO 802 FT MSL. TREES BEGINNING 4565 FT FROM DER, 468 FT RIGHT OF CENTERLINE, UP TO 804 FT MSL. TREE, POLE BEGINNING 4589 FT FROM DER, 128 FT RIGHT OF CENTERLINE, UP TO 816 FT MSL. POLE 5432 FT FROM DER, 1408 FT LEFT OF CENTERLINE, 60 FT AGL/831 FT MSL. POLE 5458 FT FROM DER, 1642 FT LEFT OF CENTERLINE, 58 FT AGL/833 FT MSL. TREE 5793 FT FROM DER, 1598 FT LEFT OF CENTERLINE, 845 FT MSL.

NOTE: RWY 30, LIGHTING 9 FT FROM DER, 17 FT LEFT OF CENTERLINE, 2 FT AGL/662 FT MSL. LIGHTING, TERRAIN BEGINNING 9 FT FROM DER, 17 FT RIGHT OF CENTERLINE, UP TO 2 FT AGL/662 FT MSL. POLE BEGINNING 140 FT FROM DER, 498 FT RIGHT OF CENTERLINE, UP TO 28 FT AGL/690 FT MSL. POLE 330 FT FROM DER, 455 FT RIGHT OF CENTERLINE, 28 FT AGL/692 FT MSL. TREE 574 FT FROM DER, 227 FT LEFT OF CENTERLINE, 692 FT MSL. POLE, TRAVERSE WAY BEGINNING 1114 FT FROM DER, 11 FT RIGHT OF CENTERLINE, UP TO 41 FT AGL/712 FT MSL. POLE, TRAVERSE WAY BEGINNING 1191 FT FROM DER, 6 FT LEFT OF CENTERLINE, UP TO 34 FT AGL/697 FT MSL. TREE 1421 FT FROM DER, 460 FT RIGHT OF CENTERLINE, 737 FT MSL. TREE, POLE BEGINNING 1450 FT FROM DER, 55 FT RIGHT OF CENTERLINE, UP TO 762 FT MSL. TREE 1463 FT FROM DER, 95 FT LEFT OF CENTERLINE, 735 FT MSL. TREES BEGINNING 1536 FT FROM DER, 267 FT LEFT OF CENTERLINE, UP TO 741 FT MSL.

QUALITY
19
CHECKED

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
TAKEOFF MINIMUMS AND OBSTACLE DEPARTURE PROCEDURES (ODP)
TITLE 14 CFR PART 97.37**

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL. Altitudes are minimum altitudes unless otherwise indicated.
Ceilings are in feet above airport elevation. Distances are in nautical miles. Visibilities are in statute miles or feet RVR unless otherwise indicated.

CITY, STATE	AIRPORT	EFFECTIVE DATE	AMDT NO
IOWA CITY, IA	IOWA CITY MUNI	19 JULY 2018	4

TREES BEGINNING 1632 FT FROM DER, 86 FT LEFT OF CENTERLINE, UP TO 749 FT MSL. TREES BEGINNING 1690 FT FROM DER, 137 FT RIGHT OF CENTERLINE, UP TO 784 FT MSL. TREE, POLE BEGINNING 1723 FT FROM DER, 21 FT RIGHT OF CENTERLINE, UP TO 798 FT MSL. TREES BEGINNING 1739 FT FROM DER, 90 FT LEFT OF CENTERLINE, UP TO 765 FT MSL. TREES BEGINNING 1943 FT FROM DER, 36 FT LEFT OF CENTERLINE, UP TO 774 FT MSL. TREES BEGINNING 2064 FT FROM DER, 126 FT RIGHT OF CENTERLINE, UP TO 808 FT MSL. TREES BEGINNING 2325 FT FROM DER, 151 FT LEFT OF CENTERLINE, UP TO 776 FT MSL. TREE 2428 FT FROM DER, 846 FT LEFT OF CENTERLINE, 783 FT MSL. TREES BEGINNING 2447 FT FROM DER, 33 FT LEFT OF CENTERLINE, UP TO 785 FT MSL. TREES BEGINNING 2610 FT FROM DER, 18 FT LEFT OF CENTERLINE, UP TO 799 FT MSL. TREE, BUILDING BEGINNING 2718 FT FROM DER, 141 FT LEFT OF CENTERLINE, UP TO 816 FT MSL. TREES BEGINNING 2762 FT FROM DER, 46 FT RIGHT OF CENTERLINE, UP TO 826 FT MSL. TREE, BUILDING BEGINNING 2985 FT FROM DER, 18 FT LEFT OF CENTERLINE, UP TO 829 FT MSL. TREE, BLDG TWR BEGINNING 3180 FT FROM DER, 81 FT RIGHT OF CENTERLINE, UP TO 830 FT MSL. TREES BEGINNING 3571 FT FROM DER, 617 FT RIGHT OF CENTERLINE, UP TO 831 FT MSL. TREE, POLE, BUILDING BEGINNING 3687 FT FROM DER, 0 FT OF CENTERLINE, UP TO 847 FT MSL. TREE, POLE, BUILDING BEGINNING 4356 FT FROM DER, 35 FT RIGHT OF CENTERLINE, UP TO 849 FT MSL. TOWER 1.5 NM FROM DER, 2500 FT RIGHT OF CENTERLINE, 258 FT AGL/936 FT MSL.

CONTROLLING OBSTACLES:

RWY 7: 806 FT MSL TREE 413843.01N/0913103.84W

RWY 25 845 FT MSL TREE 413743.89N/0913433.15W

RWY 30: 936 FT MSL TOWER 413943.00N/0913431.00W (CEILING AND VISIBILITY), 826 FT MSL TREE 413854.79N/0913331.97W (CLIMB GRADIENT AND CLIMB-TO ALTITUDE)

OBSTACLE MANDATING ODP ROUTE DEVELOPMENT: RWY 7: 2249 FT MSL TOWER 414329.20N/0912110.20W.

REMARKS:

FLIGHT INSPECTED BY:

ANTHONY D VALLERA

Digitally signed by

ALLAN WILL

Jun 08, 2018

OFFICE SYMBOL:

FICO

DATE:

2/13/18

DEVELOPED BY:

AJ FIELDS

Digitally signed by

ALLAN WILL

Jun 08, 2018

OFFICE SYMBOL:

AJV-5412

DATE:

8/28/2017

APPROVED BY:

GEORGE DAVIS

Digitally signed by

ALLAN WILL

Jun 08, 2018

OFFICE SYMBOL:

AJV-5410

DATE:

REQUIRED EFFECTIVE DATE:

ROUTINE

COORDINATED WITH:

A4A **ALPA** **AOPA** **APA** **HAI** **NBAA**



OTHER:

CHANGES - REASONS:

TAKE OFF MINIMUMS CHANGED FROM

1. RWY 7, 12 STANDARD.

RWY 25, 200-1 1/2 OR STANDARD WITH MINIMUM CLIMB OF 269 FEET PER NM TO 900.

RWY 30, 300-2 OR STANDARD WITH MINIMUM CLIMB OF 374 FEET PER NM TO 1100.

TO

RWY 12: STANDARD.

RWY 7: 200-1 1/4 OR STANDARD WITH A MINIMUM CLIMB OF 205 FT PER NM TO 900.

RWY 25, 200-1 1/4 OR STANDARD WITH A MINIMUM CLIMB OF 225 FT PER NM TO 900.

RWY 30: 200-1 OR STANDARD WITH A MINIMUM CLIMB OF 480 FT PER NM TO 900.--ALL CLIMB GRADIENTS ROUNDED UP TO NEXT HIGHER FIVE FOOT INCREMENT. PROCEDURE DEVELOPED IN 2007, ALL VERTICALLY GUIDED (VG) SURVEYS COMPLETED IN 2014.

2. CHANGED TEXTUAL DEPARTURE PROCEDURES: RWY 7 CLIMBING RIGHT TURN HEADING 180 AND IOW VORTAC R-057 TO IOW VORTAC.

TO

RWY 7: CLIMBING RIGHT TURN HEADING 180 TO INTERCEPT IOW VOR/DME R-057 TO IOW VOR/DME BEFORE PROCEEDING ON COURSE.--IOW VORTAC CHANGED TO A VOR/DME AS PART OF TACR PROJECT IN AMENDMENT 3B.

3. LOW CLOSE IN OBSTACLE UPDATED PER 2014 VG SURVEY ALL RUNWAYS AND USE OF TARGETS AND OBSTACLE GROUPER APP.



FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
ILS STANDARD INSTRUMENT APPROACH PROCEDURE
TITLE 14 CFR PART 97.29

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.
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<u>AIRPORT</u> UNIVERSITY OF ILLINOIS-WILLARD	<u>AIRPORT ID</u> KCMI	<u>PROCEDURE NAME</u> ILS OR LOC RWY 32R	<u>ORIGINAL/AMENDMENT</u> 13A	<u>CITY</u> CHAMPAIGN/URBANA	<u>STATE</u> IL	
<u>AIRPORT ELEVATION</u> 755	<u>TDZE</u> 750	<u>SUPERSEDED</u> ILS OR LOC RWY 32R	<u>ORIGINAL/AMENDMENT</u> 13	<u>DATED</u> 03/05/2015	<u>MAG VAR</u> 3W	<u>EPOCH YEAR</u> 2015
<u>FACILITY</u> I-CMI	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<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>
OCTOE INT/12.19 DME		VEALS LOM/I-CMI 7.00 DME					218.73	11.47	2600
CMI VORTAC		VEALS LOM/I-CMI 7.00 DME					130.46	5.95	2600
NEWMY INT/18.85 DME	IAF	JAVOM INT/I-CMI 13.13 DME	NOPT				273.61 & 318.61	4.96 (HDG) & 2.90 (I-CMI)	2600
JAVOM INT/I-CMI 13.13 DME	IF	VEALS LOM/I-CMI 7.00 DME					318.61	6.13 (I-CMI)	2600

MISSED APPROACH

MAP:

ILS: DA
LOC: 5.47 NM AFTER VEALS LOM/I-CMI 7.00 DME OR AT I-CMI 1.53 DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 1200 THEN CLIMBING LEFT TURN TO 2800 ON CMI VORTAC R-297 TO LODGE INT/CMI VORTAC 13.24 DME AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS (DO NOT CHART):

CLIMB TO 3000 DIRECT BMI VOR/DME AND HOLD.

PROFILE:

1. PT L **SIDE OF COURSE** 138.61 **OUTBOUND** 2600 **FT WITHIN** 10 **MILES OF** VEALS LOM (IAF)
- 2.
3. **FAC:** 318.61 **FAF:** VEALS LOM/I-CMI 7.00 DME **DIST FAF TO MAP:** 5.47 **DIST FAF TO THLD:** 5.47
4. **MIN ALT:** VEALS LOM/I-CMI 7.00 DME 2600
5. **DIST TO THLD FROM OM:** 5.47 **MM:** **IM:** **150 HAT:** **HAT:** **GS ANT:** 1065
6. **MIN GS INCPT:** 2600 **GS ALT AT FAF :** **OM:** 2572 **MM:** **IM:**
7. **GP ANGLE:** 3.00 **34:1:** **20:1:** **TCH:** 52.4
8. **MSA FROM:** CM LOM 3000

EQUIPMENT REQUIREMENTS NOTES

QUALITY
22
CHECKED

NOTES:

CHART NOTE: **RVR 1800 AUTHORIZED WITH USE OF FD OR AP OR HUD TO DA.
CHART NOTE: FOR INOPERATIVE ALS, INCREASE S-LOC 32R CAT C AND D VISIBILITY TO RVR 6000.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
CHART: ASR
CHART IN PLANVIEW: BMI VOR/DME
CHART VDP AT 2.65 DME*
DISTANCE VDP TO THLD 1.12 NM
* LOC ONLY
FAS OBST: 893 AAO 395910N/0881315W.
CHART IN PLANVIEW: ALTERNATE MA HOLDING, HOLD NW BMI VOR/DME, RT, 128.54 INBOUND.
HOLD NW, LT, 116.58 INBOUND

MINIMUMS:

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

ALTERNATE: NA ☐ ILS: STANDARD - NA WHEN CONTROL TOWER CLOSED.; LOC: STANDARD - CAT C 800-2 1/4, CAT D 800-2 1/2, NA WHEN CONTROL TOWER CLOSED.

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
S-ILS 32R**	950	2400	200	950	2400	200	950	2400	200	950	2400	200			
S-LOC 32R	1160	2400	410	1160	2400	410	1160	4000	410	1160	4000	410			
CIRCLING	1240	1	485	1240	1	485	1500	2 1/4	745	1500	2 1/2	745			

CHANGES - REASONS

1. REMOVED "OR AS DIRECTED BY ATC" FROM PRIMARY MISSED APPROACH - CURRENT DOCUMENTATION POLICY.
2. ADDED "DO NOT CHART" TO ALTERNATE MISSED APPROACH - CURRENT DOCUMENTATION POLICY.
3. MOVED BACKUP ALTIMETER NOTES TO BACK OF FORM 8260-9 - CURRENT DOCUMENTATION POLICY.
4. REMOVED "NA WHEN LOCAL WEATHER NOT AVAILABLE" FROM ALTERNATE MINIMUMS - PRIMARY WEATHER IS ON WMSCR.
5. REMOVED NON-STANDARD ALTERNATE MINIMUMS FOR S-ILS 32R - S-ILS 32R HAS STANDARD ALTERNATE MINIMUMS USING CURRENT GUIDANCE.
6. ADDED INOPERATIVE ALS NOTE - NON-STANDARD ADJUSTMENTS REQUIRED.
7. REMOVED CNF FIX CFBQZ - CURRENT DOCUMENTATION POLICY.

PDF EDITS:
1. TERMINAL ROUTE NEWMY TO JAVOM, INSERTED (HDG) AFTER 4.96.



COORDINATED WITH:

A4A ☒ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: ZAU, CMI ATCT, AMGR

<u>FLIGHT CHECKED BY</u>	<i>Digitally signed by</i>	<u>OFFICE</u>	<u>DATE</u>	
BRENT BOOKER	ROBERT G HAMILTON	FICO	5/20/18	
	May 30, 2018			
<u>DEVELOPED BY</u>	<i>Digitally signed by</i>	<u>OFFICE</u>	<u>DATE</u>	
RUSS ROSLEWSKI	RUSSELL ROSLEWSKI	AJV-5423	01/23/2018	
	Mar 07, 2018			
<u>APPROVED BY</u>	<i>Digitally signed by</i>	<u>OFFICE</u>	<u>DATE</u>	<u>TITLE</u>
JULIE MORGAN	ROBERT G HAMILTON	AJV-5420		MANAGER
	May 30, 2018			



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

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 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> PLYMOUTH MUNI	<u>AIRPORT ID</u> KC65	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 28	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>CITY</u> PLYMOUTH	<u>STATE</u> IN	
<u>AIRPORT ELEVATION</u> 800	<u>TDZE</u> 796	<u>SUPERSEDED</u> RNAV (GPS) RWY 28	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>DATED</u> 01/07/2016	<u>MAG VAR</u> 5W	<u>EPOCH YEAR</u> 2020
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>		

TAA

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>ALTITUDE</u>
1. 221/30 CW 341/30	NOPT	TYROS	IF/IAF	3000
2. 341/30 CW 101/30		GROGS	IAF	3000
3. 101/30 CW 221/30		NIMOE	IAF	3000

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>
GROGS	IAF	TYROS	NOPT	TF	FB	1.00	340.98	7.50	3000
NIMOE	IAF	TYROS	NOPT	TF	FB	1.00	221.00	7.50	3000
TYROS	IF/IAF	SURGY		TF	FB	1.00	280.94	7.13	2500
SURGY	FAF	WEEPS/2.20 NM TO RW28		TF	FB	0.30	280.83	2.94	
WEEPS/2.20 NM TO RW28		RW28	MAP	TF	FO	0.30	280.83	2.20	
RW28	MAP	1099 MSL		CA			280.83		
1099 MSL		PHONO		DF	FO	1.00			3000

MISSED APPROACH

MAP:

LPV: DA
 LNAV/VNAV: DA
 LNAV: RW28

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3000 DIRECT PHONO AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. HOLD E TYROS, RT, 280.94 INBOUND, 3000 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 280.83 FAF: SURGY DIST FAF TO MAP: 5.14 DIST FAF TO THLD: 5.14

4. MIN ALT: TYROS 3000, SURGY 2500, WEEPS/2.20 NM TO RW28 1540*

5. DIST TO THLD FROM OM: MM: IM: 150 HAT: 303 HAT: 0.81

6. MIN GP INCPT: 2500 GP ALT AT FAF : SURGY 2500 OM: MM: IM:

7. GP ANGLE: 3.05 34:1: IS NOT CLEAR 20:1: IS CLEAR TCH: 40.0

8. MSA FROM:

PBN EQUIPMENT REQUIREMENTS NOTES

RNP APCH

NOTES:

CHART NOTE: BARO-VNAV AND VDP NA WHEN USING SOUTH BEND ALTIMETER SETTING.
CHART NOTE: RWY 28 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -16C OR ABOVE 54C.
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART NOTE: WHEN LOCAL ALTIMETER NOT RECEIVED, USE SOUTH BEND ALTIMETER SETTING AND INCREASE LPV DA TO 1147 FT AND VISIBILITY ALL CATS 1/8 SM, LNAV/VNAV DA TO 1225 FT AND VISIBILITY ALL CATS 1/4 SM, ALL MDA 60 FEET AND LNAV AND CIRCLING CAT C VISIBILITY 1/4 SM.

ADDITIONAL FLIGHT DATA:

CHART FAS OBST: 950 POLE 412124N/0861715W
CHART CIRCLING ICON.
CHART VDP AT 1.01 NM TO RW28*
*LNAV ONLY
WAAS CHANNEL #90238
REFERENCE PATH ID: W28A
HOLD W, RT, 100.56 INBOUND
LTP HAE: 208.7 M

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD

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	1099	1	303	1099	1	303	1099	1	303		NA				
LNAV/VNAV DA	1177	1 1/4	381	1177	1 1/4	381	1177	1 1/4	381		NA				
LNAV MDA	1260	1	464	1260	1	464	1260	1 3/8	464		NA				
CIRCLING	1280	1	480	1360	1	560	1540	2	740		NA				



CHANGES - REASONS

- 1. LNAV/VNAV DA 1177/HAT 381 ALL CATS - DUE TO NEW CONTROLLING OBSTACLES.
- 2. LNAV MDA 1260/HAT 464 ALL CATS, VISIBILITY CATS A/B 1, CAT C 1 3/8 - DUE TO NEW CONTROLLING OBSTACLES.
- 3. CHANGED CHART NOTE: FROM "HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED." TO "RWY 28 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 NA" - UPDATED TO CURRENT CRITERIA.
- 4. REMOVED: DME/DME RNP-0.3 NA - UPDATED TO CURRENT CRITERIA.
- 5. ADDED: PBN REQUIREMENTS NOTE RNP APCH - UPDATED TO CURRENT CRITERIA.
- 6. ADDED: 20:1 IS CLEAR - UPDATED TO CURRENT CRITERIA.
- 7. REMOVED FAHRENHEIT FROM BARO/NAV NOTE - UPDATED TO CURRENT CRITERIA.
- 8. CHANGED "MILE" TO "SM" IN BACKUP ALTIMETER NOTE - UPDATED TO CURRENT CRITERIA.

PDF EDITS:
CHANGED "MAP" TO "ARP" IN THE PART D: AIRSPACE SECTION.
REMOVED OBSTRCTION 13. FROM LNAV/VNAV AND LNAV MISSED APPROACH SECTION.
MOVED "ORDER 8260.3, VOLUME 1, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED." FROM NOTES/EXPLANATIONS TO PART C: GENERAL REMARKS: SECTION.



<u>AIRPORT</u> PLYMOUTH MUNI	<u>AIRPORT ID</u> KC65	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 28	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>CITY</u> PLYMOUTH	<u>STATE</u> IN
<u>COORDINATED WITH:</u>					
A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ <u>OTHER:</u> ZAU, SBN APP CON, APT MGR					
<u>FLIGHT CHECKED BY</u> SCOTT WIEBE	Digitally signed by ROBERT G HAMILTON Jun 05, 2018		<u>OFFICE</u> FICO	<u>DATE</u> 6/4/18	
<u>DEVELOPED BY</u> LONNIE EVERHART (KEITH CTR JONES)	Digitally signed by ROBERT G HAMILTON Jun 05, 2018		<u>OFFICE</u> AJV-5400	<u>DATE</u> 11/30/2017	
<u>APPROVED BY</u> LONNIE EVERHART	Digitally signed by ROBERT G HAMILTON Jun 05, 2018		<u>OFFICE</u> AJV-5400	<u>DATE</u>	<u>TITLE</u> MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	C65
RUNWAY	RW28
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W28A
LTP/FTP LATITUDE	412152.5885N
LTP/FTP LONGITUDE	0861736.1300W
LTP/FTP ELLIPSOIDAL HEIGHT	+02087
FPAP LATITUDE	412201.5185N
FPAP LONGITUDE	0861933.8685W
THRESHOLD CROSSING HEIGHT (TCH)	00040.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.05
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1504
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	CE263706

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K5
LTP ORTHOMETRIC HEIGHT	+02425
FPAP ORTHOMETRIC HEIGHT	+02425



FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
ILS STANDARD INSTRUMENT APPROACH PROCEDURE

TITLE 14 CFR PART 97.29

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> PLYMOUTH MUNI	<u>AIRPORT ID</u> KPYM	<u>PROCEDURE NAME</u> ILS OR LOC RWY 6	<u>ORIGINAL/AMENDMENT</u> 1F	<u>CITY</u> PLYMOUTH	<u>STATE</u> MA
<u>AIRPORT ELEVATION</u> 148	<u>TDZE</u> 145	<u>SUPERSEDED</u> ILS OR LOC/DME RWY 6	<u>ORIGINAL/AMENDMENT</u> 1E	<u>DATED</u> 07/21/2016	<u>MAG VAR</u> 16W
<u>FACILITY</u> I-PYM	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 1995

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>
PVD VOR/DME	IAF	BUVKE INT/I-PYM 12.37 DME		CF	FB		099.16	23.91	3000
BUVKE INT/I-PYM 12.37 DME	IF	AYEDE/I-PYM 5.67 DME		CF	FB		055.55	6.70 (I-PYM)	1700

MISSED APPROACH

MAP:

ILS: DA
LOC: I-PYM 0.91 DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 600 THEN CLIMBING RIGHT TURN TO 2000 ON HEADING 100 AND ON BOS VOR/DME R-162 TO FREDO INT/BOS 32.63 DME AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS (DO NOT CHART):

CLIMB TO 600 THEN CLIMBING RIGHT TURN TO 3000 ON HEADING 100 AND ON ACK VOR/DME R-341 TO FREDO INT/ACK 45.00 DME AND HOLD.

PROFILE:

- PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)
- PROFILE STARTS AT BUVKE/I-PYM 12.37 DME
- 3. FAC:** 055.55 **FAF:** AYEDE/I-PYM 5.67 DME **DIST FAF TO MAP:** **DIST FAF TO THLD:** 4.76
- 4. MIN ALT:** BUVKE INT/I-PYM 12.37 DME 3000, AYEDE/I-PYM 5.67 DME 1700, ZASID/I-PYM 2.41 DME 660*
- 5. DIST TO THLD FROM OM:** **MM:** **IM:** **150 HAT:** **HAT:** **GS ANT:** 944
- 6. MIN GS INCPT:** 1700 **GS ALT AT FAF :** AYEDE/I-PYM 5.67 DME 1700 **OM:** **MM:** **IM:**
- 7. GP ANGLE:** 3.00 **34:1:** **20:1:** **TCH:** 50.1
- 8. MSA FROM:** BOS VOR/DME 215-305 3100, 305-215 2200 (30NM)

EQUIPMENT REQUIREMENTS NOTES

DME REQUIRED FOR LOC ONLY.

NOTES:

CHART NOTE: CIRCLING RWY 15 NA AT NIGHT.



CHART NOTE: AUTOPILOT COUPLED APPROACH NA BELOW 610 MSL.
CHART NOTE: RWY 6 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART NOTE: INOPERATIVE TABLE DOES NOT APPLY TO S-ILS-6.
CHART PROFILE NOTE: VGSI AND ILS GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON PVD VOR/DME AIRWAY RADIALS 093 CW 132.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
CHART R-4101
CHART VDP AT 1.88 DME*
DISTANCE VDP TO THLD 0.97 NM
* LOC ONLY
CHART FAS OBST: 219 TREE 415341N/0704510W.
CHART IN PLANVIEW: ALTERNATE MA HOLDING, HOLD S FREDO INT/ACK 45.00 DME, RT, 341.42 INBOUND.
HOLD S, RT, 342.00 INBOUND

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD

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
S-ILS 06	345	3/4	200	345	3/4	200	345	3/4	200		NA				
S-LOC 06	480	3/4	335	480	3/4	335	480	3/4	335		NA				
CIRCLING	620	1	472	640	1	492	740	1 1/2	592		NA				

CHANGES - REASONS

1. PROCEDURE NAME CHANGED FROM ILS OR LOC/DME RWY 6 TO ILS OR LOC RWY 6 - CURRENT SIAP NAMING CONVENTION.
2. THRE 135 CHANGED TO TDZE 145 - AMDT 1D P-NOTAM.
3. S-ILS 6 ALL CATS DA CHANGED FROM 335 TO 345 - CONVERSION FROM THRE TO TDZE; AMDT 1D P-NOTAM.
4. S-LOC 6 ALL CATS 345 HATH CHANGED TO 335 HAT - CONVERSION FROM THRE TO TDZE; AMDT 1D P-NOTAM.
5. CIRCLING CAT B MDA/HAA CHANGED FROM 620/472 TO 640/492, CAT C MDA/HAA CHANGED FROM 640/492 TO 740/592 - APPLIED CURRENT CIRCLING RADII AND REEVALUATED OEAS.
6. NIGHT LANDING RESTRICTION CHART NOTE CHANGED TO READ CIRCLING RWY 15 NA AT NIGHT - REEVALUATED VISUAL SURFACES BASED ON NEW SURVEY DATA; RWY 6, 24, 33 20:1 SURFACES CLEAR; APPLIED CURRENT DOCUMENTATION CRITERIA FOR NOTE FORMAT.
7. REMOVED CHART NOTE: WHEN VGSI INOP, CIRCLING RWY 24, 33 NA AT NIGHT - AMDT 1C P-NOTAM; ALSO, NO LONGER APPLICABLE.
8. HELICOPTER VIS REDUCTION NOTE CHANGED TO READ RWY 6 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED - APPLIED CURRENT DOCUMENTATION CRITERIA FOR NOTE FORMAT.
9. ADDED CHART NOTE: AUTOPILOT COUPLED APPROACH NA BELOW 610 MSL - PER FLIGHT CHECK REQUEST; GLIDESLOPE REVERSAL.
10. PROCEDURE NA PLANVIEW NOTE CHANGED FROM "...ARRIVAL ON PVD VORTAC..." TO "ARRIVAL ON PVD VOR/DME..." - AMDT 1E P-NOTAM.
11. REMOVED BACK-UP ALTIMETER SETTING CHART NOTES AND ALTERNATE MINIMUMS REMARK #@NA WHEN LOCAL WEATHER NOT AVAILABLE - PRIMARY ALTIMETER SOURCE TRANSMITTED ON WMSCR; PER FPT APPROVAL, BACK-UP ALTIMETER SETTING NOTES NOT REQUIRED; CONTINGENCY NOTES DOCUMENTED ON BACK OF 8260-9.
12. VDP DME/DIST TO THLD CHANGED FROM 1.87/0.96 TO 1.88/0.97 - RECALCULATED BASED ON NEW VGSI DATA.
13. ADDED CHART CIRCLING ICON - APPLIED CURRENT CIRCLING CRITERIA.
14. ADDED CHART R-4101 -- SUA ENCOMPASSED IN PLANVIEW.
15. REPLACED CHART PLANVIEW NOTE: DME REQUIRED WITH CHART EQUIPMENT REQUIREMENTS NOTE: DME REQUIRED FOR LOC ONLY - ANALYZED ALL SEGMENTS FOR ADDITIONAL EQUIPMENT REQUIREMENTS PER 8260.19H.
16. REPLACED INOPERATIVE MALSF NOTE WITH INOPERATIVE TABLE DOES NOT APPLY TO S-ILS-6 - APPLIED NEW INOP TABLE CRITERIA.



<u>AIRPORT</u> PLYMOUTH MUNI	<u>AIRPORT ID</u> KPYM	<u>PROCEDURE NAME</u> ILS OR LOC RWY 6	<u>ORIGINAL/AMENDMENT</u> 1F	<u>CITY</u> PLYMOUTH	<u>STATE</u> MA
<u>COORDINATED WITH:</u>					
A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZBW, BOS APP CON, APT MGR					
<u>FLIGHT CHECKED BY</u> DURLEY J FELDER		<i>Digitally signed by</i> DEZ SILAGYI Jun 04, 2018		<u>OFFICE</u> FICO	<u>DATE</u> 5/30/18
<u>DEVELOPED BY</u> JEFFREY ROBINSON		<i>Digitally signed by</i> JEFFREY ROBINSON Apr 04, 2018		<u>OFFICE</u> AJV-5421	<u>DATE</u> 02/21/2018
<u>APPROVED BY</u> JULIE MORGAN		<i>Digitally signed by</i> DEZ SILAGYI Jun 04, 2018		<u>OFFICE</u> AJV-5420	<u>TITLE</u> MANAGER



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> PLYMOUTH MUNI	<u>AIRPORT ID</u> KPYM	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 6	<u>ORIGINAL/AMENDMENT</u> 1D	<u>CITY</u> PLYMOUTH	<u>STATE</u> MA
<u>AIRPORT ELEVATION</u> 148	<u>TDZE</u> 145	<u>SUPERSEDED</u> RNAV (GPS) RWY 6	<u>ORIGINAL/AMENDMENT</u> 1C	<u>DATED</u> 07/21/2016	<u>MAG VAR</u> 16W
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 1995

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>
LFV VOR/DME		MAYTA		TF	FB	2.00	253.02	38.37	3000
MVY VOR/DME		MAYTA		TF	FB	2.00	354.75	17.41	3000
PVD VOR/DME	IAF	BUVKE		TF	FB	1.00	101.16	23.91	3000
MAYTA	IAF	BUVKE		TF	FB	1.00	325.54	8.50	3000
BUVKE	IF	AYEDE		TF	FB	1.00	055.44	6.70	1700
AYEDE	FAF	ZASID/1.50 NM TO RW06		TF	FB	0.30	055.51	3.26	
ZASID/1.50 NM TO RW06		RW06	MAP	TF	FO	0.30	055.51	1.50	
RW06	MAP	600 MSL		CA			055.51		600
600 MSL		FREDO		DF	FO	1.00			1900

MISSED APPROACH

MAP:

LPV: DA
 LNAV/VNAV: DA
 LNAV: RW06

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 600 THEN CLIMBING RIGHT TURN TO 1900 DIRECT FREDO AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)
2. PROFILE STARTS AT BUVKE
3. FAC:

055.51

FAF: AYEDE

DIST FAF TO MAP: 4.76

DIST FAF TO THLD: 4.76
4. MIN ALT: BUVKE 3000, AYEDE 1700, ZASID/1.50 NM TO RW06 660*
5. DIST TO THLD FROM OM:

MM:

IM:

150 HAT:

200 HAT: 0.50
6. MIN GP INCPT:

1700

GP ALT AT FAF : AYEDE 1700

OM:

MM:

IM:
7. GP ANGLE:

3.00

34:1: IS NOT CLEAR

20:1: IS CLEAR

TCH: 50.1
8. MSA FROM: RW06 2200

PBN EQUIPMENT REQUIREMENTS NOTES

RNP APCH

NOTES:

CHART NOTE: CIRCLING RWY 15 NA AT NIGHT.
CHART NOTE: RWY 6 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -17C (2F) OR ABOVE 54C (130F).
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
*LNAV ONLY
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT LFV VOR/DME ON V167 NORTHEAST BOUND.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON MVY VOR/DME AIRWAY RADIALS 282 CW 313.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON PVD VOR/DME AIRWAY RADIALS 093 CW 165.
CHART NOTE: INOPERATIVE TABLE DOES NOT APPLY TO LPV. FOR INOPERATIVE ALS, INCREASE LNAV/VNAV ALL CATS VISIBILITY TO 7/8 SM.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
CHART R-4101
WAAS CHANNEL #40422
REFERENCE PATH ID: W06A
CHART FAS OBST: 239 T-L TWR 415301N/0704437W.
HOLD S, RT, 341.42 INBOUND
LTP HAE: 12.7 M

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD

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	345	3/4	200	345	3/4	200	345	3/4	200		NA				
LNAV/VNAV DA	426	3/4	281	426	3/4	281	426	3/4	281		NA				
LNAV MDA	500	3/4	355	500	3/4	355	500	3/4	355		NA				
CIRCLING	620	1	472	640	1	492	740	1 1/2	592		NA				



CHANGES - REASONS

1. LINE 7, ADDED 20:1 IS CLEAR - REEVALUATED VISUAL SURFACES BASED ON NEW SURVEY DATA; RWY 6 20:1 SURFACE IS CLEAR.
2. THRE 135 CHANGED TO TDZE 145 - AMDT 1B P-NOTAM.
3. LPV ALL CATS DA CHANGED FROM 335 TO 345 - CONVERSION FROM THRE TO TDZE; AMDT 1B P-NOTAM.
4. LNAV/VNAV ALL CATS DA CHANGED FROM 416 TO 426 - CONVERSION FROM THRE TO TDZE; AMDT 1B P-NOTAM.
5. LNAV ALL CATS 365 HATH CHANGED TO 355 HAT - CONVERSION FROM THRE TO TDZE; AMDT 1B P-NOTAM.
6. CIRCLING CAT B MDA/HAA CHANGED FROM 620/472 TO 640/492, CAT C MDA/HAA CHANGED FROM 640/492 TO 740/592 - APPLIED CURRENT CIRCLING RADII AND REEVALUATED OEAS.
7. BARO-VNAV COLD TEMP LIMIT CHANGED FROM -15C (5F) TO -17C (2F) - RECALCULATED BASED ON 5-YR TEMPERATURE HISTORY.
8. NIGHT LANDING RESTRICTION CHART NOTE CHANGED TO READ CIRCLING RWY 15 NA AT NIGHT - REEVALUATED VISUAL SURFACES BASED ON NEW SURVEY DATA AND CRITERIA; RWY 6, 24, 33 20:1 SURFACES CLEAR; APPLIED CURRENT DOCUMENTATION CRITERIA FOR NOTE FORMAT.
9. REMOVED CHART NOTE: WHEN VGSI INOP, CIRCLING RWY 24, 33 NA AT NIGHT - REEVALUATED VISUAL SURFACES BASED ON NEW SURVEY DATA AND CRITERIA; NO LONGER APPLICABLE.
10. REPLACED INOPERATIVE MALSF NOTE WITH, "INOPERATIVE TABLE DOES NOT APPLY TO LPV. FOR INOPERATIVE ALS, INCREASE LNAV/VNAV ALL CATS VISIBILITY TO 7/8 SM." - APPLIED NEW INOP TABLE CRITERIA.
11. REPLACED CHART NOTE: DME/DME RNP-0.3 NA WITH PBN REQUIREMENTS NOTE: RNP APCH - PER 8260.19H DOCUMENTATION CRITERIA.
12. PROCEDURE NA PLANVIEW NOTE CHANGED FROM "...ARRIVALS ON PVD VORTAC..." TO "ARRIVAL ON PVD VOR/DME..." - AMDT 1C P-NOTAM.
13. REMOVED BACK-UP ALTIMETER SETTING CHART NOTES AND ALTERNATE MINIMUMS REMARK #@NA WHEN LOCAL WEATHER NOT AVAILABLE - PRIMARY ALTIMETER SOURCE TRANSMITTED ON WMSCR; PER FPT APPROVAL, BACK-UP ALTIMETER SETTING NOTES NOT REQUIRED; CONTINGENCY NOTES DOCUMENTED ON BACK OF 8260-9.
14. CHART FAS OBST CHANGED FROM 239 CATENARY TO 239 T-L TWR - SAME OBSTACLE, NEW OAS DESCRIPTION/OBS ID.
15. REMOVED CHART FAS OBST 236 TREE - NOT REQUIRED FOR LNAV/VNAV FINAL.
16. DIST TO THLD FROM 200 HAT CHANGED FROM 0.47 TO 0.50 - RECALCULATED BASED ON NEW DA.
17. REMOVED VDP DATA AND ASSOCIATED NOTES - VDP LESS THAN 0.5 NM FROM SDF; VDP MOVED DUE TO NEW VGSI TCH.
18. ADDED CHART CIRCLING ICON - APPLIED CURRENT CIRCLING CRITERIA.
19. ADDED CHART R-4101 -- SUA ENCOMPASSED IN PLANVIEW.
20. TERMINAL ROUTES, ZASID TO RW06 AND RW06 TO 600 MSL COURSE CHANGED FROM 055.54 TO 055.51 - MATCH FINAL COURSE.
21. FAS DATA LTP LAT/LONG CHANGED FROM 415415.2485N/0704411.4675W TO 415415.2480N/0704411.4665W - CURRENT AIRNAV DATA.
22. FAS DATA FPAP LAT/LONG CHANGED FROM 415523.9700N/0704255.4700W TO 415523.9720N/0704255.4640W - RECALCULATED.
23. FAS DATA COURSE WIDTH AT THLD CHANGED FROM 87.00 TO 106.75 - RECALCULATED.
24. FAS DATA CRC REMAINDER CHANGED FROM D6ECAE29 TO 54A0D537 - RECALCULATED.



<u>AIRPORT</u> PLYMOUTH MUNI	<u>AIRPORT ID</u> KPYM	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 6	<u>ORIGINAL/AMENDMENT</u> 1D	<u>CITY</u> PLYMOUTH	<u>STATE</u> MA
<u>COORDINATED WITH:</u>					
A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZBW, BOS APP CON, APT MGR					
<u>FLIGHT CHECKED BY</u> DURLEY J FELDER		Digitally signed by DEZ SILAGYI Jun 04, 2018	<u>OFFICE</u> FICO	<u>DATE</u> 5/30/18	
<u>DEVELOPED BY</u> JEFFREY ROBINSON		Digitally signed by JEFFREY ROBINSON Apr 04, 2018	<u>OFFICE</u> AJV-5421	<u>DATE</u> 02/22/2018	
<u>APPROVED BY</u> JULIE MORGAN		Digitally signed by DEZ SILAGYI Jun 04, 2018	<u>OFFICE</u> AJV-5420	<u>DATE</u>	<u>TITLE</u> MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KPYM
RUNWAY	RW06
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W06A
LTP/FTP LATITUDE	415415.2480N
LTP/FTP LONGITUDE	0704411.4665W
LTP/FTP ELLIPSOIDAL HEIGHT	+00127
FPAP LATITUDE	415523.9720N
FPAP LONGITUDE	0704255.4640W
THRESHOLD CROSSING HEIGHT (TCH)	00050.1
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1424
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	35.0
CRC REMAINDER	54A0D537

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K6
LTP ORTHOMETRIC HEIGHT	+00412
FPAP ORTHOMETRIC HEIGHT	+00412



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> PLYMOUTH MUNI	<u>AIRPORT ID</u> KPYM	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 15	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>CITY</u> PLYMOUTH	<u>STATE</u> MA	
<u>AIRPORT ELEVATION</u> 148	<u>TDZE</u> 147	<u>SUPERSEDED</u> RNAV (GPS) RWY 15	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>DATED</u> 11/10/2016	<u>MAG VAR</u> 16W	<u>EPOCH YEAR</u> 1995
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<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>
DODNE	IAF	FARED		TF	FB	1.00	092.29	11.61	2000
BENNN	IAF	FARED		TF	FB	1.00	233.07	11.58	2000
FARED	IF	SCALD		TF	FB	1.00	145.47	5.00	2000
SCALD	FAF	CREPT/1.59 NM TO RW15		TF	FB	0.30	145.52	4.08	
CREPT/1.59 NM TO RW15		RW15	MAP	TF	FO	0.30	145.52	1.59	
RW15	MAP	600 MSL		CA			145.52		600
600 MSL		GAILS		DF	FO	1.00			2000

MISSED APPROACH

MAP:

LP: RW15
LNAV: RW15

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 600 THEN CLIMBING LEFT TURN TO 2000 DIRECT GAILS AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)
2. PROFILE STARTS AT FARED
3. FAC:

145.52

FAF: SCALD

DIST FAF TO MAP: 5.67

DIST FAF TO THLD: 5.67
4. MIN ALT: FARED 2000, SCALD 2000, CREPT/1.59 NM TO RW15 700
5. DIST TO THLD FROM OM:

MM:

IM:

150 HAT:

HAT:
6. MIN GP INCPT:

GP ALT AT FAF :

OM:

MM:

IM:
7. GP ANGLE:

34:1: IS NOT CLEAR

20:1: IS NOT CLEAR

TCH:
8. MSA FROM: RW15 2200

PBN EQUIPMENT REQUIREMENTS NOTES

RNP APCH

NOTES:

CHART NOTE: RWY 15 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED.
CHART NOTE: STRAIGHT-IN RWY 15 NA AT NIGHT, CIRCLING RWY 15 NA AT NIGHT.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
CHART PROFILE NOTE: VISUAL SEGMENT - OBSTACLES.
WAAS CHANNEL #93639
REFERENCE PATH ID: W15A
CHART FAS OBST: 246 TREE 415523N/0704440W.
CHART FAS OBST: 309 TREE 415517N/0704359W.
CHART: 279 TREE 415555N/0704512W.
HOLD S, RT, 350.23 INBOUND
LTP HAE: 15.7 M

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD

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
LP MDA	500	1	353	500	1	353	500	1	353		NA				
LNAV MDA	560	1	413	560	1	413	560	1 1/8	413		NA				
CIRCLING	620	1	472	640	1	492	740	1 1/2	592		NA				



CHANGES - REASONS

- 1. IN TERMINAL ROUTES AND LINE 4, CREPT TO RW15 DIST CHANGED FROM 1.60 TO 1.59 - RECALCULATED; FIX DID NOT MOVE.
- 2. LINE 7, ADDED 20:1 IS NOT CLEAR - CURRENT DOCUMENTATION CRITERIA.
- 3. REPLACED CHART NOTE: DME/DME RNP-0.3 NA WITH PBN REQUIREMENTS NOTE: RNP APCH - CURRENT DOCUMENTATION CRITERIA.
- 4. REMOVED CHART NOTE: RADAR REQUIRED - NO LONGER REQUIRED FOR RNAV PROCEDURES.
- 5. REMOVED BACK-UP ALTIMETER SETTING CHART NOTE AND ALTERNATE MINIMUMS REMARK @NA WHEN LOCAL WEATHER NOT AVAILABLE - PRIMARY ALTIMETER SOURCE TRANSMITTED ON WMSCR; PER FPT APPROVAL, BACK-UP ALTIMETER SETTING NOTES NOT REQUIRED; CONTINGENCY NOTES PUBLISHED ON BACK OF 8260-9.
- 6. CHART FAS OBST CHANGED FROM 250 TREE TO 246 TREE - UPDATED LP FINAL CONTROLLING OBST DATA PER CURRENT SURVEY; NO CHANGE TO LP MDA.
- 7. NIGHT LANDING RESTRICTION CHART NOTE, REMOVED CIRCLING RWY 33 - RWY 33 20:1 VISUAL SURFACE IS CLEAR.
- 8. ADDED CHART PROFILE NOTE: VISUAL SEGMENT-OBSTACLES - PER FLIGHT INSPECTION.
- 9. REMOVED VDA DATA, SCALD TO RW15: 3.00/50.0 - PER FLIGHT INSPECTION.
- 10. FAS DATA LTP LAT/LONG CHANGED FROM 415443.9245N/0704348.3500W TO 415443.9235N/0704348.3430W - CURRENT SURVEY DATA.
- 11. FAS DATA FPAP LAT/LONG CHANGED FROM 415347.1075N/0704216.4090W TO 415347.1065N/0704216.4010W - RECALCULATED.
- 12. FAS DATA TCH CHANGED FROM 00050.0 TO 00000.0; GPA CHANGED FROM 03.00 TO 00.00 - VDA REMOVED PER FLIGHT INSPECTION.
- 13. FAS DATA CRC REMAINDER CHANGED FROM A9B77D84 TO DFF2EE53 - RECALCULATED.



COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZBW, BOS APP CON, APT MGR

FLIGHT CHECKED BY

DURLEY J FELDER

DEVELOPED BY

JEFFREY ROBINSON

APPROVED BY

JULIE MORGAN

Digitally signed by

JEFFREY ROBINSON

Apr 04, 2018

Digitally signed by

DEZ SILAGYI

Jun 04, 2018

Digitally signed by

DEZ SILAGYI

Jun 04, 2018

OFFICE

FICO

OFFICE

AJV-5421

OFFICE

AJV-5420

DATE

5/30/18

DATE

02/20/2018

DATE

TITLE

MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KPYM
RUNWAY	RW15
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W15A
LTP/FTP LATITUDE	415443.9235N
LTP/FTP LONGITUDE	0704348.3430W
LTP/FTP ELLIPSOIDAL HEIGHT	+00157
FPAP LATITUDE	415347.1065N
FPAP LONGITUDE	0704216.4010W
THRESHOLD CROSSING HEIGHT (TCH)	00000.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	00.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1424
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	0.0
CRC REMAINDER	DFF2EE53

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K6
LTP ORTHOMETRIC HEIGHT	+00442
FPAP ORTHOMETRIC HEIGHT	+00442



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> PLYMOUTH MUNI	<u>AIRPORT ID</u> KPYM	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 24	<u>ORIGINAL/AMENDMENT</u> ORIG-C	<u>CITY</u> PLYMOUTH	<u>STATE</u> MA	
<u>AIRPORT ELEVATION</u> 148	<u>TDZE</u> 148	<u>SUPERSEDED</u> RNAV (GPS) RWY 24	<u>ORIGINAL/AMENDMENT</u> ORIG-B	<u>DATED</u> 06/25/2015	<u>MAG VAR</u> 16W	<u>EPOCH YEAR</u> 1995
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<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>
INNDY		GAILS		TF	FB	2.00	095.22	31.79	3000
GAILS		WIREG		TF	FB	2.00	010.05	7.51	2000
WIREG	IAF	JEKDI	NOPT	TF	FB	1.00	325.77	7.50	2000
LFV VOR/DME	IAF	JEKDI	NOPT	TF	FB	1.00	294.59	23.11	2000
KYLES	IAF	JEKDI	NOPT	TF	FB	1.00	164.54	13.28	2000
JEKDI	IF/IAF	BURRK		TF	FB	1.00	235.68	7.50	2000
BURRK	FAF	SMITY/1.60 NM TO RW24		TF	FB	0.30	235.61	3.37	
SMITY/1.60 NM TO RW24		RW24	MAP	TF	FO	0.30	235.61	1.60	
RW24	MAP	640 MSL		CA			235.61		640
640 MSL		GAILS		DF	FO	1.00			2000

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW24

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 640 THEN CLIMBING LEFT TURN TO 2000 DIRECT GAILS AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)
2. HOLD NE JEKDI, RT, 235.68 INBOUND, 2000 FT. IN LIEU OF PT (IAF), MAX 6000.
3. FAC: 235.61 FAF: BURRK DIST FAF TO MAP: 4.97 DIST FAF TO THLD: 4.97
4. MIN ALT: JEKDI 2000, BURRK 2000, SMITY/1.60 NM TO RW24 780*
5. DIST TO THLD FROM OM: MM: IM: 150 HAT: 297 HAT: 0.66
6. MIN GP INCPT: 2000 GP ALT AT FAF : BURRK 2000 OM: MM: IM:
7. GP ANGLE: 3.40 34:1: IS NOT CLEAR 20:1: IS CLEAR TCH: 60.0
8. MSA FROM: RW24 2200

PBN EQUIPMENT REQUIREMENTS NOTES

RNP APCH

NOTES:

CHART NOTE: CIRCLING RWY 15 NA AT NIGHT.
CHART NOTE: RWY 24 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -17C (2F) OR ABOVE 54C (130F).
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT GAILS ON V141 SOUTHEAST BOUND.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON LfV VOR/DME AIRWAY RADIALS 228 CW 002.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
CHART VDP AT 0.96 NM TO RW24*
*LNAV ONLY
WAAS CHANNEL #42922
REFERENCE PATH ID: W24A
CHART FAS OBST: 328 POLE 415621N/0704249W.
HOLD S, RT, 350.23 INBOUND
LTP HAE: 16.3 M

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD

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	446	1	298	446	1	298	446	1	298		NA				
LNAV/VNAV DA	445	1	297	445	1	297	445	1	297		NA				
LNAV MDA	580	1	432	580	1	432	580	1 1/4	432		NA				
CIRCLING	620	1	472	640	1	492	740	1 1/2	592		NA				



<u>AIRPORT</u>	<u>AIRPORT ID</u>	<u>PROCEDURE NAME</u>	<u>ORIGINAL/AMENDMENT</u>	<u>CITY</u>	<u>STATE</u>
PLYMOUTH MUNI	KPYM	RNAV (GPS) RWY 24	ORIG-C	PLYMOUTH	MA

CHANGES - REASONS

1. TERMINAL ROUTES, SMITY TO RW24 AND RW24 TO 640 MSL COURSE CHANGED FROM 235.57 TO 235.61 - MATCH FINAL COURSE.
2. LINE 7, ADDED 20:1 IS CLEAR - REEVALUATED VISUAL SURFACES BASED ON NEW SURVEY DATA; RWY 24 20:1 SURFACE IS CLEAR.
3. THRE 147 CHANGED TO TDZE 148 - ORIG-A P-NOTAM.
4. LPV ALL CATS DA CHANGED FROM 445 TO 446 - CONVERSION FROM THRE TO TDZE; ORIG A P-NOTAM.
5. LNAV/VNAV ALL CATS DA CHANGED FROM 444 TO 445 - CONVERSION FROM THRE TO TDZE; ORIG-A P-NOTAM.
6. LNAV ALL CATS 433 HATH CHANGED TO 432 HAT - CONVERSION FROM THRE TO TDZE; ORIG-A P-NOTAM.
7. CIRCLING CAT B MDA/HAA CHANGED FROM 620/472 TO 640/492, CAT C MDA/HAA CHANGED FROM 640/492 TO 740/592 - APPLIED CURRENT CIRCLING RADII AND REEVALUATED OEAS.
8. BARO-VNAV COLD TEMP LIMIT CHANGED FROM -15C (5F) TO -17C (2F), HIGH TEMP LIMIT CHANGED FROM 51C (123F) TO 54C (130F) - RECALCULATED BASED ON 5-YR TEMPERATURE HISTORY.
9. NIGHT LANDING RESTRICTION CHART NOTE CHANGED TO READ CIRCLING RWY 15 NA AT NIGHT - REEVALUATED VISUAL SURFACES BASED ON NEW SURVEY DATA AND CRITERIA; RWY 6, 24, 33 20:1 SURFACES CLEAR; APPLIED CURRENT DOCUMENTATION CRITERIA FOR NOTE FORMAT.
10. REMOVED CHART NOTE: WHEN VGSI INOP, CIRCLING RWY 33 NA AT NIGHT - REEVALUATED VISUAL SURFACES BASED ON NEW SURVEY DATA AND CRITERIA; NO LONGER APPLICABLE.
11. REMOVED CHART NOTE: WHEN VGSI INOP, STRAIGHT-IN/CIRCLING RWY 24 PROCEDURE NA AT NIGHT - REEVALUATED VISUAL SURFACES BASED ON NEW SURVEY DATA AND CRITERIA; NO LONGER APPLICABLE.
12. REPLACED CHART NOTE: DME/DME RNP-0.3 NA WITH PBN REQUIREMENTS NOTE: RNP APCH - PER 8260.19H DOCUMENTATION CRITERIA.
13. HELICOPTER VISIBILITY REDUCTION NOTE CHANGED TO READ "RWY 24 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED" - CURRENT DOCUMENTATION CRITERIA; RWY 24 34:1 IS NOT CLEAR.
14. REMOVED BACK-UP ALTIMETER SETTING CHART NOTES AND ALTERNATE MINIMUMS REMARK @NA WHEN LOCAL WEATHER NOT AVAILABLE - PRIMARY ALTIMETER SOURCE TRANSMITTED ON WMSCR; PER FPT APPROVAL, BACK-UP ALTIMETER SETTING NOTES NOT REQUIRED; CONTINGENCY NOTES DOCUMENTED ON BACK OF 8260-9.
15. REMOVED CHART PROFILE NOTE: RADAR REQUIRED FOR PROCEDURE ENTRY AT LFV VORTAC - NO LONGER REQUIRED FOR RNAV PROCEDURES.
16. REMOVED CHART FAS OBST 274 TREE - NOT REQUIRED FOR LNAV/VNAV FINAL.
17. CHANGED CHART FAS OBST 327 T-L TWR TO 328 POLE - LNAV FINAL CONTROLLING OBSTACLE DATA CHANGED.
18. ADDED VDP DATA PER ORIG-B P-NOTAM; UPDATED DIST TO RW24 FROM 0.92 TO 0.96 - RECALCULATED BASED ON CURRENT VGSI DATA.
19. ADDED CHART CIRCLING ICON - APPLIED CURRENT CIRCLING CRITERIA.
20. FAS DATA LTP LAT/LONG CHANGED FROM 415448.3795N/0704334.8355W TO 415448.3805N/0704334.8325W - CURRENT AIRNAV DATA.
21. FAS DATA FPAP LONGITUDE CHANGED FROM 0704450.8200W TO 0704450.8135W - RECALCULATED.
22. FAS DATA CRC REMAINDER CHANGED FROM 59C6B91A TO DBF00EE7 - RECALCULATED.
23. LTP/FPAP ORTHO HEIGHT CHANGED FROM +00446 TO +00447 - CURRENT AIRNAV DATA.



COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZBW, BOS APP CON, APT MGR

FLIGHT CHECKED BY

DURLEY J FELDER

Digitally signed by

DEZ SILAGYI

Jun 04, 2018

OFFICE

FICO

DATE

5/30/18

DEVELOPED BY

JEFFREY ROBINSON

Digitally signed by

JEFFREY ROBINSON

Mar 18, 2018

OFFICE

AJV-5421

DATE

02/22/2018

APPROVED BY

JULIE MORGAN

Digitally signed by

DEZ SILAGYI

Jun 04, 2018

OFFICE

AJV-5420

DATE

TITLE

MANAGER



FAS DATA BLOCK INFORMATION

DATA FIELD	DATA
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KPYM
RUNWAY	RW24
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W24A
LTP/FTP LATITUDE	415448.3805N
LTP/FTP LONGITUDE	0704334.8325W
LTP/FTP ELLIPSOIDAL HEIGHT	+00163
FPAP LATITUDE	415339.6500N
FPAP LONGITUDE	0704450.8135W
THRESHOLD CROSSING HEIGHT (TCH)	00060.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.40
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1424
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0

CRC REMAINDER

DBF00EE7

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K6
LTP ORTHOMETRIC HEIGHT	+00447
FPAP ORTHOMETRIC HEIGHT	+00447



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> PLYMOUTH MUNI	<u>AIRPORT ID</u> KPYM	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 33	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>CITY</u> PLYMOUTH	<u>STATE</u> MA	
<u>AIRPORT ELEVATION</u> 148	<u>TDZE</u> 142	<u>SUPERSEDED</u>	<u>ORIGINAL/AMENDMENT</u>	<u>DATED</u>	<u>MAG VAR</u> 16W	<u>EPOCH YEAR</u> 1995
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<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>
LFV VOR/DME		GAILS		TF	FB	2.00	257.58	18.60	2600
PVD VOR/DME		MASKY		TF	FB	2.00	109.93	36.81	2600
GAILS	IAF	CALED	NOPT	TF	FB	1.00	235.83	7.40	2600
MASKY	IAF	CALED	NOPT	TF	FB	1.00	055.67	7.40	2600
PEAKE	IAF	CALED	NOPT	TF	FB	1.00	356.01	12.99	2600
CALED	IF/IAF	DORPY		TF	FB	1.00	325.74	6.54	2000
DORPY	FAF	RW33	MAP	TF	FO	0.30	325.67	5.70	
RW33	MAP	700 MSL		CA			325.67		700
700 MSL		GAILS		DF	FO	1.00			2600

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW33

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 700 THEN CLIMBING RIGHT TURN TO 2600 DIRECT GAILS AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)
2. HOLD SE CALED, RT, 325.74 INBOUND, 2600 FT. IN LIEU OF PT (IAF), MAX 6000.
3. FAC: 325.67FAF: DORPYDIST FAF TO MAP: 5.70DIST FAF TO THLD: 5.70
4. MIN ALT: CALED 2600, DORPY 2000
5. DIST TO THLD FROM OM:MM:IM:150 HAT:264 HAT: 0.70
6. MIN GP INCPT: 2000GP ALT AT FAF : DORPY 2000OM:MM:IM:
7. GP ANGLE: 3.0034:1: IS NOT CLEAR20:1: IS CLEARTCH: 51.0
8. MSA FROM: RW33 2200

PBN EQUIPMENT REQUIREMENTS NOTES

RNP APCH

NOTES:

CHART NOTE: CIRCLING RWY 15 NA AT NIGHT.
CHART NOTE: RWY 33 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -17C (2F) OR ABOVE 54C (130F).
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON PVD VOR/DME AIRWAY RADIALS 093 CW 165.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT PEAKE ON V167 SOUTHEAST BOUND AND V167 SOUTHWEST BOUND.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
CHART R-4101
CHART VDP AT 1.56 NM TO RW33*
*LNAV ONLY
WAAS CHANNEL #63241
REFERENCE PATH ID: W33A
FAS OBST: 409 AAO 415212N/0703917W.
HOLD S, RT, 350.23 INBOUND
LTP HAE: 12.1 M

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD

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	406	7/8	264	406	7/8	264	406	7/8	264		NA				
LNAV/VNAV DA	623	1 3/8	481	623	1 3/8	481	623	1 3/8	481		NA				
LNAV MDA	660	1	518	660	1	518	660	1 3/8	518		NA				
CIRCLING	660	1	512	660	1	512	740	1 1/2	592		NA				

QUALITY
23
CHECKED

<u>AIRPORT</u>	<u>AIRPORT ID</u>	<u>PROCEDURE NAME</u>	<u>ORIGINAL/AMENDMENT</u>	<u>CITY</u>	<u>STATE</u>
PLYMOUTH MUNI	KPYM	RNAV (GPS) RWY 33	ORIG	PLYMOUTH	MA

CHANGES - REASONS

ORIGINAL PROCEDURE - PER FPT COORDINATION / IFP REQUEST.



<u>AIRPORT</u> PLYMOUTH MUNI	<u>AIRPORT ID</u> KPYM	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 33	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>CITY</u> PLYMOUTH	<u>STATE</u> MA
<u>COORDINATED WITH:</u>					
A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ <u>OTHER:</u> ZBW, BOSTON APP CON, APT MGR					
<u>FLIGHT CHECKED BY</u> DURLEY J FELDER	<i>Digitally signed by</i> DEZ SILAGYI Jun 04, 2018	<u>OFFICE</u> FICO	<u>DATE</u> 5/30/18		
<u>DEVELOPED BY</u> JEFFREY ROBINSON	<i>Digitally signed by</i> JEFFREY ROBINSON Apr 04, 2018	<u>OFFICE</u> AJV-5421	<u>DATE</u> 02/12/2018		
<u>APPROVED BY</u> JULIE MORGAN	<i>Digitally signed by</i> DEZ SILAGYI Jun 04, 2018	<u>OFFICE</u> AJV-5420	<u>DATE</u>	<u>TITLE</u> MANAGER	



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KPYM
RUNWAY	RW33
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W33A
LTP/FTP LATITUDE	415416.5355N
LTP/FTP LONGITUDE	0704304.0185W
LTP/FTP ELLIPSOIDAL HEIGHT	+00121
FPAP LATITUDE	415513.3455N
FPAP LONGITUDE	0704435.9800W
THRESHOLD CROSSING HEIGHT (TCH)	00051.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1424
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	5EFFF87B
<u>ADDITIONAL PATH POINT RECORD INFORMATION</u>	
ICAO CODE	K6
LTP ORTHOMETRIC HEIGHT	+00406
FPAP ORTHOMETRIC HEIGHT	+00406



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

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 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>	<u>AIRPORT ID</u>	<u>PROCEDURE NAME</u>	<u>ORIGINAL/AMENDMENT</u>	<u>CITY</u>	<u>STATE</u>	
HATTIESBURG BOBBY L CHAIN MUNI	KHBG	RNAV (GPS) Z RWY 13	1B	HATTIESBURG	MS	
<u>AIRPORT ELEVATION</u>	<u>TDZE</u>	<u>SUPERSEDED</u>	<u>ORIGINAL/AMENDMENT</u>	<u>DATED</u>	<u>MAG VAR</u>	<u>EPOCH YEAR</u>
151	151	RNAV (GPS) Z RWY 13	1A	06/23/2016	1W	2010
<u>FACILITY</u>	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u>	<u>REQUIRED EFFECTIVE DATE</u>	<u>CANCEL SUSPEND</u>		
RNAV		19 JULY 2018	ROUTINE			

TAA

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>ALTITUDE</u>
1. 042/30 CW 222/30	NOPT	HILGA	IF/IAF	2500
2. 222/30 CW 312/30		DIYET	IAF	2500
3. 312/30 CW 042/30		CERNU	IAF	2500

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>
DIYET	IAF	HILGA	NOPT	TF	FB	1.00	221.95	10.00	2500
CERNU	IAF	HILGA	NOPT	TF	FB	1.00	041.81	10.00	2500
HILGA	IF/IAF	CUPPA		TF	FB	1.00	131.88	7.20	2000
CUPPA	FAF	NETTI/2.80 NM TO RW13		TF	FB	0.30	131.94	2.89	
NETTI/2.80 NM TO RW13		RW13	MAP	TF	FO	0.30	131.94	2.80	
RW13	MAP	600 MSL		CA			131.94		600
600 MSL		HILGA		DF	FO	1.00			2500

MISSED APPROACH

MAP:

LPV: DA
 LNAV/VNAV: DA
 LNAV: RW13

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 600 THEN CLIMBING RIGHT TURN TO 2500 DIRECT HILGA AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. HOLD NW HILGA, RT, 131.88 INBOUND, 2500 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 131.94 FAF: CUPPA DIST FAF TO MAP: 5.69 DIST FAF TO THLD: 5.69

4. MIN ALT: HILGA 2500, CUPPA 2000, NETTI/2.80 NM TO RW13 1080*, RW13

5. DIST TO THLD FROM OM: MM: IM: 150 HAT: 200 HAT: 0.50

6. MIN GP INCPT: 2000 GP ALT AT FAF : CUPPA 2000 OM: MM: IM:

7. GP ANGLE: 3.00 34:1: IS CLEAR 20:1: IS CLEAR TCH: 40.0

8. MSA FROM:

PBN EQUIPMENT REQUIREMENTS NOTES

RNP APCH

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -15C OR ABOVE 43C.
CHART PLANVIEW NOTE: UNCONTROLLED HELICOPTER AND MILITARY AIRCRAFT IN VICINITY OF HAGLER AAF AND SHELBY AUXILIARY 1 AIRFIELD.
CHART NOTE: CAT D AIRCRAFT REQUIRE ATC APPROVAL WHEN R-4401 IS ACTIVE.
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).

ADDITIONAL FLIGHT DATA:

CHART: HAGLER AAF AND SHELBY AUXILIARY 1 AIRFIELD
CHART R-4401A/B, DE SOTO 1 MOA
CHART VDP AT 1.19 NM TO RW13*
*LNAV ONLY
WAAS CHANNEL #86403
REFERENCE PATH ID: W13A
CHART FAS OBST: 319 TREE 311734N/0891808W.
CHART: 541 TOWER 312007N/0891936W.
LTP HAE: 18.5 M

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD

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	351	3/4	200	351	3/4	200	351	3/4	200	351	3/4	200			
LNAV/VNAV DA	473	1	322	473	1	322	473	1	322	473	1	322			
LNAV MDA	580	1	429	580	1	429	580	1 1/4	429	580	1 1/4	429			
CIRCLING	620	1	469	700	1	549	700	1 1/2	549	720	2	569			

QUALITY
4
CHECKED

CHANGES - REASONS

- 1. INCREASED LNAV/VNAV DA/HAT FROM 458/307 TO 473/322- NEW CONTROLLING OBSTACLE.
- 2. INCREASED CAT B/C CIRCLING MDA/HAA FROM 620/469 TO 700/549- NEW CONTROLLING OBSTACLE.
- 3. CHANGED VDP FROM 1.23 TO 1.19- VGSi TCH CHANGED FROM 40 TO 50.
- 4. CHANGED MA INSTRUCTIONS FROM CLIMBING RIGHT TURN TO 2500 DIRECT HILGA AND HOLD TO CLIMB TO 600 THEN CLIMBING RIGHT TURN DIRECT HILGA AND HOLD- TO MEET CURRENT CRITERIA IAW 8260.3C PARA 16-2-6.
- 5. REMOVED ALL REFERENCE OF HATTIESBURG-LAUREL RGNL ALTIMETER SETTING NOTES - LOCAL WEATHER TRANSMITTED ON WMSCR AND DEEMED RELIABLE.
- 6. INCORPORATED P-NOTAM 6/4767 ON TO FORMS - 8260.19H 8-3-4 C(3).

5/24/2018: THIS IS A CORRECT COPY OF THE FORMS APPROVED ON 5/22/2018:

- 1. ADDED NOPT TO TERMINAL ROUTE LEG: DIYET TO HILGA.
- 2. CORRECTED SPELLING: AUXILLARY TO AUXILIARY.



COORDINATED WITH:

A4A ☐ **ALPA** ☒ **AOPA** ☒ **APA** ☐ **HAI** ☐ **NBAA** ☒ **OTHER:** ZHU, ZME, KHBG AMGR, ATA

FLIGHT CHECKED BY

STEPHEN F KOCH

Digitally signed by

BEV L BORDY

May 22, 2018

OFFICE

FICO

DATE

5/17/18

DEVELOPED BY

LONNIE EVERHART (MICHAEL W-CTR HARRIS)

Digitally signed by

BEV L BORDY

May 22, 2018

OFFICE

AJV-5400

DATE

02/14/2018

APPROVED BY

LONNIE EVERHART

Digitally signed by

BEV L BORDY

May 22, 2018

OFFICE

AJV-5400

DATE

TITLE

MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KHBG
RUNWAY	RW13
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	Z
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W13A
LTP/FTP LATITUDE	311607.1235N
LTP/FTP LONGITUDE	0891528.2685W
LTP/FTP ELLIPSOIDAL HEIGHT	+00185
FPAP LATITUDE	311508.5500N
FPAP LONGITUDE	0891409.8000W
THRESHOLD CROSSING HEIGHT (TCH)	00040.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1200
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	35.0
CRC REMAINDER	38AEE48B

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K7
LTP ORTHOMETRIC HEIGHT	+00454
FPAP ORTHOMETRIC HEIGHT	+00454



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

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<u>AIRPORT</u> EPPLEY AIRFIELD	<u>AIRPORT ID</u> KOMA	<u>PROCEDURE NAME</u> RNAV (RNP) Z RWY 32R	<u>ORIGINAL/AMENDMENT</u> 1A	<u>CITY</u> OMAHA	<u>STATE</u> NE
<u>AIRPORT ELEVATION</u> 985	<u>TDZE</u> 981	<u>SUPERSEDED</u> RNAV (RNP) Z RWY 32R	<u>ORIGINAL/AMENDMENT</u> 1	<u>DATED</u> 05/24/2018	<u>MAG VAR</u> 2E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 2020



TERMINAL ROUTES

FROM	FIX TYPE	TO	FIX TYPE	LEG TYPE	FO/FB	RNP	COURSE	DISTANCE	ALTITUDE
MANWA	IAF	CUCGA		TF	FB	1.00	323.62	5.91	3600
CUCGA		BEEFF		TF	FB	0.50	323.60	3.91	2600
BEEFF	IF	WEWNY		TF	FB	0.50	322.45	1.36	2200
WEWNY		TWIGG		TF	FB	0.30	322.43	1.15	2000
GEEZR	IF	JUNYR		TF	FB	1.00	108.17	3.34	4000
JUNYR		POTHF		RF	FB	1.00	(2.44 NM RADIUS CCW (CFBQK))	3.45	2700
BAARK	IF	POTHF		TF	FB	1.00	027.25	5.10	2700
POTHF		YETPU		RF	FB	1.00	(2.44 NM RADIUS CCW (CFBQK))	2.13	2200
YETPU		TWIGG		RF	FB	0.30	(2.44 NM RADIUS CCW (CFBQK))	0.63	2000
HILSS	IF	LOESS		TF	FB	1.00	230.80	3.50	4000
LOESS		TPTOP		TF	FB	1.00	233.87	2.42	3200
BRIKK	IF	SAMTT		TF	FB	1.00	142.43	2.99	4000
SAMTT		TPTOP		RF	FB	1.00	(2.44 NM RADIUS CW (CFBQJ))	3.89	3200
TPTOP		OFIWO		RF	FB	1.00	(2.44 NM RADIUS CW (CFBQJ))	3.15	2200
OFIWO		TWIGG		RF	FB	0.30	(2.44 NM RADIUS CW (CFBQJ))	0.63	2000
TWIGG	FAF	RW32R	MAP	TF	FO	0.30	322.43	3.03	
RW32R	MAP	1313 MSL		CA		1.00	322.43		
1313 MSL		HIKAM		DF	FB	1.00			
HIKAM		OTSEE		TF	FO		320.08	5.05	3300

MISSED APPROACH

MAP:

RNP: DA

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3300 DIRECT HIKAM AND TRACK 320.08 TO OTSEE AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. PROFILE STARTS AT TWIGG

3. FAC: 322.43

PFAF: TWIGG

DIST PFAF TO MAP:

DIST PFAF TO THLD:

4. MIN ALT: TWIGG 2000

5. DIST TO THLD FROM OM: 3.03

MM:

IM:

150 HAT:

332 HAT: 0.87

GS ANT:

6. MIN GP INCPT: 2000

GP ALT AT PFAF : TWIGG 2000

OM:

MM:

IM:

7. GP ANGLE: 3.00

34:1: IS CLEAR

20:1: IS CLEAR

TCH: 54.9

8. MSA FROM: RW32R 4100

PBN REQUIREMENTS NOTES:

RNP AR APCH.
RF REQUIRED.

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, PROCEDURE NA BELOW -19C OR ABOVE 54C.
CHART PLANVIEW NOTE AT MANWA: (RNP 0.30).
CHART PLANVIEW NOTE ADJACENT TO GEEZR IF: RF REQUIRED.
CHART PLANVIEW NOTE AT GEEZR: (RNP 0.30).
CHART PLANVIEW NOTE ADJACENT TO BAARK IF: RF REQUIRED.
CHART PLANVIEW NOTE AT BAARK: (RNP 0.30).
CHART PLANVIEW NOTE ADJACENT TO HILSS IF: RF REQUIRED.
CHART PLANVIEW NOTE AT HILSS: (RNP 0.30).
CHART PLANVIEW NOTE ADJACENT TO BRIKK IF: RF REQUIRED.
CHART PLANVIEW NOTE AT BRIKK: (RNP 0.30).
CHART PROFILE NOTE: SEE PLANVIEW FOR MULTIPLE IF LOCATIONS.
CHART NOTE: FOR INOPERATIVE ALS, INCREASE RNP 0.30 ALL CATS VISIBILITY TO 1 3/4 SM.
CHART SPEED ICON IN PLANVIEW AT GEEZR: MAX 210 KIAS.
CHART SPEED ICON IN PLANVIEW AT POTHF: MAX 210 KIAS.
CHART SPEED ICON IN PLANVIEW AT BRIKK: MAX 210 KIAS.
CHART SPEED ICON IN PLANVIEW AT LOESS: MAX 210 KIAS.

ADDITIONAL FLIGHT DATA:

CHART MINIMUM 5000 AT BRIKK
CHART MANDATORY 4000 AT LOESS
ROUTE TYPE: A, H
ROUTE TYPE QUALIFIER 1: F
ROUTE TYPE QUALIFIER 2: S
CHART MAXIMUM 5000 AT HILSS
CHART MANDATORY 5000 AT GEEZR
CHART MANDATORY 4000 AT BAARK
CHART MANDATORY 5000 AT MANWA
CHART FAS OBST: 1084 TREE 411715N/0955214W, 1124 TOWER 411710N/0955153W,
1276 TREE 411636N/0955106W.
HOLD NW, RT, 142.30 INBOUND

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD



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
AUTHORIZATION REQUIRED															
RNP 0.11 DA	1313	2600	332	1313	2600	332	1313	2600	332	1313	2600	332			
RNP 0.15 DA	1407	4000	426	1407	4000	426	1407	4000	426	1407	4000	426			
RNP 0.30 DA	1607	1 3/8	626	1607	1 3/8	626	1607	1 3/8	626	1607	1 3/8	626			

CHANGES - REASONS

1. UPDATED MISSED APPROACH INSTRUCTIONS FROM TRACK TO HIKAM TO DIRECT HIKAM - CORRECTION FROM PREVIOUS AMENDMENT.
2. CORRECTED CHART NOTE TO READ: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, PROCEDURE NA BELOW -19C OR ABOVE 54C - FAHRENHEIT VALUES NO LONGER REQUIRED.
3. INCREASE RNP 0.11 DA/HAT FROM 1312/331 TO 1313/332 - CURRENT EVALUATION UTILIZATING EFFECTIVE GPA.



COORDINATED WITH:

A4A ☐ **ALPA** ☒ **AOPA** ☒ **APA** ☒ **HAI** ☐ **NBAA** ☒ **OTHER:** ZMP, OMA APP CON, OMA ATCT, AMGR, ATA

FLIGHT CHECKED BY

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-333) MEMO, DEC 22, 2017.

DEVELOPED BY

ERIC C. GREEN

Digitally signed by
ERIC C GREEN
May 21, 2018

APPROVED BY

PATRICK MULQUEEN

Digitally signed by
ADOLFO D URRUTIA
Jun 06, 2018

OFFICE

Digitally signed by

DATE

ADOLFO D URRUTIA

Jun 06, 2018

OFFICE

AJV-5432

DATE

05/21/2018

OFFICE

AJV-5430

DATE

TITLE

MANAGER



FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
ILS STANDARD INSTRUMENT APPROACH PROCEDURE
TITLE 14 CFR PART 97.29

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<u>AIRPORT</u> MANCHESTER	<u>AIRPORT ID</u> KMHT	<u>PROCEDURE NAME</u> ILS OR LOC RWY 6	<u>ORIGINAL/AMENDMENT</u> 3	<u>CITY</u> MANCHESTER	<u>STATE</u> NH	
<u>AIRPORT ELEVATION</u> 266	<u>TDZE</u> 224	<u>SUPERSEDED</u> ILS OR LOC RWY 6	<u>ORIGINAL/AMENDMENT</u> 2B	<u>DATED</u> 08/17/2017	<u>MAG VAR</u> 15W	<u>EPOCH YEAR</u> 2020
<u>FACILITY</u> I-MJE	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<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>
GDM VOR/DME	IAF	JAAZZ INT/GDM 25.45 DME		CF	FB		066.28	25.45	3100
TEETO	IAF	JAAZZ		TF	FB	1.00	111.22	4.67	3100
JAAZZ INT/GDM 25.45 DME	IF	FITZY LOM/INT		CF	FB		057.42	4.83 (I-MJE)	2100

MISSED APPROACH

MAP:

ILS: DA
LOC: 5.29 NM AFTER FITZY LOM/INT

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3000 ON HEADING 057.42 AND CON VOR/DME R-154 TO KHRIS INT/CON 21.30 DME AND HOLD, CONTINUE CLIMB-IN-HOLD TO 3000.

ALTERNATE MISSED APPROACH INSTRUCTIONS (DO NOT CHART):

CLIMB TO 900 THEN CLIMBING RIGHT TURN TO 3000 DIRECT MHT VOR/DME AND HOLD, CONTINUE CLIMB-IN-HOLD TO 3000.

PROFILE:

- PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)
- PROFILE STARTS AT JAAZZ/GDM 25.45 DME
- FAC:** 057.42 **PFAF:** FITZY LOM/INT **DIST PFAF TO MAP:** 5.29 **DIST PFAF TO THLD:** 5.29
- MIN ALT:** JAAZZ INT/GDM 25.45 DME 3100, FITZY LOM/INT 2100
- 5. DIST TO THLD FROM OM:** 5.29 **MM:** **IM:** **150 HAT:** **HAT:** **GS ANT:** 943
- 6. MIN GS INCPT:** 2100 **GS ALT AT PFAF :** **OM:** 2002 **MM:** **IM:**
- 7. GP ANGLE:** 3.00 **34:1:** **20:1:** **TCH:** 50.1
- 8. MSA FROM:** MJ LOM 026-206 2800, 206-026 4400

EQUIPMENT REQUIREMENTS NOTES

PBN REQUIREMENTS NOTE: FROM TEETO: RNAV 1-DME/DME/IRU OR GPS REQUIRED FOR PROCEDURE ENTRY.



NOTES:

CHART SPEED ICON IN PLANVIEW AT TEETO: MAX 210 KIAS.

ADDITIONAL FLIGHT DATA:

CHART MANDATORY 5000 AT TEETO.
CHART CIRCLING ICON.
CHART IN PLANVIEW: MHT VOR/DME
FAS OBST: 579 AAO 425239N/0713029W.
679 AAO 425149N/0713310W.
CHART IN PLANVIEW: ALTERNATE MA HOLDING, HOLD NE MHT VOR/DME, RT, 246.00 INBOUND.
HOLD NW, RT, 154.25 INBOUND

MINIMUMS:

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

ALTERNATE: NA ☐ ILS: STANDARD; LOC: 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
S-ILS 06	474	4000	250	474	4000	250	474	4000	250	474	4000	250			
S-LOC 06	840	5500	616	840	5500	616	840	1 3/4	616	840	1 3/4	616			
CIRCLING	880	1	614	880	1	614	980	2	714	1100	2 3/4	834			

CHANGES - REASONS

1. DELETED ALL REFERENCES TO NASHUA BACK-UP ALTIMETER SETTING - WHEN AMDT 2 WAS BEING PROCESSED IN 2015, THERE WAS A POSSIBILITY THAT MHT CONTROL TOWER WOULD OPERATE LESS THAN 24 HOURS. EASTERN FPT ADVISES THAT REDUCED HOURS ARE NO LONGER BEING CONSIDERED. TOWER HAS REDUNDANT WEATHER SOURCES SO A BACK-UP ALTIMETER SOURCE IS NOT REQUIRED.
2. DELETED GPS REQUIRED NOTE AT TEETO - REPLACED BY PBN REQUIREMENT NOTE.
3. ADDED PBN REQUIREMENTS NOTE: FROM TEETO: RNAV 1-DME/DME/IRU OR GPS REQUIRED FOR PROCEDURE ENTRY - FORMATTED IN ACCORDANCE WITH FAAO 8260.19H, PARA 8-6-8. DME/DME/IRU ADDED PER EASTERN FPT REQUEST (RNAV PRO RUNS ATTACHED TO PROJECT).
4. DELETED ALTERNATE MINIMUMS RESTRICTIONS NA WHEN CONTROL TOWER CLOSED AND NA WHEN LOCAL WEATHER NOT AVAILABLE - NOT NEEDED, MHT OPERATES 24 HOURS AND IS EQUIPPED WITH REDUNDANT WEATHER SOURCES.
5. AMENDED S-ILS 6 ALTERNATE MINIMUMS FROM CAT A/B 700-2, CAT C 800-2, CAT D 900-2 3/4 TO ALL CATS STANDARD - COMPUTED IN ACCORDANCE WITH FAAO 8260.3, PARA 3-4-1A(2).
6. DELETED NOTE HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED - 34:1 VISUAL SURFACE CLEAR OF PENETRATIONS..
7. ADDED 679 AAO 425149N/0713310W IN ADDITIONAL FLIGHT DATA - 7:1 OBSTACLE IDENTIFIED DURING NEW OBSTACLE STUDY.
8. AMENDED GLIDESLOPE ALTITUDE AT OM FROM 1978 TO 2002 - MATCH I-MHT AIRNAV DATASHEET VALUE.
9. AMENDED GLIDESLOPE INTERCEPT ALTITUDE FROM 2000 TO 2100 - INCREASED TO ENSURE GLIDESLOPE ALTITUDE IS ABOVE UPDATED CHECK ALTITUDE AT OM.



COORDINATED WITH:

A4A ☒ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: ZBW, BOS APP CON, MHT ATCT, AMGR

FLIGHT CHECKED BY

DURLEY J FELDER

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Jun 11, 2018

OFFICE

FICO

DATE

6/8/18

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03/06/2018

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TITLE



FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
ILS STANDARD INSTRUMENT APPROACH PROCEDURE

TITLE 14 CFR PART 97.29

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> MANCHESTER	<u>AIRPORT ID</u> KMHT	<u>PROCEDURE NAME</u> ILS OR LOC RWY 17	<u>ORIGINAL/AMENDMENT</u> 3	<u>CITY</u> MANCHESTER	<u>STATE</u> NH	
<u>AIRPORT ELEVATION</u> 266	<u>TDZE</u> 229	<u>SUPERSEDED</u> ILS OR LOC/DME RWY 17	<u>ORIGINAL/AMENDMENT</u> 2C	<u>DATED</u> 08/17/2017	<u>MAG VAR</u> 15W	<u>EPOCH YEAR</u> 2020
<u>FACILITY</u> I-MNA	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<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>
PURBL	IAF	LYLAC		TF	FB	1.00	022.58	6.08	3000
LYLAC		BLSSM		TF	FB	1.00	090.13	4.22	3000
BLSSM		BLUUM		TF	FB	1.00	138.37	3.27	2500
CON VOR/DME	IAF	BLUUM/I-MNA 6.89 DME					177.80	10.61	2500
BLUUM/I-MNA 6.89 DME	IF	ORDIE/I-MNA 3.75 DME					171.52	3.14 (I-MNA)	1600

MISSED APPROACH

MAP:

ILS: DA
LOC: I-MHT 0.31 DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 800 THEN CLIMBING LEFT TURN TO 2000 DIRECT MHT VOR/DME AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS (DO NOT CHART):

CLIMB TO 900 THEN CLIMBING LEFT TURN TO 4000 DIRECT CON VOR/DME AND HOLD.

PROFILE:

- PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)
- PROFILE STARTS AT BLUUM/I-MNA 6.89 DME
- FAC:** 171.52 **FAF:** ORDIE/I-MNA 3.75 DME **DIST FAF TO MAP:** **DIST FAF TO THLD:** 4.05
- MIN ALT:** BLUUM/I-MNA 6.89 DME 2500, ORDIE/I-MNA 3.75 DME 1600, SITLE/I-MNA 1.30 DME 800*
- DIST TO THLD FROM OM:** **MM:** **IM:** **150 HAT:** **HAT:** **GS ANT:** 825
- MIN GS INCPT:** 1600 **GS ALT AT PFAF** ORDIE/I-MNA 3.75 DME 1600 **OM:** **MM:** **IM:**
- GP ANGLE:** 3.10 **34:1:** **20:1:** **TCH:** 49.1
- MSA FROM:** MHT VOR/DME 046-136 2600, 136-226 2000, 226-046 3500



EQUIPMENT REQUIREMENTS NOTES

DME REQUIRED.
PBN REQUIREMENTS NOTE: FROM PURBL: RNAV 1-DME/DME/IRU OR GPS REQUIRED.

NOTES:

CHART PROFILE NOTE: VGSI AND ILS GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
*LOC ONLY
CHART SPEED ICON IN PLANVIEW AT PURBL: MAX 210 KIAS.

ADDITIONAL FLIGHT DATA:

CHART IN PROFILE: I-MNA DME ANTENNA.
CHART MANDATORY 5000 AT PURBL.
CHART CIRCLING ICON.
CHART IN PLANVIEW: CON VOR/DME
CHART FAS OBST: 397 TREE 425722N/0712710W.
CHART IN PLANVIEW: ALTERNATE MA HOLDING, HOLD NW CON VOR/DME, RT, 149.75 INBOUND.
HOLD SE, LT, 337.00 INBOUND

MINIMUMS:

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

ALTERNATE: NA ☐ ILS: STANDARD; LOC: 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
S-ILS 17	429	1800	200	429	1800	200	429	1800	200	429	1800	200			
S-LOC 17	660	2400	431	660	2400	431	660	4000	431	660	4000	431			
CIRCLING	880	1	614	880	1	614	980	2	714	1100	2 3/4	834			

CHANGES - REASONS

1. AMENDED PROCEDURE NAME FROM ILS OR LOC/DME RWY 17 TO ILS OR LOC RWY 17 - FORMATTED IN ACCORDANCE WITH FAAO 8260.3C, PARA 1-6-2.
2. DELETED ALL REFERENCES TO NASHUA BACK-UP ALTIMETER SETTING - WHEN AMDT 2 WAS BEING PROCESSED IN 2015, THERE WAS A POSSIBILITY THAT MHT CONTROL TOWER WOULD OPERATE LESS THAN 24 HOURS. EASTERN FPT ADVISES THAT REDUCED HOURS ARE NO LONGER BEING CONSIDERED. TOWER HAS REDUNDANT WEATHER SOURCES SO A BACK-UP ALTIMETER SOURCE IS NOT REQUIRED.
3. DELETED GPS REQUIRED NOTE AT PURBL - REPLACED BY PBN REQUIREMENT NOTE.
4. DELETED PLANVIEW NOTE DME OR RADAR REQUIRED - REPLACED BY EQUIPMENT AND PBN REQUIREMENT NOTES.
5. ADDED PBN REQUIREMENTS NOTE: FROM PURBL: RNAV 1-DME/DME/IRU OR GPS REQUIRED FOR PROCEDURE ENTRY - FORMATTED IN ACCORDANCE WITH FAAO 8260.19H, PARA 8-6-8. DME/DME/IRU ADDED PER EASTERN FPT REQUEST (RNAV PRO RUNS ATTACHED TO PROJECT).
6. ADDED EQUIPMENT REQUIREMENT NOTE: DME REQUIRED - FORMATTED IN ACCORDANCE WITH FAAO 8260.19H, PARA 8-6-8. DME REQUIRED TO RECEIVE INTERMEDIATE FIX.
7. DELETED NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT.
8. ADDED NOTE: VGSI AND ILS GLIDESLOPE NOT COINCIDENT (VGSI {ANGLE}/TCH{FEET}) - FORMATTED IN ACCORDANCE WITH FAAO 8260.19H, PARA 8-6-9(M)1.
9. AMENDED S-LOC 17 CATS C/D VISIBILITY FROM RVR 4500 TO RVR 4000 - COMPUTED IN ACCORDANCE WITH FAAO 8260.3C, TABLE 3-3-1.
10. DELETED ALTERNATE MINIMUMS RESTRICTIONS NA WHEN CONTROL TOWER CLOSED AND NA WHEN LOCAL WEATHER NOT AVAILABLE - NOT NEEDED, MHT OPERATES 24 HOURS AND IS EQUIPPED WITH REDUNDANT WEATHER SOURCES.
11. AMENDED S-ILS 17 ALTERNATE MINIMUMS FROM CAT A/B 700-2, CAT C 800-2, CAT D 900-2 3/4 TO ALL CATS STANDARD - COMPUTED IN ACCORDANCE WITH FAAO 8260.3, PARA 3-4-1A(2).



COORDINATED WITH:

A4A ☒ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: ZBW, BOS APP CON, MHT ATCT, AMGR, ATA

FLIGHT CHECKED BY

DURLEY J FELDER

Digitally signed by
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Jun 11, 2018

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03/06/2018

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Jun 11, 2018

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DATE

TITLE

MANAGER



FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
ILS STANDARD INSTRUMENT APPROACH PROCEDURE
TITLE 14 CFR PART 97.29

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> MANCHESTER	<u>AIRPORT ID</u> KMHT	<u>PROCEDURE NAME</u> ILS OR LOC RWY 35 ILS RWY 35 SA CAT I, ILS RWY 35 CAT II, ILS RWY 35 CAT III	<u>ORIGINAL/AMENDMENT</u> 3	<u>CITY</u> MANCHESTER	<u>STATE</u> NH	
<u>AIRPORT ELEVATION</u> 266	<u>TDZE</u> 265	<u>SUPERSEDED</u> ILS OR LOC RWY 35	<u>ORIGINAL/AMENDMENT</u> 2C	<u>DATED</u> 10/12/2017	<u>MAG VAR</u> 15W	<u>EPOCH YEAR</u> 2020
<u>FACILITY</u> I-MHT	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<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>
LWM VOR/DME	IAF	PELAN INT/I-MHT 12.42 DME					290.08	10.43	2500
PELAN INT/I-MHT 12.42 DME		YOULL INT/I-MHT 8.66 DME					351.53	3.76 (I-MHT)	2500
SHOWZ	IAF	IHOBB					152.98	6.24	3000
IHOBB		ELEEE					086.67	5.27	3000
ELEEE		YOULL					022.17	3.47	2500
YOULL INT/I-MHT 8.66 DME	IF	MNTIN INT/I-MHT 5.64 DME					351.53	3.01 (I-MHT)	1600

MISSED APPROACH

MAP:

ILS: DA
 LOC: 4.02 NM AFTER MNTIN INT/I-MHT 5.64 DME OR AT I-MHT 1.63 DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3500 ON HEADING 351.53 AND MHT VOR/DME R-340 TO SCOOP INT/MHT 12.00 DME AND HOLD, CONTINUE CLIMB-IN-HOLD TO 3500.

ALTERNATE MISSED APPROACH INSTRUCTIONS (DO NOT CHART):

CLIMB TO 3500 ON HEADING 351.53 AND ON CON VOR/DME R-175 TO FERNS INT/CON 12.00 DME AND HOLD, CONTINUE CLIMB-IN-HOLD TO 3500.



AIRPORT
MANCHESTER

AIRPORT ID
KMHT

PROCEDURE NAME
ILS OR LOC RWY 35
ILS RWY 35 SA CAT I,
ILS RWY 35 CAT II,
ILS RWY 35 CAT III

ORIGINAL/AMENDMENT
3

CITY
MANCHESTER

STATE
NH

PROFILE:

1. **PT** **SIDE OF COURSE** **OUTBOUND** **FT WITHIN** **MILES OF (IAF)**

2. PROFILE STARTS AT YOULL INT/I-MHT 8.66 DME

3. **FAC:** 351.53 **FAF:** MNTIN INT/I-MHT 5.64 DME **DIST FAF TO MAP:** 4.02 **DIST FAF TO THLD:** 4.02

4. **MIN ALT:** YOULL INT/I-MHT 8.66 DME 2500, MNTIN INT/I-MHT 5.64 DME 1600, XOHWI/I-MHT 3.53 DME 880

5. **DIST TO THLD FROM OM:** **MM:** **IM:** 861 **150 HAT:** 1815 **100 HAT:** 861 **GS ANT:** 1222

6. **MIN GS INCPT:** 1600 **GS ALT AT PFAF** MNTIN INT/I-MHT 5.64 DME 1600 **OM:** **MM:** **IM:** 410

7. **GP ANGLE:** 3.00 **34:1:** **20:1:** **TCH:** 54.9

8. **MSA FROM:** MHT VOR/DME 046-136 2600, 136-226 2000, 226-046 3500

EQUIPMENT REQUIREMENTS NOTES

PBN REQUIREMENTS NOTE: FROM SHOWZ: RNAV 1-DME/DME/IRU OR GPS REQUIRED FOR PROCEDURE ENTRY.

NOTES:

SA CAT I ILS - SPECIAL AIRCREW AND AIRCRAFT CERTIFICATION REQUIRED; S-ILS 35: CAT A, B, C, D, RA 138, RVR 1400, HAT 150, DA 415 MSL.
CAT II ILS - SPECIAL AIRCREW AND AIRCRAFT CERTIFICATION REQUIRED; S-ILS 35: CAT A, B, C, D, RA 101, RVR 1200, HAT 100, DA 365 MSL.
CAT III ILS - SPECIAL AIRCREW AND AIRCRAFT CERTIFICATION REQUIRED; S-ILS 35: CAT A, B, C, D, RVR 700,
SA CAT I CHART NOTE: REQUIRES SPECIFIC OPSPEC, MSPEC, OR LOA APPROVAL AND USE OF HUD TO DH.
CHART PROFILE NOTE: VGSI AND ILS GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
*LOC ONLY
CHART NOTE: FOR INOPERATIVE ALS, INCREASE S-LOC 35 CATS A/B VISIBILITY TO RVR 5500 AND CATS C/D VISIBILITY TO 1 3/4 SM.
CHART NOTE: FOR INOPERATIVE ALS, INCREASE XOWHI FIX MINIMUMS S-LOC 35 CATS A/B VISIBILITY TO RVR 5500.
CHART NOTE: RWY 35 HELICOPTER VISIBILITY REDUCTION BELOW RVR 4000 NOT AUTHORIZED.
CHART PROFILE NOTE: USE I-MHT LOCALIZER DME WHEN ON LOC COURSE.
CHART SPEED ICON IN PLANVIEW AT LWM: MAX 210 KIAS.
CHART SPEED ICON IN PLANVIEW AT SHOWZ: MAX 210 KIAS.

ADDITIONAL FLIGHT DATA:

CHART MANDATORY 5000 AT SHOWZ.
CHART CIRCLING ICON.
CHART IN PLANVIEW: FERNS INT/CON 12.00 DME
CHART VDP AT 2.84 DME*
DISTANCE VDP TO THLD 1.12 NM
* LOC ONLY
CHART FAS OBST: 463 TREE 425410N/0712447W.
CHART IN PLANVIEW: ALTERNATE MA HOLDING, HOLD N FERNS INT/CON 12.00 DME, LT, 175.30 INBOUND.
HOLD N, LT, 160.00 INBOUND

MINIMUMS:

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

ALTERNATE: NA ☐ ILS: STANDARD; LOC: 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
S-ILS 35	465	1800	200	465	1800	200	465	1800	200	465	1800	200			
S-LOC 35	880	4000	615	880	4000	615	880	1 3/8	615	880	1 3/8	615			
CIRCLING	880	1	614	880	1	614	980	2	714	1100	2 3/4	834			
XOWHI FIX MINIMUMS (DME REQUIRED)															
S-LOC 35	720	4000	455	720	4000	455	720	4500	455	720	4500	455			
CIRCLING	880	1	614	880	1	614	980	2	714	1100	2 3/4	834			

CHANGES - REASONS

1. DELETED ALL REFERENCES TO NASHUA BACK-UP ALTIMETER SETTING - WHEN AMDT 2 WAS BEING PROCESSED IN 2015, THERE WAS A POSSIBILITY THAT MHT CONTROL TOWER WOULD OPERATE LESS THAN 24 HOURS. EASTERN FPT ADVISES THAT REDUCED HOURS ARE NO LONGER BEING CONSIDERED. TOWER HAS REDUNDANT WEATHER SOURCES SO A BACK-UP ALTIMETER SOURCE IS NOT REQUIRED.
2. DELETED SA CAT II AND CAT III NOTE: PROCEDURE NA WHEN CONTROL TOWER CLOSED - NO LONGER NEEDED.
3. DELETED PLANVIEW NOTE RADAR REQUIRED FOR PROCEDURE ENTRY AT LWM VOR/DME - NO LONGER REQUIRED.
4. DELETED GPS REQUIRED NOTE AT SHOWZ - REPLACED BY PBN REQUIREMENT NOTE.
5. ADDED PBN REQUIREMENTS NOTE: FROM SHOWZ: RNAV 1-DME/DME/IRU OR GPS REQUIRED FOR PROCEDURE ENTRY - FORMATTED IN ACCORDANCE WITH FAAO 8260.19H, PARA 8-6-8. DME/DME IRU ADDED PER EASTERN FPT REQUEST (RNAV PRO RUNS ATTACHED TO PROJECT).
6. DELETED NOTE: FOR INOPERATIVE ALS, INCREASE S-LOC 35 AND XOWHI FIX MINIMUMS S-LOC 35 CAT A/B VISIBILITY TO RVR 5500 - REPLACED BY UPDATED NOTE.
7. ADDED NOTE: FOR INOPERATIVE ALS, INCREASE S-LOC 35 CATS A/B VISIBILITY TO RVR 5500 AND CATS C/D VISIBILITY TO 1 3/4 SM - RECOMPUTED IN ACCORDANCE WITH NEW INOPERATIVE TABLE.
8. ADDED NOTE: FOR INOPERATIVE ALS, INCREASE XOWHI FIX MINIMUMS S-LOC 35 CATS A/B VISIBILITY TO RVR 5500 - RECOMPUTED IN ACCORDANCE WITH NEW INOPERATIVE TABLE.
9. DELETED NOTE: RWY 35 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED - REPLACED BY UPDATED NOTE.
10. ADDED NOTE: RWY 35 HELICOPTER VISIBILITY REDUCTION BELOW RVR 4000 NOT AUTHORIZED - FORMATTED IN ACCORDANCE WITH FAAO 8260.19H, PARA 8-6-11K(3).
11. DELETED ALTERNATE MINIMUMS RESTRICTIONS NA WHEN CONTROL TOWER CLOSED AND NA WHEN LOCAL WEATHER NOT AVAILABLE - NOT NEEDED, MHT OPERATES 24 HOURS AND IS EQUIPPED WITH REDUNDANT WEATHER SOURCES.
12. AMENDED S-ILS 35 ALTERNATE MINIMUMS FROM CAT A/B 700-2, CAT C 800-2, CAT D 900-2 3/4 TO ALL CATS STANDARD - COMPUTED IN ACCORDANCE WITH FAAO 8260.3, PARA 3-4-1A(2).
13. DELETED ALL REFERENCES TO THE MIDDLE MARKER - FACILITY WAS DECOMMISSIONED IN 2005 (SEE NFDD 053-6).

AIRPORT
MANCHESTER

AIRPORT ID
KMHT

PROCEDURE NAME
ILS OR LOC RWY 35
ILS RWY 35 SA CAT I,
ILS RWY 35 CAT II,
ILS RWY 35 CAT III

ORIGINAL/AMENDMENT
3

CITY
MANCHESTER

STATE
NH

COORDINATED WITH:

A4A ☒ **ALPA** ☒ **AOPA** ☒ **APA** ☐ **HAI** ☐ **NBAA** ☒ **OTHER:** ZBW, BOS APP CON, MHT ATCT, AMGR

FLIGHT CHECKED BY

DURLEY J FELDER

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ROBERT G HAMILTON

Jun 11, 2018

OFFICE

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DATE

03/05/2018

APPROVED BY

JULIE MORGAN

Digitally signed by

ROBERT G HAMILTON

Jun 11, 2018

OFFICE

AJV-5420

DATE

TITLE

MANAGER

QUALITY
18
CHECKED

**FLIGHT STANDARDS SERVICE
LOC STANDARD INSTRUMENT APPROACH PROCEDURE**

TITLE 14 CFR PART 97.25

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.

If an instrument approach procedure of the above type is conducted at the below named airport, it shall be conducted in accordance with a charted instrument approach procedure predicted on the specifications contained herein, unless an approach is conducted in accordance with a different procedure for such airport authorized by the Administrator. Minimum altitudes shall correspond with those established for enroute operations in the particular area or as set forth below.

<u>AIRPORT</u> CATTARAUGUS COUNTY-OLEAN	<u>AIRPORT ID</u> KOLE	<u>PROCEDURE NAME</u> LOC RWY 22	<u>ORIGINAL/AMENDMENT</u> 7	<u>CITY</u> OLEAN	<u>STATE</u> NY	
<u>AIRPORT ELEVATION</u> 2135	<u>TDZE</u> 2132	<u>SUPERSEDED</u> LOC RWY 22	<u>ORIGINAL/AMENDMENT</u> 6	<u>DATED</u> 06/05/2008	<u>MAG VAR</u> 11W	<u>EPOCH YEAR</u> 2000
<u>FACILITY</u> I-OLE	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>		

TAA

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>ALTITUDE</u>
1. 133/30 CW 313/30	NOPT	133/11 CW 313/11		4900
2. 133/11 CW 313/11		UGASE	IF/IAF	4500
3. 313/30 CW 133/30	PT	313/11 CW 133/11		4900
4. 313/11 CW 133/11		UGASE	IF/IAF	4500

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>
UGASE	IF/IAF	EANEY OM		TF	FB	1.00	223.30	6.57	3700

MISSED APPROACH

MAP:

LOC: 4.71 NM AFTER EANEY OM

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 4900 DIRECT VAKTY AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)
2. HOLD NE UGASE, RT, 223.30 INBOUND, 4500 FT. IN LIEU OF PT (IF/IAF), MAX 6000.
3. FAC: 223.20 FAF: EANEY OM DIST FAF TO MAP: 4.71 DIST FAF TO THLD: 4.71
4. MIN ALT: UGASE 4500, EANEY OM 3700
8. MSA FROM:

EQUIPMENT REQUIREMENTS NOTES:



RNAV 1- GPS REQUIRED.

NOTES:

CHART NOTE: WHEN VGSI INOP, STRAIGHT-IN/CIRCLING RWY 22 PROCEDURE NA AT NIGHT.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
EANEY OM TO RW22: 3.09/40.
FAS OBST: 2320 AAO 421742N/0781960W.
HOLD SW, RT, 043.10 INBOUND

MINIMUMS:

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

ALTERNATE: NA ☒

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
S-LOC 22	2580	1	448	2580	1	448	2580	1 3/8	448	2580	1 3/8	448			
CIRCLING	2620	1	485	2620	1	485	2680	1 1/2	545	2720	2	585			

CHANGES - REASONS

1. REMOVED ELZ VORTAC FEEDER - NAVAID AZIMUTH TO BE DECOMMISSIONED.
2. PT REMOVED AND REPLACED WITH TAA - ATC REQUEST DUE TO LACK OF SUITABLE NAVAIDS IN THE AREA.
3. CHANGED MISSED APPROACH FROM CLIMB TO 3000 THEN CLIMBING LEFT TURN TO 4500 DIRECT ELZ VORTAC AND HOLD TO CLIMB TO 4900 DIRECT VAKTY AND HOLD - NAVAID TO BE DECOMMISSIONED.
4. ADDED PBN REQUIREMENTS NOTE: RNAV 1-GPS REQUIRED - RNAV IS REQUIRED FOR PROCEDURE ENTRY AND MISSED APPROACH.
5. MISSED HOLDING CHANGED FROM "...106 INBOUND" TO "...043.10 INBOUND" - NEW MISSED APPROACH.
6. ADDED CIRCLING ICON AND CHANGED CHANGED CIRCLING CAT C MDA/HAA FROM 2620/485 TO 2680/545, AND CAT D MDA/HAA FROM 2700/565 TO 2720/585 - APPLICATION OF NEW CIRCLING CRITERIA.
7. CHANGED FAS OBST FROM 2259 TREE TO 2320 AAO - NEW CONTROLLING OBSTACLE WITH THE APPLICATION OF AAO/MAP STUDY.
8. S-22 MDA/HAT CHANGED FROM 2520/388 TO 2580/448 ALL CATS, CAT C VISIBILITY CHANGED FROM 1 TO 1 3/8 AND CAT D FROM 1 1/4 TO 1 3/8 - AAO ADDED TO FINAL AND NEW VISIBILITY TABLE APPLIED.
9. REMOVED ALL HELICOPTER VISIBILITY AND VGSI INOP NOTE - VISUAL SURFACES ARE CLEAR.
10. REMOVED BACK-UP ALTIMETER SETTING NOTE - LOCAL WEATHER TRANSMITTED ON WMSCR AND DEEMED RELIABLE.

05/24/2018: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 03/05/2018.
1. PER FLIGHT CHECK, RETAINED NOTE "WHEN VGSI INOP, STRAIGHT-IN/CIRCLING RWY 22 PROCEDURE NA AT NIGHT".

COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ARPT MGR, ZOB, ATA

FLIGHT CHECKED BY	Digitally signed by	OFFICE	DATE	
ROBERT STEPHEN PRESSLER	JULIE A MORGAN	FICO	05/15/2018	
	May 30, 2018			
DEVELOPED BY	Digitally signed by	OFFICE	DATE	
JOHN THORNTON	JOHN R THORNTON	AJV-5423	03/05/2018	
	May 24, 2018			
APPROVED BY	Digitally signed by	OFFICE	DATE	TITLE
JULIE MORGAN	JULIE A MORGAN	AJV-5420		MANAGER
	May 30, 2018			



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> CATTARAUGUS COUNTY-OLEAN	<u>AIRPORT ID</u> KOLE	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 4	<u>ORIGINAL/AMENDMENT</u> 2	<u>CITY</u> OLEAN	<u>STATE</u> NY
<u>AIRPORT ELEVATION</u> 2135	<u>TDZE</u> 2132	<u>SUPERSEDED</u> RNAV (GPS) RWY 4	<u>ORIGINAL/AMENDMENT</u> 1	<u>DATED</u> 08/30/2006	<u>MAG VAR</u> 11W
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 2000

TAA

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>ALTITUDE</u>
1. 313/30 CW 133/30	NOPT	VAKTY	IF/IAF	4900
2. 133/30 CW 313/30	PT	VAKTY	IF/IAF	4900

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>
VAKTY	IF/IAF	WOCDO	PFAF	TF	FB	1.00	043.10	8.00	3300
WOCDO	PFAF	RW04	MAP	TF	FO	0.30	043.17	3.54	
RW04	MAP	2382 MSL		CA			043.17		
2382 MSL		UGASE		DF	FO	1.00			4500

MISSED APPROACH

MAP:

LPV: DA
 LNAV/VNAV: DA
 LNAV: RW04

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 4500 DIRECT UGASE AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)

2. HOLD SW VAKTY, RT, 043.10 INBOUND, 4900 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 043.17 PFAF: WOCDO DIST PFAF TO MAP: 3.54 DIST PFAF TO THLD: 3.54

4. MIN ALT: VAKTY 4900, WOCDO 3300

5. DIST TO THLD FROM OM: MM: IM: 150 HAT: 250 HAT: 0.66 GS ANT: MM: IM:

6. MIN GP INCPT: 3300 GP ALT AT PFAF : WOCDO 3300 OM: MM: IM:

7. GP ANGLE: 3.00 34:1: IS NOT CLEAR 20:1: IS CLEAR TCH: 40.0

8. MSA FROM:

PBN REQUIREMENTS NOTES:

RNP APCH.

NOTES:

CHART NOTE: RWY 4 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART NOTE: WHEN VGSI INOP, CIRCLING RWY 22 NA AT NIGHT.
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -19C OR ABOVE 54C.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
CHART VDP AT 1.22 NM TO RW04*
*LNAV ONLY
WAAS CHANNEL #53401
REFERENCE PATH ID: W04A
CHART FAS OBST: 2270 TREE 421351N/0782151W.
HOLD NE, RT, 223.30 INBOUND
LTP HAE: 617.3 M

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD

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	2382	3/4	250	2382	3/4	250	2382	3/4	250	2382	3/4	250			
LNAV/VNAV DA	2549	1 1/8	417	2549	1 1/8	417	2549	1 1/8	417	2549	1 1/8	417			
LNAV MDA	2560	1	428	2560	1	428	2560	1 1/4	428	2560	1 1/4	428			
CIRCLING	2620	1	485	2620	1	485	2680	1 1/2	545	2720	2	585			



AIRPORT	AIRPORT ID	PROCEDURE NAME	ORIGINAL/AMENDMENT	CITY	STATE
CATTARAUGUS COUNTY-OLEAN	KOLE	RNAV (GPS) RWY 4	2	OLEAN	NY

CHANGES - REASONS

1. REMOVED ALL REFERENCE OF ELZ VORTAC FEEDER AND WUDMO AND VAIRS INITIALS, AND MSA - TAA ADDED TO PROCEDURE.
2. CHANGED VAKTY TO WOCDO COURSE/DISTANCE FROM 043.12/6.02 TO 043.10/8.00 - VAKTY MOVED 2.1 NM NE AND WOCDO MOVED TO NEW PFAF LOCATION.
3. CHANGED MISSED APPROACH HOLDING INBOUND FROM 223.28 TO 223.30 AND ALTITUDE FROM 4000 TO 4500 - UGASE MOVED 2.1 NM AND HOLDING TO MATCH OPPOSITE TAA.
4. REMOVED PROFILE STARTS AT VAKTY AND ADDED H-I-L - TAA ADDED TO PROCEDURE.
5. CHANGED MIN ALTITUDE AT VAKTY FROM 4000 TO 4900 - TO MATCH H-I-L.
6. CHANGED FAF TO MAP/THLD FROM 3.51/3.51 TO 3.54/3.54 - NEW PFAF LOCATION.
7. CHANGED 34:1 IS CLEAR TO 34:1 IS NOT CLEAR AND ADDED 20:1 IS CLEAR TO LINE 7 - 8260.19H PARA 8-6-7 G(3)/34:1 PENETRATION.
8. REMOVED CHART NOTE: DME/DME RNP-0.3 NA AND ADDED PBN REQUIREMENTS NOTE: RNP APCH - 8260.19H PARA 8-6-8 B(1).
9. REMOVED CHART NOTE: WHEN VGSI INOP, STRAIGHT-IN/CIRCLNG RWY 22 PROCEDURE NA AT NIGHT - VISUAL SURFACES ARE CLEAR.
10. REMOVED ALL REFERENCE OF BACK-UP ALTIMETER SETTING NOTES - LOCAL WEATHER TRANSMITTED WMSCR AND DEEMED RELIABLE.
11. CHANGED UNCOMPENSATED TEMPERATURE LOW/HIGH LIMITS FROM -19C (-2F)/43C (110F) TO -19C/54C" - HIGH TEMP BASED ON STANDARD ISA DEVIATION OF -30 AND FAHRENHEIT TEMPS NO LONGER REQUIRED.
12. ADDED "CHART NOTE: RWY 4 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED" - 34:1 PENETRATION.
13. CHANGED FAS OBSTACLE FROM 2279 TREE TO 2270 TREE - OBSTACLE DATA BASE UPDATED.
14. VISIBILITIES: CHANGED ALL LPV FROM 1 TO 3/4, ALL LNAV/VNAV FROM 1 1/2 TO 1 1/8, LNAV CAT D FROM 1 1/2 TO 1 1/4 - NEW VISIBILITY TABLE APPLIED.
15. CIRCLING: CHANGED CAT C MDA/HAA FROM 2620/485 TO 2680/545 AND CAT D FROM 2700/565 TO 2720/585 - NEW CIRCLING AREA CRITERIA APPLIED.
16. CHANGED FAS DATA: LTP LATITUDE CHANGED FROM 421405.8205N TO 421405.8225N; LTP LONGITUDE CHANGED FROM 0782234.0135W TO 0782234.0105W; FPAP LATITUDE CHANGED FROM 421521.2400N TO 421521.2445N; FPAP LONGITUDE CHANGED FROM 0782130.0700W TO 0782130.0795W; AND CRC REMAINDER CHANGED FROM E58B8BEE TO F18CA97B - NEW DATA RESULTS IN FAS DATA CHANGES.

05/24/2018: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 03/05/2018.

1. PER FLIGHT CHECK, RETAINED NOTE "WHEN VGSI INOP, CIRCLING RWY 22 NA AT NIGHT".



COORDINATED WITH:

A4A ☐ ALPA ☐ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZOB, KOLE AMGR, ATA

FLIGHT CHECKED BY

ROBERT STEPHEN PRESSLER

Digitally signed by

JULIE A MORGAN

May 30, 2018

OFFICE

FICO

DATE

05/15/2018

DEVELOPED BY

JOHN THORNTON

Digitally signed by

JOHN R THORNTON

May 24, 2018

OFFICE

AJV-5421

DATE

03/05/2018

APPROVED BY

JULIE MORGAN

Digitally signed by

JULIE A MORGAN

May 30, 2018

OFFICE

AJV-5420

DATE

TITLE

MANAGER



FAS DATA BLOCK INFORMATION

DATA FIELD	DATA
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KOLE
RUNWAY	RW04
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W04A
LTP/FTP LATITUDE	421405.8225N
LTP/FTP LONGITUDE	0782234.0105W
LTP/FTP ELLIPSOIDAL HEIGHT	+06173
FPAP LATITUDE	421521.2445N
FPAP LONGITUDE	0782130.0795W
THRESHOLD CROSSING HEIGHT (TCH)	00040.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1320
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	F18CA97B
ADDITIONAL PATH POINT RECORD INFORMATION	
ICAO CODE	K6
LTP ORTHOMETRIC HEIGHT	+06497
FPAP ORTHOMETRIC HEIGHT	+06497



FEDERAL AVIATION ADMINISTRATION
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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> CATTARAUGUS COUNTY-OLEAN	<u>AIRPORT ID</u> KOLE	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 22	<u>ORIGINAL/AMENDMENT</u> 2	<u>CITY</u> OLEAN	<u>STATE</u> NY
<u>AIRPORT ELEVATION</u> 2135	<u>TDZE</u> 2132	<u>SUPERSEDED</u> RNAV (GPS) RWY 22	<u>ORIGINAL/AMENDMENT</u> 1	<u>DATED</u> 08/30/2006	<u>MAG VAR</u> 11W
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 2000

TAA

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>ALTITUDE</u>
1. 133/30 CW 313/30	NOPT	133/11 CW 313/11		4900
2. 133/11 CW 313/11		UGASE	IF/IAF	4500
3. 313/30 CW 133/30	PT	313/11 CW 133/11		4900
4. 313/11 CW 133/11		UGASE	IF/IAF	4500

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>
UGASE	IF/IAF	UHZOS	PFAF	TF	FB	1.00	223.30	8.00	3200
UHZOS	PFAF	RW22	MAP	TF	FO	0.30	223.23	3.28	
RW22	MAP	2382 MSL		CA			223.23		
2382 MSL		VAKTY		DF	FO	1.00			4900

MISSED APPROACH

MAP:

LPV: DA
 LNAV/VNAV: DA
 LNAV: RW22

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 4900 DIRECT VAKTY AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. HOLD NE UGASE, RT, 223.30 INBOUND, 4500 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 223.23 PFAF: UHZOS DIST PFAF TO MAP: 3.28 DIST PFAF TO THLD: 3.28

4. MIN ALT: UGASE 4500, UHZOS 3200

5. DIST TO THLD FROM OM: MM: IM: 150 HAT: 250 HAT: 0.72 GS ANT: MM: IM:

6. MIN GP INCPT: 3200 GP ALT AT PFAF : UHZOS 3200 OM: MM: IM:

7. GP ANGLE: 3.00 34:1: IS CLEAR 20:1: IS CLEAR TCH: 40.0

8. MSA FROM:

PBN REQUIREMENTS NOTES:

RNP APCH.

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -19C OR ABOVE 54C.
CHART NOTE: WHEN VGSI INOP, STRAIGHT-IN/CIRCLING RWY 22 PROCEDURE NA AT NIGHT.

ADDITIONAL FLIGHT DATA:

2320 AAO 421742N/0781960W
CHART CIRCLING ICON.
CHART VDP AT 1.27 NM TO RW22*
*LNAV ONLY
WAAS CHANNEL #99401
REFERENCE PATH ID: W22A
CHART FAS OBST: 2261 TREE 421520N/0782229W.
HOLD SW, RT, 043.10 INBOUND
LTP HAE: 611.9 M

MINIMUMS:

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

ALTERNATE: NA ☒

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	2382	3/4	250	2382	3/4	250	2382	3/4	250	2382	3/4	250			
LNAV/VNAV DA	2569	1 1/4	437	2569	1 1/4	437	2569	1 1/4	437	2569	1 1/4	437			
LNAV MDA	2560	1	428	2560	1	428	2560	1 1/4	428	2560	1 1/4	428			
CIRCLING	2620	1	485	2620	1	485	2680	1 1/2	545	2720	2	585			



CHANGES - REASONS

- 1. REMOVED ALL REFERENCE OF ELZ VORTAC FEEDER AND YONLE AND BENEE INITIALS - TAA ADDED TO PROCEDURE.
- 2. ADDED HOLD-IN-LIEU AT USAGE - REPLACED PROFILE STARTS AT NOTE.
- 3. CHANGED UGASE TO UHZOS COURES/DISTANCE FROM 223.28/6.02 TO 223.30/8.00 - UGASE MOVED 2.1 NM N AND UHZOS MOVED 190 FT NE.
- 4. CHANGED FAC FROM 223.22 TO 223.23 AND DIST FAF TO MAP/THLD FROM 3.25 TO 3.28 - UHZOS MOVED TO NEW PFAF LOCATION.
- 5. CHANGED MIN ALTITUDE AT UGASE FROM 4000 TO 4500 - TO MATCH HOLD-IN-LIEU ALTITUDE.
- 6. CHANGED 34:1 TO CLEAR AND ADDED 20:1 IS CLEAR - VISUAL SURFACES ARE CLEAR.
- 7. REMOVED CHART NOTE: DME/DME RNP-0.3 NA AND ADDED PBN REQUIREMENTS NOTE: RNP APCH - 8260.19H PARA 8-6-8 B(1).
- 8. REMOVED "WHEN VGSI INOP, STRAIGHT-IN/CIRCLNG RWY 22 PROCEDURE NA AT NIGHT" AND "VISIBILITY REDUCTION BY HELICOPTERS NA" NOTES - VISUAL SURFACES ARE CLEAR.
- 9. REMOVED ALL REFERENCE OF BACK-UP ALTIMETER SETTING NOTES - LOCAL WEATHER TRANSMITTED WMSCR AND DEEMED RELIABLE.
- 10. CHANGED UNCOMPENSATED TEMPERATURE LOW/HIGH LIMITS FROM -19C (-2F)/43C (110F) TO -19C/54C" - HIGH TEMP BASED ON STANDARD ISA DEVIATION OF -30 AND FAHRENHEIT TEMPS NO LONGER REQUIRED.
- 11. CHANGED MISSED APPROACH HOLDING FROM 043.12 INBOUND TO 043.10 INBOUND AND ALTITUDE FROM 4000 TO 4900 - VAKTY MOVED 2.1 NM NE AND TO MATCH TAA.
- 12. CHANGED FAS OBSTACLE FROM 2299 TREE TO 2261 TREE AND ADDED 2320 AAO AS 7:1 OBSTACLE - NEW CONTROLLING OBSTACLE AND AAO ADDED TO FINAL.
- 13. ADDED VDP AT 1.27 NM TO RW22 - VISUAL SURFACE IS CLEAR.
- 14. ADDED "CHART CIRCLING ICON" - NEW CIRCLING AREA CRITERIA APPLIED.
- 15. CHANGED VISIBILITIES: ALL LPV FROM 1 TO 3/4, ALL LNAV/VNAV FROM 1 1/2 TO 1 1/4, CIRCLING CAT A/B FROM 1 1/2 TO 1 - APPLICATION OF NEW VISIBILITY TABLE.
- 16. CIRCLING: CHANGED CAT C MDA/HAA FROM 2620/485 TO 2680/545 AND CAT D FROM 2700/565 TO 2720/585 - NEW CIRCLING AREA CRITERIA APPLIED.
- 17. REMOVED MSA - TAA ADDED TO PROCEDURE.
- 18. CHANGED FAS DATA: LTP LATITUDE CHANGED FROM 421443.4380N TO 421443.4365N; LTP LONGITUDE CHANGED FROM 0782202.1320W TO 0782202.1325W; FPAP LATITUDE CHANGED FROM 421328.0100N TO 421328.0110N; FPAP LONGITUDE CHANGED FROM 0782306.0300W TO 0782306.0440W; LENGTH OFFSET CHANGED FROM 1344 TO 1352; AND CRC REMAINDER CHANGED FROM 740DFF5B TO 26D3F2D4 - CHANGED DATA RESULTED IN FAS DATA CHANGES.

05/24/2018: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 03/05/2018.
1. PER FLIGHT CHECK, RETAINED NOTE "WHEN VGSI INOP, STRAIGHT-IN/CIRCLING RWY 22 PROCEDURE NA AT NIGHT".



COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZOB, KOLE AMGR, ATA

<u>FLIGHT CHECKED BY</u>	<i>Digitally signed by</i>	<u>OFFICE</u>	<u>DATE</u>
ROBERT STEPHEN PRESSLER	JULIE A MORGAN	FICO	05/15/2018
	May 30, 2018		

<u>DEVELOPED BY</u>	<i>Digitally signed by</i>	<u>OFFICE</u>	<u>DATE</u>
JOHN THORNTON	JOHN R THORNTON	AJV-5423	03/05/2018
	May 24, 2018		

<u>APPROVED BY</u>	<i>Digitally signed by</i>	<u>OFFICE</u>	<u>DATE</u>	<u>TITLE</u>
JULIE MORGAN	JULIE A MORGAN	AJV-5420		MANAGER
	May 30, 2018			



FAS DATA BLOCK INFORMATION

DATA FIELD	DATA
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KOLE
RUNWAY	RW22
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W22A
LTP/FTP LATITUDE	421443.4365N
LTP/FTP LONGITUDE	0782202.1325W
LTP/FTP ELLIPSOIDAL HEIGHT	+06119
FPAP LATITUDE	421328.0110N
FPAP LONGITUDE	0782306.0440W
THRESHOLD CROSSING HEIGHT (TCH)	00040.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1352
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	26D3F2D4
ADDITIONAL PATH POINT RECORD INFORMATION	
ICAO CODE	K6
LTP ORTHOMETRIC HEIGHT	+06443
FPAP ORTHOMETRIC HEIGHT	+06443



RNAV - STANDARD INSTRUMENT APPROACH PROCEDURE TITLE 14 CFR PART 97.33						Bearings, headings, courses, 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 in feet RVR.										
TERMINAL ROUTES											MISSED APPROACH					
FROM		TO			COURSE AND DISTANCE				ALTITUDE		LPV: DA LNAV/VNAV: DA LNAV: RW07 CLIMB TO 900 THEN CLIMBING LEFT TURN TO 3500 DIRECT NOYAQ AND HOLD. ADDITIONAL FLIGHT DATA: FAS OBST: 530 AAO 435643N/0760513W. DISTANCE TO THLD FROM 200 HAT: 0.48 NM. CHART VDP AT 1.31 NM TO RW07* *LNAV ONLY. WAAS CHANNEL # 82510 REFERENCE PATH ID: W07A CHART CIRCLING ICON. CHART WHEELER-SACK AAF ATIS 119.525. LTP HAE: 60.9 M					
NOYAQ (IF/IAF)		KRUPP (TF) (FB) (RNP 1.00)			065.26 / 9.88				2000							
KRUPP (FAF)		RW07 (MAP) (TF) (FO) (RNP 0.30)			065.39 / 5.15											
RW07 (MAP)		900 MSL (CA)			065.39				900							
900 MSL		NOYAQ (DF) (FO) (RNP 1.00)							3500							
1. PT _____ SIDE OF COURSE _____ OUTBOUND _____ FT WITHIN _____ MILES OF _____ (IAF) 2. HOLD SW NOYAQ, RT, 065.26 INBOUND, 3500 FT. IN LIEU OF PT (IAF) 3. FAC: 065.39 FAF: KRUPP DIST FAF TO MAP: 5.15 THLD: 5.15 4. MIN. ALT: NOYAQ 3500, KRUPP 2000 5. DIST TO THLD FROM OM: _____ MM: _____ IM: _____ 150 HAT: _____ 100 HAT: _____ GS ANT: _____ 6. MIN GS INCPT: 2000 GS ALT AT: KRUPP 2000 OM: _____ MM: _____ IM: _____ 7. GS ANGLE: 3.00 TCH: 50.6 20:1 IS CLEAR 34:1 IS CLEAR 8. MSA FROM: _____											MAG VAR: 12W		EPOCH YEAR: 1980			
MINIMUMS																
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT								ALTERNATE: N A		STANDARD @						
CATEGORY =====>		A			B			C			D			E		
	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	
LPV DA	519	1/2	200	519	1/2	200	519	1/2	200	519	1/2	200				
LNAV/VNAV DA	578	1/2	259	578	1/2	259	578	1/2	259	578	1/2	259				
LNAV MDA	780	1/2	461	780	1/2	461	780	1	461	780	1	461				
CIRCLING	960	1	629	960	1	629	980	1 3/4	649	1080	2 1/2	749				
NOTES: @ CAT D 800-2 1/2 PBN REQUIREMENT NOTE: RNP APCH. CHART NOTE: FOR INOPERATIVE ALS, INCREASE LPV, LNAV/VNAV VISIBILITIES TO 3/4 SM AND LNAV CAT C/D VISIBILITIES TO 1 3/8 SM. (CONTINUED ON PAGE 2)																
CITY AND STATE		ELEVATION: 331 TDZE: 319			FACILITY IDENTIFIER: RNAV		PROCEDURE NO./AMDT NO./EFFECTIVE DATE:					SUP:				
WATERTOWN, NY		AIRPORT NAME: WATERTOWN INTL					RNAV (GPS) RWY 7, AMDT 3 19 JULY 2018					AMDT: 2B				
												DATED 06/26/2014				



US DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION
RNAV - STANDARD
INSTRUMENT APPROACH PROCEDURE - TITLE 14 CFR PART 97.33

Bearings, headings, courses, 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 in feet RVR.

NOTES, (CONT.):

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -18C OR ABOVE 54C.

TAA

	FROM	TO	ALT
1.	335/30 CW 155/30 (NOPT)	NOYaq (IF/IAF) (FB)	3500
2.	155/30 CW 335/30	155/15 CW 335/15	4500
3.	155/15 CW 335/15	NOYaq (IF/IAF) (FO)	3500

QUALITY
16
CHECKED

CITY AND STATE
WATERTOWN, NY

ELEVATION: 331 TDZE: 319
AIRPORT NAME:
WATERTOWN INTL

FACILITY
IDENTIFIER:
RNAV

PROCEDURE NO./AMDT NO./EFFECTIVE DATE:
RNAV (GPS) RWY 7, AMDT 3
19 JULY 2018

SUP:
AMDT: 2B
DATED: 06/26/2014

**RNAV STANDARD INSTRUMENT APPROACH PROCEDURE
FLIGHT STANDARDS SERVICE - FAR PART 97.33**

Bearings, headings, courses, 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 in feet RVR.

FAS DATA BLOCK INFORMATION**DATA FIELD****DATA**

OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KART
RUNWAY	RW07
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W07A
LTP/FTP LATITUDE	435916.2275N
LTP/FTP LONGITUDE	0760147.7940W
LTP/FTP ELLIPSOIDAL HEIGHT	+00609
FPAP LATITUDE	440009.2780N
FPAP LONGITUDE	0760008.6220W
THRESHOLD CROSSING HEIGHT (TCH)	00050.6
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1224
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	35.0

CRC REMAINDER

C38C5E2F

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K6
LTP ORTHOMETRIC HEIGHT	+00946
FPAP ORTHOMETRIC HEIGHT	+00946

QUALITY
16
CHECKED

CITY AND STATE

WATERTOWN, NY

ELEVATION: 331

TDZE: 319

AIRPORT NAME:

WATERTOWN INTL

FACILITY
IDENTIFIER:

RNAV

PROCEDURE NO./AMDT NO./EFFECTIVE DATE:

RNAV (GPS) RWY 7, AMDT 3

19 JULY 2018

SUP:

AMDT:

2B

DATED:

06/26/2014

RNAV - STANDARD US DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION							INSTRUMENT APPROACH PROCEDURE TITLE 14 CFR PART 97.33										Bearings, headings, courses, 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 in feet RVR.									
TERMINAL ROUTES																	MISSED APPROACH									
FROM				TO				COURSE AND DISTANCE				ALTITUDE		LPV: DA LNAV/VNAV: DA LNAV: RW10 CLIMB TO 3600 DIRECT BAMPE AND ON TRACK 145.78 TO PATEE AND HOLD. ADDITIONAL FLIGHT DATA: HOLD S, RT, 357.43 INBOUND. CHART FAS OBST: 408 TREE 435953N/0760157W. DISTANCE TO THLD FROM 250 HAT: 0.63 NM. CHART VDP AT 0.95 NM TO RW10* *LNAV ONLY. WAAS CHANNEL # 53522 REFERENCE PATH ID: W10A CHART AT OR ABOVE 4000 AT TAREE. CHART CIRCLING ICON. CHART WHEELER-SACK ATIS: 119.525. CHART WATERTOWN ASOS: 132.325 LTP HAE: 60.5 M												
TAREE (IF/IAF)				FOGUS (TF) (FB) (RNP 1.00)				104.76 / 6.85				2000														
FOGUS (FAF)				RICOS/2.00 NM TO RW10 (TF) (FB) (RNP 0.30)				104.87 / 3.16																		
RICOS/2.00 NM TO RW10				RW10 (MAP) (TF) (FO) (RNP 0.30)				104.87 / 2.00																		
RW10 (MAP)				568 MSL (CA)				104.87																		
568 MSL				BAMPE (DF) (FB) (RNP 1.00)																						
BAMPE				PATEE (TF) (FO) (RNP 1.00)				145.78 / 13.35				3600														
1. PT _____ SIDE OF COURSE _____ OUTBOUND _____ FT WITHIN _____ MILES OF _____ (IAF) 2. HOLD W TAREE, RT, 104.76 INBOUND, 4000 FT. IN LIEU OF PT (IAF) 3. FAC: 104.87 FAF: FOGUS DIST FAF TO MAP: 5.16 THLD: 5.16 4. MIN. ALT: TAREE 4000, FOGUS 2000, RICOS/2.00 NM TO RW10 980* 5. DIST TO THLD FROM OM: _____ MM: _____ IM: _____ 150 HAT: _____ 100 HAT: _____ GS ANT: _____ 6. MIN GS INCPT: 2000 GS ALT AT: FOGUS 2000 OM: _____ MM: _____ IM: _____ 7. GS ANGLE: 3.00 TCH: 46.5 20:1 IS CLEAR 34:1 IS NOT CLEAR 8. MSA FROM: _____																	MAG VAR: 12W					EPOCH YEAR: 1980				
MINIMUMS																										
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT							ALTERNATE: N A			STANDARD @																
CATEGORY ==>		A			B			C			D			E												
	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA											
LPV DA	568	3/4	250	568	3/4	250	568	3/4	250	568	3/4	250														
LNAV/VNAV DA	578	3/4	260	578	3/4	260	578	3/4	260	578	3/4	260														
LNAV MDA	660	1	342	660	1	342	660	1	342	660	1	342														
CIRCLING	960	1	629	960	1	629	980	1 3/4	649	1080	2 1/2	749														
NOTES: CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -20C OR ABOVE 54C. @ CAT D 800-2 1/2 CHART NOTE: RWY 10 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. PBN REQUIREMENTS NOTE: RNP APCH.																										
CITY AND STATE WATERTOWN, NY				ELEVATION: 331 TDZE: 318 AIRPORT NAME: WATERTOWN INTL				FACILITY IDENTIFIER: RNAV				PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (GPS) RWY 10, AMDT 1 19 JULY 2018				SUP:										
																AMDT: ORIG-A										
																DATED 06/26/2014										



US DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION
RNAV - STANDARD
INSTRUMENT APPROACH PROCEDURE - TITLE 14 CFR PART 97.33

Bearings, headings, courses, 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 in feet RVR.

TAA

	FROM	TO	ALT
1.	015/30 CW 195/30 (NOPT)	TAREE (IF/IAF) (FB)	4000
2.	195/30 CW 015/30	195/15 CW 015/15	4500
3.	195/15 CW 015/15	TAREE (IAF) (FO)	4000

QUALITY
9
CHECKED

CITY AND STATE
WATERTOWN, NY

ELEVATION: 331 TDZE: 318
AIRPORT NAME:
WATERTOWN INTL

FACILITY
IDENTIFIER:
RNAV

PROCEDURE NO./AMDT NO./EFFECTIVE DATE:
RNAV (GPS) RWY 10, AMDT 1
19 JULY 2018

SUP:
AMDT: ORIG-A
DATED: 06/26/2014

**RNAV STANDARD INSTRUMENT APPROACH PROCEDURE
FLIGHT STANDARDS SERVICE - FAR PART 97.33**

Bearings, headings, courses, 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 in feet RVR.

FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KART
RUNWAY	RW10
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W10A
LTP/FTP LATITUDE	435932.1540N
LTP/FTP LONGITUDE	0760150.3435W
LTP/FTP ELLIPSOIDAL HEIGHT	+00605
FPAP LATITUDE	435927.5470N
FPAP LONGITUDE	0755946.0850W
THRESHOLD CROSSING HEIGHT (TCH)	00046.5
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0616
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
 <u>CRC REMAINDER</u>	 7BE07632

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K6
LTP ORTHOMETRIC HEIGHT	+00942
FPAP ORTHOMETRIC HEIGHT	+00942

QUALITY
9
CHECKED

CITY AND STATE WATERTOWN, NY	ELEVATION: 331 TDZE: 318 AIRPORT NAME: WATERTOWN INTL	FACILITY IDENTIFIER: RNAV	PROCEDURE NO./ AMDT NO./EFFECTIVE DATE: RNAV (GPS) RWY 10, AMDT 1 19 JULY 2018	SUP:
				AMDT: ORIG-A
				DATED: 06/26/2014

US DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION							RNAV - STANDARD INSTRUMENT APPROACH PROCEDURE TITLE 14 CFR PART 97.33										Bearings, headings, courses, 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 in feet RVR.									
TERMINAL ROUTES														MISSED APPROACH												
FROM				TO			COURSE AND DISTANCE				ALTITUDE		LP: RW04 LNAV: RW04													
VEFDO (IF/IAF)				WIGRI (TF) (FB) (RNP 1.00)			045.68 / 8.38				2200		CLIMB TO 1100 THEN CLIMBING RIGHT TURN TO 2300 DIRECT VEFDO AND HOLD.													
WIGRI (FAF)				ZAVRI/2.10 NM TO RW04 (TF) (FB) (RNP 0.30)			045.76 / 2.05																			
ZAVRI/2.10 NM TO RW04				RW04 (MAP) (TF) (FO) (RNP 0.30)			045.76 / 2.10																			
RW04 (MAP)				1100 MSL (CA)			045.76				1100															
1100 MSL				VEFDO (DF) (FO) (RNP 1.00)							2300		ADDITIONAL FLIGHT DATA: CHART FAS OBST: 739 POLE 413411N/0832933W, 727 TOWER 413334N/0832924W. CHART 949 TOWER 413028N/0833307W. 845 AAO 413015N/0833204W. CHART VDP AT 0.87 NM TO RW04. WAAS CHANNEL # 82223 REFERENCE PATH ID: W04A CHART CIRCLING ICON. WIGRI TO RW04: 3.50/35 LTP HAE: 154.4 M													
1. PT _____ SIDE OF COURSE _____ OUTBOUND _____ FT WITHIN _____ MILES OF _____ (IAF)																										
2. HOLD SW VEFDO, RT, 045.68 INBOUND, 2300 FT. IN LIEU OF PT (IAF)																										
3. FAC: 045.76 FAF: WIGRI DIST FAF TO MAP: 4.15 THLD: 4.15																										
4. MIN. ALT: VEFDO 2300, WIGRI 2200, ZAVRI/2.10 NM TO RW04 1320																										
5. DIST TO THLD FROM OM: _____ MM: _____ IM: _____ 150 HAT: _____ 100 HAT: _____ GS ANT: _____																										
6. MIN GS INCPT: _____ GS ALT AT: _____ OM: _____ MM: _____ IM: _____																										
7. GS ANGLE: _____ TCH: 20:1 IS CLEAR 34:1 IS NOT CLEAR																										
8. MSA FROM: _____																										
MAG VAR: 7W EPOCH YEAR: 2010																										
MINIMUMS																										
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT							ALTERNATE: N A		STANDARD																	
CATEGORY =====>		A			B			C			D			E												
	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA											
LP MDA	980	1	357	980	1	357	980	1	357	980	1	357														
LNAV MDA	1000	1	377	1000	1	377	1000	1	377	1000	1	377														
CIRCLING	1080	1	457	1100	1	477	1200	1 1/2	577	1320	2 1/4	697														
NOTES: CHART NOTE: CIRCLING RWY 14 NA AT NIGHT. CHART NOTE: RWY 4 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. PBN REQUIREMENT NOTES: RNP APCH. CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE TOLEDO EXPRESS ALTIMETER SETTING AND (CONTINUED ON PAGE 2)																										
CITY AND STATE TOLEDO, OH							ELEVATION: 623 TDZE: 623 AIRPORT NAME: TOLEDO EXECUTIVE			FACILITY IDENTIFIER: RNAV		PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (GPS) RWY 4, AMDT 1 19 JULY 2018					SUP: AMDT: ORIG-A DATED 06/26/2014									

QUALITY
22
CHECKED

**RNAV - STANDARD
INSTRUMENT APPROACH PROCEDURE - TITLE 14 CFR PART 97.33**

Bearings, headings, courses, 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 in feet RVR.

NOTES, (CONT.):

INCREASE ALL MDA 60 FEET, LP CATS C/D VISIBILITY 1/8 MILE, INCREASE LNAV AND CIRCLING CATS C/D VISIBILITY 1/4 MILE.

TAA

	<u>FROM</u>	<u>TO</u>	<u>ALT</u>
1.	316/30 CW 136/30 (NOPT)	316/15 CW 136/15	2900
2.	316/15 CW 136/15	VEFDO (IF/IAF) (FB)	2300
3.	136/30 CW 316/30	136/15 CW 316/15	3100
4.	136/15 CW 316/15	VEFDO (IF/IAF) (FO)	2300

QUALITY
22
CHECKED

CITY AND STATE

TOLEDO, OH

ELEVATION: 623

TDZE: 623

AIRPORT NAME:

TOLEDO EXECUTIVE

FACILITY
IDENTIFIER:

RNAV

PROCEDURE NO./AMDT NO./EFFECTIVE DATE:

RNAV (GPS) RWY 4, AMDT 1

19 JULY 2018

SUP:

AMDT: ORIG-A

DATED: 06/26/2014

**RNAV STANDARD INSTRUMENT APPROACH PROCEDURE
FLIGHT STANDARDS SERVICE - FAR PART 97.33**

Bearings, headings, courses, 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 in feet RVR.

FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KTDZ
RUNWAY	RW04
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W04A
LTP/FTP LATITUDE	413336.8645N
LTP/FTP LONGITUDE	0832909.6895W
LTP/FTP ELLIPSOIDAL HEIGHT	+01544
FPAP LATITUDE	413446.3300N
FPAP LONGITUDE	0832755.3000W
THRESHOLD CROSSING HEIGHT (TCH)	00035.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.50
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1624
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	0.0
 <u>CRC REMAINDER</u>	 C428F151

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K5
LTP ORTHOMETRIC HEIGHT	+01898
FPAP ORTHOMETRIC HEIGHT	+01898

QUALITY
22
CHECKED

CITY AND STATE TOLEDO, OH	ELEVATION: 623 AIRPORT NAME: TOLEDO EXECUTIVE	TDZE: 623 TOLEDO EXECUTIVE	FACILITY IDENTIFIER: RNAV	PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (GPS) RWY 4, AMDT 1 19 JULY 2018	SUP:
					AMDT: ORIG-A
					DATED: 06/26/2014

RNAV - STANDARD US DEPARTMENT OF TRANSPORTATION INSTRUMENT APPROACH PROCEDURE FEDERAL AVIATION ADMINISTRATION TITLE 14 CFR PART 97.33							Bearings, headings, courses, 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 in feet RVR.									
TERMINAL ROUTES										MISSED APPROACH						
FROM		TO			COURSE AND DISTANCE			ALTITUDE		LPV: DA LNAV/VNAV: DA LNAV: RW32 CLIMB TO 1100 THEN CLIMBING LEFT TURN TO 2300 DIRECT WIMLU AND HOLD. ADDITIONAL FLIGHT DATA: CHART FAS OBST: 767 T-L TWR 413316N/0832654W. 835 AAO 413001N/0832508W. DISTANCE TO THLD FROM 250 HAT: 0.64 NM. WAAS CHANNEL # 70524 REFERENCE PATH ID: W32A CHART CIRCLING ICON. LTP HAE: 153.9 M						
VASHO (IAF)		WIMLU (NOPT) (TF) (FB) (RNP 1.00)			277.97 / 16.36			2300								
WIMLU (IF/IAF)		HOKVO (TF) (FB) (RNP 1.00)			321.16 / 5.18			2200								
HOKVO (FAF)		CETYA/1.60 NM TO RW32 (TF) (FB) (RNP 0.30)			321.10 / 3.22											
CETYA/1.60 NM TO RW32		RW32 (MAP) (TF) (FO) (RNP 0.30)			321.10 / 1.60											
RW32 (MAP)		1100 MSL (CA)			321.10			1100								
1100 MSL		WIMLU (DF) (FO) (RNP 1.00)						2300								
1. PT _____ SIDE OF COURSE _____ OUTBOUND _____ FT WITHIN _____ MILES OF _____ (IAF) 2. HOLD SE WIMLU, RT, 321.16 INBOUND, 2300 FT. IN LIEU OF PT (IAF) 3. FAC: 321.10 FAF: HOKVO DIST FAF TO MAP: 4.82 THLD: 4.82 4. MIN. ALT: WIMLU 2300, HOKVO 2200, CETYA/1.60 NM TO RW32 1160* 5. DIST TO THLD FROM OM: _____ MM: _____ IM: _____ 150 HAT: _____ 100 HAT: _____ GS ANT: _____ 6. MIN GS INCPT: 2200 GS ALT AT: HOKVO 2200 OM: _____ MM: _____ IM: _____ 7. GS ANGLE: 3.00 TCH: 45.0 20:1 IS CLEAR 34:1 IS NOT CLEAR 8. MSA FROM: RW32 3100																
										MAG VAR: 7W			EPOCH YEAR: 2010			
MINIMUMS																
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT							ALTERNATE: N A		STANDARD							
CATEGORY =====>		A			B			C			D			E		
	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	
LPV DA	871	3/4	250	871	3/4	250	871	3/4	250	871	3/4	250				
LNAV/VNAV DA	1080	1 3/8	459	1080	1 3/8	459	1080	1 3/8	459	1080	1 3/8	459				
LNAV MDA	1020	1	399	1020	1	399	1020	1 1/8	399	1020	1 1/8	399				
CIRCLING	1080	1	457	1100	1	477	1200	1 1/2	577	1320	2 1/4	697				
NOTES: CHART NOTE: CIRCLING RWY 14 NA AT NIGHT. CHART NOTE: BARO-VNAV NA WHEN USING TOLEDO EXPRESS ALTIMETER SETTING. CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -20C (-4F) OR ABOVE 54C (130F). CHART NOTE: RWY 32 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. (CONTINUED ON PAGE 2)																
CITY AND STATE		ELEVATION: 623 TDZE: 621			FACILITY IDENTIFIER: RNAV		PROCEDURE NO./AMDT NO./EFFECTIVE DATE:					SUP:				
TOLEDO, OH		AIRPORT NAME: TOLEDO EXECUTIVE					RNAV (GPS) RWY 32, AMDT 2 19 JULY 2018					AMDT: 1				
												DATED 07/21/2016				

 QUALITY
22
CHECKED

US DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION
RNAV - STANDARD
INSTRUMENT APPROACH PROCEDURE - TITLE 14 CFR PART 97.33

Bearings, headings, courses, 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 in feet RVR.

NOTES, (CONT.):

*LNAV ONLY

PBN REQUIREMENT NOTE: RNP APCH.

CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE TOLEDO EXPRESS ALTIMETER SETTING AND INCREASE LPV DA TO 914, LNAV/VNAV TO 1123, INCREASE LPV ALL CATS VISIBILITY 1/8 SM. INCREASE ALL MDA 60 FEET AND INCREASE LNAV CATS C AND D AND CIRCLING CAT D VISIBILITY 1/4 SM.



CITY AND STATE TOLEDO, OH	ELEVATION: 623 TDZE: 621 AIRPORT NAME: TOLEDO EXECUTIVE	FACILITY IDENTIFIER: RNAV	PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (GPS) RWY 32, AMDT 2 19 JULY 2018	SUP:
				AMDT: 1
				DATED: 07/21/2016

**RNAV STANDARD INSTRUMENT APPROACH PROCEDURE
FLIGHT STANDARDS SERVICE - FAR PART 97.33**

Bearings, headings, courses, 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 in feet RVR.

FAS DATA BLOCK INFORMATION**DATA FIELD****DATA**

OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KTDZ
RUNWAY	RW32
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W32A
LTP/FTP LATITUDE	413338.1925N
LTP/FTP LONGITUDE	0832832.5815W
LTP/FTP ELLIPSOIDAL HEIGHT	+01539
FPAP LATITUDE	413440.1640N
FPAP LONGITUDE	0832957.9100W
THRESHOLD CROSSING HEIGHT (TCH)	00045.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1080
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0

CRC REMAINDER

2C0F8A85

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K5
LTP ORTHOMETRIC HEIGHT	+01893
FPAP ORTHOMETRIC HEIGHT	+01893

QUALITY
22
CHECKED

CITY AND STATE TOLEDO, OH	ELEVATION: 623 TDZE: 621 AIRPORT NAME: TOLEDO EXECUTIVE	FACILITY IDENTIFIER: RNAV	PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (GPS) RWY 32, AMDT 2 19 JULY 2018	SUP:
				AMDT: 1
				DATED: 07/21/2016

U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION VOR STANDARD INSTRUMENT APPROACH PROCEDURE FLIGHT STANDARDS SERVICE - TITLE 14 CFR PART 97.23										Bearings, headings, courses, and radials are magnetic. Elevations and altitudes are in feet, MSL, except HATh, 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 in feet RVR.									
TERMINAL ROUTES										MISSED APPROACH									
FROM		TO		COURSE AND DISTANCE				ALTITUDE											
										ADDITIONAL FLIGHT DATA:									
1. PT _____ SIDE OF COURSE _____ OUTBOUND _____ FT WITHIN _____ MILES OF _____ (IAF)																			
2. _____																			
3. FAC _____ FAF _____ DIST FAF TO MAP _____ THLD _____																			
4. MIN. ALT _____																			
8. MSA FROM: _____										MAG VAR: _____ EPOCH YEAR: _____									
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT										ALTERNATE: N A									
CATEGORY =====>																			
		MDA	VIS			MDA	VIS			MDA	VIS			MDA	VIS				
NOTES:																			
PROCEDURE CANCELED EFFECTIVE 19 JULY 2018																			
CITY AND STATE TOLEDO, OH		ELEVATION: 623 AIRPORT NAME: TOLEDO EXECUTIVE				THRE: 623		FACILITY IDENTIFIER: VWV		PROCEDURE NO./AMDT NO./EFFECTIVE DATE: VOR RWY 4, AMDT 9D, 07/21/2016						SUP AMDT 9C DATE 08/25/2011			

**FLIGHT STANDARDS SERVICE
COPTER LOC STANDARD INSTRUMENT APPROACH PROCEDURE**

TITLE 14 CFR PART 97.25

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.

If an instrument approach procedure of the above type is conducted at the below named airport, it shall be conducted in accordance with a charted instrument approach procedure predicted on the specifications contained herein, unless an approach is conducted in accordance with a different procedure for such airport authorized by the Administrator. Minimum altitudes shall correspond with those established for enroute operations in the particular area or as set forth below.

<u>AIRPORT</u> ASTORIA RGNL	<u>AIRPORT ID</u> KAST	<u>PROCEDURE NAME</u> COPTER LOC RWY 26	<u>ORIGINAL/AMENDMENT</u> 2	<u>CITY</u> ASTORIA	<u>STATE</u> OR
<u>AIRPORT ELEVATION</u> 14	<u>TDZE</u> 14	<u>SUPERSEDED</u> COPTER LOC/DME 257	<u>ORIGINAL/AMENDMENT</u> 1	<u>DATED</u> 08/25/1988	<u>MAG VAR</u> 15E
<u>FACILITY</u> I-AST	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<u>REQUIRED EFFECTIVE DATE</u> 07/19/2018	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 2020

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>
WUNUG/AST VOR/DME 15.00 DME	IAF	JUPDO/AST VOR/DME 6.00 DME					204.00	9.00	2400
AST VOR/DME	IAF	JUPDO/AST VOR/DME 6.00 DME					024.00	6.00	2400
JUPDO/AST VOR/DME 6.00 DME CW		ZERDI/AST VOR/DME 6.00 DME					6.00 DME ARC (AST LR-072)		2400
ZERDI/AST VOR/DME 6.00 DME	IF	OBGEW/AST VOR/DME 5.00 DME					260.50	1.00 (I-AST)	1900
OBGEW/AST VOR/DME 5.00 DME		UWYUK/AST VOR/DME 3.00 DME					260.50	2.00 (I-AST)	1100

MISSED APPROACH

MAP:

AST 0.50 DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 1500 THEN CLIMBING RIGHT TURN TO 2400 DIRECT AST VOR/DME AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT **SIDE OF COURSE** **OUTBOUND** **FT WITHIN** **MILES OF (IAF)**
2. PROFILE STARTS AT ZERDI
3. **FAC:** 260.50 **FAF:** UWYUK/AST VOR/DME 3.00 DME **DIST FAF TO MAP:** **DIST FAF TO THLD:** 2.54
4. **MIN ALT:** ZERDI/AST VOR/DME 6.00 DME 2400, OBGEW/AST VOR/DME 5.00 DME 1900, UWYUK/AST VOR/DME 3.00 DME 1100
8. **MSA FROM:** AST VOR/DME 004-184 4500, 184-004 3400

EQUIPMENT REQUIREMENTS NOTES:

DME REQUIRED.

NOTES:



CHART NOTE: DME FROM AST VOR/DME. SIMULTANEOUS RECEPTION OF I-AST AND AST DME REQUIRED
CHART NOTE: FOR INOPERATIVE ALS INCREASE VISIBILITY TO 1SM.

ADDITIONAL FLIGHT DATA:

CHART AST R-024 AT JUPDO.
CHART FAS OBST: 206 TRANSMISSION_LINE 460903N/1234915W.
HOLD W, RT, 079.00 INBOUND

MINIMUMS:

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

ALTERNATE: NA ☒

CATEGORY:	COPTER														
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
H-LOC 26	460	3/4	446		NA			NA			NA				

CHANGES - REASONS

1. CHANGED PROCEDURE NAME FROM COPTER LOC/DME 257 TO COPTER LOC RWY 26. - PROCEDURE IS STRAIGHT-IN TO RWY 26 AND CURRENT NAMING CONVENTIONS.
2. CHANGED FAC FROM 257 TO 260.50. - LOC MAGNETIC VARIATION UPDATED FROM 19E/1990 TO 15E/2020 AND MATCH I-AST LOC COURSE.
3. ADDED 4 DEGREES TO ALL OTHER COURSES, RADIALS, AND HEADINGS. - LOCALIZER, AST VOR/DME AND KAST AIRPORT MAGNETIC VARIATION UPDATED FROM 19E/1990 TO 15E/2020.
4. NAMED ALL DME FIXES. - FAAO 8260.19H PARAGRAPH 2-10-5.
5. RAISED ALL INITIAL SEGMENT ALTITUDES FROM 2300 TO 2400. - CRITERIA NOW REQUIRES THE USE OF AAOS(NEW CONTROLLING OBSTACLES).
6. RAISED MISSED APPROACH ALTITUDE FROM 2300 TO 2400. - MATCH INITIALS PER FPT.
7. RAISED MDA FROM 380 TO 460 AND CHANGED FAS OBST IN ADDITIONAL FLIGHT DATA FROM 110 TREE TO 206 TRANSMISSION LINE. - NEW FAS OBSTACLE.
8. REMOVED 202 TRANSMISSION TOWER FROM ADDITIONAL FLIGHT DATA. - NO LONGER REQUIRED.
9. ADDED CHART AST R-24 AT JUPDO TO ADDITIONAL FLIGHT DATA. - BEGINNING OF INITIAL ARC.
10. CHANGED VISIBILITY FROM 1/4 SM TO 3/4 SM. -34:1 PENETRATION.
11. CHANGED DIST FAF TO THLD FROM 2.5 TO 2.54. - MORE PRECISE LOCATION OF FAF.

PDF EDITS:

1. CORRECT FINAL TYPE IN MINIMUMS.
2. CHANGED HELIPORT TO AIRPORT AND SURFACE ELEVATION TO AIRPORT ELEVATION IN ALL HEADINGS.
3. DELETE THLD DISPLACEMENT NOTE FROM AIRSPACE.

COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☒ NBAA ☒ OTHER: SEA ARTCC, MMV FSS, USCG AST, ARPT MNGR, ANM-220, ATA

FLIGHT CHECKED BY		Digitally signed by	OFFICE	DATE	
PENDING		DONALD H LANIER	FIOG		
		Jun 07, 2018			
DEVELOPED BY		Digitally signed by	OFFICE	DATE	
LIAM DONAHUE		LIAM DONAHUE	AJV-5431	05/08/2018	
		May 16, 2018			
APPROVED BY		Digitally signed by	OFFICE	DATE	TITLE
PATRICK MULQUEEN		DONALD H LANIER	AJV-5430		MANAGER
		Jun 07, 2018			



**FLIGHT STANDARDS SERVICE
COPTER VOR STANDARD INSTRUMENT APPROACH PROCEDURE**

TITLE 14 CFR PART 97.35

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.

If an instrument approach procedure of the above type is conducted at the below named airport, it shall be conducted in accordance with a charted instrument approach procedure predicted on the specifications contained herein, unless an approach is conducted in accordance with a different procedure for such airport authorized by the Administrator. Minimum altitudes shall correspond with those established for enroute operations in the particular area or as set forth below.

HELIPORT ASTORIA RGNL	HELIPORT ID KAST	PROCEDURE NAME COPTER VOR RWY 8	ORIGINAL/AMENDMENT ORIG	CITY ASTORIA	STATE OR
SURFACE ELEVATION 14	TDZE 14	SUPERSEDED	ORIGINAL/AMENDMENT	DATED	MAG VAR 15E EPOCH YEAR 2020
FACILITY AST	COORDINATES OF FACILITIES 460942.11N / 1235249.36W	ACTUAL EFFECTIVE DATE 19 JULY 2018	REQUIRED EFFECTIVE DATE 07/19/2018	CANCEL SUSPEND	

TERMINAL ROUTES

FROM	FIX TYPE	TO	FIX TYPE	LEG TYPE	FO/FB	RNP	COURSE	DISTANCE	ALTITUDE
ILWAC/AST 16.05 DME	IAF	JINOD/AST 7.00 DME					114.00	9.05 (AST R-294)	2000
JINOD/AST 7.00 DME CCW		FISKK/AST 7.00 DME					7.00 DME ARC		1600
FLAVL/AST 12.57 DME	IAF	AYBIN/AST 7.00 DME					049.00	5.57 (AST R-229)	2000
AYBIN/AST 7.00 DME CW		FISKK/AST 7.00 DME					7.00 DME ARC		1600
FISKK/AST 7.00 DME	IF	REKFI/AST 3.00 DME					069.98	4.00 (AST R-250)	900

MISSED APPROACH

MAP:

AST VOR/DME

MISSED APPROACH INSTRUCTIONS:

CLIMBING RIGHT TURN TO 2000 IN AST VOR/DME HOLDING PATTERN.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)
2. PROFILE STARTS AT FISKK
3. FAC: 069.98 FAF: REKFI/AST 3.00 DME DIST FAF TO MAP: DIST FAF TO THLD: 2.60
4. MIN ALT: FISKK/AST 7.00 DME 1600, REKFI/AST 3.00 DME 900
8. MSA FROM: AST VOR/DME 004-184 4500, 184-004 3400

EQUIPMENT REQUIREMENTS NOTES:

DME REQUIRED.

NOTES:



HELIPORT
ASTORIA RGNL

HELIPORT ID
KAST

PROCEDURE NAME
COPTER VOR RWY 8

ORIGINAL/AMENDMENT
ORIG

CITY
ASTORIA

STATE
OR

ADDITIONAL FLIGHT DATA:
REKFI TO RW8: 3.02/38.
CHART AST R-294 AT JINOD.
CHART AST R-229 AT AYBIN.
CHART VDP AT 2.00 DME
DISTANCE VDP TO THLD 1.66 NM
FAS OBST: 275 AAO 461032N/1235756W.
FAC CROSSES RWY C/L EXTENDED 2575 FT FROM THLD.
HOLD W, RT, 069.98 INBOUND

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

ALTERNATE: NA ☒

CATEGORY:	COPTER														
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
H-08	580	3/4	566												

CHANGES - REASONS

NEW PROCEDURE.

PDF EDITS:
1. CHANGE MAP TO ARP IN AIRSPACE.

COORDINATED WITH:

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

FLIGHT CHECKED BY

PENDING
Digitally signed by
DONALD H LANIER
Jun 07, 2018

DEVELOPED BY

LIAM DONAHUE
Digitally signed by
DONALD H LANIER
Jun 07, 2018

APPROVED BY

PATRICK MULQUEEN
Digitally signed by
DONALD H LANIER
Jun 07, 2018

OFFICE

FIOG

DATE

OFFICE

AJV-5431

DATE

05/01/2018

OFFICE

AJV-5430

DATE

TITLE

MANAGER



**FLIGHT STANDARDS SERVICE
COPTER VOR/DME STANDARD INSTRUMENT APPROACH PROCEDURE**

TITLE 14 CFR PART 97.35

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.

If an instrument approach procedure of the above type is conducted at the below named airport, it shall be conducted in accordance with a charted instrument approach procedure predicted on the specifications contained herein, unless an approach is conducted in accordance with a different procedure for such airport authorized by the Administrator. Minimum altitudes shall correspond with those established for enroute operations in the particular area or as set forth below.

<u>HELIPORT</u> ASTORIA RGNL	<u>HELIPORT ID</u> KAST	<u>PROCEDURE NAME</u> COPTER VOR/DME OR GPS 066	<u>ORIGINAL/AMENDMENT</u> 1	<u>CITY</u> ASTORIA	<u>STATE</u> OR
<u>SURFACE ELEVATION</u> 11	<u>TDZE</u>	<u>SUPERSEDED</u> COPTER VOR/DME 063	<u>ORIGINAL/AMENDMENT</u> ORIGINAL	<u>DATED</u> 06/30/1988	<u>MAG VAR</u> 19E
<u>FACILITY</u> AST	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 08/25/1988	<u>REQUIRED EFFECTIVE DATE</u>	<u>CANCEL SUSPEND</u> CANCEL	<u>EPOCH YEAR</u> 1990

PROCEDURE CANCELLED EFFECTIVE 07/19/2018

MISSED APPROACH

MAP:

MISSED APPROACH INSTRUCTIONS:

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT	SIDE OF COURSE	OUTBOUND	FT WITHIN	MILES OF (IAF)
2.				
3. FAC:	FAF:	DIST FAF TO MAP:	DIST FAF TO THLD:	
4. MIN ALT:				
8. MSA FROM:				

EQUIPMENT REQUIREMENTS NOTES:

NOTES:

ADDITIONAL FLIGHT DATA:

MINIMUMS:

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

ALTERNATE: NA ☐

CHANGES - REASONS



COORDINATED WITH:

A4A ☐ ALPA ☐ AOPA ☐ APA ☐ HAI ☐ NBAA ☐ OTHER: FSDO-64, SEA ARTCC, MMV FSS, USCG AST, ARPT MNGR, AVN-220, ATA

FLIGHT CHECKED BY

OFFICE

DATE

DEVELOPED BY

LIAM DONAHUE

Digitally signed by
LIAM DONAHUE

OFFICE

AJV-5431

DATE

05/02/2018

APPROVED BY

PATRICK MULQUEEN

May 21, 2018
Digitally signed by
DONALD H LANIER
Jun 07, 2018

OFFICE

AJV-5430

DATE

TITLE



FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
ILS STANDARD INSTRUMENT APPROACH PROCEDURE
TITLE 14 CFR PART 97.29

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> ASTORIA RGNL	<u>AIRPORT ID</u> KAST	<u>PROCEDURE NAME</u> ILS RWY 26	<u>ORIGINAL/AMENDMENT</u> 3B	<u>CITY</u> ASTORIA	<u>STATE</u> OR	
<u>AIRPORT ELEVATION</u> 14	<u>TDZE</u> 14	<u>SUPERSEDED</u> ILS RWY 26	<u>ORIGINAL/AMENDMENT</u> 3A	<u>DATED</u> 02/05/2015	<u>MAG VAR</u> 15E	<u>EPOCH YEAR</u> 2020
<u>FACILITY</u> I-AST	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<u>REQUIRED EFFECTIVE DATE</u> 07/19/2018	<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>
AST VOR/DME		ZINKY/AST 19.00 DME					080.96	19.00	5300
PULYI/AST VOR/DME 19.00 DME CW	IAF	ZINKY/AST 19.00 DME	NOPT				19.00 DME ARC (AST LR-074)		4400
ZIGPI/AST 19.00 DME CCW	IAF	ZINKY/AST 19.00 DME	NOPT				19.00 DME ARC (AST LR-087)		4400
ZUNAB/AST VOR/DME 25.47 DME	IAF	ZINKY/AST 19.00 DME					216.00 & 260.50	2.90 (HDG) & 4.37 (I-AST)	4400
ZINKY/AST 19.00 DME	IF/IAF	JUNSA/AST 12.81 DME	PFAF				260.50	6.19 (I-AST)	4000

MISSED APPROACH

MAP:

ILS: DA

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 1500 THEN CLIMBING RIGHT TURN TO 2900 DIRECT AST VOR/DME AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT **SIDE OF COURSE** **OUTBOUND** **FT WITHIN** **MILES OF (IAF)**
2. HOLD E ZINKY/I-AST, RT, 260.50 INBOUND, 4400 FT. IN LIEU OF PT (IAF), MAX 6000.
3. **FAC:** 260.50 **PFAF:** JUNSA/AST 12.81 DME **DIST PFAF TO MAP:** **DIST PFAF TO THLD:**
4. **MIN ALT:** ZINKY/AST 19.00 DME 4400, JUNSA/AST 12.81 DME 4000
5. **DIST TO THLD FROM OM:** **MM:** **IM:** **150 HAT:** **HAT:** **GS ANT:** 1050
6. **MIN GS INCPT:** 4000 **GS ALT AT PFAF :** JUNSA/AST 12.81 DME 4000 **OM:** **MM:** **IM:**
7. **GP ANGLE:** 3.00 **34:1:** IS NOT CLEAR **20:1:** IS CLEAR **TCH:** 55.9
8. **MSA FROM:** AST VOR/DME 004-184 4600, 184-004 3400



EQUIPMENT REQUIREMENTS NOTES

DME REQUIRED FOR PROCEDURE ENTRY.

NOTES:

CHART NOTE: RWY 26 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.

CHART NOTE: INOPERATIVE TABLE DOES NOT APPLY.

CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON AST VOR/DME AIRWAY RADIALS 024 CW 099.

ADDITIONAL FLIGHT DATA:

CHART AST R-332 AT PULYI.

CHART AST R-170 AT ZIGPI.

HOLD W, RT, 079.00 INBOUND

MINIMUMS:**TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT****ALTERNATE:** NA ☐ ILS: 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>
S-ILS 26	264	1	250	264	1	250	264	1	250	264	1	250			

CHANGES - REASONS

1. ADDED 4 DEGREES TO ALL COURSES RADIALS AND HEADINGS. - AIRPORT, LOCALIZER AND VOR/DME MAGNETIC VARIATION UPDATED FROM 19 E TO 15E.
2. CHANGED HELICOPTER VISIBILITY REDUCTION FROM 1SM TO 3/4 SM. - 20:1 SURFACE IS CLEAR (SEE P-NOTAM 4/6159, AMDT 3A).
3. INCORPORATED CHANGE 3A. - P-NOTAM 4/6159.
4. MOVED BACKUP ALTIMETER AND INOPERATIVE ALS DATA TO 8260-9 GENERAL REMARKS. - FOR CONTINGENCY PURPOSES.
5. RAISED EASTERN SECTOR OF MSA TO 4600 FT. - NEW MAP STUDY (FLIGHT CHECKED WITH COPTER VOR RWY 8).
6. REMOVED CHART (CFLCD) AT INTERSECTION OF ZUNAB DR LEG AND INTERMEDIATE COURSE FROM ADDITIONAL FLT DATA. - CNF NO LONGER REQUIRED.
7. CHANGED ALTERNATE FROM NA TO STANDARD. - USE AS ALTERNATE AUTHORIZED.
8. ADDED CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON AST VOR/DME AIRWAY RADIALS 024 CW 099. - TURN ANGLES AT AST VOR/DME TO INITIAL LEG.
9. ADDED EQUIPMENT NOTE: DME REQUIRED FOR PROCEDURE ENTRY. - PROCEDURE REQUIRES DME FOR ALL CHARTED PROCEDURE ENTRIES.

PDF EDITS:

1. REMOVE LEG TYPES FROM TERMINAL RTS.
2. CHANGE V/DME TO VOR/DME IN LINE 4 "FROM" IN TERMINAL ROUTES.
3. ADD 8.5 TO ELEV GS ANTENNA IN PART B.
5. CHANGE MAP TO ARP IN AIRSPACE.
6. ADD (HDG) TO DISTANCE OF LINE 4 OF TERMINAL RTS.



COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: SEA ARTCC, MMV FSS, WESTERN FPT, ARPT MNGR

FLIGHT CHECKED BY

OFFICE

DATE

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-333) MEMO, DEC 22, 2017.

Digitally signed by

DEVELOPED BY

Digitally signed by

DONALD H LANIER

OFFICE

DATE

LIAM DONAHUE

LIAM DONAHUE

May 10, 2018

AJV-5431

05/03/2018

APPROVED BY

May 09, 2018

OFFICE

DATE

TITLE

PATRICK MULQUEEN

Digitally signed by

DONALD H LANIER

May 10, 2018

AJV-5430

MANAGER



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.
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<u>AIRPORT</u> ASTORIA RGNL	<u>AIRPORT ID</u> KAST	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 8	<u>ORIGINAL/AMENDMENT</u> 1	<u>CITY</u> ASTORIA	<u>STATE</u> OR
<u>AIRPORT ELEVATION</u> 14	<u>TDZE</u> 14	<u>SUPERSEDED</u> RNAV (GPS) RWY 8	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>DATED</u> 12/11/2014	<u>MAG VAR</u> 15E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<u>REQUIRED EFFECTIVE DATE</u> 07/19/2018	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 2020

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>
ILWAC	IAF	SEAME		TF	FB	1.00	152.58	9.46	2000
SEAME	IF	SAAND		TF	FB	1.00	080.30	5.00	1700
SAAND	FAF	HISET/2.00 NM TO RW08		TF	FB	0.30	080.39	3.18	
HISET/2.00 NM TO RW08		RW08	MAP	TF	FO	0.30	080.39	2.00	
RW08	MAP	500 MSL		CA			080.39		500
500 MSL		SEAME		DF	FO	1.00			2000

MISSED APPROACH

MAP:

LP: RW08
 LNAV: RW08

MISSED APPROACH INSTRUCTIONS:

(DO NOT EXCEED 225 KIAS UNTIL SEAME) CLIMB TO 500, THEN CLIMBING RIGHT TURN TO 2000 DIRECT SEAME AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)
2. PROFILE STARTS AT SEAME
3. FAC: 080.39 FAF: SAAND DIST FAF TO MAP: 5.18 DIST FAF TO THLD: 5.18
4. MIN ALT: SEAME 2000, SAAND 1700, HISET/2.00 NM TO RW08 680
5. DIST TO THLD FROM OM: MM: IM: 150 HAT: HAT:
6. MIN GP INCPT: GP ALT AT FAF : OM: MM: IM:
7. GP ANGLE: 34:1: IS NOT CLEAR 20:1: IS CLEAR TCH:
8. MSA FROM: RW08 4500

PBN EQUIPMENT REQUIREMENTS NOTES

PBN REQUIREMENTS NOTE: RNP APCH.

NOTES:

CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT ILWAC ON V112 WESTBOUND AND ON T257 NORTHBOUND.
CHART NOTE: RWY 8 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART NOTE: CIRCLING RWY 32 NA AT NIGHT.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
SAAND TO RW08: 3.00/37.9.
CHART W-570
CHART VDP AT 1.16 NM TO RW08
WAAS CHANNEL #40032
REFERENCE PATH ID: W08A
CHART FAS OBST: 164 TREE 460929N/1235433W.
CHART FAS OBST: 200 TREE 460909N/1235422W.
HOLD NW, LT, 152.58 INBOUND
LTP HAE: -19.8M

MINIMUMS:

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

ALTERNATE: NA ☐ CAT C 1100-3, CAT D 1200-3

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
LP MDA	420	1	406	420	1	406	420	1 1/8	406	420	1 1/8	406			
LNAV MDA	460	1	446	460	1	446	460	1 3/8	446	460	1 3/8	446			
CIRCLING	660	1	646	800	1	786	1080	3	1066	1160	3	1146			



CHANGES - REASONS

1. TERMINAL ROUTES, PROFILE LINE 3 - FAC AND ADDITIONAL FLIGHT DATA - HOLDING: ALL HEADINGS/COURSES CHANGED 4 DEGREES - MAG VAR UPDATED FROM 19E, EPOCH YEAR 1990 TO 15E, EPOCH YEAR 2020.
2. TERMINAL ROUTES, SEAME TO SAAND, RNP VALUE CHANGED FROM 0.50 TO 1.00.
3. PROFILE, LINE 7, 20:1 IS CLEAR ADDED - IAW 8260.19H PARA 8-6-7G(3).
4. LP MINIMA: CATS A-D CHANGED FROM 380 MDA/367 HATH TO 420 MDA/406 HAT. CATS C-D VISIBILITY CHANGED FROM 1 TO 1 1/8 - UPDATED CONTROLLING OBSTACLE.
5. LNAV MINIMA: CATS A-D, 447 HATH CHANGED TO 446 HAT - PROCEDURES WITH CHARTED THRE TO BE AMENDED TO USE TDZE PER MEMO 203 DATED FEB 21, 2014.
6. CIRCLING MINIMA: CAT A CHANGED FROM 700 MDA/685 HAA TO 660 MDA/646 HAA, CAT B CHANGED FROM 760 MDA/745 HAA TO 800 MDA/786 HAA, CAT C CHANGED FROM 800 MDA/785 HAA/2 1/4 VIS TO 1080 MDA/1066 HAA/3 VIS AND CAT D CHANGED FROM 900 MDA/885 HAA TO 1160 MDA/1146 HAA - NEW CIRCLING CRITERIA APPLIED.
7. ADDITIONAL FLIGHT DATA, FAS OBST DELETED: 129 TREE 460947N/1235422W AND FAS OBST ADDED: 164 TREE 460929N/1235433W - UPDATED FAS OBSTACLE.
8. ADDITIONAL FLIGHT DATA, NOTE CHANGED FROM 'CHART VDP AT 1.03 NM TO RW08' TO 'CHART VDP AT 1.16 NM TO RW08' - UPDATED EVALUATION.
9. ADDITIONAL FLIGHT DATA, NOTE ADDED: CHART CIRCLING ICON - NEW CIRCLING CRITERIA APPLIED.
10. ADDITIONAL FLIGHT DATA, MAG VAR CHANGED FROM 19E 1990 TO 15E 2020.
11. NOTE ADDED: PBN REQUIREMENTS NOTE: RNP APCH - PER MEMO 257.
12. NOTE DELETED: DME/DME RNP-0.3 NA - PER MEMO 257.
13. NOTE DELETED: VDP NA WITH KELSO ALTIMETER SETTING - PRIMARY ALTIMETER SOURCE LOCAL, ON-AIRPORT AND ON WMSCR.
14. NOTE DELETED: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE KELSO ALTIMETER SETTING AND INCREASE ALL MDA 100 FEET, INCREASE LNAV CATS C AND D AND CIRCLING CAT B VISIBILITY 1/4 MILE, LP CATS C AND D VISIBILITY 3/8 MILE, AND CIRCLING CAT C VISIBILITY 1/2 MILE - PRIMARY ALTIMETER SOURCE LOCAL, ON-AIRPORT AND ON WMSCR.
15. NOTE DELETED: LIMIT MISSED APPROACH TO 225 KIAS AND ADDED TO MISSED APPROACH INSTRUCTIONS - IAW .19H PARA 8-6-6D (11).
16. NOTE DELETED: HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED - 34:1 PENETRATIONS PUBLISHED IAW 8260.19H PARA 8-6-11K(3).
17. NOTE ADDED: RWY 8 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED - 34:1 PENETRATIONS PUBLISHED IAW 8260.19H PARA 8-6-11K(3).
18. NOTE ADDED: CIRCLING RWY 32 NA AT NIGHT - 20:1 CIRCLING PENETRATIONS - PUBLISHED IAW 8260.19H PARA 8-6-11O(2)(G).
19. NOTE DELETED: ALTERNATE MINIMUMS NA WHEN LOCAL WEATHER NOT AVAILABLE - PRIMARY ALTIMETER SOURCE LOCAL, ON-AIRPORT AND ON WMSCR.
20. ALTERNATE MINS NOTE UPDATED FROM '@ CAT C 800-2 1/4, CAT D 900-3' TO '@ CAT C 1100-3, CAT D 1200-3' - CIRCLING CAT C/D MDAS ABOVE STANDARD.
21. AIRPORT ELEV CHANGED FROM 15 TO 14 AND THRE 13 CHANGED TO TDZE 14 - NEW SURVEY DATA.
22. CRC REMAINDER CHANGED FROM D3095417 TO 8F56284B - LTP/FPAP COORDINATES AND LTP/FTP ELLIPSOIDAL HEIGHT UPDATED.

8260-3 PDF EDITED:

1. ADDITIONAL FLIGHT DATA, ADDED 'CHART FAS OBST:' BEFORE 200 TREE 460909N/1235422W.
2. ADDITIONAL FLIGHT DATA, LTP HAE: -19.8.
3. ALTERNATE, 'STANDARD' DELETED.
4. FAS DATA BLOCK, LTP/FTP ELLIPSOIDAL HEIGHT, CHANGED TO -00198.

8260-9 PDF EDITED:

1. CIRCLING CAT C ADJUSTMENTS, DELETED DUPLICATE AC50.
2. AIRSPACE FORM, RUNWAY APCH END AND DIST FURTHEST FROM ARP.

COORDINATED WITH:

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

FLIGHT CHECKED BY

PENDING

Digitally signed by
DONALD H LANIER
Jun 12, 2018

OFFICE

FIOG

DATE

DEVELOPED BY

Digitally signed by
ANDREA CHANEY **ANDREA J CHANEY**

OFFICE

AJV-5433

DATE

04/05/2018

APPROVED BY

Digitally signed by
PATRICK MULQUEEN **DONALD H LANIER**
May 02, 2018
Jun 12, 2018

OFFICE

AJV-5430

DATE

TITLE

MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KAST
RUNWAY	RW08
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W08A
LTP/FTP LATITUDE	460935.1205N
LTP/FTP LONGITUDE	1235318.8335W
LTP/FTP ELLIPSOIDAL HEIGHT	-00198
FPAP LATITUDE	460926.5970N
FPAP LONGITUDE	1235111.2430W
THRESHOLD CROSSING HEIGHT (TCH)	00038.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1072
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	0.0
CRC REMAINDER	8F56284B

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K1
LTP ORTHOMETRIC HEIGHT	+00038
FPAP ORTHOMETRIC HEIGHT	+00038



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> ASTORIA RGNL	<u>AIRPORT ID</u> KAST	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 26	<u>ORIGINAL/AMENDMENT</u> 1	<u>CITY</u> ASTORIA	<u>STATE</u> OR	
<u>AIRPORT ELEVATION</u> 14	<u>TDZE</u> 14	<u>SUPERSEDED</u> RNAV (GPS) RWY 26	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>DATED</u> 05/07/2009	<u>MAG VAR</u> 15E	<u>EPOCH YEAR</u> 2020
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<u>REQUIRED EFFECTIVE DATE</u> 07/19/2018	<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>
AST VOR/DME		KKARP		TF	FO	2.00	080.96	18.27	5000
OLM VORTAC		HOMKU		TF	FB	2.00	189.18	50.34	5400
PITER		SMOAK		TF	FB	2.00	295.14	16.77	4500
HOMKU	IAF	KKARP	NOPT	TF	FB	1.00	188.82	5.00	4500
SMOAK	IAF	KKARP	NOPT	TF	FB	1.00	294.92	5.00	4500
KKARP	IF/IAF	YUZPI		TF	FB	1.00	260.81	6.00	3800
YUZPI		RROCK		TF	FB	1.00	260.70	2.01	3500
RROCK	FAF	IPUPE/4.90 NM TO RW26		TF	FB	0.30	260.67	4.90	
IPUPE/4.90 NM TO RW26		RW26	MAP	TF	FO	0.30	260.67	4.90	
RW26	MAP	264 MSL		CA			260.67		
264 MSL		STAZY		DF	FB	1.00			
STAZY		YUXBU		TF	FB	1.00	189.28	7.00	
YUXBU		KULOA		TF	FO	1.00	113.42	7.25	5000



<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	264	3/4	250	264	3/4	250	264	3/4	250	264	3/4	250			
LNAV MDA	860	3/4	846	860	3/4	846	860	1 7/8	846	860	1 7/8	846			
CIRCLING	860	1 1/4	846	860	1 1/4	846	1080	3	1066	1160	3	1146			

CHANGES - REASONS

8260-3 PDF EDITED:

1. ADDITIONAL FLIGHT DATA, LTP HAE: -19.7.
2. ALTERNATE, 'STANDARD' DELETED.
3. FAS DATA BLOCK, LTP/FTP ELLIPSOIDAL HEIGHT, CHANGED TO -00197.

8260-9 PDF EDITED:

1. CIRCLING CAT C ADJUSTMENTS, DELETED DUPLICATE AC50.
2. ELEV RWY THRESHOLD ADDED, 12.3.
3. AIRSPACE FORM, RUNWAY APCH END AND DIST FURTHEST FROM ARP.



1. TERMINAL ROUTES, AST VOR/DME TO QAARY CHANGED TO AST VOR/DME TO KKARP. COURSE /DISTANCE CHANGED FROM 077.01/16.36 TO 080.96/18.27 - INTERMEDIATE FIX MOVED MORE THAN 1 NM AND RENAMED PER TERPS CRITERIA.
2. TERMINAL ROUTES, OLM VORTAC TO AMRCN CHANGED TO OLM VORTAC TO HOMKU. COURSE/DISTANCE CHANGED FROM 187.04/50.96 TO 189.18/50.34 - INITIAL FIX MOVED MORE THAN 1 NM AND RENAMED PER TERPS CRITERIA.
3. TERMINAL ROUTES, PITER TO LUKYI CHANGED TO PITER TO SMOAK. COURSE/DISTANCE CHANGED FROM 288.52/18.37 TO 295.14/16.77 - INITIAL FIX MOVED MORE THAN 1 NM AND RENAMED PER TERPS CRITERIA - INTERMEDIATE FIX MOVED MORE THAN 1 NM AND RENAMED PER TERPS CRITERIA.
4. TERMINAL ROUTES, AMRCN TO QAARY CHANGED TO HOMKU TO KKARP. COURSE CHANGED FROM 186.65 TO 188.82 - INITIAL AND INTERMEDIATE FIX MOVED MORE THAN 1 NM AND RENAMED PER TERPS CRITERIA.
5. TERMINAL ROUTES, LUKYI TO QAARY CHANGED TO SMOAK TO KKARP. COURSE CHANGED FROM 288.27 TO 294.92 - INITIAL AND INTERMEDIATE FIX MOVED MORE THAN 1 NM AND RENAMED PER TERPS CRITERIA.
6. TERMINAL ROUTES, QAARY TO YUZPI CHANGED TO KKARP TO YUZPI. RNP VALUE CHANGED FROM 0.50 TO 1.00. COURSE/DISTANCE CHANGED FROM 256.77/4.95 TO 260.81/6.00. ALTITUDE CHANGED FROM 3600 TO 3800 - INTERMEDIATE FIX MOVED MORE THAN 1 NM AND RENAMED PER TERPS CRITERIA. INTERMEDIATE RNP VALUE UPDATED TO NEW VALUE. NEW INTERMEDIATE CONTROLLING OBSTACLE.
7. TERMINAL ROUTES, YUZPI TO RROCK, COURSE/DISTANCE CHANGED FROM 256.70/1.07 TO 260.70/2.1. RNP VALUE CHANGED FROM 0.50 TO 1.00. ALTITUDE CHANGED FROM 3300 TO 3500 - INTERMEDIATE STEPDOWN ADJUSTED TO NEW MINIMUM LENGTH BASED ON NEW INTERMEDIATE RNP VALUE . NEW INTERMEDIATE STEPDOWN CONTROLLING OBSTACLE.
8. TERMINAL ROUTES, RROCK TO IPUPE, COURSE/DISTANCE CHANGED FROM 256.67/5.08 TO 260.67/4.90 - GPA ADJUSTED TO KEEP FINAL LENGTH UNDER 10NM AND FAF ALTITUDE AT MINIMUM INTERMEDIATE STEPDOWN ALTITUDE.
9. TERMINAL ROUTES, IPUPE TO RW26 (MAP), COURSE/DISTANCE CHANGED FROM 256.67/4.80 TO 260.67/4.90 - FINAL STEPDOWN LOCATION ADJUSTED WITH GPA ADJUSTMENT.
10. TERMINAL ROUTE ADDED: RW26 (MAP) TO 264 MSL (CA) 260.67 - CA LEG ADDED TO MISSED APPROACH INSTRUCTIONS PER 8260.58A 3-5-2. CA ALTITUDE MUST BE THE LOWEST OF DA, MDA OR 400 ABOVE AIRPORT ELEVATION.
11. TERMINAL ROUTES, RW26 (MAP) TO STAZY CHANGED TO 264 MSL TO STAZY - CA LEG ADDED TO MISSED APPROACH INSTRUCTIONS PER 8260.58A 3-5-2. CA ALTITUDE MUST BE THE LOWEST OF DA, MDA OR 400 ABOVE AIRPORT ELEVATION.
12. TERMINAL ROUTES, STAZY TO YUXBU, COURSE CHANGED FROM 185.28 TO 189.28 - MAG VAR UPDATED FROM 19E, EPOCH YEAR 1990 TO 15E, EPOCH YEAR 2020.
13. TERMINAL ROUTES, YUXBU TO KULOA, COURSE CHANGED FROM 115.36 TO 113.42 - MAG VAR UPDATED FROM 19E, EPOCH YEAR 1990 TO 15E, EPOCH YEAR 2020.
14. PROFILE, LINE 2, HIL AT QAARY CHANGED TO HIL AT KKARP. COURSE CHANGED FROM 256.77 TO 260.81 - COURSE ADJUSTED TO MATCH NEW INTERMEDIATE COURSE AT NEW FIX KKARP.
15. PROFILE, LINE 3, FAC CHANGED FROM 256.67 TO 260.67. DISTANCE FAF TO MAP AND FAF TO THLD CHANGED FROM 9.88 NM TO 9.80 NM.
16. PROFILE, LINE 4, QAARY CHANGED TO KKARP. YUZPI 3600 CHANGED TO YUZPI 3800. RROCK 3300 CHANGED TO 3500. IPUPE/4.80 NM TO RW26 1600 CHANGED TO IPUPE/4.90 NM TO RW26 1780.
17. PROFILE, LINE 6, MIN GS INCPT 3300 CHANGED TO 3500. GS ALT AT RROCK 3500 ADDED.
18. PROFILE, LINE 7, GS ANGLE 3.00 CHANGED TO 3.30. TCH CHANGED FROM 55.7 TO 55. 20:1 IS CLEAR ADDED - IAW 8260.19H PARA 8-6-7G(3).
19. LPV MINIMA: CATS A-D CHANGED FROM 300 DA/286 HAT TO 264 DA/250 HAT. VISIBILITY CHANGED FROM 1 TO 3/4 - UPDATED CONTROLLING OBSTACLE.
20. LNAV MINIMA: CATS A-D, CHANGED FROM 900 MDA/886 HAT TO 860 MDA/846 HAT. CATS A/B VISIBILITY CHANGED FROM 1 1/4 TO 3/4. CAT C VISIBILITY CHANGED FROM 2 3/4 TO 1 7/8 AND CAT D VISIBILITY CHANGED FROM 3 TO 1 7/8 - UPDATED CONTROLLING OBSTACLE.
21. CIRCLING MINIMA: CATS A/B CHANGED FROM 900 MDA/885 HAA TO 860 MDA/846 HAA, CAT C CHANGED FROM 900 MDA/885 HAA/2 3/4 VIS TO 1080 MDA/1066 HAA/3 VIS AND CAT D CHANGED FROM 900 MDA/885 HAA TO 1160 MDA/1146 HAA - NEW CIRCLING CRITERIA APPLIED. UPDATED CONTROLLING OBSTACLES.
22. MISSED APPROACH CHANGED FROM 'CLIMB TO 5000 DIRECT STAZY AND VIA TRACK 185.28 TO YUXBU AND VIA TRACK 115.36 TO KULOA AND HOLD' TO 'DO NOT EXCEED 210 KIAS UNTIL STAZY' CLIMB TO 5000 DIRECT STAZY AND LEFT TURN ON TRACK 189.28 TO YUXBU AND LEFT TURN ON TRACK 113.42 TO KULOA AND HOLD, CONTINUE CLIMB-IN-HOLD TO 5000' - UPDATED EVALUATION IAW .19H PARA 8-6-6D (11).
23. ADDITIONAL FLIGHT DATA, NOTE CHANGED FROM 'HOLD S, LT, 345.64 INBOUND' TO 'HOLD S, LT, 349.64 INBOUND' - MAG VAR UPDATED FROM 19E, EPOCH YEAR 1990 TO 15E, EPOCH YEAR 2020.
24. ADDITIONAL FLIGHT DATA, FAS OBST DELETED: 649 AAO 460948N/1234647W AND FAS OBST ADDED: 600 AAO 460948N/1234647W - UPDATED FAS OBSTACLE.
25. ADDITIONAL FLIGHT DATA, DISTANCE TO THLD FROM 286 HAT: 0.73 NM CHANGED TO DISTANCE TO THLD FROM 250 HAT: 0.56 NM - HAT LOWERED TO MINIMUM ALLOWABLE.
26. ADDITIONAL FLIGHT DATA, NOTE ADDED: CHART VDP AT 2.25 NM TO RW26*. *LNAV ONLY - PRIMARY ALTIMETER SOURCE LOCAL TO AIRPORT AND 20:1 STR-IN PENETRATIONS CLEAR.
27. ADDITIONAL FLIGHT DATA, NOTE ADDED: CHART CIRCLING ICON - NEW CIRCLING CRITERIA APPLIED.
28. ADDITIONAL FLIGHT DATA, MAG VAR CHANGED FROM 19E 1990 TO 15E 2020.
29. NOTE CHANGED FROM 'INOPERATIVE TABLE DOES NOT APPLY' TO 'INOPERATIVE TABLE DOES NOT APPLY TO LPV ALL CATS' - UPDATED EVALUATION.
30. NOTE ADDED: PBN REQUIREMENTS NOTE: RNP APCH - PER MEMO 257.
31. NOTE DELETED: DME/DME RNP-0.3 NA - PER MEMO 257.
32. NOTE DELETED: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE KELSO ALTIMETER SETTING AND INCREASE ALL DA 95 FT AND ALL MDA 100FT; INCREASE LPV ALL CATS, LNAV CATS C AND D AND CIRCLING CATS C AND D VISIBILITY 1/4 MILE - PRIMARY ALTIMETER SOURCE LOCAL, ON-AIRPORT AND ON WMSCR.
33. NOTE DELETED: ALTERNATE MINIMUMS NA WHEN LOCAL WEATHER NOT AVAILABLE - PRIMARY ALTIMETER SOURCE LOCAL, ON-AIRPORT AND ON WMSCR.
34. NOTE DELETED: HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED - NOTE CHANGED PER CRITERIA CHANGE.
35. NOTE ADDED: RWY 26 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED - 34:1 PENETRATIONS PUBLISHED IAW 8260.19H PARA 8-6-11K(3).
36. NOTE ADDED: CIRCLING RWY 32 NA AT NIGHT - 20:1 CIRCLING PENETRATIONS - PUBLISHED IAW 8260.19H PARA 8-6-11O(2)(G).
37. NOTE ADDED: FOR INOPERATIVE ALS, INCREASE LNAV CAT A/B VISIBILITY TO 1 SM AND CAT C/D TO 2 1/2 SM - PER VISCHECK.
38. NOTE ADDED: PROCEDURE NA FOR ARRIVALS AT AST VORTAC ON V27 NORTHBOUND - TURN EXCEEDS 90 DEGREES.
39. NOTE DELETED: ALTERNATE MINIMUMS NA WHEN LOCAL WEATHER NOT AVAILABLE - PRIMARY ALTIMETER SOURCE LOCAL, ON-AIRPORT AND ON WMSCR.
40. ALTERNATE MINS NOTE UPDATED FROM '@ CAT A, B 900-2, CAT C 900-2 3/4, CAT D 900-3' TO '@ CAT A, B 900-2, CAT C 1100-3, CAT D 1200-3' - CIRCLING CAT A-D MDAS ABOVE STANDARD.
41. CRC REMAINDER CHANGED FROM C073339F TO 9F21D7B7 - GPA, TCH, COURSE WIDTH AT THRESHOLD AND LTP/FPAP COORDINATES UPDATED.



<u>AIRPORT</u> ASTORIA RGNL	<u>AIRPORT ID</u> KAST	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 26	<u>ORIGINAL/AMENDMENT</u> 1	<u>CITY</u> ASTORIA	<u>STATE</u> OR
<u>COORDINATED WITH:</u>					
A4A ☒ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ <u>OTHER:</u> ZSE, AMGR					
<u>FLIGHT CHECKED BY</u> PENDING		<i>Digitally signed by</i> DONALD H LANIER Jun 12, 2018	<u>OFFICE</u> FIOG	<u>DATE</u>	
<u>DEVELOPED BY</u> ANDREA CHANEY		<i>Digitally signed by</i> ANDREA J CHANEY May 04, 2018	<u>OFFICE</u> AJV-5433	<u>DATE</u> 04/05/2018	
<u>APPROVED BY</u> PATRICK MULQUEEN		<i>Digitally signed by</i> DONALD H LANIER Jun 12, 2018	<u>OFFICE</u> AJV-5430	<u>DATE</u>	<u>TITLE</u> MANAGER



**FLIGHT STANDARDS SERVICE
VOR STANDARD INSTRUMENT APPROACH PROCEDURE**

TITLE 14 CFR PART 97.23

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.

If an instrument approach procedure of the above type is conducted at the below named airport, it shall be conducted in accordance with a charted instrument approach procedure predicted on the specifications contained herein, unless an approach is conducted in accordance with a different procedure for such airport authorized by the Administrator. Minimum altitudes shall correspond with those established for enroute operations in the particular area or as set forth below.

<u>AIRPORT</u> ASTORIA RGNL	<u>AIRPORT ID</u> KAST	<u>PROCEDURE NAME</u> VOR RWY 8	<u>ORIGINAL/AMENDMENT</u> 12A	<u>CITY</u> ASTORIA	<u>STATE</u> OR
<u>AIRPORT ELEVATION</u> 14	<u>TDZE</u> 14	<u>SUPERSEDED</u> VOR RWY 8	<u>ORIGINAL/AMENDMENT</u> 12	<u>DATED</u> 10/27/2005	<u>MAG VAR</u> 15E
<u>FACILITY</u> AST	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 2020

MISSED APPROACH

MAP:

AST VOR/DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 1000 THEN CLIMBING LEFT TURN TO 3000 IN AST VOR/DME HOLDING PATTERN.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT L SIDE OF COURSE 250.00 OUTBOUND 1800 FT WITHIN 10 MILES OF AST (IAF)
2.
3. FAC: 070.00 FAF: DIST FAF TO MAP: DIST FAF TO THLD:
4. MIN ALT:
8. MSA FROM: AST VOR/DME 004-184 4600, 184-004 3400

EQUIPMENT REQUIREMENTS NOTES:

NOTES:

CHART NOTE: RWY 8 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.

ADDITIONAL FLIGHT DATA:

CHART W-570
CHART FAS OBST: 249 TREE 460809N/1235635W.
FAC 22 FT R OF RWY C/L EXTENDED 3000 FT FROM THLD.
HOLD SE, LT, 299.00 INBOUND

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD - CAT C 800-2 1/4, CAT D 900-3



<u>AIRPORT</u> ASTORIA RGNL		<u>AIRPORT ID</u> KAST			<u>PROCEDURE NAME</u> VOR RWY 8			<u>ORIGINAL/AMENDMENT</u> 12A			<u>CITY</u> ASTORIA		<u>STATE</u> OR		
<u>CATEGORY:</u>	A			B			C			D			E		
<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>
S-08	660	1	646	660	1	646	660	1 7/8	646	660	2	646			
CIRCLING	660	1	646	760	1 1/4	746	800	2 1/4	786	900	3	886			

CHANGES - REASONS

1. ADDED 4 DEGREES TO ALL COURSES, RADIALS AND HEADINGS. - AIRPORT AND AST VOR/DME MAGNETIC VARIATION UPDATED FROM 19E TO 15E.
2. ADDED CHART NOTE: RWY 8 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. - 34:1 PENETRATIONS.
3. RAISED MSA SECTOR ALTITUDES TO 4600 AND 3400 FT. - NEW MAP STUDY (FLIGHT CHECKED BY COPTER VOR RWY 8).
4. RAISED S-8 CAT C VISIBILITY FROM 1 3/4 TO 1 7/8 SM. - FAAO 8260.3C CHAPTER 3

- PDF EDITS:
1. CHANGE DISTANCE FROM MAP TO FROM ARP IN AIRSPACE.
 2. REMOVE LOC FROM ALT MINIMUMS.

COORDINATED WITH:

A4A ☐
ALPA ☒
AOPA ☒
APA ☒
HAI ☐
NBAA ☒
OTHER: ZSE, AIRPORT MGR, OREGON AERO DIV, ATA

FLIGHT CHECKED BY

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-333) MEMO, DEC 22, 2017.

DEVELOPED BY *Digitally signed by*
 LIAM DONAHUE **LIAM DONAHUE**
 May 09, 2018

APPROVED BY *Digitally signed by*
 PATRICK MULQUEEN **DONALD H LANIER**
 May 10, 2018

OFFICE

DATE

Digitally signed by

DONALD H LANIER
 May 10, 2018

OFFICE
 AJV-5431

DATE
 05/04/2018

OFFICE
 AJV-5430

DATE

TITLE
 MANAGER



**FLIGHT STANDARDS SERVICE
LOC STANDARD INSTRUMENT APPROACH PROCEDURE**

TITLE 14 CFR PART 97.25

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.

If an instrument approach procedure of the above type is conducted at the below named airport, it shall be conducted in accordance with a charted instrument approach procedure predicted on the specifications contained herein, unless an approach is conducted in accordance with a different procedure for such airport authorized by the Administrator. Minimum altitudes shall correspond with those established for enroute operations in the particular area or as set forth below.

<u>AIRPORT</u> PORT MEADVILLE	<u>AIRPORT ID</u> KGKJ	<u>PROCEDURE NAME</u> LOC RWY 25	<u>ORIGINAL/AMENDMENT</u> 6E	<u>CITY</u> MEADVILLE	<u>STATE</u> PA	
<u>AIRPORT ELEVATION</u> 1399	<u>TDZE</u> 1399	<u>SUPERSEDED</u> LOC RWY 25	<u>ORIGINAL/AMENDMENT</u> 6D	<u>DATED</u> 11/10/2016	<u>MAG VAR</u> 8W	<u>EPOCH YEAR</u> 1990
<u>FACILITY</u> I-GKJ	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<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>
FKL VOR		NERVA INT					348.28	17.95	3600
NERVA INT	IF/IAF	MEADI OM INT					249.23	6.02 (I-GKJ)	3300

MISSED APPROACH

MAP:

LOC: 5.68 NM AFTER MEADI OM/INT

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2000 THEN CLIMBING LEFT TURN TO 3600 ON HEADING 125 AND FKL VOR R-300 TO FKL VOR AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

- 1. PT** **SIDE OF COURSE** **OUTBOUND** **FT WITHIN** **MILES OF (IAF)**
- 2.** HOLD E NERVA/I-GKJ, LT, 249.23 INBOUND, 3600 FT. IN LIEU OF PT (IAF), MAX 5000.
- 3. FAC:** 249.23 **FAF:** MEADI OM/INT **DIST FAF TO MAP:** 5.68 **DIST FAF TO THLD:** 5.68
- 4. MIN ALT:** NERVA INT 3600, MEADI OM INT 3300, REICH INT 2140
- 8. MSA FROM:** FKL VOR 3300

EQUIPMENT REQUIREMENTS NOTES:

RADAR REQUIRED

NOTES:

CHART NOTE: INOPERATIVE TABLE DOES NOT APPLY.
CHART NOTE: RWY 25 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.

ADDITIONAL FLIGHT DATA:



MEADI TO RW25: 3.09/41.
CHART FAS OBST: 1530 TREE 413809N/0801060W.
HOLD N, RT, 186.00 INBOUND

MINIMUMS:

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

ALTERNATE: NA ☐ LOC: STANDARD - CAT B 900-2, CAT C 900-2 1/2, CAT D 900-2 3/4, NA WHEN LOCAL WEATHER NOT AVAILABLE.

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
S-LOC 25	1780	1	381	1780	1	381	1780	1 7/8	381	1780	1 7/8	381			
CIRCLING	1900	1	501	2240	1 1/4	841	2240	2 1/2	841	2240	2 3/4	841			



CHANGES - REASONS

1. TERMINAL ROUTES: CHANGED ALL INSTANCES OF "NERVA INT/39.23 DME" TO "NERVA INT" - YNG VORTAC DECOMMISSIONED.
2. TERMINAL ROUTES: CHANGED FKL VOR TO NERVA INT, COURSE AND DISTANCE FROM 348.29/17.94 TO 348.28/17.95 - FKL VOR COORDINATES UPDATED PER SURVEY, NO FIXES WERE MOVED.
3. TERMINAL ROUTES: REMOVED SEGMENTS TDT VORTAC TO WUHCO, AND WUHCO TO NERVA - TDT VORTAC DECOMMISSIONED.
4. LINE 4: CHANGED "REICH/YNG 29.91 DME" TO "REICH INT" - YNG VORTAC DECOMMISSIONED.
5. MINIMUMS: DELETED TOP 2 LINES OF MINIMUMS - REICH FIX NO LONGER RELIES ON DME FROM DECOMMISSIONED YNG VORTAC, NOW STEPDOWN FIX WILL BE "ALWAYS RECEIVED."
6. CHART NOTE ADDED: "RADAR REQUIRED" - PER IFP CHECKLIST/DESIGN REQUEST BASED ON ATC REQUIREMENTS.
7. REMOVED CHART NOTE: "WHEN LOCAL ALTIMETER NOT RECEIVED, USE FRANKLIN ALTIMETER SETTING AND INCREASE ALL MDA 80 FEET; INCREASE S-25 CATS C AND D VISIBILITY 1/8 MILE AND CIRCLING CATS A, C, AND D VISIBILITY 1/4 MILE; INCREASE REICH FIX MINIMUMS S-25 CATS C AND D, AND CIRCLING CATS C AND D VISIBILITY 1/4 MILE" - AIRPORT HAS FULL-TIME ASOS WITH WMSCR, REMOVED PER CRITERIA.
8. ELIMINATED CHART NOTE: "FOR INOPERATIVE MALS, INCREASE S-25 CATS C AND D VISIBILITY TO 2 MILES AND REICH FIX MINIMUMS S-25 CAT D VISIBILITY TO 1 1/8 MILE" - CURRENTLY PUBLISHED MINIMUMS EXCEED REMOTE ALTIMETER WITH AND WITHOUT ALS MINIMUMS, NOTE N/A.
9. ELIMINATED CHART NOTE "FOR INOPERATIVE MALS WHEN USING FRANKLIN ALTIMETER SETTING, INCREASE S-25 CATS C AND D VISIBILITY TO 2 1/2 MILES AND REICH FIX MINIMUMS S-25 CAT D VISIBILITY TO 1 3/8 MILE" - CURRENTLY PUBLISHED MINIMUMS EXCEED REMOTE ALTIMETER WITH AND WITHOUT ALS MINIMUMS, NOTE N/A.
10. CHART NOTE ADDED: RWY 25 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED - SURVEYED 34:1 PENETRATIONS IN FINAL VISUAL AREA.
11. MISSED APPROACH: CHANGED FROM "CLIMB TO 3000 ON HEADING 235 AND YNG VORTAC R-054 TO COMME INT/YNG 22.02 DME AND HOLD, OR AS DIRECTED BY ATC" TO "CLIMB TO 2000 THEN CLIMBING LEFT TURN TO 3600 ON HEADING 125 AND FKL VOR R-300 TO FKL AND HOLD" - YNG VORTAC DECOMMISSIONED, ALTERNATE MISSED APPROACH WAS MODIFIED AND IS NOW THE PRIMARY.
12. REMOVED "ALTERNATE MA: CLIMB TO 3300 ON HEADING 249 AND ON FKL VOR R-306 TO FKL VOR AND HOLD" - ALTERNATE MA MODIFIED TO CURRENT CRITERIA AND USED AS PRIMARY.
13. ADDITIONAL FLIGHT DATA: CHANGED FROM "HOLD SW, RT, 054.03 INBOUND" TO "HOLD N, RT, 186.00 INBOUND." - MISSED APPROACH HOLDING AT COMME REPLACED WITH HOLDING AT THE FKL VOR.
14. ADDITIONAL FLIGHT DATA: DELETED "CHART ALTERNATE MISSED APPROACH IN PLANVIEW: HOLD N FKL VOR, RT, 186.00 INBOUND" - ALTERNATE MISSED APPROACH NOT DEVELOPED PER IFP CHECKLIST/DESIGN REQUEST BASED ON ATC REQUIREMENTS.
15. ADDITIONAL FLIGHT DATA: REMOVED "CHART IN PLANVIEW: FKL VOR" - CHARTING FKL VOR IS AUTOMATIC SINCE IT IS A FEEDER FACILITY, NOTE SUPERFLUOUS.
16. ADDITIONAL FLIGHT DATA: ADDED "CHART PLANVIEW NOTE: RADAR REQUIRED" - PER IFP CHECKLIST/DESIGN REQUEST BASED ON ATC REQUIREMENTS.
17. CHART NOTE ADDED: INOPERATIVE TABLE DOES NOT APPLY - NO PORTION OF THE INOPERATIVE TABLE IS APPLICABLE.

PDF EDITS:

1. TERMINAL ROUTES: REMOVED FO AND FB FROM FO/FB COLUMN - NOT REQUIRED ON GROUND-BASED PROCEDURES.

COORDINATED WITH:

A4A

☐

ALPA

☒

AOPA

☒

APA

☒

HAI

☐

NBAA

☒

OTHER:

YNG APP CON, AIRPORT MANAGER

Digitally signed by

FLIGHT CHECKED BY

DONALD H LANIER

GABRIEL J PARKISON

Jun 05, 2018

Digitally signed by

DEVELOPED BY

COLTON CROWDER

COLTON CROWDER

Apr 20, 2018

OFFICE

DATE

FICO

5/30/18

AJV-5431

04/06/2018

Digitally signed by

APPROVED BY

DONALD H LANIER

PATRICK MULQUEEN

Jun 05, 2018

OFFICE

DATE

AJV-5430

TITLE

MANAGER



US DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION							RNAV - STANDARD INSTRUMENT APPROACH PROCEDURE TITLE 14 CFR PART 97.33										Bearings, headings, courses, 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 in feet RVR.									
TERMINAL ROUTES																	MISSED APPROACH									
FROM				TO				COURSE AND DISTANCE				ALTITUDE		LP: RW07 LNAV: RW07												
FKL VOR				BIBYA (TF) (FB) (RNP 2.00)				262.65 / 24.64				3500		CLIMB TO 1900 THEN CLIMBING LEFT TURN TO 3100 DIRECT DUCAT AND HOLD.												
BIBYA (IAF)				DUCAT (NOPT) (TF) (FB) (RNP 1.00)				339.12 / 12.00				3000														
JIGIP (IAF)				DUCAT (NOPT) (TF) (FB) (RNP 1.00)				158.97 / 9.00				3000														
DUCAT (IF/IAF)				CASSA (TF) (FB) (RNP 1.00)				069.03 / 9.96				3000														
CASSA (FAF)				RW07 (MAP) (TF) (FO) (RNP 0.30)				069.16 / 4.87						ADDITIONAL FLIGHT DATA: CHART FAS OBST: 1492 TREE 413733N/0801314W, 1455 TREE 413720N/0801345W. 1499 AAO 413503N/0801855W. WAAS CHANNEL # 53724 REFERENCE PATH ID: W07A CASSA TO RW07: 3.00/58 CHART VDP AT 0.97 NM TO RW07 LTP HAE: 390.6 M												
(SEE FORM 8260-10)																										
1. PT _____ SIDE OF COURSE _____ OUTBOUND _____ FT WITHIN _____ MILES OF _____ (IAF)																										
2. HOLD W DUCAT, RT, 069.03 INBOUND, 3000 FT. IN LIEU OF PT (IAF)																										
3. FAC: 069.16 FAF: CASSA DIST FAF TO MAP: 4.87 THLD: 4.87																										
4. MIN. ALT: DUCAT 3000, CASSA 3000																										
5. DIST TO THLD FROM OM: _____ MM: _____ IM: _____ 150 HAT: _____ 100 HAT: _____ GS ANT: _____																										
6. MIN GS INCPT: _____ GS ALT AT: _____ OM: _____ MM: _____ IM: _____																										
7. GS ANGLE: _____ TCH: 20:1 IS CLEAR 34:1 IS NOT CLEAR																										
8. MSA FROM: RW07 3200																										
MAG VAR: 8W EPOCH YEAR: 1990																										
MINIMUMS																										
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT							ALTERNATE: N A			STANDARD @																
CATEGORY =====>		A			B			C			D			E												
	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA											
LP MDA	1760	1	361	1760	1	361	1760	1	361	1760	1	361														
LNAV MDA	1860	1	461	1860	1	461	1860	1 3/8	461	1860	1 3/8	461														
CIRCLING	1900	1	501	2240	1 1/4	841	2240	2 1/2	841	2240	2 3/4	841														
NOTES: CHART NOTE: RWY 7 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON FKL VOR AIRWAY RADIALS 245 CW 280. PBN REQUIREMENTS NOTE: RNP APCH.																										
CITY AND STATE MEADVILLE, PA							ELEVATION: 1399 TDZE: 1399 AIRPORT NAME: PORT MEADVILLE			FACILITY IDENTIFIER: RNAV			PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (GPS) RWY 7, AMDT 1D 19 JULY 2018				SUP: AMDT: 1C DATED 04/28/2016									



US DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION
RNAV - STANDARD
INSTRUMENT APPROACH PROCEDURE - TITLE 14 CFR PART 97.33

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TERMINAL ROUTES, (CONT.):

FROM	TO	COURSE AND DISTANCE	ALTITUDE
RW07 (MAP)	1900 MSL (CA)	069.16	1900
1900 MSL	DUCAT (DF) (FO) (RNP 1.00)		3100

QUALITY
24
CHECKED

CITY AND STATE
MEADVILLE, PA

ELEVATION: 1399 TDZE: 1399
AIRPORT NAME:
PORT MEADVILLE

FACILITY
IDENTIFIER:
RNAV

PROCEDURE NO./AMDT NO./EFFECTIVE DATE:
RNAV (GPS) RWY 7, AMDT 1D
19 JULY 2018

SUP:
AMDT: 1C
DATED: 04/28/2016

**RNAV STANDARD INSTRUMENT APPROACH PROCEDURE
FLIGHT STANDARDS SERVICE - FAR PART 97.33**

Bearings, headings, courses, 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 in feet RVR.

FAS DATA BLOCK INFORMATION**DATA FIELD****DATA**

OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KGKJ
RUNWAY	RW07
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W07A
LTP/FTP LATITUDE	413723.5565N
LTP/FTP LONGITUDE	0801321.8875W
LTP/FTP ELLIPSOIDAL HEIGHT	+03906
FPAP LATITUDE	413806.4600N
FPAP LONGITUDE	0801137.7400W
THRESHOLD CROSSING HEIGHT (TCH)	00057.5
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1224
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	0.0

CRC REMAINDER

BB907F63

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K6
LTP ORTHOMETRIC HEIGHT	+04244
FPAP ORTHOMETRIC HEIGHT	+04244

QUALITY
24
CHECKED

CITY AND STATE

MEADVILLE, PA

ELEVATION: 1399

TDZE: 1399

AIRPORT NAME:

PORT MEADVILLE

FACILITY
IDENTIFIER:

RNAV

PROCEDURE NO./AMDT NO./EFFECTIVE DATE:

RNAV (GPS) RWY 7, AMDT 1D

19 JULY 2018

SUP:

AMDT: 1C

DATED: 04/28/2016

US DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION		RNAV - STANDARD INSTRUMENT APPROACH PROCEDURE TITLE 14 CFR PART 97.33		Bearings, headings, courses, 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 in feet RVR.											
TERMINAL ROUTES										MISSED APPROACH					
FROM		TO		COURSE AND DISTANCE				ALTITUDE		LP: RW25 LNAV: RW25					
ALLCO		CELER (TF) (FO) (RNP 2.00)		100.71 / 5.79				3500		CLIMB TO 3000 DIRECT DUCAT AND HOLD.					
FKL VOR		CELER (TF) (FO) (RNP 2.00)		354.30 / 18.23				3500							
CELER (IF/IAF)		SASOC (TF) (FB) (RNP 1.00)		249.44 / 7.16				3300							
SASOC (FAF)		RW25 (MAP) (TF) (FO) (RNP 0.30)		249.31 / 5.85											
RW25 (MAP)		1799 MSL (CA)		249.31						ADDITIONAL FLIGHT DATA: HOLD W, RT, 069.03 INBOUND. CHART FAS OBST: 1885 TOWER 413749N/0801029W. FAS OBST: 1763 AAO 413937N/0800736W. WAAS CHANNEL # 45924 REFERENCE PATH ID: W25A SASOC TO RW25: 3.00/41 CHART VDP AT 1.82 NM TO RW25 LTP HAE: 391.9 M					
1799 MSL		DUCAT (DF) (FO) (RNP 1.00)						3000							
1. PT _____ SIDE OF COURSE _____ OUTBOUND _____ FT WITHIN _____ MILES OF _____ (IAF)															
2. HOLD E CELER, LT, 249.44 INBOUND, 3500 FT. IN LIEU OF PT (IAF)															
3. FAC: 249.31 FAF: SASOC DIST FAF TO MAP: 5.85 THLD: 5.85															
4. MIN. ALT: CELER 3500, SASOC 3300															
5. DIST TO THLD FROM OM: _____ MM: _____ IM: _____ 150 HAT: _____ 100 HAT: _____ GS ANT: _____															
6. MIN GS INCPT: _____ GS ALT AT: _____ OM: _____ MM: _____ IM: _____															
7. GS ANGLE: _____ TCH: 20:1 IS CLEAR 34:1 IS CLEAR															
8. MSA FROM: RW25 3200															
MAG VAR: 8W EPOCH YEAR: 1990															
MINIMUMS															
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT										ALTERNATE: N A		STANDARD @			
CATEGORY =====>		A		B		C		D		E					
	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA
LP MDA	2020	1	621	2020	1	621	2020	1 1/2	621	2020	1 1/2	621			
LNAV MDA	2140	1	741	2140	1	741	2140	1 7/8	741	2140	1 7/8	741			
CIRCLING	2140	1	741	2240	1 1/4	841	2240	2 1/2	841	2240	2 3/4	841			
NOTES: CHART NOTE: INOPERATIVE TABLE DOES NOT APPLY TO LP CATS A AND B, AND LNAV CAT A. CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON FKL VOR AIRWAY RADIALS 280 CW 056. PBN REQUIREMENTS NOTE: RNP APCH.															
@ CAT B 900-2, CAT C 900-2 1/2, CAT D 900-2 3/4															
(CONTINUED ON PAGE 2)															
CITY AND STATE MEADVILLE, PA		ELEVATION: 1399 TDZE: 1399 AIRPORT NAME: PORT MEADVILLE		FACILITY IDENTIFIER: RNAV		PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (GPS) RWY 25, AMDT 1E 19 JULY 2018						SUP: AMDT: 1D DATED 11/10/2016			

US DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION
RNAV - STANDARD
INSTRUMENT APPROACH PROCEDURE - TITLE 14 CFR PART 97.33

Bearings, headings, courses, 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 in feet RVR.

NOTES, (CONT.):

CHART NOTE: FOR INOPERATIVE ALS INCREASE LNAV CATS C AND D VISIBILITY TO 2 SM.

QUALITY
24
CHECKED

CITY AND STATE MEADVILLE, PA	ELEVATION: 1399 TDZE: 1399 AIRPORT NAME: PORT MEADVILLE	FACILITY IDENTIFIER: RNAV	PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (GPS) RWY 25, AMDT 1E 19 JULY 2018	SUP:
				AMDT: 1D
				DATED: 11/10/2016

**RNAV STANDARD INSTRUMENT APPROACH PROCEDURE
FLIGHT STANDARDS SERVICE - FAR PART 97.33**

Bearings, headings, courses, 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 in feet RVR.

FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KGKJ
RUNWAY	RW25
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W25A
LTP/FTP LATITUDE	413747.3440N
LTP/FTP LONGITUDE	0801224.1850W
LTP/FTP ELLIPSOIDAL HEIGHT	+03919
FPAP LATITUDE	413704.4200N
FPAP LONGITUDE	0801408.3200W
THRESHOLD CROSSING HEIGHT (TCH)	00040.7
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1224
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	0.0
 <u>CRC REMAINDER</u>	 1CC5659A

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K6
LTP ORTHOMETRIC HEIGHT	+04257
FPAP ORTHOMETRIC HEIGHT	+04257

QUALITY
24
CHECKED

CITY AND STATE MEADVILLE, PA	ELEVATION: 1399 AIRPORT NAME: PORT MEADVILLE	TDZE: 1399 RNAV	PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (GPS) RWY 25, AMDT 1E 19 JULY 2018	SUP:
				AMDT: 1D
				DATED: 11/10/2016

**FLIGHT STANDARDS SERVICE
LOC STANDARD INSTRUMENT APPROACH PROCEDURE**

TITLE 14 CFR PART 97.25

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.

If an instrument approach procedure of the above type is conducted at the below named airport, it shall be conducted in accordance with a charted instrument approach procedure predicted on the specifications contained herein, unless an approach is conducted in accordance with a different procedure for such airport authorized by the Administrator. Minimum altitudes shall correspond with those established for enroute operations in the particular area or as set forth below.

<u>AIRPORT</u> BROWNWOOD RGNL	<u>AIRPORT ID</u> KBWD	<u>PROCEDURE NAME</u> LOC RWY 17	<u>ORIGINAL/AMENDMENT</u> 4B	<u>CITY</u> BROWNWOOD	<u>STATE</u> TX	
<u>AIRPORT ELEVATION</u> 1387	<u>TDZE</u> 1387	<u>SUPERSEDED</u> LOC RWY 17	<u>ORIGINAL/AMENDMENT</u> 4A	<u>DATED</u> 08/20/1992	<u>MAG VAR</u> 4E	<u>EPOCH YEAR</u> 2020
<u>FACILITY</u> I-BWD	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<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>
BUILT INT/35.84 DME		BWD VOR/DME					283.00	36.70	5000
LLO VORTAC		BWD VOR/DME					344.00	66.20	4000
ABI VORTAC		BWD VOR/DME					117.00	58.10	4000
KIMRR INT/BWD 25.52 DME	IAF	ELISE INT/BWD 10.00 DME	NOPT				171.00	15.50	3600
ELISE INT/BWD 10.00 DME	IF	BWD VOR/DME	NOPT				175.35	10.00	3100
BWD VOR/DME		OWNEY OM/BWD 1.75 DME					175.35	1.80	2600

MISSED APPROACH

MAP:

LOC: 3.70 NM AFTER OWNEY OM/BWD 1.75 DME

MISSED APPROACH INSTRUCTIONS:

CLIMBING LEFT TURN TO 3600 DIRECT BWD VOR/DME AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT L **SIDE OF COURSE** 351.00 **OUTBOUND** 3600 **FT WITHIN** 10 **MILES OF** BWD (IAF)
- 2.
3. **FAC:** 175.35 **FAF:** OWNEY OM/BWD 1.75 DME **DIST FAF TO MAP:** 3.70 **DIST FAF TO THLD:** 3.70
4. **MIN ALT:** BWD VOR/DME 3100, OWNEY OM/BWD 1.75 DME 2600
8. **MSA FROM:** BWD VOR/DME 3600

EQUIPMENT REQUIREMENTS NOTES:



NOTES:

CHART NOTE: RWY 17 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART NOTE: INOPERATIVE TABLE DOES NOT APPLY.

ADDITIONAL FLIGHT DATA:

OWNEY INT/OM/BWD 1.75 DME TO RW17: 2.97/54.
CHART VDP AT 4.20 DME
DISTANCE VDP TO THLD 1.20 NM
CHART FAS OBST: 1463 TREE 314844N/0985731W.
HOLD N, RT, 171.00 INBOUND

MINIMUMS:

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

ALTERNATE: NA ☐ LOC: STANDARD

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
S-LOC 17	1820	1	433	1820	1	433	1820	1 1/4	433	1820	1 1/2	433			
CIRCLING	1820	1	433	1840	1	453	1840	1 1/2	453	1940	2	553			

CHANGES - REASONS

1. UPDATED MSA TO 3600 25 NM - UNABLE TO SECTOR THE MSA - BOTH SECTORS WITHIN 300 FEET OF EACH OTHER DUE TO NEW CONTROLLING OBSTACLES.
2. ADDED HELICOPTER VISIBILITY REDUCTION NOTE - 34:1 PENETRATIONS EXIST.
3. CHANGED S-17 HAT FROM 434 TO 433 ALL CATS - CHANGED TOUCHDOWN ZONE ELEVATION FROM 1386 TO 1387.
4. CIRCLING HAA CHANGED: CAT A FROM 434 TO 433, CAT B/C FROM 454 TO 453; CAT D FROM 554 TO 553 - CHANGED AIRPORT ELEVATION FROM 1386 TO 1387.
5. ADDED CHART VDP AT 4.23 DME AND DISTANCE VDP TO THLD 1.20 NM TO ADDITIONAL FLIGHT DATA - NO 20:1 PENETRATIONS, PROCEDURE HAS DME.
6. CHANGED FROM "CHART FAS OBST: 1570 TREE 315100N/0985716W" TO: "CHART FAS OBST: 1463 TREE 314844N/0985731W" - UPDATED FINAL CONTROLLING OBSTACLE.
7. CHANGED MISSED APPROACH POINT FROM "3.70 NM AFTER OWNEY INT/BWD 1.75 DME OR AT BWD 5.40 DME" TO "3.70 NM AFTER OWNEY OM/BWD 1.75 DME" - OWNEY NOT AN INTERSECTION.
8. ADDED CHART NOTE: FOR INOPERATIVE ALS, INCREASE S-LOC 17 CATS C/D VISIBILITY TO 1 1/4 SM - INOPERATIVE TABLE DOES NOT PROVIDE A SUFFICIENT INCREASE TO MINIMUMS IAW 8260.19H CRITERIA.
9. FINAL APPROACH COURSE CHANGED FROM 171.00 TO 175.35 - KBWD MAG VAR AND I-BWD MAG VAR CHANGING FROM 8E/1980 TO 4E/2020.

PDF EDIT:
REMOVE CF AND FO/FB FROM ALL SEGMENTS IN TERMINAL ROUTES.
CHANGED FROM "RUNWAY APCH END AND DIST FURTHEST FROM MAP" TO "RUNWAY APCH END AND DIST FURTHEST FROM ARP" IN AIRSPACE LETTER.

COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: ZFW, FTW FSS, AIRPORT MANAGER, ATA

FLIGHT CHECKED BY

ZACK SMYER

OFFICE

FICO

DATE Digitally signed by

5/22/18 ALLAN WILL
Jun 06, 2018

DEVELOPED BY Digitally signed by

MIKE MELSSEN MIKE MELSSEN
Apr 26, 2018

OFFICE

AJV-5412

DATE

04/16/2018

APPROVED BY

GEORGE DAVIS

OFFICE

AJV-5410

DATE Digitally signed by

ALLAN WILL
Jun 06, 2018

TITLE
MANAGER



<u>AIRPORT</u>	<u>AIRPORT ID</u>	<u>PROCEDURE NAME</u>	<u>ORIGINAL/AMENDMENT</u>	<u>CITY</u>	<u>STATE</u>
BROWNWOOD RGNL	KBWD	LOC RWY 17	4B	BROWNWOOD	TX



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> BROWNWOOD RGNL	<u>AIRPORT ID</u> KBWD	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 17	<u>ORIGINAL/AMENDMENT</u> 1A	<u>CITY</u> BROWNWOOD	<u>STATE</u> TX
<u>AIRPORT ELEVATION</u> 1387	<u>TDZE</u> 1387	<u>SUPERSEDED</u> RNAV (GPS) RWY 17	<u>ORIGINAL/AMENDMENT</u> 1	<u>DATED</u> 04/04/2005	<u>MAG VAR</u> 4E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 1980

TAA

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>ALTITUDE</u>
1. 085/30 CW 265/30	NOPT	MUSRE	IF/IAF	4000
2. 265/30 CW 355/30		ZIHMY	IAF	4000
3. 355/30 CW 085/30		OHSOJ	IAF	4000

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>
ZIHMY	IAF	MUSRE	NOPT	TF	FB	1.00	265.41	5.00	4000
OHSOJ	IAF	MUSRE	NOPT	TF	FB	1.00	085.31	5.00	4000
MUSRE	IF/IAF	INUWE		TF	FB	1.00	175.36	6.32	3000
INUWE	FAF	CUBKI/2.00 NM TO RW17		TF	FB	0.30	175.36	2.84	
CUBKI/2.00 NM TO RW17		RW17	MAP	TF	FO	0.30	175.36	2.00	
RW17	MAP	1637 MSL		CA			175.36		
1637 MSL		PEQIS		DF	FO	1.00			4000

MISSED APPROACH

MAP:

LPV: DA
LNAV: RW17

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 4000 DIRECT PEQIS AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. HOLD N MUSRE, RT, 175.36 INBOUND, 4000 FT. IN LIEU OF PT (IAF), MAX 10000.

3. FAC: 175.36FAF: INUWEDIST FAF TO MAP: 4.84DIST FAF TO THLD: 4.84

4. MIN ALT: MUSRE 4000, INUWE 3000, CUBKI/2.00 NM TO RW17 2060*

5. DIST TO THLD FROM OM:MM:IM:150 HAT:250 HAT: 0.63GS ANT:

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

7. GP ANGLE: 3.0034:1: IS NOT CLEAR20:1: IS CLEARTCH: 52.0

8. MSA FROM:

PBN REQUIREMENTS NOTES:

PBN REQUIREMENTS NOTE: RNP APCH.

NOTES:

CHART NOTE: RWY 17 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).

ADDITIONAL FLIGHT DATA:

CHART VDP AT 1.14 NM TO RW17*
*LNAV ONLY
WAAS CHANNEL #70325
REFERENCE PATH ID: W17A
CHART FAS OBST: 1539 TREE 314918N/0985715W.
CHART 1669 TREE 315248N/0985642W.
HOLD S, RT, 355.36 INBOUND
LTP HAE: 395.8 M

MINIMUMS:

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

ALTERNATE: NA☐ STANDARD

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	1637	3/4	250	1637	3/4	250	1637	3/4	250	1637	3/4	250			
LNAV MDA	1800	3/4	413	1800	3/4	413	1800	1 1/4	413	1800	1 1/4	413			
CIRCLING	1840	1	453	1840	1	453	1840	1 1/2	453	1940	2	553			



CHANGES - REASONS

- 1. ADDED NOTE: RWY 17 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED - 34:1 PENETRATIONS EXIST.
- 2. MOVED BACKUP ALTIMETER SETTING NOTE, FOR INOPERATIVE ALS NOTE AND INOPERATIVE TABLE NOTE TO THE BACK OF THE 8260-9; REMOVED ALTERNATE MINS "STANDARD @" AND "@ NA WHEN LOCAL WEATHER NOT AVAILABLE" - PROCEDURE TRANSMITTED TO WMSCR; NO PUBLISHED BACKUP ALTIMETER SOURCE REQUIRED; NOTE MOVED FOR CONTINGENCY PURPOSES.
- 3. ADDED 20:1 IS CLEAR TO LINE 7 - NO 20:1 PENETRATIONS EXIST.
- 4. CRC REMAINDER CHANGED FROM 05A6A645 TO 18CA9E6A - LTP ELLIPSOIDAL HEIGHT CHANGED FROM +03957 TO +03958; LTP UPDATED.
- 5. DELETED NOTE: DME/DME RNP-0.3 NA; ADDED PBN REQUIREMENTS NOTE: RNP APCH - IAW 9/2/17 MEMO SUBJECT: IMPLEMENTATION OF FAA ORDER 8260.19H FLIGHT PROCEDURE AND AIRSPACE.
- 6. LTP LAT/LONG CHANGED FROM 314806.7900N/985718.2800W TO 314806.7880N/0985718.2830W - FROM AIRNAV.
- 7. ADDED 4 DEGREES TO ALL HEADINGS/COURSES - KBWD MAG VAR CHANGING FROM 8E/1980 TO 4E/2020.

05/24/18: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 11/15/17.

1. ADDED "CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).



<u>AIRPORT</u> BROWNWOOD RGNL	<u>AIRPORT ID</u> KBWD	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 17	<u>ORIGINAL/AMENDMENT</u> 1A	<u>CITY</u> BROWNWOOD	<u>STATE</u> TX
<u>COORDINATED WITH:</u>					
A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ <u>OTHER:</u> ZFW, ST. AV. DIR., AMGR, ATA					
<u>FLIGHT CHECKED BY</u> ZACK LEE SMYER		<u>OFFICE</u> FIOG	<u>DATE</u> 05/22/2018	Digitally signed by ALLAN WILL Jun 06, 2018	
<u>DEVELOPED BY</u> MIKE MELSSEN		<u>OFFICE</u> AJV-5412	<u>DATE</u> 11/15/2017	Digitally signed by ALLAN WILL Jun 06, 2018	
<u>APPROVED BY</u> GEORGE DAVIS		<u>OFFICE</u> AJV-5410	<u>DATE</u>	Digitally signed by ALLAN WILL Jun 06, 2018	<u>TITLE</u> MANAGER



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

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<u>AIRPORT</u> BROWNWOOD RGNL	<u>AIRPORT ID</u> KBWD	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 35	<u>ORIGINAL/AMENDMENT</u> 1A	<u>CITY</u> BROWNWOOD	<u>STATE</u> TX
<u>AIRPORT ELEVATION</u> 1387	<u>TDZE</u> 1386	<u>SUPERSEDED</u> RNAV (GPS) RWY 35	<u>ORIGINAL/AMENDMENT</u> 1	<u>DATED</u> 08/04/2005	<u>MAG VAR</u> 4E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 2020

TAA

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>ALTITUDE</u>
1. 265/30 CW 085/30	NOPT	PEQIS	IF/IAF	4000
2. 085/30 CW 175/30		FICCU	IAF	4000
3. 175/30 CW 265/30		OKUTY	IAF	4000

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>
FICCU	IAF	PEQIS	NOPT	TF	FB	1.00	085.31	5.00	4000
OKUTY	IAF	PEQIS	NOPT	TF	FB	1.00	265.41	5.00	4000
PEQIS	IF/IAF	IWAHU		TF	FB	1.00	355.36	6.25	3000
IWAHU	FAF	HOVAS/2.40 NM TO RW35		TF	FB	0.30	355.36	2.51	
HOVAS/2.40 NM TO RW35		RW35	MAP	TF	FO	0.30	355.36	2.40	
RW35	MAP	1636 MSL		CA			355.36		
1636 MSL		MUSRE		DF	FO	1.00			4000

MISSED APPROACH

MAP:

LPV: DA
 LNAV: RW35

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 4000 DIRECT MUSRE AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)
2. HOLD S PEQIS, RT, 355.36 INBOUND, 4000 FT. IN LIEU OF PT (IAF), MAX 10000.
3. FAC: 355.36FAF: IWAHU
- DIST FAF TO MAP: 4.91
- DIST FAF TO THLD: 4.91
4. MIN ALT: PEQIS 4000, IWAHU 3000, HOVAS/2.40 NM TO RW35 2180*
5. DIST TO THLD FROM OM:
- MM:
- IM:
- 150 HAT:
- 250 HAT: 0.69
6. MIN GP INCPT: 3000
- GP ALT AT FAF : IWAHU 3000
- OM:
- MM:
- IM:
7. GP ANGLE: 3.00
- 34:1: IS NOT CLEAR
- 20:1: IS CLEAR
- TCH: 45.0
8. MSA FROM:

PBN EQUIPMENT REQUIREMENTS NOTES

RNP APCH.

NOTES:

CHART NOTE: RWY 35 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.

ADDITIONAL FLIGHT DATA:

CHART: 1560 TOWER 314446N/0985702W
CHART VDP AT 1.13 NM TO RW35*
*LNAV ONLY
WAAS CHANNEL #77525
REFERENCE PATH ID: W35A
CHART FAS OBST: 1492 TOWER 314625N/0985659W.
HOLD N, RT, 175.36 INBOUND
LTP HAE: 391.5 M

MINIMUMS:

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

ALTERNATE: NA

☐

 STANDARD

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	1636	1	250	1636	1	250	1636	1	250	1636	1	250			
LNAV MDA	1780	1	394	1780	1	394	1780	1 1/8	394	1780	1 1/4	394			
CIRCLING	1840	1	453	1840	1	453	1840	1 1/8	453	1940	2	553			



CHANGES - REASONS

- 1. ADDED CHART NOTE: RWY 35 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED - 34:1 VISUAL SURFACE PENETRATIONS EXIST.
- 2. ADDED 20:1 IS CLEAR TO LINE 7 - IAW 8260.19H PARA 8-6-7G(3).
- 3. CRC REMAINDER CHANGED FROM 744C0542 TO 36D7CF0C - LTP ELLIPSOIDAL HEIGHT CHANGED FROM +03914 TO +03915.
- 4. MOVED ALTIMETER SETTING NOTE AND ASSOCIATED NOTES TO THE BACK OF THE 8260-9; REMOVED STANDARD @ AND @ NA WHEN LOCAL WEATHER NOT AVAILABLE - KBWD ON WMSCR, BACKUP ALTIMETER SETTING NOTE CAN BE REMOVED AND MOVED TO THE 8260-9 FOR CONTINGENCY PURPOSES - ASOS/AWOS THAT TRANSMIT ON WMSCR DO NOT REQUIRE A PUBLISHED BACKUP ALTIMETER SOURCE.
- 5. DELETED NOTE: DME/DME RNP-0.3 NA; ADDED PBN REQUIREMENTS NOTE: RNP APPCH - IAW 9/12/17 MEMO SUBJECT: IMPLEMENTATION OF FAA ORDER 8260.19H FLIGHT PROCEDURE AND AIRSPACE.
- 7. LTP CHANGED FROM 314840.6700N/0985718. 7300W TO 314711.3900N/0985717.5570W - FROM AIRNAV.
- 8. UPDATED FAS OBST FROM 1593 TOWER, AND ADDED CHART OBST 1560 TOWER (7:1) - OBSTACLE DATABASE UPDATED.
- 9. RAISED LNAV CAT C VISIBILITY FROM 1 SM TO 1 1/8 SM - OBSTACLE DATABASE UPDATED.
- 10. INCREASED ALL COURSES/HEADINGS BY 4 DEGREES - KBWD MAG VAR CHANGED FROM 8E/1980 TO 4E/2020.

PDF EDIT:
ADDED XP38: MAINTAIN CURRENT MDA TO SEGMENT REMARKS - LNAV STEPDOWN.



<u>AIRPORT</u> BROWNWOOD RGNL	<u>AIRPORT ID</u> KBWD	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 35	<u>ORIGINAL/AMENDMENT</u> 1A	<u>CITY</u> BROWNWOOD	<u>STATE</u> TX
<u>COORDINATED WITH:</u>					
A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ <u>OTHER:</u> ZFW, ST. AV. DIR., AMGR, ATA					
<u>FLIGHT CHECKED BY</u> ZACK SMYER		<u>OFFICE</u> FICO	<u>DATE</u> 5/22/18	Digitally signed by ALLAN WILL Jun 06, 2018	
<u>DEVELOPED BY</u> MIKE MELSSEN		<u>OFFICE</u> AJV-5412	<u>DATE</u> 11/16/2017	Digitally signed by ALLAN WILL Jun 06, 2018	
<u>APPROVED BY</u> GEORGE DAVIS		<u>OFFICE</u> AJV-5410	<u>DATE</u>	<u>TITLE</u> MANAGER	



FAS DATA BLOCK INFORMATION

DATA FIELD	DATA
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KBWD
RUNWAY	RW35
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W35A
LTP/FTP LATITUDE	314711.3900N
LTP/FTP LONGITUDE	0985717.5570W
LTP/FTP ELLIPSOIDAL HEIGHT	+03915
FPAP LATITUDE	314840.6700N
FPAP LONGITUDE	0985718.7300W
THRESHOLD CROSSING HEIGHT (TCH)	00045.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1040
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	03C1AFD3
ADDITIONAL PATH POINT RECORD INFORMATION	
ICAO CODE	K4
LTP ORTHOMETRIC HEIGHT	+04176
FPAP ORTHOMETRIC HEIGHT	+04176



**FLIGHT STANDARDS SERVICE
VOR STANDARD INSTRUMENT APPROACH PROCEDURE**

TITLE 14 CFR PART 97.23

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If an instrument approach procedure of the above type is conducted at the below named airport, it shall be conducted in accordance with a charted instrument approach procedure predicted on the specifications contained herein, unless an approach is conducted in accordance with a different procedure for such airport authorized by the Administrator. Minimum altitudes shall correspond with those established for enroute operations in the particular area or as set forth below.

<u>AIRPORT</u> BROWNWOOD RGNL	<u>AIRPORT ID</u> KBWD	<u>PROCEDURE NAME</u> VOR RWY 35	<u>ORIGINAL/AMENDMENT</u> 1C	<u>CITY</u> BROWNWOOD	<u>STATE</u> TX
<u>AIRPORT ELEVATION</u> 1387	<u>TDZE</u> 1386	<u>SUPERSEDED</u> VOR/DME RWY 35	<u>ORIGINAL/AMENDMENT</u> 1B	<u>DATED</u> 09/01/2005	<u>MAG VAR</u> 8E
<u>FACILITY</u> BWD	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 1980

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>
BWD VOR/DME		GRUPE/BWD 12.00 DME					170.83	12.00	3600
LLO VORTAC	IAF	ZANNE/BWD 22.00 DME	NOPT				341.27	44.42	5000
ZANNE/BWD 22.00 DME	IF	GRUPE/BWD 12.00 DME					350.83	10.00	3100

MISSED APPROACH

MAP:

BWD 6.40 DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3600 DIRECT BWD VOR/DME AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT R **SIDE OF COURSE** 171.00 **OUTBOUND** 3600 **FT WITHIN** 10 **MILES OF** GRUPE (IAF)
- 2.
3. **FAC:** 350.83 **FAF:** GRUPE/BWD 12.00 DME **DIST FAF TO MAP:** **DIST FAF TO THLD:** 5.70
4. **MIN ALT:** GRUPE/BWD 12.00 DME 3100
8. **MSA FROM:** BWD VOR/DME 3500

EQUIPMENT REQUIREMENTS NOTES:

EQUIPMENT REQUIREMENTS NOTE: DME REQUIRED

NOTES:

CHART NOTE: RWY 35 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).

ADDITIONAL FLIGHT DATA:



GRUPE/BWD 12 DME TO RW35: 2.82/40.
CHART FAS OBST: 1630 TOWER 314424N/0985752W.
HOLD N, RT, 171.00 INBOUND

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD

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
S-35	1940	1	554	1940	1	554	1940	1 5/8	554	1940	1 5/8	554			
CIRCLING	1940	1	553	1940	1	553	1940	1 5/8	553	1940	2	553			

CHANGES - REASONS

- ADDED CHART NOTE: RWY 35 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED - 34:1 PENETRATIONS EXIST.
- CHANGED MSA ALTITUDE TO 3600 25 NM - NEW CONTROLLING OBSTACLES WOULD HAVE BOTH SECTORS WITHIN 300 FEET OF EACH OTHER SO SECTORING NOT ALLOWED.
- ADDED CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}) - NOTE REQUIRED - TCH = 40; VGSI TCH = 45.
- REMOVED DME FROM PROCEDURE NAME - IAW 8260.19H CRITERIA - REMOVE DME FROM PROCEDURE NAME.
- ADDED EQUIPMENT REQUIREMENTS NOTE: DME REQUIRED - IAW 8260.19H PARA 8-6-8A(2)(A).
- UPDATED FAS OBST FROM 1595 TOWER TO 1630 TOWER - NEW OBSTACLE EVALUATION.
- CHANGED S-35 MDA/HAT FROM 1880/495 TO 1940/554 ALL CATS, AND CAT C VIS FROM 1 1/4 TO 1 5/8 AND CAT D VISIBILITY FROM 1 1/2 TO 1 5/8 - NEW OBSTACLE EVALUATION.
- CHANGED CIRCLING CAT A/B/C MDA HAA FROM 1880/494 TO 1940/553 AND CAT D HAA FROM 554 TO 553, AND CAT C VIS FROM 1 1/2 TO 1 5/8 - NEW OBSTACLE EVALUATION.
- FINAL COURSE CHANGED FROM 351 TO 350.83 - PER CRITERIA COURSES ROUND TO THE HUNDREDTHS.
- COURSE FROM BWD VOR/DME TO GRUPE CHANGED FROM 171 TO 170.83 - PER CRITERIA COURSES ROUND TO THE HUNDREDTHS.
- COURSE FROM LLO VORTAC TO ZANNE CHANGED FROM 341 TO 341.27 - PER CRITERIA COURSES ROUND TO THE HUNDREDTHS.
- COURSE FROM ZANNE TO GRUPE CHANGED FROM 351 TO 351.83 - PER CRITERIA COURSES ROUND TO THE HUNDREDTHS.
- DISTANCE FROM LLO VORTAC TO ZANNE CHANGED FROM 44.40 TO 44.42 - REVISED IAW IAPA CALCULATION.

PDF EDIT:

- REMOVED ORDER 8260.3, VOLUME 1, CHAPTER 2, NEW CIRCLING APPLIED FROM 8260-9.

05/24/18: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 11/16/17.

- REMOVED LINE 9 FROM CHANGES/REASONS: "CHANGED MISSED APPROACH POINT FROM BWD R-171/6.40 DME TO ZEMVI/BWD 6.35 DME" - NOT NEEDED - AND THEN RENUMBERED CHANGES/REASONS.
- CHANGES-REASONS (WAS CHANGE 11 BUT CHANGED TO CHANGE 10 DUE TO REUNMBERING): "COURSE FROM BWD VOR/DME TO GRUPE CHANGED FROM 171 TO 171.83 - PER CRITERIA COURSES ROUND TO THE HUNDREDTHS" - PER THE 8260-2 FOR GRUPE THE COURSE REMAINS 170.83 VS 171.83. CORRECTED LINE 10 OF THE CHANGE LIST AND CORRECTED THE 8260-5 TERMINAL ROUTE BWD TO GRUPE TO A COURSE OF 170.83.

COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: ZFW ARTCC, FTW FSS, AIRPORT MANAGER, ATA

FLIGHT CHECKED BY

ZACK LEE SMYER

OFFICE

FIOG

DATE

05/22/2018

Digitally signed by

ALLAN WILL

Jun 06, 2018

DEVELOPED BY

Digitally signed by

MIKE MELSSEN MIKE MELSSEN

OFFICE

AJV-5412

DATE

11/16/2017

APPROVED BY

May 31, 2018

GEORGE DAVIS

OFFICE

AJV-5410

DATE

Digitally signed by

ALLAN WILL

Jun 06, 2018

TITLE

MANAGER



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> BOERNE STAGE FIELD	<u>AIRPORT ID</u> K5C1	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 17	<u>ORIGINAL/AMENDMENT</u> 1B	<u>CITY</u> SAN ANTONIO	<u>STATE</u> TX
<u>AIRPORT ELEVATION</u> 1384	<u>TDZE</u> 1384	<u>SUPERSEDED</u> RNAV (GPS) RWY 17	<u>ORIGINAL/AMENDMENT</u> 1A	<u>DATED</u> 04/02/2015	<u>MAG VAR</u> 5E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 2010

TAA

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>ALTITUDE</u>
1. 079/30 CW 259/30	NOPT	FIDGU	IF/IAF	4100
2. 259/30 CW 079/30	PT	FIDGU	IF/IAF	4100

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>
FIDGU	IF/IAF	CUSUL		TF	FB	1.00	169.00	5.99	2700
CUSUL	FAF	EMEGY/2.30 NM TO RW17		TF	FB	0.30	169.01	1.71	
EMEGY/2.30 NM TO RW17		RW17	MAP	TF	FO	0.30	169.01	2.30	
RW17	MAP	1900 MSL		CA			169.01		1900
1900 MSL		MEDIN		DF	FO	1.00			4100

MISSED APPROACH

MAP:

LP: RW17
LNAV: RW17

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 1900 THEN CLIMBING RIGHT TURN TO 4100 DIRECT MEDIN.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. HOLD N FIDGU, RT, 169.00 INBOUND, 4100 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 169.01

FAF: CUSUL

DIST FAF TO MAP: 4.01

DIST FAF TO THLD: 4.01

4. MIN ALT: FIDGU 4100, CUSUL 2700, EMEGY/2.30 NM TO RW17 2140

5. DIST TO THLD FROM OM:

MM:

IM:

150 HAT:

HAT:

6. MIN GP INCPT:

GP ALT AT FAF :

OM:

MM:

IM:

7. GP ANGLE:

34:1: IS NOT CLEAR

20:1: IS NOT CLEAR

TCH:

8. MSA FROM:

PBN EQUIPMENT REQUIREMENTS NOTES

RNP APCH

NOTES:

CHART NOTE: CIRCLING NA EAST OF RWY 17-35.
CHART NOTE: RWY 17 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED.
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE KSAT ALTIMETER SETTING AND INCREASE ALL MDA 120 FT.
CHART NOTE: PROCEDURE NA AT NIGHT.

ADDITIONAL FLIGHT DATA:

CUSUL TO RW17: 3.00/40.
WAAS CHANNEL #50528
REFERENCE PATH ID: W17A
CHART FAS OBST: 1586 ANTENNA 294529N/0984201W.
HOLD W, LT, 105.14 INBOUND (DO NOT CHART)
LTP HAE: 396.8 M

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD - NA WHEN LOCAL WEATHER NOT AVAILABLE.

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
LP MDA	1840	1	456	1840	1	456		NA			NA				
LNAV MDA	1840	1	456	1840	1	456		NA			NA				
CIRCLING	1960	1	576	2000	1	616		NA			NA				



AIRPORT	AIRPORT ID	PROCEDURE NAME	ORIGINAL/AMENDMENT	CITY	STATE
BOERNE STAGE FIELD	K5C1	RNAV (GPS) RWY 17	1B	SAN ANTONIO	TX

CHANGES - REASONS

- 1. CHANGED CHART FAS OBST FROM: 1489 TREE 294503N/0984233W TO: 1586 ANT 294529N/0984201W - NEW IPDS EVALUATION.
- 2. CHANGED AIRPORT ELEV FROM ELEV 1385 TO ELEV 1384 - NEW AIRNAV DATA.
- 3. CHANGED TDZE ELEV FROM ELEV 1385 TO ELEV 1384 - NEW AIRNAV DATA.
- 4. ADDED CHART NOTE: RWY 17 HELICOPTER VISIBILITY REDUCTION BELOW 1SM NOT AUTHORIZED - FDC NOTAM 8/5067 INCORPORATED.
- 5. CHANGED LP MDA/HAT ALL CATS FROM 1700/318 TO 1840/456 - FDC NOTAM 8/5067 INCORPORATED.
- 6. CHANGED LNAV MDA/HAT ALL CATS FROM 1740/358 TO 1840/456 - FDC NOTAM 8/5067 INCORPORATED.
- 7. CHANGED CIRCLING HAA CAT A FROM 575 TO 576 CAT B FROM 615 TO 616 - NEW AIRNAV DATA.
- 8. DELETED NOTE: DME/DME-0.03 NA, ADDED PBN REQUIREMENTS NOTE: RNP APCH - IAW 8260.19H PARA 8-6-8.
- 9. UPDATED 20:1 PENETRATIONS - FDC NOTAM 8/5067 INCORPORATED.
- 10. CHANGED FAS DATA: LTP/FTP LAT/LON FROM 294342.0500N/0984142.6200W TO 294342.0325N/0984142.6260W; LTP/FTP ELLIPSOIDAL HEIGHT FROM +03969 TO +03968; FPAP LAT/LON FROM 294213.2200N/0984131.9400W TO 294213.2025N/0984131.9420W; OFFSET LENGTH FROM 1592 TO 1416; CRC REMAINDER FROM 507ADDA1 TO 436E1170 - NEW AIRNAV DATA
- 11. UPDATED LP STEP DOWN FIX FINAL CONTROLLING OBSTACLE FROM 1449 TREE TO 1586 ANT - NEW IPDS EVALUATION.
- 12. UPDATED LNAV STEP DOWN FIX FINAL CONTROLLING OBSTACLE FROM 1489 TREE TO 1586 ANT - NEW IPDS EVALUATION.
- 13. UPDATED LP/LNAV HMAS FROM 1600/1640 TO 1740/1740 - IAW 8260.58, 3-6-1.
- 14. ADDED 34:1 PENETRATIONS - NEW IPDS EVALUATION.
- 15. CHANGED CHART LTP HAE FROM 396.9M TO 396.8M - NEW AIRNAV DATA.



COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZHU, SAT APP CON, ST. AV. DIR., AMGR

FLIGHT CHECKED BY

Digitally signed by
ROBERT G HAMILTON
Jun 07, 2018

OFFICE
DATE

DEVELOPED BY

LONNIE EVERHART (NEAL BLOOMQUIST)

Digitally signed by
ADOLFO D URRUTIA
Apr 30, 2018

OFFICE
DATE
AJV-5400
03/01/2018

APPROVED BY

LONNIE EVERHART
Digitally signed by
ADOLFO D URRUTIA
Apr 30, 2018

OFFICE
DATE
AJV-5400
TITLE
MANAGER



FAS DATA BLOCK INFORMATION

DATA FIELD	DATA
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	K5C1
RUNWAY	RW17
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W17A
LTP/FTP LATITUDE	294342.0325N
LTP/FTP LONGITUDE	0984142.6260W
LTP/FTP ELLIPSOIDAL HEIGHT	+03968
FPAP LATITUDE	294213.2025N
FPAP LONGITUDE	0984131.9420W
THRESHOLD CROSSING HEIGHT (TCH)	00040.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1416
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	0.0
CRC REMAINDER	436E1170
ADDITIONAL PATH POINT RECORD INFORMATION	
ICAO CODE	K4
LTP ORTHOMETRIC HEIGHT	+04211
FPAP ORTHOMETRIC HEIGHT	+04211



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AMDT NO
ORIG-A

QUALITY
16
CHECKED

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
TAKEOFF MINIMUMS AND OBSTACLE DEPARTURE PROCEDURES (ODP)
TITLE 14 CFR PART 97.37**

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL. Altitudes are minimum altitudes unless otherwise indicated.
Ceilings are in feet above airport elevation. Distances are in nautical miles. Visibilities are in statute miles or feet RVR unless otherwise indicated.

CITY, STATE

SAN ANTONIO, TX

AIRPORT

BOERNE STAGE FIELD

EFFECTIVE DATE

19 JULY 2018

AMDT NOORIG-A

COORDINATED WITH:**A4A****ALPA****AOPA****APA****HAI****NBAA****OTHER:**

SAN APP CON/DEP CON, AMGR

CHANGES - REASONS:

1. UPDATED RWY 17, 35 TAKEOFF OBSTACLE NOTES - NEW RWY SURVEYS 07/13/2014.
2. ADDED OBSTACLE MANDATING ODP ROUTE DEVELOPMENT RWY 17 - NEW TARGETS EVALUATION.
3. CHANGED RWY 35 CLIMB HEADING FROM 346.02 TO 349.01 - PER CURRENT AIRNAV DATA.
4. ADDED RWY 17 TEXTUAL DEPARTURE PROCEDURE - NEW TARGETS EVALUATION.
5. CANCELLED FDC NOTAM 5/1585 - UPDATED RWY INFORMATION PER CURRENT AIRNAV DATA.



**FLIGHT STANDARDS SERVICE
NDB STANDARD INSTRUMENT APPROACH PROCEDURE**

TITLE 14 CFR PART 97.27

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.

If an instrument approach procedure of the above type is conducted at the below named airport, it shall be conducted in accordance with a charted instrument approach procedure predicted on the specifications contained herein, unless an approach is conducted in accordance with a different procedure for such airport authorized by the Administrator. Minimum altitudes shall correspond with those established for enroute operations in the particular area or as set forth below.

<u>AIRPORT</u> WHARTON RGNL	<u>AIRPORT ID</u> KARM	<u>PROCEDURE NAME</u> NDB RWY 14	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>CITY</u> WHARTON	<u>STATE</u> TX	
<u>AIRPORT ELEVATION</u> 100	<u>TDZE</u> 100	<u>SUPERSEDED</u> NDB RWY 14	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>DATED</u> 10/08/1998	<u>MAG VAR</u> 3E	<u>EPOCH YEAR</u> 2020
<u>FACILITY</u> ARM	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<u>REQUIRED EFFECTIVE DATE</u> 07/19/2018	<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>
ELA VOR/DME		ARM NDB					152.48	25.91	2000
PSX VORTAC		ARM NDB					007.41	30.41	2100

MISSED APPROACH

MAP:

ARM NDB

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2000 THEN LEFT TURN TO ARM NDB AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT L SIDE OF COURSE 321.92 OUTBOUND 1700 FT WITHIN 10 MILES OF ARM (IAF)
2.
3. FAC: 141.92 FAF: DIST FAF TO MAP: DIST FAF TO THLD:
4. MIN ALT:
8. MSA FROM: ARM NDB 2600

EQUIPMENT REQUIREMENTS NOTES:

NOTES:

CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON PSX VORTAC AIRWAY RADIALS 009 CW 060.

ADDITIONAL FLIGHT DATA:



CHART FAS OBST: 192 TREES 292445N/0961412W.
FAC CROSSES RWY C/L EXTENDED 3000 FT FROM THLD.
HOLD SE, RT, 321.92 INBOUND

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD

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
S-14	560	1	460	560	1	460	560	1 3/8	460		NA				
CIRCLING	560	1	460	560	1	460	560	1 1/2	460		NA				

CHANGES - REASONS

1. RAISED MSA FROM ARM NDB FROM 2100 FEET TO 2600 FEET - ABBREVIATED AMENDMENT TO CLEAR FDC T-NOTAM 7/9748 FOR NEW CONTROLLING OBSTACLE IDENTIFIED DURING PERIODIC REVIEW.
2. RAISED FEEDER ROUTE PSX VORTAC TO ARM NDB MINIMUM ALTITUDE FROM 2000 FEET TO 2100 FEET - ABBREVIATED AMENDMENT TO CLEAR FDC T-NOTAM 7/9748 FOR NEW CONTROLLING OBSTACLE IDENTIFIED DURING PERIODIC REVIEW.
3. ADDITIONAL FLIGHT DATA: CHANGED FROM "HOLD SE, RT, 319 INBOUND" TO "HOLD SE, RT, 321.92 INBOUND" - RESULT OF MAG VAR UPDATE FROM 6E (1985) TO 3E (2020); NO CHANGE TO GROUND TRACK.
4. ADDITIONAL FLIGHT DATA: CHANGED FROM "FAS OBST: 192 TREES 292445/961412" TO "CHART FAS OBST: 192 TREES 292445N/0961412W" - CURRENT FORMAT.
5. CHANGED MAG VAR/EPOCH YEAR FROM 6E 1985 TO 3E 2020 - RESULT OF MAG VAR UPDATE.
6. CHANGED 1. SIDE OF COURSE FROM 318.92 TO 321.92 - RESULT OF MAG VAR UPDATE FROM 6E (1985) TO 3E (2020); NO CHANGE TO GROUND TRACK.
7. CHANGED 3. FAC FROM 138.92 TO 141.92 - RESULT OF MAG VAR UPDATE.
8. CHANGED ALTERNATE MINIMUMS FROM NA TO STANDARD - ALTERNATE MINIMUMS AUTHORIZED/AWOS-3 IS INSTALLED AND COMMISSIONED AND ON WMSCR.
9. MINIMUMS: CHANGED S-14 CAT C VIS FROM 1 1/2 TO 1 3/8 - IAW 8260.3D TABLE 3-3-1.
10. DELETED VICTORIA ALTIMETER SETTING S-14 AND CIRCLING MINIMUMS - KARM AWOS TRANSMITTED ON WMSCR NETWORK/SECONDARY ALTIMETER SETTING MINIMUMS NOT REQUIRED ON 8260-3.
11. DELETED "OBTAIN LOCAL ALTIMETER SETTING ON CTAF, WHEN NOT RECEIVED USE VICTORIA ALTIMETER SETTING" NOTE - KARM AWOS TRANSMITTED ON WMSCR NETWORK/SECONDARY ALTIMETER SETTING NOTE IN 8260-9 REMARKS.
12. ADDED "CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON PSX VORTAC AIRWAY RADIALS 009 CW 060" - IAW FAAO 8260-19H, 8-2-5. E.

6/8/18: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 10/19/17:

1. ADDED REQUIRED EFFECTIVE DATE OF 07/19/2018

PDF EDIT:

8260-9:

1. DELETED "ORDER 8260.3, VOLUME 1, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED" FROM NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS.
2. CHANGED PART D. AIRSPACE FROM "RUNWAY APCH END AND DIST FURTHEST FROM MAP" TO "RUNWAY APCH END AND DIST FURTHEST FROM ARP".

COORDINATED WITH:

A4A

ALPA

X

AOPA

X

APA

HAI

NBAA

X

OTHER:

ZHU ARTCC, ARPT MANAGER, ST. AV. DIR.

Digitally signed by

FLIGHT CHECKED BY

ROBERT G HAMILTON

OFFICE

DATE

PENDING

Jun 08, 2018

DEVELOPED BY

Digitally signed by

JOHN R THORNTON

OFFICE

AJV-5423

DATE

10/19/2017

APPROVED BY

Mar 05, 2018

Digitally signed by

ROBERT G HAMILTON

OFFICE

AJV-5420

DATE

TITLE
MANAGER



**FLIGHT STANDARDS SERVICE
NDB STANDARD INSTRUMENT APPROACH PROCEDURE**

TITLE 14 CFR PART 97.27

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.

If an instrument approach procedure of the above type is conducted at the below named airport, it shall be conducted in accordance with a charted instrument approach procedure predicted on the specifications contained herein, unless an approach is conducted in accordance with a different procedure for such airport authorized by the Administrator. Minimum altitudes shall correspond with those established for enroute operations in the particular area or as set forth below.

<u>AIRPORT</u> WHARTON RGNL	<u>AIRPORT ID</u> KARM	<u>PROCEDURE NAME</u> NDB RWY 32	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>CITY</u> WHARTON	<u>STATE</u> TX	
<u>AIRPORT ELEVATION</u> 100	<u>TDZE</u> 99	<u>SUPERSEDED</u> NDB RWY 32	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>DATED</u> 10/08/1998	<u>MAG VAR</u> 3E	<u>EPOCH YEAR</u> 2020
<u>FACILITY</u> ARM	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<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>
ELA VOR/DME		ARM NDB					152.48	25.91	2000
PSX VORTAC		ARM NDB					007.41	30.41	2100

MISSED APPROACH

MAP:

ARM NDB

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2000 THEN RIGHT TURN DIRECT ARM NDB AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT L SIDE OF COURSE 154.50 OUTBOUND 1700 FT WITHIN 10 MILES OF ARM (IAF)
- 2.
3. FAC: 334.50 FAF: DIST FAF TO MAP: DIST FAF TO THLD:
4. MIN ALT:
8. MSA FROM: ARM NDB 2600

EQUIPMENT REQUIREMENTS NOTES:

NOTES:

CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS ON PSX VORTAC AIRWAY RADIALS 009 CW 060.

ADDITIONAL FLIGHT DATA:



CHART FAS OBST: 203 PWR LINE 290727N/0960601W.
FAC CROSSES RWY C/L EXTENDED 3000 FT FROM THLD.
HOLD SE, RT, 321.92 INBOUND

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD

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
S-32	560	1	461	560	1	461	560	1 3/8	461		NA				
CIRCLING	560	1	460	560	1	460	560	1 1/2	460		NA				

CHANGES - REASONS

1. RAISED MSA FROM ARM NDB FROM 2100 FEET TO 2600 FEET - (FDC T-NOTAM 7/9748) NEW CONTROLLING OBSTACLE IDENTIFIED DURING PERIODIC REVIEW.
2. RAISED FEEDER ROUTE PSX VORTAC TO ARM NDB MINIMUM ALTITUDE FROM 2000 FEET TO 2100 FEET - (FDC T-NOTAM 7/9748) NEW CONTROLLING OBSTACLE IDENTIFIED DURING PERIODIC REVIEW.
3. ADDITIONAL FLIGHT DATA: CHANGED FROM "HOLD SE, RT, 319 INBOUND" TO "HOLD SE, RT, 321.92 INBOUND" - RESULT OF MAG VAR UPDATE FROM 6E (1985) TO 3E (2020); NO CHANGE TO GROUND TRACK.
4. ADDITIONAL FLIGHT DATA: CHANGED FROM "FAS OBST: 203 PWRLINE 290727/960601" TO "CHART FAS OBST: 203 PWR LINE 290727N/0960601W" - CURRENT FORMAT.
5. CHANGED MAG VAR/EPOCH YEAR FROM 6E 1985 TO 3E 2020 - RESULT OF MAG VAR UPDATE.
6. CHANGED 1. SIDE OF COURSE FROM 151.50 TO 154.50 - RESULT OF MAG VAR UPDATE FROM 6E (1985) TO 3E (2020); NO CHANGE TO GROUND TRACK.
7. CHANGED 3. FAC FROM 331.50 TO 334.50 - RESULT OF MAG VAR UPDATE.
8. CHANGED ALTERNATE MINIMUMS FROM NA TO STANDARD - ALTERNATE MINIMUMS AUTHORIZED/AWOS-3 IS INSTALLED AND COMMISSIONED AND ON WMSCR.
9. S-32 MINIMUMS: CHANGED HAT (ALL CATS) FROM 460 TO 461 - TDZE CHANGED FROM 100 TO 99.
10. 3-32 MINIMUMS: CHANGED CAT C VIS FROM 1 1/4 TO 1 3/8 - IAW 8260.3D TABLE 3-3-1.
11. DELETED VICTORIA ALTIMETER SETTING S-32 AND CIRCLING MINIMUMS - KARM AWOS TRANSMITTED ON WMSCR NETWORK/SECONDARY ALTIMETER SETTING MINIMUMS NOT REQUIRED ON 8260-5.
12. DELETED "OBTAIN LOCAL ALTIMETER SETTING ON CTAF; WHEN NOT RECEIVED, USE VICTORIA ALTIMETER SETTING" NOTE - KARM AWOS TRANSMITTED ON WMSCR NETWORK/SECONDARY ALTIMETER SETTING NOTE IN 8260-9 REMARKS.
13. ADDED "CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON PSX VORTAC AIRWAY RADIALS 009 CW 060" - IAW FAAO 8260-19H, 8-2-5. E..
14. TDZE CHANGED FROM 100 TO 99 - CURRENT DATA.

PDF EDIT:
8260-9 (11/16):
1. DELETED "ORDER 8260.3, VOLUME 1, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED" FROM NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS.
2. CHANGED PART D. AIRSPACE FROM "RUNWAY APCH END AND DIST FURTHEST FROM MAP" TO "RUNWAY APCH END AND DIST FURTHEST FROM ARP".

COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZHU ARTCC, AIRPORT MANAGER, ST. AV. DIR.

FLIGHT CHECKED BY

FLIGHT INSPECTION REVIEW NOT REQUIRED – PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-333) MEMO, DEC 22, 2017

DEVELOPED BY

JOHN THORNTON

APPROVED BY

JULIE MORGAN

Digitally signed by
JOHN R THORNTON

Mar 05, 2018

OFFICE

AJV-5423

OFFICE

AJV-5420

DATE

DATE

10/19/2017

DATE

Digitally signed by
ROBERT G HAMILTON
Jun 11, 2018

Digitally signed by
ROBERT G HAMILTON
Jun 11, 2018

TITLE
MANAGER
QUALITY
24
CHECKED

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> WHARTON RGNL	<u>AIRPORT ID</u> KARM	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 14	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>CITY</u> WHARTON	<u>STATE</u> TX
<u>AIRPORT ELEVATION</u> 100	<u>TDZE</u> 100	<u>SUPERSEDED</u> RNAV (GPS) RWY 14	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>DATED</u> 08/27/2009	<u>MAG VAR</u> 3E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 2020

TAA

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>ALTITUDE</u>
1. 058/30 CW 238/30	NOPT	BEPUH	IF/IAF	2000
2. 238/30 CW 328/30		CAYVI	IAF	2000
3. 328/30 CW 058/30		AHESU	IAF	2100

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>
AHESU	IAF	BEPUH	NOPT	TF	FB	1.00	057.71	5.00	2000
CAYVI	IAF	BEPUH	NOPT	TF	FB	1.00	237.79	5.00	2000
BEPUH	IF/IAF	DEZIV	PFAF	TF	FB	1.00	147.75	6.10	1700
DEZIV	FAF	EBOPY/1.80 NM TO RW14		TF	FB	0.30	147.78	3.03	
EBOPY/1.80 NM TO RW14		RW14	MAP	TF	FO	0.30	147.78	1.80	
RW14	MAP	396 MSL		CA			147.78		
396 MSL		GOGOZ		DF	FO	1.00			2000

MISSED APPROACH

MAP:

LPV: DA
 LNAV/VNAV: DA
 LNAV: RW14

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2000 DIRECT GOGOZ AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. HOLD NW BEPUH, RT, 147.75 INBOUND, 2000 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 147.78 PFAF: DEZIV DIST PFAF TO MAP: 4.83 DIST PFAF TO THLD: 4.83

4. MIN ALT: BEPUH 2000, DEZIV 1700, EBOPY/1.80 NM TO RW14 700*

5. DIST TO THLD FROM OM: MM: IM: 150 HAT: 296 HAT: 0.80

6. MIN GP INCPT: 1700 GP ALT AT PFAF : DEZIV 1700 OM: MM: IM:

7. GP ANGLE: 3.00 34:1: IS CLEAR 20:1: IS CLEAR TCH: 41.5

8. MSA FROM:

PBN EQUIPMENT REQUIREMENTS NOTES

RNP APCH.

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -15C OR ABOVE 54C.

ADDITIONAL FLIGHT DATA:

CHART VDP AT 0.87 NM TO RW14*
*LNAV ONLY
WAAS CHANNEL #77714
REFERENCE PATH ID: W14A
CHART FAS OBST: 158 TREE 291559N/0960942W.
HOLD SE, RT, 327.86 INBOUND
LTP HAE: 3.3 M

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD

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	396	1	296	396	1	296	396	1	296		NA				
LNAV/VNAV DA	428	1 1/4	328	428	1 1/4	328	428	1 1/4	328		NA				
LNAV MDA	420	1	320	420	1	320	420	1	320		NA				
CIRCLING	500	1	400	560	1	460	560	1 1/2	460		NA				



CHANGES - REASONS

- 1. CHANGED MAG VAR AND EPOCH YEAR FROM 6E 1985 TO 3E 2020 - AIRPORT MAG VAR CHANGE FROM 6E (1985) TO 3E (2020).
- 2. DELETED "(FB)" FROM TAA 1, 2, AND 3 - NOT REQUIRED IAW FAAO 8260.19H 8-6-3.
- 3. CHANGED TAA 1. BEARINGS FROM "055/30 CW 235/30" TO "058/30 CW 238/30" - AIRPORT MAG VAR CHANGE FROM 6E TO 3E/NO CHANGE TO GROUND TRACK.
- 4. CHANGED TAA 2. BEARINGS FROM "235/30 CW 325/30" TO "238/30 CW 328/30" - AIRPORT MAG VAR CHANGE FROM 6E TO 3E/NO CHANGE TO GROUND TRACK.
- 5. CHANGED TAA 3. BEARINGS FROM "325/30 CW 055/30" TO "328/30 CW 058/30" - AIRPORT MAG VAR CHANGE FROM 6E TO 3E/NO CHANGE TO GROUND TRACK.
- 6. CHANGED HEADINGS FOR TERMINAL ROUTES FROM: AHESU - BEPUH 054.71, CAYVI - BEPUH 234.79, BEPUH - DEZIV 144.75; TO: AHESU - BEPUH 057.71, CAYVI - BEPUH 237.79, BEPUH - DEZIV 147.75 - AIRPORT MAG VAR CHANGE FROM 6E TO 3E/NO CHANGE TO GROUND TRACK.
- 7. ADDED LEG TYPE "TF" AND RNP "1.00" TO TERMINAL ROUTES AHESU - BEPUH, CAYVI - BEPUH, BEPUH - DEZIV - IAW FAAO 8260.19H, PARA 8-6-4.A.
- 8. ADDED TERMINAL ROUTE FROM DEZIV, FIX TYPE FAF, TO EBOPY/1.80 NM TO RW14, LEG TYPE TF, FB, RNP 0.30, COURSE 147.78, DISTANCE 3.03; ADDED TERMINAL ROUTE FROM EBOPY/1.80 NM TO RW14, TO RW14, FIX TYPE MAP, LEG TYPE TF, FO, RNP 0.30, COURSE 147.78, DISTANCE 1.80; AND ADDED TERMINAL ROUTE FROM RW14, FIX TYPE MAP, TO 396 MSL, LEG TYPE CA, COURSE 147.78; ADDED TERMINAL ROUTE FROM 396 MSL TO GOGOZ, LEG TYPE DF, FO, RNP 1.00, ALTITUDE 2000 - TERMINAL ROUTES REQUIRED TO BE DOCUMENTED IAW FAAO 8260.19H.
- 9. CHANGED PROFILE LINE 2. INBOUND COURSE FROM 144.75 TO 147.75 AND ADDED "MAX 6000"- AIRPORT MAG VAR CHANGE FROM 6E TO 3E/NO CHANGE TO GROUND TRACK AND MAXIMUM HOLDING ALTITUDE REQUIRED IAW FAAO 8260.19H PARA 8-6-7.B.2.
- 10. CHANGED PROFILE LINE 3. FAC FROM 144.78 TO 147.78 - AIRPORT MAG VAR CHANGE FROM 6E TO 3E/NO CHANGE TO GROUND TRACK.
- 11. ADDED "296 HAT: 0.8" TO PROFILE LINE 5. - IAW FAAO 8260.19H PARA 8-6-7.E.(3).
- 12. CHANGED PROFILE LINE 6. FROM "GS ALT AT: DEZIV" TO "GP ALT AT PFAF: DEZIV 1700" - IAW FAAO 8260.19H PARA 8-6-7.F.
- 13. CHANGED PROFILE LINE 7. FROM "34:1 IS NOT CLEAR" TO "34:1: IS CLEAR 20:1: IS CLEAR" - IAW FAAO 8260.19 G.3./NO LONGER HAS 34:1 AND 20:1 VISUAL SURFACE PENETRATIONS.
- 14. ADDED PBN EQUIPMENT REQUIREMENTS NOTES "RNP APCH" AND DELETED NOTE "DME/DME RNP-0.3 NA"- IAW FAAO 8260.19H 8-6-8.
- 15. CHANGED NOTE FROM "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -15C (5F) OR ABOVE 54C (130F)" TO "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -15C OR ABOVE 54C" - IAW 8260.19H 8-6-9. S. FAHRENHEIT IS NO LONGER DOCUMENTED ON THIS NOTE.
- 16. DELETED NOTES "BARO-VNAV NA WHEN USING VICTORIA ALTIMETER SETTING", AND "WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE VICTORIA ALTIMETER SETTING AND INCREASE ALL DA 110 FEET AND ALL MDA 120 FEET, INCREASE LPV VISIBILITY 1/2 MILE ALL CATS, LNAV/VNAV VISIBILITY 1/4 MILE ALL CATS, LNAV CAT C VISIBILITY 1/4 MILE" - SECONDARY ALTIMETER SETTING NOTES NOW LISTED FOR CONTINGENCY PURPOSES IN REMARKS ON 8260-9.
- 17. DELETED "VISIBILITY REDUCTION BY HELICOPTERS NA" NOTE - NO LONGER NEEDED WITHOUT VISUAL SURFACE PENETRATIONS.
- 18. ADDED "CHART VDP AT 0.87 NM TO RW14*" AND "LNAV ONLY" TO ADDITIONAL FLIGHT DATA - VDP NOW CHARTABLE DUE TO NO 20:1 PENETRATIONS.
- 19. ADDITIONAL FLIGHT DATA: CHANGED FROM "HOLD SE, RT, 324.86 INBOUND" TO "HOLD SE, RT, 327.86 INBOUND" - AIRPORT MAG VAR CHANGE FROM 6E TO 3E/NO CHANGE TO GROUND TRACK.
- 20. CHANGED ALTERNATE MINIMUMS FROM "STANDARD @" TO "STANDARD" AND DELETED "@ NA WHEN LOCAL WEATHER NOT AVAILABLE" - SECONDARY ALTIMETER SETTING NOTES NOW LISTED FOR CONTINGENCY PURPOSES IN REMARKS ON 8260-9.

PDF EDIT:
1. CHANGED PART D. AIRSPACE FROM "RUNWAY APCH END AND DIST FURTHEST FROM MAP" TO "RUNWAY APCH END AND DIST FURTHEST FROM ARP".



COORDINATED WITH:

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

FLIGHT CHECKED BY

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-333) MEMO, DEC 22, 2017.

DEVELOPED BY

JOHN THORNTON

Digitally signed by
JOHN R THORNTON
Mar 05, 2018

APPROVED BY

JULIE MORGAN

Digitally signed by
ROBERT G HAMILTON
Apr 06, 2018

OFFICE Digitally signed by DATE

ROBERT G HAMILTON
Apr 06, 2018

OFFICE DATE
AJV-5423 02/06/2018

OFFICE DATE TITLE
AJV-5420 MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KARM
RUNWAY	RW14
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W14A
LTP/FTP LATITUDE	291536.9800N
LTP/FTP LONGITUDE	0960929.6200W
LTP/FTP ELLIPSOIDAL HEIGHT	+00033
FPAP LATITUDE	291419.0000N
FPAP LONGITUDE	0960839.9300W
THRESHOLD CROSSING HEIGHT (TCH)	00041.5
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1224
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	03EA7598

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K4
LTP ORTHOMETRIC HEIGHT	+00305
FPAP ORTHOMETRIC HEIGHT	+00305



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> WHARTON RGNL	<u>AIRPORT ID</u> KARM	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 32	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>CITY</u> WHARTON	<u>STATE</u> TX
<u>AIRPORT ELEVATION</u> 100	<u>TDZE</u> 99	<u>SUPERSEDED</u> RNAV (GPS) RWY 32	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>DATED</u> 08/27/2009	<u>MAG VAR</u> 3E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 2020

TAA

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>ALTITUDE</u>
1. 238/30 CW 327/30	NOPT	238/17 CW 327/17		2100
2. 357/30 CW 058/30	NOPT	357/15 CW 058/15		2600
3. 238/17 CW 327/17		GOGOZ	IF/IAF	2000
3. 327/22 CW 357/22	NOPT	GOGOZ	IF/IAF	2000
3. 357/15 CW 058/15		GOGOZ	IF/IAF	2000
4. 058/30 CW 148/30		FARAG	IAF	2100
5. 148/30 CW 238/30		HUBEX	IAF	2000

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>
FARAG	IAF	GOGOZ	NOPT	TF	FB	1.00	057.82	5.00	2000
HUBEX	IAF	GOGOZ	NOPT	TF	FB	1.00	237.90	5.00	2000
GOGOZ	IF/IAF	IDFIN	PFAF	TF	FB	1.00	327.86	6.10	1700
IDFIN	FAF	JIBGA/1.80 NM TO RW32		TF	FB	0.30	327.83	3.04	
JIBGA/1.80 NM TO RW32		RW32	MAP	TF	FO	0.30	327.83	1.80	
RW32	MAP	349 MSL		CA			327.83		
349 MSL		BEPUH		DF	FO	1.00			2000



MISSED APPROACH

MAP:
LPV: DA
LNAV/VNAV: DA
LNAV: RW32

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2000 DIRECT BEPUH AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT	SIDE OF COURSE	OUTBOUND	FT WITHIN	MILES OF (IAF)				
2.	HOLD SE GOGOZ, RT, 327.86 INBOUND, 2000 FT. IN LIEU OF PT (IAF), MAX 6000.							
3. FAC:	327.83	PFAF: IDFIN	DIST PFAF TO MAP: 4.84	DIST PFAF TO THLD: 4.84				
4. MIN ALT:	GOGOZ 2000, IDFIN 1700, JIBGA/1.80 NM TO RW32 700*							
5. DIST TO THLD FROM OM:		MM:	IM:	150 HAT:	250 HAT: 0.66			
6. MIN GP INCPT:	1700	GP ALT AT PFAF : IDFIN 1700		OM:		MM:	IM:	
7. GP ANGLE:	3.00	34:1: IS CLEAR	20:1: IS CLEAR	TCH: 41.7				
8. MSA FROM:								

PBN EQUIPMENT REQUIREMENTS NOTES

RNP APCH.

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -15C OR ABOVE 54C.

ADDITIONAL FLIGHT DATA:

CHART VDP AT 1.01 NM TO RW32*
*LNAV ONLY
WAAS CHANNEL #58114
REFERENCE PATH ID: W32A
CHART FAS OBST: 199 SILO 291513N/0960851W.
HOLD NW, RT, 147.75 INBOUND
LTP HAE: 2.3 M

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD



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	349	1	250	349	1	250	349	1	250		NA				
LNAV/VNAV DA	399	1	300	399	1	300	399	1	300		NA				
LNAV MDA	460	1	361	460	1	361	460	1	361		NA				
CIRCLING	500	1	400	560	1	460	560	1 1/2	460		NA				

CHANGES - REASONS

1. CHANGED MAG VAR AND EPOCH YEAR FROM 6E 1985 TO 3E 2020 - AIRPORT MAG VAR CHANGE FROM 6E (1985) TO 3E (2020).
2. DELETED "(FB)" FROM TAA 3, 4, AND 5 SECTORS - NOT REQUIRED IAW FAAO 8260.19H 8-6-3.
3. CHANGED TAA 1. BEARINGS FROM "235/30 CW 324/30" TO "238/30 CW 327/30" AND FROM "235/17 CW 324/17" TO "238/17 CW 327/17" - AIRPORT MAG VAR CHANGE FROM 6E TO 3E/NO CHANGE TO GROUND TRACK.
4. CHANGED TAA 2. BEARINGS FROM "354/30 CW 055/30" TO "357/30 CW 058/30" AND FROM "354/15 CW 055/15" TO "357/15 CW 058/15"- AIRPORT MAG VAR CHANGE FROM 6E TO 3E/NO CHANGE TO GROUND TRACK.
5. CHANGED TAA 3. BEARINGS FROM "235/17 CW 324/17" TO "238/17 CW 327/17", FROM "324/22 CW 354/22" TO "327/22 CW 357/22", AND FROM "354/15 CW 055/15" TO "357/15 CW 058/15" - AIRPORT MAG VAR CHANGE FROM 6E TO 3E/NO CHANGE TO GROUND TRACK.
6. CHANGED TAA 4. BEARINGS FROM "055/30 CW 145/30" TO "058/30 CW 148/30" - AIRPORT MAG VAR CHANGE FROM 6E TO 3E/NO CHANGE TO GROUND TRACK.
7. CHANGED TAA 5. BEARINGS FROM "145/30 CW 235/30" TO "148/30 CW 238/30" - AIRPORT MAG VAR CHANGE FROM 6E TO 3E/NO CHANGE TO GROUND TRACK.
8. CHANGED HEADINGS FOR TERMINAL ROUTES FROM: FARAG - GOGOZ 054.82, HUBEZ - GOGOZ 234.90, GOGOZ - IDFIN 324.86; TO: FARAG - GOGOZ 057.82, HUBEZ - GOGOZ 237.90, GOGOZ - IDFIN 327.86 - AIRPORT MAG VAR CHANGE FROM 6E TO 3E/NO CHANGE TO GROUND TRACK.
9. ADDED LEG TYPE "TF" AND RNP "1.00" TO TERMINAL ROUTES FARAG - GOGOZ, HUBEZ - GOGOZ, GOGOZ - IDFIN - IAW FAAO 8260.19H, PARA 8-6-4.A.
10. ADDED TERMINAL ROUTE FROM IDFIN, FIX TYPE FAF, TO JIBGA/1.80 NM TO RW32, LEG TYPE TF, FB, RNP 0.30, COURSE 327.83, DISTANCE 3.04; ADDED TERMINAL ROUTE FROM JIBGA/1.80 NM TO RW32, TO RW32, FIX TYPE MAP, LEG TYPE TF, FO, RNP 0.30, COURSE 327.83, DISTANCE 1.80; ADDED TERMINAL ROUTE FROM RW32, FIX TYPE MAP, TO 349 MSL, LEG TYPE CA, COURSE 327.83; AND ADDED TERMINAL ROUTE FROM 349 MSL TO BEPUH, LEG TYPE DF, FO, RNP 1.00 ALTITUDE 2000; - TERMINAL ROUTES REQUIRED TO BE DOCUMENTED IAW FAAO 8260.19H.
11. CHANGED PROFILE LINE 2. INBOUND COURSE FROM 324.86 TO 327.86 AND ADDED "MAX 6000"- AIRPORT MAG VAR CHANGE FROM 6E TO 3E/NO CHANGE TO GROUND TRACK / MAXIMUM HOLDING ALTITUDE REQUIRED IAW FAAO 8260.19H PARA 8-6-7.B.2.
12. CHANGED PROFILE LINE 3. FAC FROM 324.83 TO 327.83 - AIRPORT MAG VAR CHANGE FROM 6E TO 3E/NO CHANGE TO GROUND TRACK.
13. ADDED "250 HAT: 0.66" TO PROFILE LINE 5. - IAW FAAO 8260.19H PARA 8-6-7.E.(3).
14. CHANGED PROFILE LINE 6. FROM "GS ALT AT: IDFIN" TO "GP ALT AT FAF: IDFIN 1700" - IAW FAAO 8260.19H PARA 8-6-7.F.
15. CHANGED PROFILE LINE 7. FROM "34:1 IS NOT CLEAR" TO "34:1: IS CLEAR 20:1: IS CLEAR" - IAW FAAO 8260.19 G.3./NO 34:1 AND 20:1 VISUAL SURFACE PENETRATIONS.
16. ADDED PBN EQUIPMENT REQUIREMENTS NOTES "RNP APCH" AND DELETED NOTE "DME/DME RNP-0.3 NA"- IAW FAAO 8260.19H 8-6-8.
17. DELETED NOTES "WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE VICTORIA ALTIMETER SETTING AND INCREASE ALL DA 110 FEET AND ALL MDA 120 FEET, INCREASE LPV VISIBILITY 1/4 MILE ALL CATS, LNAV/VNAV VISIBILITY 1/2 MILE ALL CATS, LNAV CAT C VISIBILITY 1/4 MILE" AND "VDP AND BARO-VNAV NA WHEN USING VICTORIA ALTIMETER SETTING" - NOTES NO LONGER REQUIRED TO BE PUBLISHED; SECONDARY ALTIMETER SETTING NOTES ARE NOW PLACED IN FORM 8260-9 REMARKS FOR CONTINGENCY PURPOSES.
18. CHANGED NOTE FROM "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -15C (5F) OR ABOVE 54C (130F)" TO "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -15C OR ABOVE 54C" - IAW 8260.19H 8-6-9. S. FAHRENHEIT IS NO LONGER DOCUMENTED ON THIS NOTE.
19. ADDITIONAL FLIGHT DATA: CHANGED FROM "HOLD NW, RT, 144.75 INBOUND" TO "HOLD NW, RT, 147.75 INBOUND"- AIRPORT MAG VAR CHANGE FROM 6E TO 3E/NO CHANGE TO GROUND TRACK.
20. CHANGED ALTERNATE MINIMUMS FROM "STANDARD @" TO STANDARD AND DELETED "@ NA WHEN LOCAL WEATHER NOT AVAILABLE" - SECONDARY ALTIMETER SETTING NOTES ARE NOW DOCUMENTED IN 8260-9 REMARKS.
21. REMOVED CHARTING OF FAST OBST: 129 TREE 291439N/0960931W - LNAV/VNAV FINAL OBSTACLE DOES NOT REQUIRE TO BE CHARTED.

PDF EDIT:
8260-9:
1. CHANGED PART D. AIRSPACE FROM "RUNWAY APCH END AND DIST FURTHEST FROM MAP" TO "RUNWAY APCH END AND DIST FURTHEST FROM ARP".



COORDINATED WITH:

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

FLIGHT CHECKED BY

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-333) MEMO, DEC 22, 2017.

DEVELOPED BY

JOHN THORNTON

Digitally signed by
JOHN R THORNTON
Mar 05, 2018

APPROVED BY

JULIE MORGAN

Digitally signed by
ROBERT G HAMILTON
Apr 06, 2018

OFFICE Digitally signed by DATE

ROBERT G HAMILTON

Apr 06, 2018

OFFICE

AJV-5423

DATE

02/05/2018

OFFICE

AJV-5420

DATE

TITLE

MANAGER



FAS DATA BLOCK INFORMATION

DATA FIELD	DATA
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KARM
RUNWAY	RW32
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W32A
LTP/FTP LATITUDE	291453.7300N
LTP/FTP LONGITUDE	0960902.0600W
LTP/FTP ELLIPSOIDAL HEIGHT	+00023
FPAP LATITUDE	291611.7100N
FPAP LONGITUDE	0960951.7500W
THRESHOLD CROSSING HEIGHT (TCH)	00041.7
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1224
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	223498C8
ADDITIONAL PATH POINT RECORD INFORMATION	
ICAO CODE	K4
LTP ORTHOMETRIC HEIGHT	+00295
FPAP ORTHOMETRIC HEIGHT	+00295



**FLIGHT STANDARDS SERVICE
VOR STANDARD INSTRUMENT APPROACH PROCEDURE**

TITLE 14 CFR PART 97.23

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.

If an instrument approach procedure of the above type is conducted at the below named airport, it shall be conducted in accordance with a charted instrument approach procedure predicted on the specifications contained herein, unless an approach is conducted in accordance with a different procedure for such airport authorized by the Administrator. Minimum altitudes shall correspond with those established for enroute operations in the particular area or as set forth below.

<u>AIRPORT</u> LAWRENCE J TIMMERMAN	<u>AIRPORT ID</u> KMWC	<u>PROCEDURE NAME</u> VOR RWY 4L	<u>ORIGINAL/AMENDMENT</u> 9C	<u>CITY</u> MILWAUKEE	<u>STATE</u> WI	
<u>AIRPORT ELEVATION</u> 745	<u>TDZE</u> 738	<u>SUPERSEDED</u> VOR RWY 4L	<u>ORIGINAL/AMENDMENT</u> 9B	<u>DATED</u> 04/02/2015	<u>MAG VAR</u>	<u>EPOCH YEAR</u>
<u>FACILITY</u>	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 5/24/2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u> CANCEL		

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>

PROCEDURE CANCELLED EFFECTIVE 19 JULY 2018

MISSED APPROACH

MAP:

MISSED APPROACH INSTRUCTIONS:

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT	SIDE OF COURSE	OUTBOUND	FT WITHIN	MILES OF (IAF)
2.				
3. FAC:	FAF:	DIST FAF TO MAP:	DIST FAF TO THLD:	
4. MIN ALT:				
8. MSA FROM:				

EQUIPMENT REQUIREMENTS NOTES:

NOTES:

ADDITIONAL FLIGHT DATA:

MINIMUMS:



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

ALTERNATE: NA ☐

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

CHANGES - REASONS

COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ARTCC, MWC ATCT/MKE APP CON, ARPT MGR

FLIGHT CHECKED BY

OFFICE

DATE

DEVELOPED BY

DONALD H. LANIER (JACOB MAXFIELD)

Digitally signed by

DONALD H LANIER

Jun 04, 2018

OFFICE

AJV-5431

DATE

05/25/2018

APPROVED BY

PATRICK MULQUEEN

Digitally signed by

DONALD H LANIER

Jun 04, 2018

OFFICE

AJV-5430

DATE

TITLE



FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
ILS STANDARD INSTRUMENT APPROACH PROCEDURE
TITLE 14 CFR PART 97.29

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> JACKSON HOLE	<u>AIRPORT ID</u> KJAC	<u>PROCEDURE NAME</u> ILS Z OR LOC Z RWY 19	<u>ORIGINAL/AMENDMENT</u> ORIG-B	<u>CITY</u> JACKSON	<u>STATE</u> WY
<u>AIRPORT ELEVATION</u> 6451	<u>TDZE</u> 6451	<u>SUPERSEDED</u> ILS Z OR LOC/DME RWY 19	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>DATED</u> 03/31/2016	<u>MAG VAR</u> 13E
<u>FACILITY</u> I-JAC	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 19 JULY 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 2005

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>
TOCUD		WATBU		TF	FB	2.00	198.13	9.15	14700
WATBU		DNW VOR/DME		TF	FB	2.00	198.05	7.40	12900
DNW VOR/DME		ZIBIV		TF	FB	1.00	251.47	8.55	11000
ZIBIV	IF	ZOSUV		TF	FB	1.00	231.70	4.26	9800
ZOSUV		WOMRU		TF	FB	1.00	205.38	4.00	8700
WOMRU		YUSGU/I-JAC 5.90 DME		TF	FB	1.00	186.55	2.69	8000

MISSED APPROACH

MAP:

ILS: DA
LOC: I-JAC 1.19 DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 6900 THEN CLIMBING RIGHT TURN TO 14000 ON JAC VOR/DME R-192 TO KICNE INT/JAC 26.61 DME AND HOLD, CONTINUE CLIMB-IN-HOLD TO 14000.
#MISSED APPROACH REQUIRES MINIMUM CLIMB OF 235 FEET PER NM TO 10600.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)
2. PROFILE STARTS AT ZIBIV
3. FAC:

186.51

FAF: YUSGU/I-JAC 5.90 DME

DIST FAF TO MAP:

DIST FAF TO THLD: 4.71
4. MIN ALT: ZIBIV 11000, ZOSUV 9800, WOMRU 8700, YUSGU/I-JAC 5.90 DME 8000, SOSUE/I-JAC 4.30 DME 7480*
5. DIST TO THLD FROM OM:

MM:

IM:

150 HAT:

GS ANT: 1130
6. MIN GS INCPT:

8000

GS ALT AT FAF : YUSGU/I-JAC 5.90 DME 8000

OM:

MM:

IM:
7. GP ANGLE:

3.00

34:1:

20:1:

TCH: 49.7
8. MSA FROM: JAC VOR/DME 005-155 13000, 155-245 12400, 245-005 15000

EQUIPMENT REQUIREMENTS NOTES:

RNAV 1 - GPS REQUIRED.
DME REQUIRED FOR LOC ONLY.

NOTES:

CHART NOTE: CIRCLING NA E OF RWY 01-19.
CHART PROFILE NOTE: USE I-JAC DME WHEN ON THE LOCALIZER COURSE.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON DNW VOR/DME AIRWAY RADIALS 219 CW 267.
CHART PLANVIEW NOTE AT ZOSUV: MAX 200 KIAS.
CHART NOTE: FOR INOPERATIVE ALS, INCREASE S-LOC 19# CAT A/B RVR TO 5500 AND CAT C/D RVR TO 6000.
CHART NOTE: INOPERATIVE TABLE DOES NOT APPLY TO S-ILS 19#.

ADDITIONAL FLIGHT DATA:

6799 AAO 434014N/1104306W
CHART VDP AT 2.25 DME*
DISTANCE VDP TO THLD 1.06 NM
* LOC ONLY
CHART FAS OBST: 6589 TREE 433921N/1104215W.
HOLD S, RT, 012.00 INBOUND

MINIMUMS:

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

ALTERNATE: NA ☒

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
S-ILS 19#	6651	4000	200	6651	4000	200	6651	4000	200	6651	4000	200			
S-LOC 19#	6840	4000	389	6840	4000	389	6840	4500	389	6840	4500	389			
CIRCLING	6840	1	389	6920	1	469	6920	1 1/2	469	7080	2	629			



CHANGES - REASONS

1. CHANGED S-ILS 19# FROM 3/4 TO RVR 4000, S-LOC 19# CAT A/B FROM 3/4 TO RVR 4000, AND S-LOC 19# CAT C/D FROM 7/8 TO RVR 4500 - RVR EQUIPMENT NOW AVAILABLE ON RWY 19.
2. CHANGE INOPERATIVE MALS NOTE TO READ: FOR INOPERATIVE ALS, INCREASE S-LOC 19# CAT A/B RVR TO 5500 AND CAT C/D RVR TO 6000 - PER 8260.19H PARA 8-6-11O(3)(D).
3. ADDED EQUIPMENT REQUIREMENTS NOTE: DME REQUIRED FOR LOC ONLY - REMOVE DME FROM PROCEDURE NAME AND PER 8260.19H PARA 8-6-8A(2)(C).
4. PROCEDURE NAME CHANGED FROM ILS Z OR LOC/DME RWY 19 TO ILS Z OR LOC Z RWY 19 - ADDITION OF "Z" AFTER LOC (LOC Z) PER 8260.3C PARA 1-6-2D.
5. ADDED CHART NOTE: INOPERATIVE TABLE DOES NOT APPLY TO S-LOC 19# - PER VISCHECK CALCULATOR.
6. CHANGED FROM "CHART PLANVIEW NOTE: GPS REQUIRED" TO: "EQUIPMENT REQUIREMENTS NOTE: RNAV 1 - GPS REQUIRED" - IAW MEMORANDUM 264 DATED 3/28/18 - WAIVER TO FAA ORDER 8260.19H, FLIGHT PROCEDURES AND AIRSPACE, PARA 8-6-8B.

05/31/18: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 05/21/18.

1. CHANGED FROM "THRE" TO "TDZE" ON THE 8260-3.
2. REMOVED "CHART SPEED ICON IN PLANVIEW AT ZOSUV: MAX 200 KIAS" IN NOTES ON THE 8260-3.
3. CHANGED EQUIPMENTS REQUIREMENTS NOTE FROM RNAV 1 - GPS REQUIRED FOR PROCEDURE ENTRY TO RNAV 1 - GPS REQUIRED.

6/11/2018: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 5/31/2018.

1. S LOC 19 CAT B VISIBILITY CHANGED FROM 3500 TO 4000.



COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: ZLC, KJAC ATCT, AMGR, ATA

Digitally signed by
BEV L BORDY

FLIGHT CHECKED BY

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-333) MEMO, DEC 22, 2017.

OFFICE
DATE

Jun 06, 2018

DEVELOPED BY

MIKE MELSSEN

Digitally signed by
MIKE MELSSEN

May 31, 2018

OFFICE

AJV-5412

DATE

01/12/2018

APPROVED BY

GEORGE DAVIS

Digitally signed by
BEV L BORDY

Jun 06, 2018

OFFICE

AJV-5410

DATE

TITLE

MANAGER



[4910-13]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 97

[Docket No. [31200](#); Amdt. No. [3806](#)

**Standard Instrument Approach Procedures, and Takeoff Minimums
and Obstacle Departure Procedures; Miscellaneous Amendments**

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This rule amends, suspends, or removes Standard Instrument Approach Procedures (SIAPs) and associated Takeoff Minimums and Obstacle Departure Procedures for operations at certain airports. These regulatory actions are needed because of the adoption of new or revised criteria, or because of changes occurring in the National Airspace System, such as the commissioning of new navigational facilities, adding new obstacles, or changing air traffic requirements. These changes are designed to provide for the safe and efficient use of the navigable airspace and to promote safe flight operations under instrument flight rules at the affected airports.

DATES: This rule is effective [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]. The compliance date for each SIAP, associated Takeoff Minimums, and ODP is specified in the amendatory provisions.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: Availability of matter incorporated by reference in the amendment is as follows:

For Examination

1. U.S. Department of Transportation, Docket Ops-M30, 1200 New Jersey Avenue SE, West Bldg., Ground Floor, Washington, D.C., 20590-0001;

2. The FAA Air Traffic Organization Service Area in which the affected airport is located;

3. The office of Aeronautical Navigation Products, 6500 South MacArthur Blvd., Oklahoma City, OK 73169 or,

4. The National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:

http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Availability

All SIAPs and Takeoff Minimums and ODPs are available online free of charge. Visit the National Flight Data Center online at nfdc.faa.gov to register. Additionally, individual SIAP and Takeoff Minimums and ODP copies may be obtained from the FAA Air Traffic Organization Service Area in which the affected airport is located.

FOR FURTHER INFORMATION CONTACT: Thomas J. Nichols, Flight Procedure Standards Branch (AFS-420) Flight Technologies and Procedures Division, Flight Standards Service, Federal Aviation Administration, Mike Monroney Aeronautical Center, 6500 South MacArthur Blvd., Oklahoma City, OK. 73169 (Mail Address: P.O. Box 25082 Oklahoma City, OK. 73125) telephone: (405) 954-4164.

SUPPLEMENTARY INFORMATION:

This rule amends Title 14, Code of Federal Regulations, Part 97 (14 CFR part 97) by amending the referenced SIAPs. The complete regulatory description of each SIAP is listed on the appropriate FAA Form 8260, as modified by the National Flight Data Center (NFDC)/Permanent Notice to Airmen (P-NOTAM), and is incorporated by reference under 5 U.S.C. 552(a), 1 CFR part 51, and 14 CFR §97.20. The large number of SIAPs, their complex nature, and the need for a special format make their verbatim publication in the **Federal Register** expensive and impractical. Further, airmen do not use the regulatory text of the SIAPs, but refer to their graphic depiction on charts printed by publishers of aeronautical materials. Thus, the advantages of incorporation by reference are realized and publication of the complete description of each SIAP contained on FAA form documents is unnecessary.

This amendment provides the affected CFR sections, and specifies the SIAPs and Takeoff Minimums and ODPs with their applicable effective dates. This amendment also identifies the airport and its location, the procedure and the amendment number.

Availability and Summary of Material Incorporated by Reference

The material incorporated by reference is publicly available as listed in the ADDRESSES section.

The material incorporated by reference describes SIAPs, Takeoff Minimums and ODPs as identified in the amendatory language for part 97 of this final rule.

The Rule

This amendment to 14 CFR part 97 is effective upon publication of each separate SIAP and Takeoff Minimums and ODP as amended in the transmittal. For safety and timeliness of change considerations, this amendment incorporates only specific changes contained for each SIAP and Takeoff Minimums and ODP as modified by FDC permanent NOTAMs.

The SIAPs and Takeoff Minimums and ODPs, as modified by FDC permanent NOTAM, and contained in this amendment are based on the criteria contained in the U.S. Standard for Terminal Instrument Procedures (TERPS). In developing these changes to SIAPs and Takeoff Minimums and ODPs, the TERPS criteria were applied only to specific conditions existing at the affected

airports. All SIAP amendments in this rule have been previously issued by the FAA in a FDC NOTAM as an emergency action of immediate flight safety relating directly to published aeronautical charts.

The circumstances that created the need for these SIAP and Takeoff Minimums and ODP amendments require making them effective in less than 30 days.

Because of the close and immediate relationship between these SIAPs, Takeoff Minimums and ODPs, and safety in air commerce, I find that notice and public procedure under 5 U.S.C. 553(b) are impracticable and contrary to the public interest and, where applicable, under 5 U.S.C. 553(d), good cause exists for making these SIAPs effective in less than 30 days.

The FAA has determined that this regulation only involves an established body of technical regulations for which frequent and routine amendments are necessary to keep them operationally current. It, therefore--(1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979) ; and (3) does not warrant preparation of a regulatory evaluation as the anticipated impact is so minimal. For the same reason, the FAA certifies that this amendment will not have a significant economic impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR part 97:

Air Traffic Control, Airports, Incorporation by reference, Navigation (Air).

Issued in Washington, DC on [June 15, 2018](#)

A handwritten signature in black ink, appearing to read "John S. Duncan", with a long, sweeping horizontal stroke extending to the right.

John S. Duncan
Executive Director, Flight Standards Service

ADOPTION OF THE AMENDMENT

Accordingly, pursuant to the authority delegated to me, Title 14, Code of Federal regulations, Part 97, (14 CFR part 97), is amended by amending Standard Instrument Approach Procedures and Takeoff Minimums and ODPs, effective at 0901 UTC on the dates specified, as follows:

PART 97 – STANDARD INSTRUMENT APPROACH PROCEDURES

1. The authority citation for part 97 continues to read as follows:

AUTHORITY: 49 U.S.C. 106(f), 106(g), 40103, 40106, 40113, 40114, 40120, 44502, 44514, 44701, 44719, 44721-44722.

2. Part 97 is amended to read as follows:

By amending: §97.23 VOR, VOR/DME, VOR or TACAN, and VOR/DME or TACAN; §97.25 LOC, LOC/DME, LDA, LDA/DME, SDF, SDF/DME; §97.27 NDB, NDB/DME; §97.29 ILS, ILS/DME, MLS, MLS/DME, MLS/RNAV; §97.31 RADAR SIAPs; §97.33 RNAV SIAPs; and §97.35 COPTER SIAPs, Identified as follows:

.....EFFECTIVE UPON PUBLICATION

AIRAC DATE	STATE	CITY	AIRPORT	FDC NUMBER	FDC DATE	SUBJECT
19-Jul-18	IA	Newton	Newton Muni-Earl Johnson Field	7/1792	6/5/18	VOR RWY 14, Amdt 9A
19-Jul-18	GA	Washington	Washington-Wilkes County	7/2604	6/7/18	RNAV (GPS) RWY 31, Amdt 1A
19-Jul-18	TX	Alice	Alice Intl	7/6033	6/5/18	VOR RWY 31, Amdt 13D
19-Jul-18	TX	Alice	Alice Intl	7/6034	6/5/18	VOR-A, Amdt 15B
19-Jul-18	IA	Ames	Ames Muni	8/0696	6/11/18	RNAV (GPS) RWY 19, Amdt 1
19-Jul-18	NE	Kearney	Kearney Rgnl	8/0910	5/29/18	RNAV (GPS) RWY 13, Orig-A
19-Jul-18	KS	Burlington	Coffey County	8/0936	6/5/18	NDB RWY 36, Amdt 2
19-Jul-18	KS	Burlington	Coffey County	8/0937	6/5/18	RNAV (GPS) RWY 18, Orig-A
19-Jul-18	PA	Beaver Falls	Beaver County	8/0984	5/29/18	RNAV (GPS) RWY 10, Orig-B
19-Jul-18	PA	Beaver Falls	Beaver County	8/0985	5/29/18	RNAV (GPS) RWY 28, Orig-B
19-Jul-18	PA	Beaver Falls	Beaver County	8/0986	5/29/18	VOR RWY 28, Amdt 10B
19-Jul-18	MA	Stow	Minute Man Air Field	8/1764	6/11/18	VOR/DME RWY 21, Amdt 3D
19-Jul-18	MA	Stow	Minute Man Air Field	8/1767	6/11/18	RNAV (GPS) RWY 21, Orig-A
19-Jul-18	TX	Llano	Llano Muni	8/1773	5/29/18	VOR-A, Amdt 4
19-Jul-18	TX	Llano	Llano Muni	8/1774	5/29/18	RNAV (GPS) RWY 17, Orig
19-Jul-18	TX	Llano	Llano Muni	8/1775	5/29/18	RNAV (GPS) RWY 35, Orig
19-Jul-18	MN	Rochester	Rochester Intl	8/2046	5/29/18	RADAR-1, Amdt 8
19-Jul-18	CA	Bakersfield	Meadows Field	8/2899	5/29/18	ILS OR LOC RWY 30R, Amdt 31
19-Jul-18	CA	Bakersfield	Meadows Field	8/2901	5/29/18	RNAV (GPS) RWY 30R, Amdt 2A
19-Jul-18	WI	East Troy	East Troy Muni	8/3005	5/29/18	VOR/DME-A, Amdt 1B
19-Jul-18	WI	East Troy	East Troy Muni	8/3009	5/29/18	RNAV (GPS) RWY 8, Orig-B
19-Jul-18	WI	East Troy	East Troy Muni	8/3013	5/29/18	RNAV (GPS) RWY 26, Orig-B
19-Jul-18	AK	Kake	Kake	8/3041	6/5/18	RNAV (GPS) RWY 11, Orig
19-Jul-18	AK	Kake	Kake	8/3043	6/5/18	NDB/DME RWY 11, Amdt 1
19-Jul-18	AL	Jackson	Jackson Muni	8/3051	6/7/18	RNAV (GPS) RWY 1, Orig

19-Jul-18	MN	Longville	Longville Muni	8/3119	6/5/18	RNAV (GPS) RWY 31, Orig
19-Jul-18	OH	Phillipsburg	Phillipsburg	8/3327	6/1/18	VOR OR GPS RWY 21, Amdt 3A
19-Jul-18	OH	Phillipsburg	Phillipsburg	8/3329	6/1/18	Takeoff Minimums and Obstacle DP, Amdt 1
19-Jul-18	TN	Camden	Benton County	8/3588	6/7/18	RNAV (GPS) RWY 22, Orig-C
19-Jul-18	MT	Laurel	Laurel Muni	8/5735	5/21/18	RNAV (GPS) RWY 4, Amdt 1B
19-Jul-18	MT	Laurel	Laurel Muni	8/5737	5/21/18	RNAV (GPS) RWY 22, Amdt 1B
19-Jul-18	MT	Laurel	Laurel Muni	8/5739	5/21/18	VOR RWY 22, Amdt 2A
19-Jul-18	IL	Bloomington/ Normal	Central IL Rgnl Arpt at Bloomington-Normal	8/6132	6/1/18	ILS OR LOC RWY 29, Amdt 11A
19-Jul-18	IL	Decatur	Decatur	8/6136	6/1/18	ILS OR LOC RWY 6, Amdt 13F
19-Jul-18	AR	Monticello	Monticello Muni/Ellis Field	8/6939	6/5/18	RNAV (GPS) RWY 3, Amdt 1B
19-Jul-18	LA	Many	Hart	8/7523	6/6/18	RNAV (GPS) RWY 12, Orig
19-Jul-18	LA	Many	Hart	8/7526	6/5/18	RNAV (GPS) RWY 30, Orig
19-Jul-18	MA	Fitchburg	Fitchburg Muni	8/7537	6/7/18	RNAV (GPS) RWY 20, Orig-C
19-Jul-18	WV	Lewisburg	Greenbrier Valley	8/7828	6/7/18	Takeoff Minimums and Obstacle DP, Amdt 4
19-Jul-18	NC	Reidsville	Rockingham County NC Shiloh	8/7839	6/7/18	RNAV (GPS) RWY 13, Orig
19-Jul-18	NC	Reidsville	Rockingham County NC Shiloh	8/7840	6/7/18	RNAV (GPS) RWY 31, Orig-A
19-Jul-18	NC	Reidsville	Rockingham County NC Shiloh	8/7842	6/7/18	NDB RWY 31, Amdt 5A
19-Jul-18	NC	Reidsville	Rockingham County NC Shiloh	8/7843	6/7/18	VOR/DME-A, Amdt 9A
19-Jul-18	TX	Houston	Ellington	8/7904	6/5/18	ILS OR LOC RWY 22, Amdt 3G
19-Jul-18	AL	Hartselle	Hartselle-Morgan County Regional	8/7959	6/7/18	RNAV (GPS) RWY 18, Amdt 1
19-Jul-18	AL	Hartselle	Hartselle-Morgan County Regional	8/7960	6/7/18	RNAV (GPS) RWY 36, Amdt 1
19-Jul-18	FL	St Augustine	Northeast Florida Rgnl	8/8029	6/7/18	RNAV (GPS) RWY 13, Orig-D
19-Jul-18	FL	St Augustine	Northeast Florida Rgnl	8/8031	6/7/18	VOR RWY 13, Orig-D
19-Jul-18	ND	Lakota	Lakota Muni	8/8043	6/5/18	RNAV (GPS) RWY 33, Orig
19-Jul-18	OK	Ketchum	South Grand Lake Rgnl	8/8672	6/5/18	RNAV (GPS) RWY 36, Orig
19-Jul-18	OK	Ketchum	South Grand Lake Rgnl	8/8673	6/5/18	RNAV (GPS) RWY 18, Orig

19-Jul-18	AL	Ozark	Blackwell Field	8/8783	6/7/18	Takeoff Minimums and Obstacle DP, Amdt 2
19-Jul-18	AL	Ozark	Blackwell Field	8/8796	6/7/18	RNAV (GPS) RWY 13, Orig-A
19-Jul-18	AL	Ozark	Blackwell Field	8/8798	6/7/18	RNAV (GPS) RWY 31, Orig-A
19-Jul-18	AL	Ozark	Blackwell Field	8/8803	6/7/18	VOR RWY 31, Amdt 7A
19-Jul-18	MI	Bay City	James Clements Muni	8/8880	6/7/18	Takeoff Minimums and Obstacle DP, Amdt 6
19-Jul-18	MI	Bay City	James Clements Muni	8/8882	6/7/18	RNAV (GPS) RWY 18, Orig-B
19-Jul-18	MI	Bay City	James Clements Muni	8/8883	6/7/18	VOR-A, Amdt 12A
19-Jul-18	MO	Aurora	Jerry Sumners Sr Aurora Muni	8/9567	6/5/18	RNAV (GPS) RWY 18, Orig-A
19-Jul-18	MO	Aurora	Jerry Sumners Sr Aurora Muni	8/9575	6/5/18	VOR/DME-A, Amdt 4
19-Jul-18	AZ	Grand Canyon	Valle	8/9769	5/29/18	GPS RWY 01, Orig-B
19-Jul-18	AZ	Grand Canyon	Valle	8/9770	5/29/18	VOR/DME RWY 19, Orig
19-Jul-18	AZ	Grand Canyon	Valle	8/9773	5/29/18	GPS RWY 19, Orig-A
19-Jul-18	MA	Worcester	Worcester Rgnl	8/9807	5/29/18	ILS OR LOC RWY 11, Amdt 25
19-Jul-18	AL	Dothan	Dothan Rgnl	8/9937	6/7/18	RNAV (GPS) RWY 14, Amdt 2A

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FDC **7/1792** TNU IAP NEWTON MUNI-EARL JOHNSON FIELD, Newton, IA. VOR RWY 14, AMDT 9A... S-14 VIS CAT C 1 3/8. CIRCLING CAT C MDA 1520/HAA 567, CAT D MDA 1600/HAA 647. DME MINIMUMS: S-14 1400/HAT 448 ALL CATS, VIS CAT C 1 3/8. DME MINIMUMS: CIRCLING CAT A MDA 1420/HAA 467, CAT C MDA 1520/HAA 567, CAT D MDA 1600/HAA 647. CHART CIRCLING ICON. CHART NOTE: RWY 14 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. THIS IS VOR RWY 14, AMDT 9B. 1710241653-PERM

FDC **7/2604** IYY IAP WASHINGTON-WILKES COUNTY, Washington, GA. RNAV (GPS) RWY 31, AMDT 1A... LNAV MDA 1200/HAT 560 CATS A/B/C, VISIBILITY CAT C 1-5/8. CIRCLING MDA 1200/HAA 554 CATS A/B/C, VISIBILITY CAT C 1-5/8. DELETE NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE ATHENS ALTIMETER SETTING AND INCREASE LPV DA TO 1078, LNAV/VNAV DA TO 1135, AND ALL MDA 100 FEET; INCREASE LPV ALL CATS, LNAV/VNAV ALL CATS, LNAV CAT C, AND CIRCLING CAT C VISIBILITY TO 1/4 MILE. CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE ATHENS ALTIMETER SETTING: INCREASE LPV DA TO 1078 FEET, LNAV/VNAV DA TO 1135 FEET, AND ALL VISIBILITIES 1/4 SM; INCREASE ALL MDAS 100 FEET AND VISIBILITY CAT C 1/4 SM. DELETE NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. DELETE NOTE: RWY 31 STRAIGHT-IN AND CIRCLING NA AT NIGHT. 34:1 IS CLEAR. THIS IS RNAV (GPS) RWY 31, AMDT 1B. 1706291625-PERM

FDC **7/6033** ALI IAP ALICE INTL, Alice, TX. VOR RWY 31, AMDT 13D... DELETE NOTE: FOR INOP MALS INCREASE S-31 CATS C, D VISIBILITY TO 1 3/8 MILE. DELETE NOTE: FOR INOP MALS WITH NUECES COUNTY ALTIMETER SETTING INCREASE S-31 CATS C, D VISIBILITY TO 1 3/8 MILE. TERMINAL ROUTE FROM POGOE INT TO ALI VOR MINIMUM ALTITUDE 2200. CHART NOTE: FOR INOP ALS WHEN USING NUECES COUNTY ALTIMETER SETTING, INCREASE S-31 CATS C, D VISIBILITY TO 1 3/8 SM. CHART NOTE: CHART NOTE: FOR INOP ALS, INCREASE S-31 CATS C, D VISIBILITY TO 1 3/8 SM. THIS IS VOR RWY 31, AMDT 13E. 1708081353-PERM

FDC **7/6034** ALI IAP ALICE INTL, Alice, TX. VOR-A, AMDT 15B... TERMINAL ROUTE FROM POGOE INT TO ALI VOR MINIMUM ALTITUDE 2200. THIS IS VOR-A, AMDT 15C. 1708081353-PERM

FDC **8/0696** AMW IAP AMES MUNI, Ames, IA. RNAV (GPS) RWY 19, AMDT 1...
CHART NOTE: CIRCLING RWY 31 NA AT NIGHT. DELETE NOTE: DME/DME RNP-0.3 NA. EQUIPMENT REQUIREMENTS NOTE: RNP APCH. CHART NOTE: RWY 19 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {4.00}/TCH {41}). DELETE NOTE: VISIBILITY REDUCTION BY HELICOPTERS NA. CHART VDP AT 1.08 NM TO RWY19*. CHART NOTE: BARO-VNAV AND VDP NA WHEN USING ANKENY ALTIMETER SETTING. DELETE NOTE: BARO-VNAV NA WHEN USING ANKENY ALTIMETER SETTING. THIS IS RNAV (GPS) RWY 19, AMDT 1A. 1806071800-PERM

FDC **8/0910** EAR IAP KEARNEY RGNL, Kearney, NE. RNAV (GPS) RWY 13, ORIG-A... CHART PLANVIEW NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {3.00}/TCH {43}). PBN REQUIREMENTS NOTE: RNP APCH. DELETE NOTE: DME/DME RNP-0.3 NA. CHANGE LOCAL ALTIMETER SETTING NOTE TO READ: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE HOLDREGE ALTIMETER SETTING: INCREASE LPV DA TO 2407 FEET AND ALL CATS VISIBILITY 1/8 SM; INCREASE LNAV/VNAV DA TO 2457 FEET AND ALL CATS VISIBILITY 3/8 SM AND ALL MDAS 80 FEET; INCREASE VISIBILITY LNAV AND CIRCLING CAT C 1/8 SM. THIS IS RNAV (GPS) RWY 13, ORIG-B. 1805221132-PERM

FDC **8/0936** UKL IAP COFFEY COUNTY, Burlington, KS. NDB RWY 36, AMDT 2... CHART NOTE: PROCEDURE NA AT NIGHT. CHART NOTE: RWY 36 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. CHART TDZE 1173, DELETE TDZE 1172. CHART APT ELEV 1174, DELETE APT ELEV 1173. S-36 CATS A/B/C HAT 667. CIRCLING CATS A/B/C HAA 666. EMPORIA ALTIMETER SETTING MINIMUMS: S-36 CATS A/B/C HAT 727. CIRCLING CATS A/B/C HAA 726. THIS IS NDB RWY 36, AMDT 2A. 1805221309-PERM

FDC **8/0937** UKL IAP COFFEY COUNTY, Burlington, KS. RNAV (GPS) RWY 18, ORIG-A... DELETE NOTE: WHEN VGSI INOPERATIVE, STRAIGHT-IN/CIRCLING RWY 18 PROCEDURE NA AT NIGHT. DELETE NOTE: DME/DME RNP-0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. CHART NOTE: PROCEDURE NA AT NIGHT. DELETE NOTE: CIRCLING TO RWY 36 NA AT NIGHT. CHART NOTE: RWY 18 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. DELETE NOTE: VISIBILITY REDUCTION BY HELICOPTERS NA. THIS IS RNAV (GPS) RWY 18, ORIG-B. 1805221311-PERM

FDC **8/0984** BVI IAP BEAVER COUNTY, Beaver Falls, PA. RNAV (GPS) RWY 10, ORIG-B... LPV DA 1528. LNAV/VNAV DA 1514, LNAV HAT 342 ALL CATS. CHART NOTE: CIRCLING RWY 28 NA AT NIGHT. CHART NOTE: RWY 10 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. DELETE NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. CHART NOTE: BARO-VNAV AND VDP NA WHEN USING PITTSBURGH INTL ALTIMETER SETTING. DELETE NOTE: BARO-VNAV NA WHEN USING PITTSBURGH INTL ALTIMETER SETTING. CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE PITTSBURGH INTL ALTIMETER SETTING: INCREASE ALL DA 50 FEET; INCREASE ALL MDAS 60 FEET AND VISIBILITY LNAV CATS C AND D 1/8 SM. DELETE NOTE: WHEN CONTROL TOWER CLOSED, USE PITTSBURGH INTL ALTIMETER SETTING AND INCREASE ALL DA 50 FEET AND ALL MDA 60 FEET; INCREASE LPV ALL CATS VISIBILITY 1/8 MILE, INCREASE LNAV CATS C AND D VISIBILITY 1/4 MILE. DELETE PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT ZUTIV ON V115 NORTHEAST BOUND. DELETE NOTE DME/DME RNP-0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. CHART VDP AT 1.05 NM TO RW10* *LNAV ONLY. ALTERNATE MINIMUMS: STANDARD. THIS IS RNAV (GPS) RWY 10, ORIG-C. 1805221453-PERM

FDC **8/0985** BVI IAP BEAVER COUNTY, Beaver Falls, PA. RNAV (GPS) RWY 28, ORIG-B... CHART NOTE: CIRCLING RWY 28 NA AT NIGHT. CHART NOTE: RWY 28 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. DELETE NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. CHART NOTE: BARO-VNAV AND VDP NA WHEN USING PITTSBURGH INTL ALTIMETER SETTING. DELETE NOTE: BARO-VNAV NA WHEN USING PITTSBURGH INTL ALTIMETER SETTING. CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE PITTSBURGH INTL ALTIMETER SETTING: INCREASE ALL DA 50 FEET; INCREASE ALL MDAS 60 FEET AND VISIBILITY LNAV CATS C AND D 1/4 SM. DELETE NOTE: WHEN CONTROL TOWER CLOSED, USE PITTSBURGH INTL ALTIMETER SETTING AND INCREASE ALL DA BY 50 FEET AND ALL MDA 60 FEET; INCREASE LNAV/VNAV VISIBILITY 1/8 MILE, INCREASE LNAV CATS C AND D VISIBILITY 1/4 MILE. DELETE NOTE: DME/DME RNP-0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. CHART IN PROFILE VIEW: WUBMA/2.50 NM TO RW28 2100* *LNAV ONLY. DELETE IN PROFILE VIEW: WUBMA/2.50 NM TO RW28 2100. CHART VDP AT 1.14 NM TO RW28*. 34:1 IS NOT CLEAR. ALTERNATE MINIMUMS: STANDARD. THIS IS RNAV (GPS) RWY 28, ORIG-C. 1805221453-PERM

FDC **8/0986** BVI IAP BEAVER COUNTY, Beaver Falls, PA. VOR RWY 28, AMDT 10B... DELETE NOTE: PROCEDURE NA AT NIGHT. CHART NOTE: STRAIGHT-IN RWY 28 NA AT NIGHT, CIRCLING RWY 28 NA AT NIGHT. CHART NOTE: RWY 28 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. DELETE NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. CHANGE FINAL STEPDOWN FIX NAME FROM ZUDLO FIX MINIMUMS TO ZUDLO FIX MINIMUMS (DME REQUIRED). CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE PITTSBURGH INTL ALTIMETER SETTING AND INCREASE ALL MDAS 60 FEET AND VISIBILITY CIRCLING CATS A AND D 1/4 SM AND ZUDLO FIX MINIMUMS S-28 CATS C/D 1/4 SM AND CIRCLING CAT C 1/8 SM. DELETE NOTE: WHEN CONTROL TOWER CLOSED, USE PITTSBURGH INTL ALTIMETER SETTING AND INCREASE ALL MDA 60 FEET, INCREASE CIRCLING CAT A/D VISIBILITY 1/4 MILE AND INCREASE ZUDLO FIX MINIMUMS S-28 CATS C/D VISIBILITY 1/4 MILE AND CIRCLING CAT C VISIBILITY 1/8 MILE. CHANGE ALL REFERENCE FROM EWC VORTAC TO EWC VOR/DME. ALTERNATE MINIMUMS: CAT A/B 900-2, CAT C/D 900-2 1/2. THIS IS VOR RWY 28, AMDT 10C. 1805221454-PERM

FDC **8/1764** 6B6 IAP MINUTE MAN AIR FIELD, Stow, MA. VOR/DME RWY 21, AMDT 3D... DELETE NOTE: PROCEDURE NA AT NIGHT. CHART NOTE: CIRCLING RWY 3 NA AT NIGHT. CHART NOTE: RWY 21 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. CHART NOTE: PROCEDURE NA FOR ARRIVAL ON MHT VOR/DME AIRWAY RADIALS 253 CW 291. DELETE NOTE: PROCEDURE NA FOR ARRIVALS AT MHT VOR/DME ON AIRWAY RADIALS 253 CW 291. MISSED APPROACH: CLIMBING LEFT TURN TO 2000 ON MHT R-210 TO EGORE/20 DME AND HOLD. CHART NOTE: USE BEDFORD ALTIMETER SETTING; WHEN NOT RECEIVED, USE BOSTON ALTIMETER SETTING AND INCREASE ALL MDAS 60 FEET. DELETE NOTE: USE BEDFORD ALTIMETER SETTING, WHEN NOT RECEIVED, USE BOSTON ALTIMETER SETTING AND INCREASE ALL MDA 60 FEET. THIS IS VOR/DME RWY 21, AMDT 3E. 1806111411-PERM

FDC **8/1767** 6B6 IAP MINUTE MAN AIR FIELD, Stow, MA. RNAV (GPS) RWY 21, ORIG-A... CHART VDP AT 1.95 NM TO RW21. CHART NOTE: CIRCLING RWY 3 NA AT NIGHT. DELETE NOTE: PROCEDURE NA AT NIGHT. CHART NOTE: RWY 21 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. DELETE NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. PBN REQUIREMENTS NOTE: RNP APCH. DELETE NOTE: DME/DME RNP-0.3 NA. CHART NOTE: USE BEDFORD ALTIMETER SETTING; WHEN NOT RECEIVED, USE BOSTON ALTIMETER SETTING AND INCREASE ALL MDAS 60 FEET AND VISIBILITY CAT B 1/4 SM. DELETE NOTE: USE BRADFORD ALTIMETER SETTING. WHEN NOT RECEIVED, USE BOSTON ALTIMETER SETTING AND INCREASE ALL MDA 60 FEET AND INCREASE CAT B VISIBILITY 1/4 SM. CHART NOTE: CIRCLING NA TO RWYS 12 AND 30. DELETE NOTE: CIRCLING NA TO RWY 12/30. THIS IS RNAV (GPS) RWY 21, ORIG-B. 1806111413-PERM

FDC **8/1773** AQO IAP LLANO MUNI, Llano, TX. VOR-A, AMDT 4... DELETE NOTE: NIGHT LANDING: RWY 35 NA. DELETE NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. CHART NOTE: CIRCLING RWY 13, 31 NA. CHART NOTE: CIRCLING RWY 35 NA AT NIGHT. THIS IS VOR-A, AMDT 4A. 1805231100-PERM

FDC **8/1774** AQO IAP LLANO MUNI, Llano, TX. RNAV (GPS) RWY 17, ORIG... DELETE NOTE: DME/DME RNP-0.3 NA. DELETE NOTE: CIRCLING NA TO RWY 13-31. CHART NOTE: CIRCLING RWY 35 NA AT NIGHT. CHART NOTE: CIRCLING RWY 13, 31 NA. PBN REQUIREMENTS NOTE: RNP APCH. CHART NOTE: RWY 17 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. 34:1 IS NOT CLEAR. THIS IS RNAV (GPS) RWY 17, ORIG-A. 1805231102-PERM

FDC **8/1775** AQO IAP LLANO MUNI, Llano, TX. RNAV (GPS) RWY 35, ORIG... DELETE NOTE: DME/DME RNP-0.3 NA. DELETE NOTE: CIRCLING NA TO RWY 13-31. DELETE NOTE: VISIBILITY REDUCTION BY HELICOPTERS NA. CHART NOTE: STRAIGHT-IN RWY 35 NA AT NIGHT, CIRCLING RWY 35 NA AT NIGHT. CHART NOTE: CIRCLING RWY 13, 31 NA. CHART NOTE: RWY 35 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. PBN REQUIREMENTS NOTE: RNP APCH. DELETE VDP AT 1.29 MILES TO RW35. DELETE NOTE: VDP NA WHEN USING BURNET ALTIMETER SETTING. THIS IS RNAV (GPS) RWY 35, ORIG-A. 1805231105-PERM

FDC **8/2046** RST IAP ROCHESTER INTL, Rochester, MN. RADAR-1, AMDT 8 ... ASR 20 MDA1680/HAT 376 ALL CATS. CHART FAS OBST: 1419 TANK 435514N/0922944W. DELETE NOTE: VISIBILITY REDUCTION BY HELICOPTERS NA RWY 2/20. THIS IS RADAR-1, AMDT 8A. 1805231644-PERM

FDC **8/2899** BFL IAP MEADOWS FIELD, Bakersfield, CA. ILS OR LOC RWY 30R, AMDT 31... CHART NOTE: FOR INOPERATIVE ALS, INCREASE S-LOC 30R CAT A AND B VISIBILITY TO RVR 5000. CHART NOTE: FOR INOPERATIVE ALS WHEN USING PORTERVILLE ALTIMETER SETTING, INCREASE S-ILS 30R ALL CATS VISIBILITY TO RVR 5000. DELETE NOTE: FOR INOPERATIVE MALSR, INCREASE S-LOC 30R CAT A AND B VISIBILITY TO RVR 5000. CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT AMONT ON V459 SOUTHEAST BOUND. CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT GMN VORTAC ON V137 SOUTHEAST BOUND. DELETE PROFILE NOTE: VGSI AND ILS GLIDEPATH NOT COINCIDENT (VGSI ANGLE 3.00/TCH 67). DELETE NOTE: FOR INOPERATIVE MALSR WHEN USING PORTERVILLE ALTIMETER SETTING, INCREASE S-ILS 30R ALL CATS VISIBILITY TO RVR 5000. DELETE PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT AMONT ON V459 SOUTHEAST BOUND AND ARRIVALS AT GMN VORTAC ON V137 SOUTHEAST BOUND. THIS IS ILS OR LOC RWY 30R, AMDT 31A. 1805241100-PERM

FDC **8/2901** BFL IAP MEADOWS FIELD, Bakersfield, CA. RNAV (GPS) RWY 30R, AMDT 2A... CHART NOTE: FOR INOPERATIVE ALS WHEN USING PORTERVILLE ALTIMETER SETTING, INCREASE LPV ALL CATS VISIBILITY TO RVR 5000 AND LNAV CAT C AND D VISIBILITY TO 1 3/8. DELETE NOTE: FOR INOPERATIVE MALSR WHEN USING PORTERVILLE ALTIMETER SETTING, INCREASE LPV ALL CATS VISIBILITY TO RVR 5000 AND LNAV CAT C AND D VISIBILITY TO 1 3/8. DELETE PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE 3.00/TCH 67). DELETE NOTE: DME/DME RNP-0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. THIS IS RNAV (GPS) RWY 30R, AMDT 2B. 1805241100-PERM

FDC **8/3005** 57C IAP EAST TROY MUNI, East Troy, WI. VOR/DME-A, AMDT 1B... DELETE NOTE: PROCEDURE NA AT NIGHT. DELETE NOTE: RWY 8, 26 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. CHART NOTE: CIRCLING NA TO RWYS 18 AND 36. ALTERNATE MINIMUMS: STANDARD. THIS IS VOR/DME-A, AMDT 1C. 1805241148-PERM

FDC **8/3009** 57C IAP EAST TROY MUNI, East Troy, WI. RNAV (GPS) RWY 8, ORIG-B... CHART VDP AT 1.11 NM TO RW08. CHART NOTE: RWY 8 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. DELETE NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. CHART NOTE: VDP NA WHEN USING GENERAL MITCHELL INTL ALTIMETER SETTING. DELETE NOTE: PROCEDURE NA AT NIGHT. CHART NOTE: CIRCLING NA TO RWYS 18 AND 36. PBN REQUIREMENTS NOTE: RNP APCH. DELETE NOTE: DME/DME RNP-0.3 NA. ALTERNATE MINIMUMS: STANDARD. THIS IS RNAV (GPS) RWY 8, ORIG-C. 1805241151-PERM

FDC **8/3013** 57C IAP EAST TROY MUNI, East Troy, WI. RNAV (GPS) RWY 26, ORIG-B... CHART VDP AT 1.13 NM TO RW26*. DELETE NOTE: PROCEDURE NA AT NIGHT. CHART NOTE: RWY 26 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. DELETE NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. PBN REQUIREMENTS NOTE: RNP APCH. DELETE NOTE: DME/DME RNP-0.3 NA. CHART NOTE: CIRCLING NA TO RWYS 18 AND 36. CHART NOTE: BARO-VNAV AND VDP NA WHEN USING GENERAL MITCHELL INTL ALTIMETER SETTING. DELETE NOTE: BARO-VNAV NA WHEN USING GENERAL MITCHELL INTL ALTIMETER SETTING. ALTERNATE MINIMUMS: STANDARD. THIS IS RNAV (GPS) RWY 26, ORIG-C. 1805241153-PERM

FDC **8/3041** AFE IAP KAKE, Kake, AK. RNAV (GPS) RWY 11, ORIG... CHART NOTE: CIRCLING RWY 29 NA AT NIGHT. DELETE NOTE: WHEN VGSI INOPERATIVE, PROCEDURE NA AT NIGHT. DELETE NOTE: VISIBILITY REDUCTION BY HELICOPTERS NA. CHART NOTE: RWY 11 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. DELETE NOTE: DME/DME RNP-0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. THIS IS RNAV (GPS) RWY 11, ORIG-A. 1805241223-PERM

FDC **8/3043** AFE IAP KAKE, Kake, AK. NDB/DME RWY 11, AMDT 1... CHART NOTE: CIRCLING RWY 29 NA AT NIGHT. DELETE NOTE: WHEN VGSI INOPERATIVE, PROCEDURE NA AT NIGHT. DELETE NOTE: VISIBILITY REDUCTION BY HELICOPTERS NA. CHART NOTE: RWY 11 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. THIS IS NDB/DME RWY 11, AMDT 1A. 1805241225-PERM

FDC **8/3051** 4R3 IAP JACKSON MUNI, Jackson, AL. RNAV (GPS) RWY 1, ORIG... DELETE PROFILE NOTE: DESCENT ANGLE 3.05/TCH 42. CHART PROFILE NOTE: VISUAL SEGMENT - OBSTACLES. DELETE NOTE: DME/DME RNP-0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. DELETE NOTE: VISIBILITY REDUCTION BY HELICOPTERS NA. CHART NOTE: RWY 1 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. THIS IS RNAV (GPS) RWY 1, ORIG-A. 1805241228-PERM

FDC **8/3119** XVG IAP LONGVILLE MUNI, Longville, MN. RNAV (GPS) RWY 31, ORIG... CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {4.00}/TCH {28}). CHART NOTE: CIRCLING RWY 13 NA AT NIGHT. CHART NOTE: RWY 31 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. DELETE NOTE: DME/DME RNP-0.3 NA. DELETE NOTE: GPS OR RNP 0.3 REQUIRED. PBN REQUIREMENTS NOTE: RNP APCH. THIS IS RNAV (GPS) RWY 31, ORIG-A. 1805241332-PERM

FDC **8/3327** 3I7 IAP PHILLIPSBURG, Phillipsburg, OH. VOR OR GPS RWY 21, AMDT 3A... CHANGE AIRPORT NAME FROM PHILLIPSBURG TO DAYTON-PHILLIPSBURG. CHANGE CITY NAME FROM PHILLIPSBURG TO DAYTON. CHART NOTE: CIRCLING RWY 3 NA AT NIGHT. CHART NOTE: RWY 3 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. DELETE NOTE: NIGHT LANDING: RWY 3 NA. THIS IS VOR OR GPS RWY 21, AMDT 3B. 1805241620-PERM

FDC **8/3329** 3I7 ODP PHILLIPSBURG, Phillipsburg, OH. TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 1... CHANGE AIRPORT NAME FROM PHILLIPSBURG TO DAYTON-PHILLIPSBURG. CHANGE CITY NAME FROM PHILLIPSBURG TO DAYTON. THIS IS TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES, AMDT 1A. 1805241620-PERM

FDC **8/3588** 0M4 IAP BENTON COUNTY, Camden, TN. RNAV (GPS) RWY 22, ORIG-C... CHART NOTE: RWY 22 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. DELETE NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. DELETE NOTE: DME/DME RNP-0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. DELETE NOTE: NIGHT LANDING: RWY 22 NA. CHART NOTE: STRAIGHT-IN RWY 22 NA AT NIGHT, CIRCLING RWY 22 NA AT NIGHT. THIS IS RNAV (GPS) RWY 22, ORIG-D. 1805242057-PERM

FDC **8/5735** 6S8 IAP LAUREL MUNI, Laurel, MT. RNAV (GPS) RWY 4, AMDT 1B... CHART NOTE: CIRCLING NA TO RWYS 9 AND 27. DELETE NOTE: CIRCLING NA TO RWYS 9 AND 12. PBN REQUIREMENTS NOTE: RNP APCH. DELETE NOTE: DME/DME RNP-0.3 NA. THIS IS RNAV (GPS) RWY 4, AMDT 1C. 1805141150-PERM

FDC **8/5737** 6S8 IAP LAUREL MUNI, Laurel, MT. RNAV (GPS) RWY 22, AMDT 1B... CHART NOTE: CIRCLING NA TO RWYS 9 AND 27. DELETE NOTE: CIRCLING NA TO RWYS 9 AND 12. PBN REQUIREMENTS NOTE: RNP APCH. DELETE NOTE: DME/DME RNP-0.3 NA. THIS IS RNAV (GPS) RWY 22, AMDT 1C. 1805141152-PERM

FDC **8/5739** 6S8 IAP LAUREL MUNI, Laurel, MT. VOR RWY 22, AMDT 2A... CHART NOTE: CIRCLING NA TO RWYS 9 AND 27. DELETE NOTE: CIRCLING NA TO RWYS 9 AND 12. THIS IS VOR RWY 22, AMDT 2B. 1805141154-PERM

FDC **8/6132** BMI IAP CENTRAL IL RGNL ARPT AT BLOOMINGTON-NORMAL, Bloomington/Normal, IL. ILS OR LOC RWY 29, AMDT 11A... DELETE NOTE: **RVR 1800 AUTHORIZED WITH USE OF FD OR AP OR HUD TO DA. CHART NOTE: **RVR 1800 AUTHORIZED WITH USE OF FD OR AP OR HUD TO DA (NA WHEN USING GENERAL DOWNING-PEORIA INTL ALTIMETER SETTING). CHART NOTE: LOC MINIMUMS: FOR INOPERATIVE ALS, INCREASE S-LOC 29 CATS C AND D VISIBILITY TO 1 3/8 SM; WURSU FIX MINIMUMS: FOR INOPERATIVE ALS, INCREASE S-LOC 29 VISIBILITY TO RVR 5500. CHART NOTE: FOR INOPERATIVE ALS WHEN USING GENERAL DOWNING-PEORIA INTL ALTIMETER SETTING: INCREASE S-ILS 29 VISIBILITY TO RVR 4500; INCREASE S-LOC 29 CATS C AND D VISIBILITY TO 1 3/4 SM; INCREASE WURSU FIX MINIMUMS S-LOC 29 CATS C AND D VISIBILITY TO 1 3/8 SM. THIS IS ILS OR LOC RWY 29, AMDT 11B. 1805301650-PERM

FDC **8/6136** DEC IAP DECATUR, Decatur, IL. ILS OR LOC RWY 6, AMDT 13F... DELETE NOTE: *RVR 1800 AUTHORIZED WITH THE USE OF FD OR AP OR HUD TO DA. CHART NOTE: *RVR 1800 AUTHORIZED WITH USE OF FD OR AP OR HUD TO DA (NA WHEN USING LOGAN COUNTY ALTIMETER SETTING). THIS IS ILS OR LOC RWY 6, AMDT 13G. 1805301701-PERM

FDC **8/6939** LLQ IAP MONTICELLO MUNI/ELLIS FIELD, Monticello, AR. RNAV (GPS) RWY 3, AMDT 1B... PBN REQUIREMENTS NOTE: RNP APCH. CHART NOTE: RWY 3: HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. DELETE NOTE: WHEN VGSI INOP, STRAIGHT-IN/CIRCLING RWY 3 PROCEDURE NA AT NIGHT. DELETE NOTE: WHEN VGSI INOP, CIRCLING RWY 21 NA AT NIGHT. DELETE NOTE: DME/DME RNP-0.3 NA. DELETE NOTE: VISIBILITY REDUCTION BY HELICOPTERS NA. THIS IS RNAV (GPS) RWY 3, AMDT 1C. 1805311826-PERM

FDC **8/7523** 3R4 IAP HART, Many, LA. RNAV (GPS) RWY 12, ORIG... DELETE
NOTE: PROCEDURE NA AT NIGHT. DELETE NOTE: VISIBILITY REDUCTION BY
HELICOPTERS NA. DELETE NOTE: DME/DME RNP-0.3 NA. PBN
REQUIREMENTS NOTE: RNP APCH. 34:1 IS CLEAR. THIS IS RNAV (GPS) RWY
12, ORIG-A. 1806011907-PERM

FDC **8/7526** 3R4 IAP HART, Many, LA. RNAV (GPS) RWY 30, ORIG... DELETE
NOTE: PROCEDURE NA AT NIGHT. DELETE NOTE: VISIBILITY REDUCTION BY
HELICOPTERS NA. CHART NOTE: RWY 30 HELICOPTER VISIBILITY REDUCTION
BELOW 3/4 SM NOT AUTHORIZED. DELETE NOTE: DME/DME RNP-0.3 NA.
DELETE PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT.
CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI
ANGLE {3.50}/TCH {56}). PBN REQUIREMENTS NOTE: RNP APCH. THIS IS RNAV
(GPS) RWY 30, ORIG-A. 1806011910-PERM

FDC **8/7537** FIT IAP FITCHBURG MUNI, Fitchburg, MA. RNAV (GPS) RWY 20,
ORIG-C... CHART NOTE: PROCEDURE NA AT NIGHT. DELETE NOTE: DME/DME
RNP-0.3 NA. PBN REQUIREMENT NOTE: RNP APCH. THIS IS RNAV (GPS) RWY
20, ORIG-D. 1804301138-PERM

FDC **8/7828** LWB ODP GREENBRIER VALLEY, Lewisburg, WV. TAKEOFF
MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 4...
DEPARTURE PROCEDURE: RWY 4, CLIMB HEADING 043 TO 3800 BEFORE
PROCEEDING ON COURSE. RWY 22, CLIMB HEADING 223 TO 3300 BEFORE
PROCEEDING ON COURSE. ALL OTHER DATA REMAINS AS PUBLISHED. THIS
IS TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES, AMDT
4A. 1803261917-PERM

FDC **8/7839** SIF IAP ROCKINGHAM COUNTY NC SHILOH, Reidsville, NC. RNAV
(GPS) RWY 13, ORIG... DELETE NOTE: DME/DME RNP 0.3 NA. DELETE NOTE:
VISIBILITY REDUCTION BY HELICOPTERS NA. DELETE NOTE: WHEN LOCAL
ALTIMETER SETTING NOT RECEIVED USE GREENSBORO ALTIMETER
SETTING AND INCREASE ALL MDA 100 FEET, INCREASE LNAV CATS C AND D
AND CIRCLING CATS C AND D VISIBILITY 1/4 MILE. CHART NOTE: RWY 13
HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED PBN
REQUIREMENTS NOTE: RNP APCH. CHART NOTE: PROCEDURE NA AT NIGHT.
THIS IS RNAV (GPS) RWY 13, ORIG-A. 1805161753-PERM

FDC **8/7840** SIF IAP ROCKINGHAM COUNTY NC SHILOH, Reidsville, NC. RNAV (GPS) RWY 31, ORIG-A... DELETE NOTE: DME/DME RNP 0.3 NA. DELETE NOTE: VISIBILITY REDUCTION BY HELICOPTERS NA. DELETE NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED USE GREENSBORO ALTIMETER SETTING AND INCREASE ALL MDA 100 FEET, INCREASE LNAV CATS C AND D AND CIRCLING CATS C AND D VISIBILITY 1/4 MILE. CHART NOTE: RWY 31 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. CHART NOTE: PROCEDURE NA AT NIGHT. PBN REQUIREMENTS NOTE: RNP APCH. THIS IS RNAV (GPS) RWY 31, ORIG-B. 1805161753-PERM

FDC **8/7842** SIF IAP ROCKINGHAM COUNTY NC SHILOH, Reidsville, NC. NDB RWY 31, AMDT 5A... DELETE NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NA. CHART NOTE: RWY 31 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. DELETE NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED USE GREENSBORO ALTIMETER SETTING AND INCREASE ALL MDA 100 FEET, INCREASE S-31 CATS C AND D AND CIRCLING CATS C AND D VISIBILITY 1/4 MILE. CHART NOTE: PROCEDURE NA AT NIGHT. THIS IS NDB RWY 31, AMDT 5B. 1805161753-PERM

FDC **8/7843** SIF IAP ROCKINGHAM COUNTY NC SHILOH, Reidsville, NC. VOR/DME-A, AMDT 9A... DELETE NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED USE GREENSBORO ALTIMETER SETTING AND INCREASE MDA 100 FEET, INCREASE CATS C AND D VISIBILITY 1/4 MILE. DELETE NOTE: VISIBILITY REDUCTION BY HELICOPTERS NA. CHART NOTE: HELICOPTER VISIBILITY REDUCTION NOT AUTHORIZED. CHART NOTE: PROCEDURE NA AT NIGHT. THIS IS VOR/DME-A, AMDT 9B. 1805161753-PERM

FDC **8/7904** EFD IAP ELLINGTON, Houston, TX. ILS OR LOC RWY 22, AMDT 3G... EQUIPMENT REQUIREMENTS NOTE: RADAR REQUIRED FOR PROCEDURE ENTRY. DELETE PLANVIEW NOTE: RADAR REQUIRED. CHART NOTE: FOR INOPERATIVE ALS, INCREASE S-ILS 22 CAT E VISIBILITY TO RVR 4000 AND S-LOC 22 CAT E VISIBILITY TO RVR 6000. DELETE NOTE: FOR INOPERATIVE MALSR, INCREASE S-ILS 22 CAT E VISIBILITY TO RVR 4000 AND S-LOC 22 CAT E VISIBILITY TO RVR 6000. ALTERNATE MINIMUMS: ILS STANDARD; LOC STANDARD EXCEPT CAT E 800 - 2 1/4. THIS IS ILS OR LOC RWY 22, AMDT 3H. 1806041331-PERM

FDC **8/7959** 5M0 IAP HARTSELLE-MORGAN COUNTY REGIONAL, Hartselle, AL. RNAV (GPS) RWY 18, AMDT 1... CHART PROFILE NOTE: VISUAL SEGMENT - OBSTACLES. DELETE: DESCENT ANGLE 3.00/TCH 40. DELETE NOTE: DME/DME RNP-0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. DELETE NOTE: VISIBILITY REDUCTION BY HELICOPTERS NA. CHART NOTE: RWY 18 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. THIS IS RNAV (GPS) RWY 18, AMDT 1A. 1806041423-PERM

FDC **8/7960** 5M0 IAP HARTSELLE-MORGAN COUNTY REGIONAL, Hartselle, AL. RNAV (GPS) RWY 36, AMDT 1... CHART PROFILE NOTE: VISUAL SEGMENT - OBSTACLES. DELETE: DESCENT ANGLE 3.00/TCH 34. DELETE NOTE: DME/DME RNP-0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. DELETE NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NA. CHART NOTE: RWY 36 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. THIS IS RNAV (GPS) RWY 36, AMDT 1A. 1806041423-PERM

FDC **8/8029** SGJ IAP NORTHEAST FLORIDA RGNL, St Augustine, FL. RNAV (GPS) RWY 13, ORIG-D... CHART NOTE: CIRCLING RWY 2, 6 NA AT NIGHT. DELETE NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NA. CHART NOTE: RWY 13 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. DELETE NOTE: DME/DME RNP-0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. THIS IS RNAV (GPS) RWY 13, ORIG-E. 1805162001-PERM

FDC **8/8031** SGJ IAP NORTHEAST FLORIDA RGNL, St Augustine, FL. VOR RWY 13, ORIG-D... CHART NOTE: CIRCLING RWY 2, 6 NA AT NIGHT. DELETE NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NA. CHART NOTE: RWY 13 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. THIS IS VOR RWY 13, ORIG-E. 1805162002-PERM

FDC **8/8043** 5L0 IAP LAKOTA MUNI, Lakota, ND. RNAV (GPS) RWY 33, ORIG... DELETE NOTE: RWY 15-33 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NA. CHART NOTE: RWY 33 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. DELETE NOTE: PROCEDURE NA AT NIGHT. CHART NOTE: CIRCLING RWY 15 NA AT NIGHT. DELETE NOTE: DME/DME RNP-0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. THIS IS RNAV (GPS) RWY 33, ORIG-A. 1805162012-PERM

FDC **8/8672** 1K8 IAP SOUTH GRAND LAKE RGNL, Ketchum, OK. RNAV (GPS) RWY 36, ORIG... CHART NOTE: RWY 36 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. DELETE NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. CHART NOTE: CIRCLING RWY 18 NA AT NIGHT. DELETE NOTE: DME/DME RNP-0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. THIS IS RNAV (GPS) RWY 36, ORIG-A. 1805171154-PERM

FDC **8/8673** 1K8 IAP SOUTH GRAND LAKE RGNL, Ketchum, OK. RNAV (GPS) RWY 18, ORIG... CHART NOTE: STRAIGHT-IN RWY 18 NA AT NIGHT, CIRCLING RWY 18 NA AT NIGHT. CHART NOTE: RWY 18 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. DELETE NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NA. DELETE NOTE: DME/DME RNP-0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. THIS IS RNAV (GPS) RWY 18, ORIG-A. 1805171156-PERM

FDC **8/8783** 71J ODP BLACKWELL FIELD, Ozark, AL. TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 2... CHANGE AIRPORT NAME FROM BLACKWELL FIELD TO OZARK-BLACKWELL FIELD. CHART TAKEOFF MINIMUMS: RWY 31, 300-2 OR STANDARD WITH MINIMUM CLIMB OF 203 FT PER NM TO 700, OR ALTERNATIVELY WITH STANDARD TAKEOFF MINIMUMS AND A NORMAL 200 FT PER NM CLIMB GRADIENT, TAKEOFF MUST OCCUR NO LATER THAN 1200 FT PRIOR TO DER. DELETE TAKEOFF MINIMUMS : RWY 31, 300-2 OR STANDARD WITH MINIMUM CLIMB OF 201 FEET PER NM TO 700, OR ALTERNATIVELY, WITH STANDARD TAKEOFF MINIMUMS AND A NORMAL 200 FT PER NM CLIMB GRADIENT, TAKEOFF MUST OCCUR NO LATER THAN 1100 FT PRIOR TO DER. ALL OTHER DATA REMAINS AS PUBLISHED. THIS IS TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES, AMDT 2A. 1806051645-PERM

FDC **8/8796** 71J IAP BLACKWELL FIELD, Ozark, AL. RNAV (GPS) RWY 13, ORIG-A... CHANGE AIRPORT NAME FROM BLACKWELL FIELD TO OZARK-BLACKWELL FIELD. CHART NOTE: PROCEDURE NA AT NIGHT. DELETE NOTE: NIGHT LANDING: RWY 13 NA. CHART NOTE: RWY 13 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. DELETE NOTE: EXTENSIVE HELICOPTER TRAFFIC IN AREA. DELETE NOTE: DME/DME RNP-0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. THIS IS RNAV (GPS) RWY 13, ORIG-B. 1806051707-PERM

FDC **8/8798** 71J IAP BLACKWELL FIELD, Ozark, AL. RNAV (GPS) RWY 31, ORIG-A... CHANGE AIRPORT NAME FROM BLACKWELL FIELD TO OZARK-BLACKWELL FIELD. CHART NOTE: CIRCLING RWY 13, 31 NA AT NIGHT. DELETE NOTE: NIGHT LANDING: RWY 13 NA. CHART NOTE: RWY 31 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. DELETE NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 1SM NOT AUTHORIZED. DELETE NOTE: EXTENSIVE HELICOPTER TRAFFIC IN AREA. DELETE NOTE: DME/DME RNP-0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. THIS IS RNAV (GPS) RWY 31, ORIG-B. 1806051713-PERM

FDC **8/8803** 71J IAP BLACKWELL FIELD, Ozark, AL. VOR RWY 31, AMDT 7A... CHANGE AIRPORT NAME FROM BLACKWELL FIELD TO OZARK-BLACKWELL FIELD. CHART NOTE: RWY 31 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. DELETE NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 1SM NOT AUTHORIZED. DELETE NOTE: EXTENSIVE HELICOPTER TRAFFIC IN AREA. THIS IS VOR RWY 31, AMDT 7B. 1806051717-PERM

FDC **8/8880** 3CM ODP JAMES CLEMENTS MUNI, Bay City, MI. TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 6... TAKEOFF MINIMUMS: RWYS 9W, 13W, 18W, 27W, 31W, 36W NA - ENVIRONMENTAL. ALL OTHER DATA REMAINS AS PUBLISHED. THIS IS TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES, AMDT 6A. 1806051949-PERM

FDC **8/8882** 3CM IAP JAMES CLEMENTS MUNI, Bay City, MI. RNAV (GPS) RWY 18, ORIG-B... CHART NOTE: CIRCLING NA TO RWYS 18W, 36W, 13W, 31W, 9W, AND 27W. DELETE NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NA. CHART NOTE: RWY 18 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. DELETE NOTE: DME/DME RNP -0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. DELETE NOTE: RWY 18 STRAIGHT-IN AND CIRCLING AND CIRCLING TO RWY 23/36 NA AT NIGHT. CHART NOTE: RWY 18 STRAIGHT-IN NA AT NIGHT, CIRCLING RWY 18, 23, 36 NA AT NIGHT. THIS IS RNAV (GPS) RWY 18, ORIG-C. 1806051951-PERM

FDC **8/8883** 3CM IAP JAMES CLEMENTS MUNI, Bay City, MI. VOR-A, AMDT 12A... CHART NOTE: CIRCLING NA TO RWYS 18W, 36W, 13W, 31W, 9W, AND 27W. DELETE NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NA. DELETE NOTE: CIRCLING TO RWY 18/23/36 NA AT NIGHT. CHART NOTE: CIRCLING RWY 18, 23, 36 NA AT NIGHT. CHANGE MISSED APPROACH TO READ: CLIMBING LEFT TURN TO 2400 ON MBS R-080 OUTBOUND THEN CLIMBING LEFT TURN TO 3000 DIRECT MBS VOR/DME AND HOLD. THIS IS VOR-A, AMDT 12B. 1806051953-PERM

FDC **8/9567** 2H2 IAP JERRY SUMNERS SR AURORA MUNI, Aurora, MO. RNAV (GPS) RWY 18, ORIG-A... CIRCLING MDA 1980/HAA 546 ALL CATS. CHART NOTE: CIRCLING RWY 36 NA AT NIGHT. DELETE NOTE: DME/DME RNP-0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. CHART NOTE: RWY 18 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. NOTE: 34:1 IS NOT CLEAR. THIS IS RNAV (GPS) RWY 18, ORIG-B. 1805031239-PERM

FDC **8/9575** 2H2 IAP JERRY SUMNERS SR AURORA MUNI, Aurora, MO. VOR/DME-A, AMDT 4... CIRCLING MDA 1980/HAA 546 ALL CATS. CHART NOTE: CIRCLING RWY 36 NA AT NIGHT. THIS IS VOR/DME-A, AMDT 4A. 1805031248-PERM

FDC **8/9769** 40G IAP VALLE, Grand Canyon, AZ. GPS RWY 01, ORIG-B... CHART NOTE: PROCEDURE NA AT NIGHT. THIS IS GPS RWY 01, ORIG-C. 1805211211-PERM

FDC **8/9770** 40G IAP VALLE, Grand Canyon, AZ. VOR/DME RWY 19, ORIG... CHART NOTE: PROCEDURE NA AT NIGHT. THIS IS VOR/DME RWY 19, ORIG-A. 1805211214-PERM

FDC **8/9773** 40G IAP VALLE, Grand Canyon, AZ. GPS RWY 19, ORIG-A... CHART NOTE: PROCEDURE NA AT NIGHT. THIS IS GPS RWY 19, ORIG-B. 1805211217-PERM

FDC **8/9807** ORH IAP WORCESTER RGNL, Worcester, MA. ILS OR LOC RWY 11, AMDT 25... DELETE NOTE: WHEN CONTROL TOWER CLOSED: INCREASE S-ILS 11 ALL CATS VISIBILITY TO RVR 4000, AND S-LOC 11 CATS A AND B TO RVR 4000 AND CATS C AND D TO 1 1/4 SM. THIS IS ILS OR LOC RWY 11, AMDT 25A. 1804161313-PERM

FDC **8/9937** DHN IAP DOTHAN RGNL, Dothan, AL. RNAV (GPS) RWY 14, AMDT 2A... LNAV/VNAV DA 724/HAT 323 ALL CATS. VISIBILITY 1 ALL CATS. LNAV MDA 820/HAT 419 ALL CATS, VISIBILITY CATS C/D 1 1/8. THIS IS RNAV (GPS) RWY 14, AMDT 2B. 1804161707-PERM