

U.S. Department
of Transportation

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

**Federal Aviation
Administration**

Transmittal Letter 18-21

August 24, 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.**

[4910-13]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 97

[Docket No. [31211](#); Amdt. No. [3815](#)]

**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 **AUGUST 24, 2018**.



Rick Domingo
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 11 October 2018

Litchfield, IL, Litchfield Muni, Takeoff Minimums and Obstacle DP, Amdt 3A
 Winamac, IN, Arens Field, Takeoff Minimums and Obstacle DP, Orig-A
 Beloit, KS, Moritz Memorial, RNAV (GPS) RWY 17, Amdt 1
 Beloit, KS, Moritz Memorial, RNAV (GPS) RWY 35, Orig-A
 Beloit, KS, Moritz Memorial, Takeoff Minimums and Obstacle DP, Amdt 1A
 Beloit, KS, Moritz Memorial, VOR RWY 17, Amdt 5
 Topeka, KS, Philip Billard Muni, RNAV (GPS) RWY 18, Amdt 2B
 Topeka, KS, Philip Billard Muni, RNAV (GPS) RWY 36, Amdt 1B
 Harbor Springs, MI, Harbor Springs, Takeoff Minimums and Obstacle DP, Amdt 3
 St. Ignace, MI, Mackinac County, RNAV (GPS) RWY 25, Orig-B
 Raleigh/Durham, NC, Raleigh-Durham Intl, ILS OR LOC RWY 5R, Amdt 29A
 Raleigh/Durham, NC, Raleigh-Durham Intl, ILS OR LOC RWY 23L, Amdt 9A
 Oklahoma City, OK, Sundance, VOR RWY 18, Amdt 1F
 Johnstown, PA, John Murtha Johnstown-Cambria Co, Takeoff Minimums and Obstacle DP, Amdt 4A
 Lampasas, TX, Lampasas, RNAV (GPS) RWY 34, Orig-A
 Sulphur Springs, TX, Sulphur Springs Muni, RNAV (GPS) RWY 19, Orig-B
 Hayward, WI, Sawyer County, ILS OR LOC RWY 21, Orig-A

Effective 8 November 2018

Brevig Mission, AK, Brevig Mission, BREVIG TWO, Graphic DP
 Brevig Mission, AK, Brevig Mission, Takeoff Minimums and Obstacle DP, Orig-A
 Kodiak, AK, Kodiak, RNAV (GPS) RWY 26, Amdt 3
 Bay Minette, AL, Bay Minette Muni, RNAV (GPS) RWY 8, Amdt 1B
 Oneonta, AL, Robbins Field, RNAV (GPS) RWY 6, Orig-C
 Oneonta, AL, Robbins Field, RNAV (GPS) RWY 24, Orig-A
 Oneonta, AL, Robbins Field, Takeoff Minimums and Obstacle DP, Orig-B
 Nogales, AZ, Nogales Intl, Takeoff Minimums and Obstacle DP, Amdt 3
 San Diego, CA, Montgomery - Gibbs Executive, Takeoff Minimums and Obstacle DP, Amdt 4A
 San Francisco, CA, San Francisco Intl, RNAV (GPS) RWY 19L, Amdt 3A
 Tracy, CA, Tracy Muni, RNAV (GPS) RWY 26, Amdt 1B
 Canon City, CO, Fremont County, Takeoff Minimums and Obstacle DP, Amdt 3
 Georgetown, DE, Delaware Coastal, VOR RWY 4, Orig
 Boca Raton, FL, Boca Raton, RNAV (GPS) Y RWY 23, Amdt 1C
 Atlanta, GA, Newnan Coweta County, RNAV (GPS) RWY 14, Amdt 1A
 Atlanta, GA, Newnan Coweta County, RNAV (GPS) RWY 32, Amdt 2A
 Atlanta, GA, Newnan Coweta County, VOR-A, Amdt 8A
 Milledgeville, GA, Baldwin County Rgnl, NDB RWY 28, Amdt 4A
 Milledgeville, GA, Baldwin County Rgnl, RNAV (GPS) RWY 10, Amdt 2A
 Milledgeville, GA, Baldwin County Rgnl, RNAV (GPS) RWY 28, Amdt 2A

Milledgeville, GA, Baldwin County Rgnl, Takeoff Minimums and Obstacle DP, Amdt 1A
 Honolulu, HI, Daniel K Inouye Intl, HONOLULU TWO, Graphic DP
 Honolulu, HI, Daniel K Inouye Intl, Takeoff Minimums and Obstacle DP, Amdt 8B
 Chicago/West Chicago, IL, DuPage, RNAV (GPS) RWY 20R, Amdt 1F
 Chicago/West Chicago, IL, DuPage, Takeoff Minimums and Obstacle DP, Amdt 1B
 Indianapolis, IN, Hendricks County-Gordon Graham Fld, RNAV (GPS) RWY 18, Amdt 1C
 Terre Haute, IN, Terre Haute Rgnl, ILS OR LOC RWY 5, Amdt 23C
 Terre Haute, IN, Terre Haute Rgnl, LOC BC RWY 23, Amdt 19D
 Terre Haute, IN, Terre Haute Rgnl, RADAR 1, Amdt 5B
 Terre Haute, IN, Terre Haute Rgnl, RNAV (GPS) RWY 5, Orig-E
 Terre Haute, IN, Terre Haute Rgnl, RNAV (GPS) RWY 14, Orig-D
 Terre Haute, IN, Terre Haute Rgnl, RNAV (GPS) RWY 23, Amdt 1D
 Terre Haute, IN, Terre Haute Rgnl, RNAV (GPS) RWY 32, Orig-D
 Terre Haute, IN, Terre Haute Rgnl, VOR RWY 5, Amdt 18
 Terre Haute, IN, Terre Haute Rgnl, VOR RWY 23, Amdt 21
 Kingman, KS, Kingman Airport - Clyde Cessna Field, RNAV (GPS) RWY 18, Amdt 1
 Kingman, KS, Kingman Airport - Clyde Cessna Field, RNAV (GPS) RWY 36, Amdt 1
 Lyons, KS, Lyons-Rice County Muni, RNAV (GPS) RWY 17, Orig-A
 Lyons, KS, Lyons-Rice County Muni, RNAV (GPS) RWY 35, Orig-A
 Lyons, KS, Lyons-Rice County Muni, Takeoff Minimums and Obstacle DP, Orig-A
 Lyons, KS, Lyons-Rice County Muni, VOR-A, Amdt 4B
 Campbellsville, KY, Taylor County, Takeoff Minimums and Obstacle DP, Orig-A
 Somerset, KY, Lake Cumberland Rgnl, RNAV (GPS) RWY 5, Orig
 Somerset, KY, Lake Cumberland Rgnl, RNAV (GPS) RWY 23, Amdt 2
 Somerset, KY, Lake Cumberland Rgnl, RNAV (GPS) Y RWY 5, Amdt 3A, CANCELED
 Somerset, KY, Lake Cumberland Rgnl, RNAV (GPS) Z RWY 5, Amdt 1A, CANCELED
 De Ridder, LA, Beauregard Rgnl, Takeoff Minimums and Obstacle DP, Amdt 5
 Belfast, ME, Belfast Muni, NDB RWY 15, Amdt 4, CANCELED
 Presque Isle, ME, Northern Maine Rgnl Arpt at Presque IS, Takeoff Minimums and Obstacle DP, Amdt 5
 Charlevoix, MI, Charlevoix Muni, RNAV (GPS) RWY 27, Orig-B
 Fremont, MI, Fremont Muni, RNAV (GPS) RWY 1, Amdt 1C
 Fremont, MI, Fremont Muni, RNAV (GPS) RWY 19, Amdt 1D
 Fremont, MI, Fremont Muni, Takeoff Minimums and Obstacle DP, Orig-A
 Ironwood, MI, Gogebic-Iron County, ILS OR LOC RWY 27, Amdt 3B
 Ironwood, MI, Gogebic-Iron County, VOR RWY 9, Amdt 13A
 Ludington, MI, Mason County, RNAV (GPS) RWY 8, Orig-D
 Ludington, MI, Mason County, RNAV (GPS) RWY 26, Orig-A
 Traverse City, MI, Cherry Capital, RNAV (GPS) RWY 10, Amdt 3
 Princeton, MN, Princeton Muni, RNAV (GPS) RWY 15, Orig-C
 Princeton, MN, Princeton Muni, RNAV (GPS) RWY 33, Orig-B
 Cabool, MO, Cabool Memorial, Takeoff Minimums and Obstacle DP, Amdt 3
 Lamar, MO, Lamar Muni, RNAV (GPS) RWY 35, Orig-B
 Holly Springs, MS, Holly Springs-Marshall County, RNAV (GPS) RWY 18, Orig-A
 Fayetteville, NC, Fayetteville Rgnl/Grannis Field, LOC BC RWY 22, Amdt 8B

Fayetteville, NC, Fayetteville Rgnl/Grannis Field, RNAV (GPS) RWY 4, Amdt 3C
 Fayetteville, NC, Fayetteville Rgnl/Grannis Field, RNAV (GPS) RWY 10, Orig-B
 Fayetteville, NC, Fayetteville Rgnl/Grannis Field, RNAV (GPS) RWY 22, Amdt 6
 Fayetteville, NC, Fayetteville Rgnl/Grannis Field, RNAV (GPS) RWY 28, Orig-A
 Fayetteville, NC, Fayetteville Rgnl/Grannis Field, VOR RWY 4, Amdt 16B
 Fayetteville, NC, Fayetteville Rgnl/Grannis Field, VOR RWY 22, Amdt 7B
 Fayetteville, NC, Fayetteville Rgnl/Grannis Field, VOR RWY 28, Amdt 8B
 Louisburg, NC, Triangle North Executive, VOR-A, Amdt 2D
 Mount Airy, NC, Mount Airy/Surry County, Takeoff Minimums and Obstacle DP, Amdt 4
 Raleigh/Durham, NC, Raleigh-Durham Intl, RNAV (GPS) Y RWY 5R, Amdt 3A
 Casselton, ND, Casselton Robert Miller Rgnl, RNAV (GPS) RWY 13, Amdt 1A
 Hettinger, ND, Hettinger Muni, Takeoff Minimums and Obstacle DP, Amdt 3
 Stanley, ND, Stanley Muni, RNAV (GPS) RWY 27, Amdt 1
 Williston, ND, Sloulin Fld Intl, ILS OR LOC RWY 29, Amdt 4B
 Scottsbluff, NE, Western Nebraska Rgnl/William B Heilig Field, ILS OR LOC RWY 30, Amdt 11
 Manville, NJ, Central Jersey Rgnl, RNAV (GPS) RWY 25, Amdt 2
 Battle Mountain, NV, Battle Mountain, RNAV (GPS) RWY 4, Amdt 1
 Battle Mountain, NV, Battle Mountain, RNAV (GPS) RWY 22, Orig
 Battle Mountain, NV, Battle Mountain, Takeoff Minimums and Obstacle DP, Amdt 4
 Battle Mountain, NV, Battle Mountain, VOR RWY 4, Amdt 7
 Penn Yan, NY, Penn Yan, Takeoff Minimums and Obstacle DP, Amdt 5
 Stormville, NY, Stormville, Takeoff Minimums and Obstacle DP, Orig, CANCELED
 Stormville, NY, Stormville, VOR OR GPS-A, Amdt 4A, CANCELED
 Dayton, OH, Greene County-Lewis A. Jackson Rgnl, VOR RWY 7, Orig-A, CANCELED
 Dayton, OH, Greene County-Lewis A. Jackson Rgnl, VOR RWY 25, Orig-A, CANCELED
 Boise City, OK, Boise City, RNAV (GPS) RWY 4, Orig-A
 Hobart, OK, Hobart Rgnl, Takeoff Minimums and Obstacle DP, Amdt 1A
 Barnwell, SC, Barnwell Rgnl, RNAV (GPS) RWY 17, Amdt 2A
 Summerville, SC, Summerville, RNAV (GPS) RWY 6, Amdt 1A
 Cleveland, TN, Cleveland Rgnl Jetport, RNAV (GPS) RWY 3, Amdt 2
 Cleveland, TN, Cleveland Rgnl Jetport, RNAV (GPS) RWY 21, Amdt 2
 Cleveland, TN, Cleveland Rgnl Jetport, Takeoff Minimums and Obstacle DP, Amdt 2
 Winchester, TN, Winchester Muni, NDB RWY 18, Amdt 6B, CANCELED
 Dallas-Fort Worth, TX, Dallas-Fort Worth Intl, ILS OR LOC RWY 31R, ILS RWY 31R (SA CAT I),
 ILS RWY 31R (SA CAT II), Amdt 15
 Dallas-Fort Worth, TX, Dallas-Fort Worth Intl, RNAV (GPS) Y RWY 31R, Amdt 3
 Dallas, TX, Dallas Executive, Takeoff Minimums and Obstacle DP, Amdt 8
 Robstown, TX, Nueces County, RNAV (GPS) RWY 13, Amdt 1A
 Manti, UT, Manti-Ephraim, RNAV (GPS) RWY 3, Orig-A
 Salt Lake City, UT, Salt Lake City Intl, ILS OR LOC RWY 16R, ILS RWY 16R SA CAT I, ILS
 RWY 16R CAT II, ILS RWY 16R CAT III, Amdt 3E
 Salt Lake City, UT, Salt Lake City Intl, ILS OR LOC RWY 34L, ILS RWY 34L SA CAT I, ILS RWY
 34L CAT II, ILS RWY 34L CAT III, Amdt 3D
 Beloit, WI, Beloit, VOR-A, Amdt 5C
 Eagle River, WI, Eagle River Union, RNAV (GPS) RWY 22, Orig-B

Fort Atkinson, WI, Fort Atkinson Muni, RNAV (GPS) RWY 3, Amdt 1
 Fort Atkinson, WI, Fort Atkinson Muni, RNAV (GPS) RWY 21, Amdt 1
 La Pointe, WI, Major Gilbert Field, RNAV (GPS) RWY 4, Orig-B
 La Pointe, WI, Major Gilbert Field, RNAV (GPS) RWY 22, Orig-C
 Minocqua-Woodruff, WI, Lakeland/Noble F. Lee Memorial Field, LOC RWY 36, Amdt 1A,
 CANCELED
 Rock Springs, WY, Southwest Wyoming Rgnl, ILS OR LOC RWY 27, Amdt 2A
 Rock Springs, WY, Southwest Wyoming Rgnl, RNAV (GPS) RWY 9, Orig-B
 Rock Springs, WY, Southwest Wyoming Rgnl, RNAV (GPS) RWY 27, Amdt 1C
 Rock Springs, WY, Southwest Wyoming Rgnl, Takeoff Minimums and Obstacle DP, Amdt 6A
 Rock Springs, WY, Southwest Wyoming Rgnl, VOR RWY 9, Amdt 3A

RESCINDED: On August 17, 2018 (83 FR 40971), the FAA published an Amendment in Docket No. 31206, Amdt No. 3811, to Part 97 of the Federal Aviation Regulations under section 97.33. The following entries for Idabel, OK, effective September 13, 2018, are hereby rescinded in their entirety:

Idabel, OK, Mc Curtain County Rgnl, RNAV (GPS) RWY 2, Amdt 1
 Idabel, OK, Mc Curtain County Rgnl, RNAV (GPS) RWY 20, Amdt 1

**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
LITCHFIELD, IL	LITCHFIELD MUNI	11 OCTOBER 2018	3A

TAKEOFF MINIMUMS:
STANDARD

TEXTUAL DEPARTURE PROCEDURES:

VISUAL CLIMB OVER AIRPORT:

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 9: GENERAL UTILITY POLES 83 FT FROM DER, 261 FT LEFT OF CENTERLINE, 6 FT AGL/695 FT MSL. TRANSMISSION LINE, POLE BEGINNING 146 FT FROM DER, 476 FT LEFT OF CENTERLINE, UP TO 31 FT AGL/720 FT MSL. VEHICLE ON TRAVERSE WAY 178 FT FROM DER, 422 FT RIGHT OF CENTERLINE, 701 FT MSL. VEHICLE ON TRAVERSE WAY 269 FT FROM DER, 382 FT RIGHT OF CENTERLINE, 702 FT MSL. BUILDING 285 FT FROM DER, 566 FT RIGHT OF CENTERLINE, 33 FT AGL/720 FT MSL. TRANSMISSION LINE, POLE, BUILDING BEGINNING 318 FT FROM DER, 476 FT LEFT OF CENTERLINE, UP TO 31 FT AGL/721 FT MSL. TREE, VEHICLE ON TRAVERSE WAY, POLE, TRANSMISSION LINE BEGINNING 327 FT FROM DER, 12 FT RIGHT OF CENTERLINE, UP TO 730 FT MSL. TRANSMISSION LINE, POLE, VEHICLE ON TRAVERSE WAY BEGINNING 499 FT FROM DER, 68 FT LEFT OF CENTERLINE, UP TO 33 FT AGL/725 FT MSL. TRANSMISSION LINE, POLE, TREE BEGINNING 745 FT FROM DER, 72 FT LEFT OF CENTERLINE, UP TO 38 FT AGL/729 FT MSL. TOWER, TREE, BUILDING, TANK BEGINNING 1059 FT FROM DER, 66 FT LEFT OF CENTERLINE, UP TO 132 FT AGL/822 FT MSL. TREES, BEGINNING 1688 FT FROM DER, 431 FT RIGHT OF CENTERLINE, UP TO 741 FT MSL. TREES BEGINNING 2538 FT FROM DER, 582 FT RIGHT OF CENTERLINE, UP TO 82 FT AGL/758 FT MSL.

NOTE: RWY 18: TREE 494 FT FROM DER, 610 FT LEFT OF CENTERLINE, 746 FT MSL.

NOTE: RWY 27: REIL 10 FT FROM DER, 115 FT LEFT OF CENTERLINE, UP TO 2 FT AGL/683 FT MSL. VEHICLE ON TRAVERSE WAY BEGINNING 13 FT FROM DER, 483 FT RIGHT OF CENTERLINE, UP TO 15 FT AGL/693 FT MSL. VEHICLE ON TRAVERSE WAY 192 FT FROM DER, 132 FT LEFT OF CENTERLINE, 692 FT MSL. VEHICLE ON TRAVERSE WAY BEGINNING 303 FT FROM DER, 127 FT RIGHT OF CENTERLINE, UP TO 15 FT AGL/694 FT MSL. VEHICLE ON TRAVERSE WAY BEGINNING 344 FT FROM DER, 77 FT RIGHT OF CENTERLINE, UP TO 17 FT AGL/698 FT MSL. TREES BEGINNING 689 FT FROM DER, 441 FT RIGHT OF CENTERLINE, UP TO 717 FT MSL. TREE 777 FT FROM DER, 445 FT LEFT OF CENTERLINE, 702 FT MSL. TRANSMISSION LINE, POLE, TREE BEGINNING 900 FT FROM DER, 436 FT RIGHT OF CENTERLINE, UP TO 38 FT AGL/718 FT MSL.

NOTE: RWY 36: TOWER, POLE, TREE BEGINNING 2186 FT FROM DER, 75 FT LEFT OF CENTERLINE, UP TO 56 FT AGL/748 FT MSL. TREE, SIGN BEGINNING 2272 FT FROM DER, 116 FT RIGHT OF CENTERLINE, UP TO 752 FT MSL. TRANSMISSION LINE 2682 FT FROM DER, 71 FT RIGHT OF CENTERLINE, 61 FT AGL/753 FT MSL. TANK 2735 FT FROM DER, 1121 FT LEFT OF CENTERLINE, 71 FT AGL/763 FT MSL.

CONTROLLING OBSTACLES:



**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>
LITCHFIELD, IL	LITCHFIELD MUNI	11 OCTOBER 2018	3A

REMARKS:

<u>FLIGHT INSPECTED BY:</u>	<i>Digitally signed by</i> ROBERT G HAMILTON Aug 06, 2018	<u>OFFICE SYMBOL:</u>	<u>DATE:</u>
MARC WEBBER		FICO	8/1/18
<u>DEVELOPED BY:</u>	<i>Digitally signed by</i> RALPH DUMAR Jul 10, 2018	<u>OFFICE SYMBOL:</u>	<u>DATE:</u>
RALPH DUMAR		AJV-5422	06/05/2018
<u>APPROVED BY:</u>	<i>Digitally signed by</i> ROBERT G HAMILTON Aug 06, 2018	<u>OFFICE SYMBOL:</u>	<u>DATE:</u>
JULIE MORGAN		AJV-5420	

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:
ZKC, ST. LOUIS APCH CON, AMGR

CHANGES - REASONS:
1. ADDED LOW CLOSE-IN OBSTACLES FOR ALL RUNWAYS - PER UP-TO-DATE TARGETS EVALUATION.

QUALITY
3
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>
WINAMAC, IN	ARENS FIELD	11 OCTOBER 2018	ORIG-A

TAKEOFF MINIMUMS:

RWY 27: STANDARD

RWY 9, 300-1 1/2 OR STANDARD WITH MINIMUM CLIMB OF 225 FT PER NM TO 1000

TEXTUAL DEPARTURE PROCEDURES:

VISUAL CLIMB OVER AIRPORT:

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 9: FENCE 195 FT FROM DER, 190 FT RIGHT OF CENTERLINE, 5 FT AGL/712 FT MSL. POLE, NAVAID AND VEHICLE BEGINNING 268 FT FROM DER, 21 FT LEFT OF CENTERLINE, UP TO 26 FT AGL/735 FT MSL. TREE 356 FT FROM DER, 172 FT RIGHT OF CENTERLINE, 723 FT MSL. POLE 595 FT FROM DER, 409 FT RIGHT OF CENTERLINE, 34 FT AGL/741 FT MSL. POLE 729 FT FROM DER, 393 FT LEFT OF CENTERLINE, 31 FT AGL/740 FT MSL. POLES BEGINNING 736 FT FROM DER, 172 FT RIGHT OF CENTERLINE, UP TO 37 FT AGL/745 FT MSL. TREE 2466 FT FROM DER, 463 FT LEFT OF CENTERLINE, 782 FT MSL. TOWER 1 NM FROM DER, 24 FT LEFT OF CENTERLINE, 181 FT AGL/894 FT MSL.

NOTE: RWY 27: FENCE 6 FT FROM DER, 203 FT LEFT OF CENTERLINE, 2 FT AGL/707 FT MSL. TREE 99 FT FROM DER, 190 FT LEFT OF CENTERLINE, 715 FT MSL. FENCE 108 FT FROM DER, 208 FT RIGHT OF CENTERLINE, 3 FT AGL/709 FT MSL. TREE 1660 FT FROM DER, 852 FT RIGHT OF CENTERLINE, 757 FT MSL.

CONTROLLING OBSTACLES:

RWY9: 894 FT MSL TOWER 410532.06N/0863451.77W

REMARKS:

<u>FLIGHT INSPECTED BY:</u>	<i>Digitally signed by</i> ADOLFO D URRUTIA	<u>OFFICE SYMBOL:</u>	<u>DATE:</u>
JEFFREY W HARING	Aug 15, 2018	FICO	08/13/2018

<u>DEVELOPED BY:</u>	<i>Digitally signed by</i> RONALD SALPINO	<u>OFFICE SYMBOL:</u>	<u>DATE:</u>
RONALD O. SALPINO	Jun 25, 2018	AJV-5432	06/12/2018

<u>APPROVED BY:</u>	<i>Digitally signed by</i> ADOLFO D URRUTIA	<u>OFFICE SYMBOL:</u>	<u>DATE:</u>
PATRICK MULQUEEN	Aug 15, 2018	AJV-5430	

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:

ZID ARTCC, AMGR, CENTRAL FPT

CHANGES - REASONS:

UPDATED TAKEOFF OBSTACLES - IAW 8260.46F

QUALITY
3
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> MORITZ MEMORIAL	<u>AIRPORT ID</u> KK61	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 17	<u>ORIGINAL/AMENDMENT</u> 1	<u>CITY</u> BELOIT	<u>STATE</u> KS
<u>AIRPORT ELEVATION</u> 1418	<u>TDZE</u> 1418	<u>SUPERSEDED</u> RNAV (GPS) RWY 17	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>DATED</u> 05/07/2009	<u>MAG VAR</u> 5E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 11 OCTOBER 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. 084/30 CW 264/30	NOPT	CADAD	IF/IAF	4000
2. 264/30 CW 354/30		DENTE	IAF	4000
3. 354/30 CW 084/30		HILVA	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>
DENTE	IAF	CADAD	NOPT	TF	FB	1.00	264.02	6.00	4000
HILVA	IAF	CADAD	NOPT	TF	FB	1.00	083.86	6.00	4000
CADAD	IF/IAF	YULUD		TF	FB	1.00	173.94	5.96	3100
YULUD	FAF	DAVKE/2.51 NM TO RW17		TF	FB	0.30	173.94	2.64	
DAVKE/2.51 NM TO RW17		RW17	MAP	TF	FO	0.30	173.94	2.51	
RW17	MAP	1816 MSL		CA			173.94		
1816 MSL		ADICA		DF	FO	1.00			4000

MISSED APPROACH

MAP:

LNAV: RW17

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 4000 DIRECT ADICA AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. HOLD N CADAD, RT, 173.94 INBOUND, 4000 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 173.94FAF: YULUDDIST FAF TO MAP: 5.16DIST FAF TO THLD: 5.16

4. MIN ALT: CADAD 4000, YULUD 3100, DAVKE/2.51 NM TO RW17 2240

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 NOT CLEAR20:1: IS CLEARTCH:

8. MSA FROM:

PBN REQUIREMENTS NOTES:

RNP APCH

NOTES:

CHART NOTE: CIRCLING RWY 17 NA AT NIGHT.
CHART NOTE: RWY 17 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART NOTE: VDP NA WHEN USING CONCORDIA ALTIMETER SETTING.
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE CONCORDIA ALTIMETER SETTING AND INCREASE ALL MDA 80 FEET.
CHART NOTE: CIRCLING RWYS 4, 8, 22, AND 26 NA.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
YULUD TO RW17: 3.00/40.
CHART VDP AT 1.13 NM TO RW17*
*LNAV ONLY
CHART FAS OBST: 1570 TREE 393057N/0980654W.
HOLD S, RT, 353.94 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
LNAV MDA	1820	1	402	1820	1	402		NA			NA				
CIRCLING	1880	1	462	2260	1 1/4	842		NA			NA				



CHANGES - REASONS

1. MOVED DENTE AND HILVA OUT 1NM EACH - CURRENT RNAV CRITERIA
2. ADDED STEPDOWN FIX AT DAVKE - NEW CONTROLLING OBSTACLE IN FINAL CAUSED A RAISE IN MINIMUMS. STEPDOWN ALLOWED FOR AT LEAST A 60 FT REDUCTION IN MDA.
3. REMOVED CHART NOTE: DME/DME RNP - 0.3 NA - NO LONGER REQUIRED FOR 19H FORMS
4. ADDED RNP APCH TO PBN EQUIPMENT REQUIREMENT NOTES - 8260.18H
5. REMOVED PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT - VGSI DECOMMISSIONED
6. CHANGED VDA FROM YULUD TO RWY 17 FROM 3.04/40 TO 3.00/40 - RELOCATED YULUD DUE TO RWY EXTENSION
7. CHANGED FAF TO MAP AND FAF TO THRESHOLD DISTANCE FROM 5.09NM TO 5.16NM - RWY 17 EXTENSION
8. CHANGED CIRCLING CAT A MDA/HAA FROM 1980/564 TO 1880/464, CHANGED CIRCLING CAT B MDA/HAA FROM 1980/564 TO 2260/844 AND CAT B VISIBILITY FROM 1 SM TO 1 1/4 SM - APPLICATION OF EXPANDED CIRCLING CRITERIA
9. ADDED CHART CIRCLING ICON TO ADDITIONAL FLIGHT DATA - APPLICATION OF EXPANDED CIRCLING CRITERIA
10. CHANGED INTERMEDIATE SEGMENT RNP FROM 0.5 TO 1.0 - CURRENT RNAV CRITERIA
11. CHANGED CHART NOTE: USE BLOSSER ALTIMETER SETTING. WHEN NOT RECEIVED, USE SALINA MUNI ALTIMETER SETTING AND INCREASE ALL MDA 80 FEET TO CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE CONCORDIA ALTIMETER SETTING AND INCREASE ALL MDA 80 FEET - AIRPORT NOW HAS LOCAL ALTIMETER AND IS USING CONCORDIA AS SECONDARY PER AIRNAV DATA
12. ADDED CHART NOTE: CIRCLING RWYS 4, 8, 22, AND 26 NA - TURF RUNWAYS
13. ADDED CHART NOTE: RWY 17 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NA - 34:1 PENETRATIONS
14. CHANGED LNAV MDA/HAT FROM 1980/556 TO 1820/404 ALL CATS - STEPDOWN ADDED AND NEW LOCAL ALTIMETER
15. ADDED VDP AT 1.13 NM TO RW17 - 20:1 PENETRATIONS REMOVED ALLOWING FOR VDP



COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZKC, KS STATE AERO, AIRPORT MANAGER

FLIGHT CHECKED BY

BRENT BOOKER

DEVELOPED BY

LONNIE EVERHART (DAVID SCHRADER)

APPROVED BY

LONNIE EVERHART

Digitally signed by

DEZ SILAGYI

Jul 06, 2018

Digitally signed by

DEZ SILAGYI

Jul 06, 2018

Digitally signed by

DEZ SILAGYI

Jul 06, 2018

OFFICE

FICO

OFFICE

AJV-5400

OFFICE

AJV-5400

DATE

7/3/18

DATE

04/02/2018

DATE

TITLE

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> MORITZ MEMORIAL	<u>AIRPORT ID</u> KK61	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 35	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>CITY</u> BELOIT	<u>STATE</u> KS
<u>AIRPORT ELEVATION</u> 1418	<u>TDZE</u> 1416	<u>SUPERSEDED</u> RNAV (GPS) RWY 35	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>DATED</u> 05/07/2009	<u>MAG VAR</u> 5E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 11 OCTOBER 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. 264/30 CW 084/30	NOPT	ADICA	IF/IAF	4000
2. 084/30 CW 174/30		FRAPS	IAF	4000
3. 174/30 CW 264/30		BEDBE	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>
FRAPS	IAF	ADICA	NOPT	TF	FB	1.00	083.87	5.00	4000
BEDBE	IAF	ADICA	NOPT	TF	FB	1.00	264.01	5.00	4000
ADICA	IF/IAF	UTEYI		TF	FB	1.00	353.94	6.09	3100
UTEYI	FAF	RW35	MAP	TF	FO	0.30	353.94	5.09	
RW35	MAP	1818 MSL		CA			353.94		
1818 MSL		CADAD		DF	FO	1.00			4000

MISSED APPROACH

MAP:

LNAV: RW35

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 4000 DIRECT CADAD AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)
2. HOLD S ADICA, RT, 353.94 INBOUND, 4000 FT. IN LIEU OF PT (IAF), MAX 6000.
3. FAC: 353.94FAF: UTEYIDIST FAF TO MAP: 5.09DIST FAF TO THLD: 5.09
4. MIN ALT: ADICA 4000, UTEYI 3100
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 NOT CLEAR20:1: IS CLEARTCH:
8. MSA FROM:

PBN REQUIREMENTS NOTES:

RNP APCH

NOTES:

CHART NOTE: CIRCLING RWY 17 NA AT NIGHT.
CHART NOTE: RWY 35 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART NOTE: VDP NA WHEN USING CONCORDIA ALTIMETER SETTING.
CHART NOTE: WHEN LOCAL ALTEMETER SETTING NOT RECEIVED, USE CONCORDIA ALTIMETER SETTING AND INCREASE ALL MDAS 80 FT.
CHART NOTE: CIRCLING RWYS 4,8,22,26 NA.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
UTEYI TO RW35: 3.04/40.
CHART VDP AT 1.49 NM TO RW35
FAS OBST: 1680 AAO 392357N/0980645W.
HOLD N, RT, 173.94 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
LNAV MDA	1940	1	524	1940	1	524		NA			NA				
CIRCLING	1940	1	522	2260	1 1/4	842		NA			NA				



CHANGES - REASONS

- 1. DELETED NOTE: CIRCLING TO RWY 26 NA AT NIGHT - IAW 8260.19H. TURF RUNWAY.
- 2. ADDED HELICOPTER VISIBILITY BELOW 3/4 SM NOT AUTHORIZED - 34:1 PENETRATION.
- 3. REMOVED NOTE VGSI AND DESCENT ANGLES NOT COINCIDENT - VGSI DECOMISSIONED.
- 4. ADDED CHART NOTE CIRCLING RWYS 4,8,22,26 NA - TURF RWYS
- 5. CHANGED INTERMEDIATE SEGMENT RNP FROM 0.5 TO 1.00 - CURRENT RNAV CRITERIA
- 6. ADDED CHART CIRCLING ICON - APPLICATION OF EXPANDED CIRCTLING CRITERIA
- 7. ADDED CHART NOTE CIRCLING RWY 17 NA AT NIGHT - STRAIGHT IN 20:1 PENS IDENTIFIED TO VOR RWY 17 PROCEDURE.
- 8. REMOVED CHART NOTE: USE BLOSSER MUNI ALTEMITER SETTING - AIRPORT HAS OWN WEATHER SOURCE PER AIRNAV DATA
- 9. ADDED CHART NOTE: WHEN LOCAL ALTEMETER SETTING NOT RECEIVED, USE CONCORDIA ALTIMETER SETTING AND INCREEASE ALL MDAS 80 FT - FPT APPROVED USING CONCORDIA AS SECONDARY ALTIMETER
- 10. CHANGED LNAV MDA/HAT FROM 1920/504 TO 1940/524 - APPLICATION OF AAO TO FINAL APPROACH SEGMENT.
- 11. CHANGED CIRCLING CAT B MDA/HAA FROM 1940/524 TO 2260/842 AND VISIBILITY FROM 1 SM TO 1 1/4 SM - APPLICATION OF EXPANDED CIRCLING AREA.

PDF EDIT: REMOVED *LNAV ONLY FROM ADDITIONAL FLIGHT DATA - APPROACH HAS LNAV MINS ONLY.



COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZKC, KS STATE AERO, AIRPORT MANAGER

FLIGHT CHECKED BY

BENT BOOKER

DEVELOPED BY

LONNIE EVERHART (KELLIE BARNES)

APPROVED BY

LONNIE EVERHART

Digitally signed by

DEZ SILAGYI

Jul 06, 2018

Digitally signed by

DEZ SILAGYI

Jul 06, 2018

Digitally signed by

DEZ SILAGYI

Jul 06, 2018

OFFICE

FICO

OFFICE

AJV-5400

OFFICE

AJV-5400

DATE

7/3/18

DATE

03/22/2018

DATE

TITLE

MANAGER



**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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CITY, STATE	AIRPORT	EFFECTIVE DATE	AMDT NO
BELOIT, KS	MORITZ MEMORIAL	11 OCTOBER 2018	1A

TAKEOFF MINIMUMS:

RWYS 04, 22, 08, 26: NA - ENVIRONMENTAL
RWYS 17, 35: STANDARD

TEXTUAL DEPARTURE PROCEDURES:

RWY 17: CLIMB ON HEADING 173.94 TO 2400 BEFORE TURNING EAST ON COURSE.
RWY 35: CLIMB ON HEADING 353.94 TO 2400 BEFORE TURNING EAST ON COURSE.

VISUAL CLIMB OVER AIRPORT:

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 17: TREE, BUILDING, POLE, TANK BEGINNING 194 FT FROM DER, 293 FT LEFT OF CENTERLINE, UP TO 1449 FT MSL. TREE, TANK, POLE, VEHICLE ON ROAD BEGINNING 411 FT FROM DER, 131 FT RIGHT OF CENTERLINE, UP TO 1455 FT MSL. TREES, POLES, BUILDING BEGINNING 628 FT FROM DER, 308 FT RIGHT OF CENTERLINE, UP TO 1456 FT MSL. TREES, POLES BEGINNING 842 FT FROM DER, 358 FT LEFT OF CENTERLINE, UP TO 1460 FT MSL. TREE, POLE BEGINNING 1130 FT FROM DER, 694 FT LEFT OF CENTERLINE, UP TO 1466 FT MSL. POLE 2188 FT FROM DER, 549 FT LEFT OF CENTERLINE, 65 FT AGL/1480 FT MSL.

NOTE: RWY 35: TREE 1003 FT FROM DER, 313 FT RIGHT OF CENTERLINE, 1442 FT MSL. POLE 1127 FT FROM DER, 624 FT RIGHT OF CENTERLINE, 25 FT AGL/1450 FT MSL. POLES BEGINNING 1129 FT FROM DER, 5 FT RIGHT OF CENTERLINE, UP TO 30 FT AGL/1452 FT MSL. POLES BEGINNING 1133 FT FROM DER, 349 FT LEFT OF CENTERLINE, UP TO 32 FT AGL/1465 FT MSL. TREES BEGINNING 1364 FT FROM DER, 253 FT LEFT OF CENTERLINE, UP TO 1472 FT MSL. ANTENNA, POLES BEGINNING 1796 FT FROM DER, 160 FT LEFT OF CENTERLINE, UP TO 37 FT AGL/1480 FT MSL.

CONTROLLING OBSTACLES:

OBSTACLE MANDATING ROUTE DEVELOPMENT: RWY 17- 1941 FEET MSL TOWER 392809.00N/0980538.00W

REMARKS:

FLIGHT INSPECTED BY:

Digitally signed by
JOHN R CLOUGH **DEZ SILAGYI**
Jul 06, 2018

OFFICE SYMBOL:

FICO

DATE:

6/20/18

DEVELOPED BY:

Digitally signed by
LONNIE EVERHART (RALPH MILLER) **DEZ SILAGYI**
Jul 06, 2018

OFFICE SYMBOL:

AJV-5400

DATE:

APPROVED BY:

Digitally signed by
LONNIE EVERHART **DEZ SILAGYI**
Jul 06, 2018

OFFICE SYMBOL:

AJV-5400

DATE:

REQUIRED EFFECTIVE DATE:

ROUTINE

COORDINATED WITH:

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

OTHER:

ZKC, AIRPORT MGR, ICT FSS

CHANGES - REASONS:

1. TEXTUAL DEPARTURE PROCEDURES CHANGED FROM RWYS 17, 35: CLIMB TO 2400 BEFORE TURNING EAST ON COURSE TO RWY 17: CLIMB ON HEADING 173.94 TO 2400 BEFORE TURNING EAST ON COURSE, RWY 35: CLIMB ON HEADING 353.94 TO 2400 BEFORE TURNING EAST ON COURSE - PER GUIDANCE IN 8260.46F PARA 2-1-1 G (3)
2. UPDATED CONTROLLING OBSTACLES - NEW SURVEY DATA REMOVED RWY 35 CONTROLLING OBSTACLE.
3. UPDATED ALL TAKEOFF OBSTACLE NOTES - NEW SURVEY DATA/OBSTACLE DATA REVIEW.



**FEDERAL AVIATION ADMINISTRATION
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.

<u>AIRPORT</u> MORITZ MEMORIAL	<u>AIRPORT ID</u> KK61	<u>PROCEDURE NAME</u> VOR RWY 17	<u>ORIGINAL/AMENDMENT</u> 5	<u>CITY</u> BELOIT	<u>STATE</u> KS
<u>AIRPORT ELEVATION</u> 1418	<u>TDZE</u> 1418	<u>SUPERSEDED</u> VOR/DME RWY 17	<u>ORIGINAL/AMENDMENT</u> 4	<u>DATED</u> 05/07/2009	<u>MAG VAR</u> 10E
<u>FACILITY</u> TKO	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 11 OCTOBER 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 1965

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>
TKO VORTAC	IAF	MECAM/9.00 DME					152.53	9.00	3500
KOPSY/TKO 9.00 DME CW	IAF	MECAM/9.00 DME					9.00 DME ARC		3500
KOTZA/TKO 9.00 DME CCW	IAF	MECAM/9.00 DME					9.00 DME ARC		3500
MECAM/9.00 DME	IF	STORR/15.00 DME					152.53	6.00 (TKO R-153)	3300

MISSED APPROACH

MAP:

TKO 20.58 DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2800 THEN CLIMBING RIGHT TURN TO 3300 ON HEADING 020 AND TKO R-153 TO STORR/15.00 DME AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)
2. PROFILE STARTS AT TKO VORTAC
3. FAC: 152.53 FAF: STORR/15.00 DME DIST FAF TO MAP: DIST FAF TO THLD: 5.58
4. MIN ALT: TKO VORTAC 3500, MECAM/9.00 DME 3500, STORR/15.00 DME 3300
8. MSA FROM: TKO VORTAC 045-315 3500, 315-045 3900

EQUIPMENT REQUIREMENTS NOTES:

DME REQUIRED
DME REQUIRED FOR PROCEDURE ENTRY

NOTES:

CHART NOTE: RWY 17 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON TKO VORTAC AIRWAY RADIALS 140 CW 210.



CHART NOTE: CIRCLING RWYS 4, 8, 22, AND 26 NA.
CHART NOTE: STRAIGHT-IN RWY 17 NA AT NIGHT, CIRCLING RWY 17 NA AT NIGHT.
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE CONCORDIA ALTIMETER SETTING AND INCREASE ALL MDA 80 FEET AND ALL CAT C VISIBILITIES 1/4 SM.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
STORR TO RW17: 3.11/40.
CHART TKO R-065 AT KOPSY.
CHART TKO R-241 AT KOTZA.
FAS OBST: 1779 AAO 393427N/0981012W.
HOLD NW, RT, 152.53 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-17	2040	1	622	2040	1	622	2040	1 3/4	622		NA				
CIRCLING	2040	1	622	2260	1 1/4	842	2260	2 1/2	842		NA				

- CHANGES - REASONS**
1. CHANGED THE FINAL APPROACH COURSE ALIGNMENT FROM 152.58 TO 152.53 - RWY 17 EXTENSION
 2. MOVED STORR AND MECAM- TO OVERLAY FINAL APPROACH COURSE
 3. CHANGED CIRCLING CAT B FROM 2180/764 TO 2260/884, AND CIRCLING CAT C FROM 2340/924 TO 2260/884 - APPLICATION OF EXPANDED CIRCLING CRITERIA
 4. ADDED CHART CIRCLING ICON TO ADDITIONAL FLIGHT DATA - APPLICATION OF EXPANDED CIRCLING CRITERIA
 5. RAISED VISIBILITY S-17 CAT C VIS FROM 2 1/4 TO 2 1/2 - VISCHECK CALCULATOR
 6. REMOVED CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT - VGSI DECOMMISSIONED
 7. CHANGED VDA FROM 3.08/40 TO 3.11/40 - RUNWAY 17 RWY EXTENSION
 8. CHANGED MAP: TKO 20.64 DME TO TKO 20.58 DME - RUNWAY 17 RWY EXTENSION
 9. ADDED CHART NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 1SM NA - 20:1 TO RWY 17
 10. ADDED CHART NOTE: CIRCLING RWYS 4, 8, 22, AND 26 NA - TURF RUNWAYS
 11. ADDED CHART NOTE: STRAIGHT-IN RWY 17 NA AT NIGHT, CIRCLING RWY 17 NA AT NIGHT - 20:1 PENETRATIONS
 12. FAS OBST CHANGED FROM 1679 TREE TO 1779 AAO - APPLICATION OF AAO OUTSIDE AAO EXCLUSION ZONE
 13. LOWERED S-17 MDA/HAT FROM 2180/764 TO 2040/622 - LOCAL AWOS-3 COMMISIONED APPROVED BY FPT
 14. LOWERED CIRCLING CAT A MDA/HAA FROM 2180/764 TO 2040/622 - LOCAL AWOS-3 COMMISIONED APPROVED BY FPT
 15. CHANGED S-17 CAT B VISIBILITY FROM 11/4 SM TO 1SM, CAT C VISIBILITY FROM 21/4 SM TO 13/4 SM - LOCAL AWOS-3 COMMISIONED APPROVED BY FPT
 16. CHANGED CIRCLING CAT C VISIBILITY FROM 2 3/4 SM TO 2 1/2 SM - LOCAL AWOS-3 COMMISIONED APPROVED BY FPT

COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZKC, KS STATE AERO, AIRPORT MANAGER

FLIGHT CHECKED BY	<i>Digitally signed by</i>	OFFICE	DATE
JOHN R CLOUGH	DEZ SILAGYI	FICO	6/20/18
	Jul 06, 2018		
DEVELOPED BY	<i>Digitally signed by</i>	OFFICE	DATE
LONNIE EVERHART (DAVID SCHRADER)	DEZ SILAGYI	AJV-5400	04/05/2018
	Jul 06, 2018		
APPROVED BY		OFFICE	DATE
LONNIE EVERHART	<i>Digitally signed by</i>	AJV-5400	
	DEZ SILAGYI		
	Jul 06, 2018		
			TITLE
			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> PHILIP BILLARD MUNI	<u>AIRPORT ID</u> KTOP	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 18	<u>ORIGINAL/AMENDMENT</u> 2B	<u>CITY</u> TOPEKA	<u>STATE</u> KS	
<u>AIRPORT ELEVATION</u> 881	<u>TDZE</u> 881	<u>SUPERSEDED</u> RNAV (GPS) RWY 18	<u>ORIGINAL/AMENDMENT</u> 2A	<u>DATED</u> 10/16/2014	<u>MAG VAR</u> 5E	<u>EPOCH YEAR</u> 2000
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 11 OCTOBER 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. 087/30 CW 267/30	NOPT	GUKEC	IF/IAF	3600
2. 267/30 CW 357/30		ZESIR	IAF	3600
3. 357/30 CW 087/30		YERUV	IAF	3600

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>
YERUV	IAF	GUKEC	NOPT	TF	FB	1.00	086.57	8.00	3600
ZESIR	IAF	GUKEC	NOPT	TF	FB	1.00	266.78	8.00	3600
GUKEC	IF/IAF	HUNON		TF	FB	1.00	176.68	6.11	2700
HUNON	FAF	TICOS/2.30 NM TO RW18		TF	FB	0.30	176.67	3.31	
TICOS/2.30 NM TO RW18		RW18	MAP	TF	FO	0.30	176.67	2.30	
RW18	MAP	1500 MSL		CA					1500
1500 MSL		GUKEC		DF	FO	1.00			3600

MISSED APPROACH

MAP:

LPV: DA
 LNAV/VNAV: DA
 LNAV: RW18

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 1500 THEN CLIMBING RIGHT TURN TO 3600 DIRECT GUKEC AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. HOLD N GUKEC, RT, 176.68 INBOUND, 3600 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 176.67FAF: HUNONDIST FAF TO MAP: 5.61DIST FAF TO THLD: 5.61

4. MIN ALT: GUKEC 3600, HUNON 2700, TICOS/2.30 NM TO RW18 1640*

5. DIST TO THLD FROM OM:MM:IM:150 HAT:293 HAT: 0.81GS ANT:

6. MIN GP INCPT: 2700GP ALT AT FAF : HUNON 2700OM:MM:IM:

7. GP ANGLE: 3.0034:1: IS NOT CLEAR20:1: IS CLEARTCH: 35.0

8. MSA FROM:

PBN REQUIREMENTS NOTE:

RNP APCH

NOTES:

CHART NOTE: RWY 18 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -19C OR ABOVE 54C.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
CHART VDP AT 1.27 NM TO RW18*
*LNAV ONLY
WAAS CHANNEL #53634
REFERENCE PATH ID: W18A
CHART FAS OBST: 1061 TREE 390611N/0953702W.
LTP HAE: 236.8 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	1174	1	293	1174	1	293	1174	1	293		NA				
LNAV/VNAV DA	1340	1 5/8	459	1340	1 5/8	459	1340	1 5/8	459		NA				
LNAV MDA	1320	1	439	1320	1	439	1320	1 1/4	439		NA				
CIRCLING	1360	1	479	1440	1	559	1600	2	719		NA				



AIRPORT	AIRPORT ID	PROCEDURE NAME	ORIGINAL/AMENDMENT	CITY	STATE
PHILIP BILLARD MUNI	KTOP	RNAV (GPS) RWY 18	2B	TOPEKA	KS

CHANGES - REASONS

- 1. ADDED PBN REQUIREMENTS NOTE: RNP APCH - EQUIPMENT REQUIREMENTS NOTE APPLIED PER 8260.58A, CHANGE 1 AND 8260.19H, PARA 8-6-8B(1)
- 2. DELETED NOTE: "DME/DME RNP-0.3 NA" - IAW 8260.19H, PARA 1-1-5F(14), REMOVED THE REQUIREMENT FOR THIS NOTE.
- 3. DELETED CHART NOTE: CIRCLING TO RWY 4/22 NA - RWY 4/22 PERMANENTLY CLOSED.
- 4. DELETED CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE TOPEKA RGNL ALTIMETER SETTING AND INCREASE ALL DA 45 FEET AND ALL MDA 60 FEET; INCREASE LPV AND LNAV/VNAV ALL CATS VISIBILITY 1/8. INCREASE LNAV AND CIRCLING CAT C VISIBILITY 1/4 MILE - NOTE MADE CONTINGENCY NOTE ON BACK OF -9 FORM.
- 5. CHANGED CHART NOTE FROM "HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NA" TO "RWY 18 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED" - UPDATED NOTE NOW INCLUDES RWY IDENTIFIER.
- 6. CHANGED CHART NOTE FROM "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -19C(-2F) OR ABOVE 54C(130F)" TO "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -19C OR ABOVE 54C - NEW NOTE FORMAT REMOVED REQUIREMENT FOR FAHRENHEIT VALUES TO BE PUBLISHED.
- 7. ADDED "20:1 CLEAR" TO LINE 7 - NEW CRITERIA REQUIRES STATUS OF BOTH THE 20:1 AND 34:1 SURFACES AREAS BE SHOWN.
- 8. ADDED MAXIMUM HOLDING 6000 AT GUKEC - UPDATED FORMS REQUIRED TO SHOW MAXIMUM HOLDING ALTITUDES AT THE HOLD-IN-LIEU.
- 9. DELETED CHART NOTE: BARO-VNAV AND VDP NA WHEN USING TOPEKA RGNL ALTIMETER SETTING - NOTE NOW CONTINGENCY NOTE ON BACK OF -9 FORM.
- 10. CHANGES FROM T-NOTAM 8/9141 AND P-NOTAM FOR AMDT 2 A INCORPORATED INTO FORM - IAW 8260-19H, PARA 8-3-4C(3).

PDF EDIT 6/11/18: JAMES LAFFERTY, REMOVED LPV MISSED APPROACH PENETRATING OBSTACLE FROM BOTH LNAV/VNAV AND LNAV MISSED APPROACH SECTIONS.



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> PHILIP BILLARD MUNI	<u>AIRPORT ID</u> KTOP	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 36	<u>ORIGINAL/AMENDMENT</u> 1B	<u>CITY</u> TOPEKA	<u>STATE</u> KS
<u>AIRPORT ELEVATION</u> 881	<u>TDZE</u> 881	<u>SUPERSEDED</u> RNAV (GPS) RWY 36	<u>ORIGINAL/AMENDMENT</u> 1A	<u>DATED</u> 10/16/2014	<u>MAG VAR</u> 5E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 11 OCTOBER 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. 267/30 CW 087/30	NOPT	WOSMO	IF/IAF	3600
2. 087/30 CW 177/30		TUCJA	IAF	3600
3. 177/30 CW 267/30		ZUDKI	IAF	3600

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>
TUCJA	IAF	WOSMO	NOPT	TF	FB	1.00	086.56	8.00	3600
ZUDKI	IAF	WOSMO	NOPT	TF	FB	1.00	266.78	8.00	3600
WOSMO	IF/IAF	VECUL		TF	FB	1.00	356.67	5.92	2600
VECUL	FAF	OYUPU/2.10 NM TO RW36		TF	FB	0.30	356.67	3.18	
OYUPU/2.10 NM TO RW36		RW36	MAP	TF	FO	0.30	356.67	2.10	
RW36	MAP	1254 MSL		CA					
1254 MSL		GUKEC		DF	FO	1.00			3600

MISSED APPROACH

MAP:

LPV: DA
 LNAV/VNAV: DA
 LNAV: RW36

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3600 DIRECT GUKEC AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)
2. HOLD S WOSMO, RT, 356.67 INBOUND, 3600 FT. IN LIEU OF PT (IAF), MAX 6000.
3. FAC: 356.67FAF: VECULDIST FAF TO MAP: 5.28DIST FAF TO THLD: 5.28
4. MIN ALT: WOSMO 3600, VECUL 2600, OYUPU/2.10 NM TO RW36 1580*
5. DIST TO THLD FROM OM:MM:IM:150 HAT:373 HAT: 1.05GS ANT:MM:IM:
6. MIN GP INCPT: 2600GP ALT AT FAF : VECUL 2600OM:
7. GP ANGLE: 3.0034:1: IS NOT CLEAR20:1: IS CLEARTCH: 37.4
8. MSA FROM:

PBN REQUIREMENTS NOTE:

RNP APCH

NOTES:

CHART NOTE: RWY 36 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -19C OR ABOVE 54C.
*LNAV ONLY

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
WAAS CHANNEL #99634
REFERENCE PATH ID: W36A
CHART FAS OBST: 1150 TOWER 390144N/0953718W.
HOLD N, RT, 176.68 INBOUND
LTP HAE: 237.1 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	1254	1 1/4	373	1254	1 1/4	373	1254	1 1/4	373		NA				
LNAV/VNAV DA	1394	1 3/4	513	1394	1 3/4	513	1394	1 3/4	513		NA				
LNAV MDA	1460	1	579	1460	1	579	1460	1 5/8	579		NA				
CIRCLING	1460	1	579	1460	1	579	1600	2	719		NA				



CHANGES - REASONS

- 1. DELETED CHART NOTE: DME/DME RNP-0.3 NA - 8260.19H, PARA 1-1-5F(14), REMOVED THE REQUIREMENT FOR THIS NOTE.
- 2. ADDED PBN EQUIPMENT REQUIREMENTS NOTE "RNP APCH" - EQUIPMENT REQUIREMENTS NOTE APPLIED PER 8260.58A, CHANGE 1.
- 3. DELETED CHART NOTE "CIRCLING TO RWY 4/22 NA - RWY HAS BEEN PERMANENTLY CLOSED.
- 4. CHANGED CHART NOTE FROM "HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NA" TO "RWY 36 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED" - UPDATED NOTE NOW IDENTIFIES RWY.
- 5. DELETED CHART NOTE "WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE TOPEKA RGNL ALTIMETER SETTING AND INCREASE ALL DA 45 FEET AND ALL MDA 60 FEET. INCREASE LPV ALL CATS VISIBILITY 1/8 MILE. INCREASE LNAV/VNAV ALL CATS AND LNAV AND CIRCLING CAT C VISIBILITY 1/4 MILE" - NOTE REMOVED AND MADE CONTINGENCY NOTE ON BACK OF -9.
- 6. CHANGED NOTE CHANGED FROM "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -19C(-2F) OR ABOVE 54C(130F)" TO "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -19C OR ABOVE 54C. - UPDATE REMOVED REQUIREMENT FOR FAHRENHEIT TEMPERATURES TO BE PUBLISHED.
- 7. ADDED 20:1 CLEAR TO LINE 7 - THE STATUS OF BOTH 20:1 AND 34:1 SURFACES NEEDS TO BE SHOWN.
- 8. ADDED MAXIMUM HOLDING 6000 AT WOSMO - UPDATED FORMS REQUIRED TO SHOW MAXIMUM HOLDING ALTITUDES AT THE HOLD-IN-LIEU.
- 9. DELETED CHART NOTE "BARO-VNAV NA WHEN USING TOPEKA RGNL ALTIMETER SETTING - NOTE REMOVED TO BACK OF -9 FORM AND MADE CONTINGENCY NOTE.
- 10. CHANGES FROM T-NOTAM 8/9141 AND P-NOTAM FOR AMDT 1A INCORPORATED INTO FORM - IAW 8260-19H PARA 8-3-4C(3).

PDF EDIT 6/11/18: JAMES LAFFERTY, REMOVED LPV MISSED APPROACH PENETRATING OBSTACLE FROM BOTH LNAV/VNAV AND LNAV MISSED APPROACH SECTIONS.



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KTOP
RUNWAY	RW36
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W36A
LTP/FTP LATITUDE	390341.8205N
LTP/FTP LONGITUDE	0953728.7845W
LTP/FTP ELLIPSOIDAL HEIGHT	+02371
FPAP LATITUDE	390510.9650N
FPAP LONGITUDE	0953725.4525W
THRESHOLD CROSSING HEIGHT (TCH)	00037.4
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1432
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	C4D4369D
<u>ADDITIONAL PATH POINT RECORD INFORMATION</u>	
ICAO CODE	K3
LTP ORTHOMETRIC HEIGHT	+02684
FPAP ORTHOMETRIC HEIGHT	+02684



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

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CITY, STATE	AIRPORT	EFFECTIVE DATE	AMDT NO
HARBOR SPRINGS, MI	HARBOR SPRINGS	11 OCTOBER 2018	3

TAKEOFF MINIMUMS:

RWY 10: STANDARD.

RWY 28: 300-2 OR STANDARD WITH A MINIMUM CLIMB OF 305 FEET PER NM TO 1000, OR ALTERNATIVELY, WITH STANDARD TAKEOFF MINIMUMS AND A NORMAL 200 FEET PER NM CLIMB GRADIENT, TAKEOFF MUST OCCUR NO LATER THAN 2100 FEET PRIOR TO DEPARTURE END OF RUNWAY.

TEXTUAL DEPARTURE PROCEDURES:

RWY 10: CLIMB HEADING 101.22 TO 1400 BEFORE PROCEEDING ON COURSE.

RWY 28: CLIMB HEADING 281.23 TO 2000 BEFORE TURNING RIGHT.

VISUAL CLIMB OVER AIRPORT:

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 10, TERRAIN 20 FT FROM DER, 43 FT LEFT OF CENTERLINE, 687 FT MSL.

TREE 39 FT FROM DER, 299 FT RIGHT OF CENTERLINE, 755 FT MSL.

TREE 69 FT FROM DER, 324 FT LEFT OF CENTERLINE, 752 FT MSL.

TREE 78 FT FROM DER, 498 FT RIGHT OF CENTERLINE, 762 FT MSL.

TREES AND POLE BEGINNING 108 FT FROM DER, 33 FT RIGHT OF CENTERLINE, UP TO 83 FT AGL/766 FT MSL.

TREES, VEHICLES ON ROADS, POLE, TERRAIN, BUILDINGS, AND ELEVATOR BEGINNING 164 FT FROM DER, 5 FT LEFT OF CENTERLINE, UP TO 74 FT AGL/782 FT MSL.

TREES, BUILDINGS AND POLES BEGINNING 251 FT FROM DER, 34 FT RIGHT OF CENTERLINE, UP TO 89 FT AGL/769 FT MSL.

TREES AND POLE BEGINNING 1344 FT FROM DER, 37 FT RIGHT OF CENTERLINE, UP TO 770 FT MSL.

TREES BEGINNING 1596 FT FROM DER, 21 FT RIGHT OF CENTERLINE, UP TO 772 FT MSL.

TREES BEGINNING 1679 FT FROM DER, 10 FT RIGHT OF CENTERLINE, UP TO 76 FT AGL/779 FT MSL.

NOTE: RWY 28, TREES AND VEHICLES ON ROADS BEGINNING ABEAM DER, 2 FT LEFT OF CENTERLINE, UP TO 718 FT MSL.

TREE AND VEHICLES ON ROAD BEGINNING 104 FT FROM DER, 52 FT RIGHT OF CENTERLINE, UP TO 766 FT MSL.

TREES AND POLE BEGINNING 164 FT FROM DER, 11 FT RIGHT OF CENTERLINE, UP TO 99 FT AGL/791 FT MSL.

TREES BEGINNING 600 FT FROM DER, 25 FT LEFT OF CENTERLINE, UP TO 113 FT AGL/727 FT MSL.

TREES AND STACK BEGINNING 693 FT FROM DER, 26 FT RIGHT OF CENTERLINE, UP TO 794 FT MSL.

TREES BEGINNING 3761 FT FROM DER, 1159 FT RIGHT OF CENTERLINE, UP TO 800 FT MSL.

TREES BEGINNING 4723 FT FROM DER, 1577 FT RIGHT OF CENTERLINE, UP TO 817 FT MSL.

TREES BEGINNING 4971 FT FROM DER, 1545 FT RIGHT OF CENTERLINE, UP TO 100 FT AGL/849 FT MSL.

TREES BEGINNING 5106 FT FROM DER, 1546 FT RIGHT OF CENTERLINE, UP TO 870 FT MSL.

TREES BEGINNING 5854 FT FROM DER, 1788 FT RIGHT OF CENTERLINE, UP TO 100 FT AGL/871 FT MSL.

TREE 1 NM FROM DER, 2007 FT RIGHT OF CENTERLINE, 880 FT MSL.

TREES AND BUILDINGS BEGINNING 1 NM FROM DER, 1975 FT RIGHT OF CENTERLINE, UP TO 100 FT AGL/898 FT MSL.

TREES BEGINNING 1.2 NM FROM DER, 2286 FT RIGHT OF CENTERLINE, UP TO 100 FT AGL/917 FT MSL.

TREES BEGINNING 1.4 NM FROM DER, 2734 FT RIGHT OF CENTERLINE, UP TO 917 FT MSL.

TREES BEGINNING 1.5 NM FROM DER, 2843 FT RIGHT OF CENTERLINE, UP TO 918 FT MSL.

TREES BEGINNING 1.5 NM FROM DER, 2904 FT RIGHT OF CENTERLINE, UP TO 923 FT MSL.

TREE 1.5 NM FROM DER, 3021 FT RIGHT OF CENTERLINE, 920 FT MSL.

CONTROLLING OBSTACLES:

RWY 28: 870 FT MSL TREE 452556.89N-0845625.92W (CG/CGTA)

RWY 28: 923 FT MSL TREE 452613.35N-0845723.59W (CEIL)

RWY 28: 920 FT MSL TREE 452613.81N-0845726.00W (VIS)

OBSTACLES MANDATING ODP ROUTE DEVELOPMENT:

RWY 10: 1399 FT MSL AAO TREE 452742.00N-0845400.00W

RWY 28: 1699 FT MSL TOWER 452840.03N-0845704.19W

REMARKS:

QUALITY
3
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>
HARBOR SPRINGS, MI	HARBOR SPRINGS	11 OCTOBER 2018	3

FLIGHT INSPECTED BY:	<i>Digitally signed by</i>	OFFICE SYMBOL:	DATE:
GARY BELL	ROBERT G HAMILTON	FICO	7/22/18
	Jul 25, 2018		

DEVELOPED BY:	<i>Digitally signed by</i>	OFFICE SYMBOL:	DATE:
LUCAS MCCLOUD	LUCAS MCCLOUD	AJV-5422	05/18/2018
	Jun 13, 2018		

APPROVED BY:	<i>Digitally signed by</i>	OFFICE SYMBOL:	DATE:
JULIE MORGAN	ROBERT G HAMILTON	AJV-5420	
	Jul 25, 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:
ZMP, AMGR

CHANGES - REASONS:

1. RWY 28 TAKEOFF MINIMUMS: RAISED VIS FROM 1 1/2 TO 2 (CEILING UNCHANGED) - PER TARGETS BUILD BASED ON CURRENT CRITERIA AND OBS DATABASE.
2. RWY 28 TAKEOFF MINIMUMS: CG/CGTA CHANGED FROM '295 FEET PER NM TO 2000' TO '305 FEET PER NM TO 1000' - PER TARGETS BUILD BASED ON CURRENT CRITERIA AND OBS DATABASE.
3. RWY 28 TAKEOFF MINIMUMS: ADDED 'OR ALTERNATIVELY, WITH STANDARD TAKEOFF MINIMUMS AND A NORMAL 200 FEET PER NM CLIMB GRADIENT, TAKEOFF MUST OCCUR NO LATER THAN 2100 FEET PRIOR TO DEPARTURE END OF RUNWAY' - RWY REDUCTION ALLOWABLE AND CALCULATED PER TARGETS BUILD BASED ON CURRENT CRITERIA AND OBS DATABASE.
4. ALL TAKEOFF OBSTACLE NOTES UPDATED - PER TARGETS BUILD BASED ON UPDATED OBSTACLE DATABASE.
5. CONTROLLING OBSTACLES UPDATED, DIFFERENTIATING CG, CGTA, CEIL, VIS, AND OBSTACLES MANDATING ODP ROUTE DEVELOPMENT - PER TARGETS BUILD BASED ON CURRENT CRITERIA AND OBS DATABASE.

QUALITY
3
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> MACKINAC COUNTY	<u>AIRPORT ID</u> K83D	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 25	<u>ORIGINAL/AMENDMENT</u> ORIG-B	<u>CITY</u> ST. IGNACE	<u>STATE</u> MI	
<u>AIRPORT ELEVATION</u> 624	<u>TDZE</u> 623	<u>SUPERSEDED</u> RNAV (GPS) RWY 25	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>DATED</u> 08/08/2002	<u>MAG VAR</u> 6W	<u>EPOCH YEAR</u> 1990
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 11 OCTOBER 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>
PLN VORTAC		JASET		TF	FB	1.00	037.20	17.88	3000
WUYFO		DIGVE		TF	FB	1.00	140.36	26.95	3000
DIGVE	IAF	BAPKE	NOPT	TF	FB	1.00	163.93	5.00	3000
JASET	IAF	BAPKE	NOPT	TF	FB	1.00	343.99	5.00	3000
BAPKE	IF	BONGE		TF	FB	0.50	253.96	5.90	2300
BONGE	FAF	RW25	MAP	TF	FO	0.30	253.87	5.10	
RW25	MAP	1024 MSL		CA			253.87		
1024 MSL		RIBRE		DF	FO	1.00			3000

MISSED APPROACH

MAP:

LNAV: RW25

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3000 DIRECT RIBRE AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. HOLD E BAPKE, RT, 253.96 INBOUND, 3000 FT. IN LIEU OF PT (IAF), MAX 10000.

3. FAC: 253.87

FAF: BONGE

DIST FAF TO MAP:

DIST FAF TO THLD: 5.10

4. MIN ALT: BAPKE 3000, BONGE 2300

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 NOT CLEAR

20:1: IS CLEAR

TCH:

8. MSA FROM: RW25 3000

PBN REQUIREMENTS NOTE:

RNP APCH

NOTES:

CHART NOTE: CIRCLING RWY 07 NA AT NIGHT.
CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART NOTE: CIRCLING NA AT NIGHT SOUTH OF RWY 7-25.
CHART NOTE: RWY 25 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON PLN VORTAC AIRWAY RADIAL 023.

ADDITIONAL FLIGHT DATA:

BONGE TO RW25: 3.04/45.0.
CHART VDP AT 1.28 NM TO RW25
CHART FAS OBST: 778 TREE 455313N/0844356W.
HOLD W, RT, 073.61 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
LNAV MDA	1040	1	417	1040	1	417	1040	1 1/8	417		NA				
CIRCLING	1260	1	636	1260	1	636	1260	1 3/4	636		NA				



CHANGES - REASONS

- 1. UPDATED LNAV MDA/HAT FROM 1020/397 TO 1040/417 - CONTROLLING OBSTRUCTION.
- 2. UPDATED LNAV VIS CAT C FROM 1 TO 1 1/8 - VS CK CALCULATOR.
- 3. ADDED CHART NOTE: CIRCLING RWY 07 NA AT NIGHT. - 20:1 PENETRATIONS
- 4. ADDED CHART NOTE: RWY 25 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. - 34:1 PENETRATION.
- 5. UPDATED FORM TO REFLECT 34:1 NOT CLEAR AND 20:1 IS CLEAR - VISUAL SURFACES DOCUMENTED IAW 8260.19H CH 8.
- 6. ADDED RNP APCH TO PBN EQUIPMENT REQUIREMENTS - IAW 8260.19H
- 7. ADDED CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON PLN VORTAC AIRWAY RADIAL 023 - TURN EXCEEDS 90 DEGREES
- 8. UPDATED CHART PROFILE NOTE TO VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}). - NEW NOTE FORMAT.
- 9. UPDATED TERMINAL ROUTE WUYFO-DIGVE COURSE/DIST FROM 140.34/26.96 TO 140.36/26.95 - RECALCULATED
- 10. UPDATED TERMINAL ROUTE DIGVE-BAPKE COURSE FROM 163.96 TO 163.93 - RECALCULATED.
- 11. UPDATED MISSED INSTRUCTION FROM CLIMB TO 3000 VIA 254 COURSE TO RIBRE WP AND HOLD TO CLIMB TO 3000 DIRECT RIBRE AND HOLD. - A RNAV MISSED USES A CA AS FIRST LEG AND MUST BE FOLLOWED BY A DF LEG; IAW 8260.58A 3-5-2.
- 12. UPDATED VDP FROM 1.23NM TO RWY 25 TO 1.28NM TO RW 25 - MDA RAISED CHANGING THE VDP DISTANCE.
- 13. DELETED NOTE: GPS OR RNP-0.3 REQUIRED - NOTE NO LONGER REQUIRED
- 14. DELETED NOTE: DME/DME RNP-0.3 NA - NOTE NO LONGER REQUIRED



COORDINATED WITH:

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

FLIGHT CHECKED BY	<i>Digitally signed by</i>	OFFICE	DATE	
GARY BELL	ROBERT G HAMILTON	FICO	7/23/18	
	Jul 25, 2018			
DEVELOPED BY	<i>Digitally signed by</i>	OFFICE	DATE	
HEIDI SNIDER	HEIDI SNIDER	AJV-5423	05/15/2018	
	Jun 19, 2018			
APPROVED BY	<i>Digitally signed by</i>	OFFICE	DATE	TITLE
JULIE MORGAN	ROBERT G HAMILTON	AJV-5420		MANAGER
	Jul 25, 2018			



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

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<u>AIRPORT</u> RALEIGH-DURHAM INTL	<u>AIRPORT ID</u> KRDU	<u>PROCEDURE NAME</u> ILS OR LOC RWY 5R	<u>ORIGINAL/AMENDMENT</u> 29A	<u>CITY</u> RALEIGH/DURHAM	<u>STATE</u> NC	
<u>AIRPORT ELEVATION</u> 435	<u>TDZE</u> 420	<u>SUPERSEDED</u> ILS OR LOC RWY 5R	<u>ORIGINAL/AMENDMENT</u> 29	<u>DATED</u> 05/24/2018	<u>MAG VAR</u> 9W	<u>EPOCH YEAR</u> 2020
<u>FACILITY</u> I-RDU	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 11 OCTOBER 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>
PECIT/I-RDU 13.47 DME/RADAR	IF/IAF	PURME/I-RDU 7.50 DME/RADAR					054.14	5.97 (I-RDU)	2400

MISSED APPROACH

MAP:

ILS: DA
LOC: I-RDU 1.39 DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 1000 THEN CLIMBING RIGHT TURN TO 2600 ON HEADING 130 AND ON RDU VORTAC R-092 TO ZEBUL INT AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS (DO NOT CHART):

CLIMB TO 1000 THEN CLIMBING RIGHT TURN TO 2600 ON HEADING 095 AND ON TYI VORTAC R-269 TO ZEBUL INT AND HOLD.

PROFILE:

- PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)
- PROFILE STARTS AT PECIT
- 3. FAC:** 054.14 **FAF:** PURME/I-RDU 7.50 DME/RADAR **DIST FAF TO MAP:** **DIST FAF TO THLD:** 6.11
- 4. MIN ALT:** PECIT/I-RDU 13.47 DME/RADAR 4000, PURME/I-RDU 7.50 DME/RADAR 2400, AMORT/I-RDU 2.79 DME 900*
- 5. DIST TO THLD FROM OM:** **MM:** **IM:** **150 HAT:** **GS ANT:** 1025
- 6. MIN GS INCPT:** 2400 **GS ALT AT FAF :** PURME/I-RDU 7.50 DME/RADAR 2400 **OM:** **MM:** **IM:**
- 7. GP ANGLE:** 3.00 **34:1:** **20:1:** **TCH:** 56.3
- 8. MSA FROM:** RDU VORTAC 3400

EQUIPMENT REQUIREMENTS NOTES:

RADAR REQUIRED FOR PROCEDURE ENTRY.
DME REQUIRED FOR LOC ONLY.

NOTES:

CHART NOTE: SIMULTANEOUS APPROACH AUTHORIZED.
CHART PROFILE NOTE: VGSI AND ILS GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).



*LOC ONLY
CHART PROFILE NOTE: USE I-RDU DME WHEN ON THE LOCALIZER COURSE.
CHART NOTE: FOR INOPERATIVE ALS, INCREASE S-LOC-5R CAT C/D VISIBILITY TO 1 3/8 SM.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
CHART IN PLANVIEW: ZEBUL INT/RDU VORTAC 19.64 DME
CHART FAS OBST: 451 TREE 355136N/0784757W.
CHART IN PLANVIEW: ALTERNATE MA HOLDING, HOLD W ZEBUL INT/RDU VORTAC 19.64 DME, RT, 088.55 INBOUND.
HOLD E, RT, 271.91 INBOUND

MINIMUMS:

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

ALTERNATE: NA ☐ ILS: STANDARD; LOC: STANDARD - CAT D 800-2 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-ILS 05R	620	2400	200	620	2400	200	620	2400	200	620	2400	200			
S-LOC 05R	760	2400	340	760	2400	340	760	2600	340	760	2600	340			
CIRCLING	960	1	525	960	1	525	1040	1 3/4	605	1180	2 1/2	745			

CHANGES - REASONS

1. REMOVED S-LOC MINIMUMS (NON STEP-DOWN). - LOC STEP-DOWN FIX WILL ALWAYS BE RECEIVED. (DME REQUIRED FOR LOC.)



COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: AIRPORT MANAGER, ZDC, RDU ATC

FLIGHT CHECKED BY

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

DEVELOPED BY

LIAM DONAHUE

Digitally signed by
LIAM DONAHUE
Jun 05, 2018

APPROVED BY

PATRICK MULQUEEN

Digitally signed by
DONALD H LANIER
Jun 15, 2018

Digitally signed by

DONALD H LANIER

OFFICE

AJV-5431

OFFICE

AJV-5430

DATE

DATE

05/29/2018

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> RALEIGH-DURHAM INTL	<u>AIRPORT ID</u> KRDU	<u>PROCEDURE NAME</u> ILS OR LOC RWY 23L	<u>ORIGINAL/AMENDMENT</u> 9A	<u>CITY</u> RALEIGH/DURHAM	<u>STATE</u> NC
<u>AIRPORT ELEVATION</u> 435	<u>TDZE</u> 435	<u>SUPERSEDED</u> ILS OR LOC RWY 23L	<u>ORIGINAL/AMENDMENT</u> 9	<u>DATED</u> 05/24/2018	<u>MAG VAR</u> 9W
<u>FACILITY</u> I-LEI	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 11 OCTOBER 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<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>
DOCAT/I-LEI 13.45 DME/RADAR	IF	APUCU/I-LEI 5.51 DME/RADAR					234.15	7.94 (I-LEI)	1800

MISSED APPROACH

MAP:

ILS: DA
 LOC: BEGVE/I-LEI 2.38 DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 1100 THEN CLIMBING LEFT TURN TO 2600 ON HEADING 050 AND RDU VORTAC R-092 TO ZEBUL INT AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS (DO NOT CHART):

CLIMB TO 1100 THEN CLIMBING LEFT TURN TO 2600 ON HEADING 82.82 AND ON TYI VORTAC R-269 TO ZEBUL INT AND HOLD.

PROFILE:

- PT **SIDE OF COURSE** **OUTBOUND** **FT WITHIN** **MILES OF (IAF)**
- PROFILE STARTS AT DOCAT
- FAC:** 234.15 **FAF:** APUCU/I-LEI 5.51 DME/RADAR **DIST FAF TO MAP:** **DIST FAF TO THLD:** 4.12
- MIN ALT:** DOCAT/I-LEI 13.45 DME/RADAR 4000, APUCU/I-LEI 5.51 DME/RADAR 1800, LEPEC/I-LEI 3.68 DME 1200*
- DIST TO THLD FROM OM:** **MM:** **IM:** **150 HAT:** **GS ANT:** 1001
- MIN GS INCPT:** 1800 **GS ALT AT FAF :** APUCU/I-LEI 5.51 DME/RADAR 1800 **OM:** **MM:** **IM:**
- GP ANGLE:** 3.00 **34:1:** **20:1:** **TCH:** 55.7
- MSA FROM:** RDU VORTAC 3400

EQUIPMENT REQUIREMENTS NOTES:

RADAR REQUIRED FOR PROCEDURE ENTRY.
 DME REQUIRED FOR LOC ONLY.

NOTES:

CHART NOTE: SIMULTANEOUS APPROACH AUTHORIZED.
 *LOC ONLY



CHART PROFILE NOTE: LOCALIZER UNUSABLE FROM 1.0 NM FROM THRESHOLD.
CHART NOTE: FOR INOPERATIVE ALS, INCREASE S-ILS 23L ALL CATS VISIBILITY TO RVR 5500.
CHART NOTE: FOR INOPERATIVE ALS, INCREASE S-LOC-23L CAT C/D VISIBILITY TO 2 1/2 SM.
CHART NOTE: LOCALIZER UNUSABLE FOR COUPLED APPROACHES BELOW 1100 OR WITHIN 2 NM OF THRESHOLD.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
CHART IN PLANVIEW: ZEBUL INT
CHART FAS OBST: 587 TREE 355352N/0784448W.
735 AAO 355551N/0784306W.
CHART IN PLANVIEW: ALTERNATE MA HOLDING, HOLD W ZEBUL INT, RT, 088.55 INBOUND.
HOLD E, RT, 271.91 INBOUND

MINIMUMS:

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

ALTERNATE: NA ☐ ILS: STANDARD; LOC: STANDARD - CAT D 800-2 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-ILS 23L	806	3500	371	806	3500	371	806	3500	371	806	3500	371			
S-LOC 23L	840	4000	405	840	4000	405	840	4000	405	840	4000	405			
CIRCLING	960	1 1/4	525	960	1 1/4	525	1040	1 3/4	605	1180	2 1/2	745			

CHANGES - REASONS

1. REMOVED S-LOC MINIMUMS (NON STEP-DOWN). - LOC STEP-DOWN FIX WILL ALWAYS BE RECEIVED. (DME REQUIRED FOR LOC.)
2. ADDED CHART NOTE: LOCALIZER UNUSABLE FOR COUPLED APPROACHES BELOW 1100 OR WITHIN 2 NM OF THRESHOLD. - FDC NOTAM 8/3023.



COORDINATED WITH:

A4A

ALPA

X

AOPA

X

APA

X

HAI

NBAA

X

OTHER:

AIRPORT MANAGER, RDU ATCT, ZTL

Digitally signed by

FLIGHT CHECKED BY

DONALD H LANIER

OFFICE

DATE

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS Jun 15, 2018
GROUP (AJW-333) MEMO, DEC 22, 2017.

DEVELOPED BY

LIAM DONAHUE

LIAM DONAHUE

Jun 06, 2018

OFFICE

AJV-5431

DATE

05/29/2018

APPROVED BY

PATRICK MULQUEEN

Digitally signed by

DONALD H LANIER

Jun 15, 2018

OFFICE

AJV-5430

DATE

TITLE

MANAGER



**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
VOR STANDARD INSTRUMENT APPROACH PROCEDURE
TITLE 14 CFR PART 97.23**

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<u>AIRPORT</u> SUNDANCE	<u>AIRPORT ID</u> KHSD	<u>PROCEDURE NAME</u> VOR RWY 18	<u>ORIGINAL/AMENDMENT</u> 1F	<u>CITY</u> OKLAHOMA CITY	<u>STATE</u> OK
<u>AIRPORT ELEVATION</u> 1193	<u>TDZE</u> 1177	<u>SUPERSEDED</u> VOR RWY 17	<u>ORIGINAL/AMENDMENT</u> 1E	<u>DATED</u> 09/15/2016	<u>MAG VAR</u> 7E
<u>FACILITY</u> IRW	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 11 OCTOBER 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>	<u>EPOCH YEAR</u> 1990

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>
IFI VORTAC		PULTZ INT/IRW 20.72 DME					109.25	14.78	3100
IRW VORTAC		PULTZ INT/IRW 20.72 DME					335.39	20.72	3100

MISSED APPROACH

MAP:

5.00 NM AFTER PULTZ INT/IRW 20.72 DME OR AT IRW R-355/15.72 DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3000 DIRECT IRW VORTAC.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT L **SIDE OF COURSE** 335.39 **OUTBOUND** 3100 **FT WITHIN** 10 **MILES OF** PULTZ (IAF)
- 2.
3. **FAC:** 155.39 **FAF:** PULTZ INT/IRW 20.72 DME **DIST FAF TO MAP:** 5.00 **DIST FAF TO THLD:** 5.00
4. **MIN ALT:** PULTZ INT/IRW 20.72 DME 2800
8. **MSA FROM:** IRW VORTAC 320-050 3800, 050-320 3300

EQUIPMENT REQUIREMENTS NOTES:

NOTES:

CHART NOTE: CIRCLING TO RWY 36 NA AT NIGHT.
CHART NOTE: RWY 18 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.

ADDITIONAL FLIGHT DATA:

PULTZ TO RW18: 3.04/34.
CHART FAS OBST: 1441 TOWER 353537N/0974456W.



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-18	1700	1	523	1700	1	523	1700	1 1/2	523		NA				
CIRCLING	1740	1	547	1780	1	587	1840	1 3/4	647		NA				

CHANGES - REASONS

1. NO DOCUMENTATION FOUND FOR ADMT 1A.
2. S-17 MDA 1700/HAT 522 CATS A/B/C. VIS CAT C 1 1/2 - ADMT 1B.
3. CIRCLING CAT C MDA 1840/HAA 647, VIS CAT C 1 3/4. CHART NOTE: CIRCLING TO RWY 35 NA AT NIGHT - ADMT 1C.
4. HAT CHANGED FROM 522 TO 523 ALL CATS - ADMT 1D.
5. TERMINAL ROUTE IFI VORTAC TO PULTZ INT MINIMUM ALT 3100. TERMINAL ROUTE IRW VORTAC TO PULTZ INT MINIMUM ALT 3100. PROCEDURE TURN COMPLETION ALT 3100. DELETE NOTE: USE WILEY POST ALTIMETER SETTING. CHART PROFILE NOTE: RWY 17 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. CHANGE AIRPORT NAME FROM SUNDANCE AIRPARK TO SUNDANCE. ALTERNATE MINIMUMS: STANDARD. ADD PROFILE NOTE: VGSI AND DECENT ANGLES NOT COINCIDENT (VGSI ANGLE {3.00}/TCH {30}). - ADMT 1E.
6. PROCEDURE NAME CHANGED TO "VOR RWY 18" - RUNWAYS RENUMBERED FROM 17/35 TO 18/36.
7. CHANGED ALL REFERENCE FROM RWY 17/35 TO RWY 18/36 - RUNWAYS RENUMBERED FROM 17/35 TO 18/36.
8. CIRCLING NOTE CHANGED FROM "CIRCLING TO RWY 35 NA AT NIGHT." TO "CIRCLING TO RWY 36 NA AT NIGHT." - RWY 35 CHANGED TO RWY 36.
9. CHANGED "PULTZ TO RWY 17: 3.04/34" TO "PULTZ TO RWY 18: 3.04/34" - RWY 17 CHANGED TO RWY 18.
10. HELICOPTER NOTE UPDATED TO READ "RWY 18 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED." - RWY 17 CHANGED TO RWY 18.

COORDINATED WITH:A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZFW, OKE CITY APP CON, AIRPORT MANAGER**FLIGHT CHECKED BY**

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, DEC 22, 2017.

DEVELOPED BYCHRIS O'BRIEN
*Digitally signed by
CHRISTOPHER P O'BRIEN
Jul 13, 2018***APPROVED BY**

JULIE MORGAN

OFFICE**OFFICE**

AJV-5421

OFFICE

AJV-5420

DATE**DATE**

07/13/2018

DATE*Digitally signed by
ROBERT G HAMILTON
Jul 17, 2018**Digitally signed by
ROBERT G HAMILTON
Jul 17, 2018***TITLE**
MANAGERQUALITY
29
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.

<u>CITY, STATE</u>	<u>AIRPORT</u>	<u>EFFECTIVE DATE</u>	<u>AMDT NO</u>
JOHNSTOWN, PA	JOHN MURTHA JOHNSTOWN-CAMBRIA CO	11 OCTOBER 2018	4A

TAKEOFF MINIMUMS:
STANDARD.

TEXTUAL DEPARTURE PROCEDURES:

VISUAL CLIMB OVER AIRPORT:

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 05: SIGN 62 FT FROM DER, 256 FT RIGHT OF CENTERLINE, 3 FT AGL/2282 FT MSL.
BUILDING 97 FT FROM DER, 480 FT LEFT OF CENTERLINE, 28 FT AGL/2299 FT MSL.
BUILDING 514 FT FROM DER, 516 FT LEFT OF CENTERLINE, 46 FT AGL/2311 FT MSL.
TREE 687 FT FROM DER, 647 FT LEFT OF CENTERLINE, 2326 FT MSL.
TREE 778 FT FROM DER, 377 FT RIGHT OF CENTERLINE, 2300 FT MSL.
TREES BEGINNING 903 FT FROM DER, 300 FT LEFT OF CENTERLINE, UP TO 2341 FT MSL.

NOTE: RWY 23: TREES BEGINNING 2 FT FROM DER, 426 FT RIGHT OF CENTERLINE, UP TO 2300 FT MSL.
TREE 20 FT FROM DER, 489 FT LEFT OF CENTERLINE, 2308 FT MSL.
TREES BEGINNING 1115 FT FROM DER, 360 FT LEFT OF CENTERLINE, UP TO 2345 FT MSL.

NOTE: RWY 33: TERRAIN 7 FT FROM DER, 15 FT LEFT OF CENTERLINE, 2271 FT MSL.
FENCE 179 FT FROM DER, 467 FT RIGHT OF CENTERLINE, 8 FT AGL/2275 FT MSL.
TREE 359 FT FROM DER, 463 FT RIGHT OF CENTERLINE, 2281 FT MSL.
TREES BEGINNING 639 FT FROM DER, 318 FT RIGHT OF CENTERLINE, UP TO 2309 FT MSL.

CONTROLLING OBSTACLES:

REMARKS:

<u>FLIGHT INSPECTED BY:</u>	<i>Digitally signed by</i> ROBERT G HAMILTON Aug 17, 2018	<u>OFFICE SYMBOL:</u>	<u>DATE:</u>
STEPHEN BAUER		FICO	8/15/18
<u>DEVELOPED BY:</u>	<i>Digitally signed by</i> RUSSELL ROSLEWSKI Jun 15, 2018	<u>OFFICE SYMBOL:</u>	<u>DATE:</u>
RUSS ROSLEWSKI		AJV-5421	05/15/2018
<u>APPROVED BY:</u>	<i>Digitally signed by</i> ROBERT G HAMILTON Aug 17, 2018	<u>OFFICE SYMBOL:</u>	<u>DATE:</u>
JULIE MORGAN		AJV-5420	

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:
ZOB, JST ATCT, AIRPORT MANAGER

CHANGES - REASONS:
1. UPDATED TAKEOFF OBSTACLE NOTES - NEW SURVEY DATA.



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> LAMPASAS	<u>AIRPORT ID</u> KLZZ	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 34	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>CITY</u> LAMPASAS	<u>STATE</u> TX
<u>AIRPORT ELEVATION</u> 1214	<u>TDZE</u> 1190	<u>SUPERSEDED</u> RNAV (GPS) RWY 34	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>DATED</u> 12/17/2009	<u>MAG VAR</u> 8E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 11 OCTOBER 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>
LLO VORTAC		NOTAW		TF	FB	2.00	070.42	28.16	3200
NOTAW	IAF	HUGOD	NOPT	TF	FB	1.00	072.69	5.00	3200
JODEB	IAF	HUGOD	NOPT	TF	FB	1.00	252.79	5.00	3200
HUGOD	IF/IAF	CUDEG		TF	FB	1.00	342.74	7.01	2800
CUDEG	FAF	RW34	MAP	TF	FO	0.30	342.73	4.96	
RW34	MAP	1614 MSL		CA			342.73		
1614 MSL		GUBVE		DF	FB	1.00			
GUBVE		AGJ VORTAC		TF	FO	1.00	063.20	3.56	3000

MISSED APPROACH

MAP:

LNAV: RW34

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3000 DIRECT GUBVE AND ON TRACK 063.20 TO AGJ VORTAC AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)
2. HOLD S HUGOD, RT, 342.74 INBOUND, 3200 FT. IN LIEU OF PT (IAF), MAX 6000.
3. FAC: 342.73FAF: CUDEGDIST FAF TO MAP: 4.96DIST FAF TO THLD: 4.96
4. MIN ALT: HUGOD 3200, CUDEG 2800
5. DIST TO THLD FROM OM:MM:IM:150 HAT:GS ANT:MM:IM:
6. MIN GP INCPT:GP ALT AT FAF :OM:
7. GP ANGLE:34:1: IS NOT CLEAR20:1: IS CLEARTCH:
8. MSA FROM: RW34 4100

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: CIRCLING RWY 16 NA AT NIGHT.
CHART NOTE: RWY 34 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON LLO VORTAC AIRWAY RADIALS 018 CW 120.

ADDITIONAL FLIGHT DATA:

CUDEG TO RW34: 3.04/40.
CHART VDP AT 1.33 NM TO RW34
CHART FAS OBST: 1316 TOWER 310504N/0981103W.
HOLD N, RT, 190.00 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
LNAV MDA	1620	1	430	1620	1	430	1620	1 1/4	430		NA				
CIRCLING	1680	1	466	1720	1	506	1720	1 1/2	506		NA				



CHANGES - REASONS

- 1. ADDED RNP VALUES TO TERMINAL ROUTES - IAW 8260.19H 8-6-4 A (6).
- 2. CHANGED MISSED APPROACH INSTRUCTIONS FROM CLIMB TO 3000 DIRECT GUBVE AND VIA TRACK 063.20 TO AGJ VORTAC AND HOLD TO CLIMB TO 3000 DIRECT GUBVE AND ON TRACK 063.20 TO AGJ VORTAC AND HOLD - IAW 8260.19H PARA 8-6-6 D.
- 3. ADDED MAXIMUM ALTITUDE 6000 TO HOLDING PATTERN IN-LIEU-OF-PT ON LINE 2 - IAW 8260.19H PARA 8-6-7 B (2).
- 4. CHANGED 34:1 IS CLEAR TO 34:1 IS NOT CLEAR AND ADDED 20:1 IS CLEAR TO LINE 7 - IAW 8260.19H PARA 8-6-7 G (3) AND NEW SURVEY OBSTACLES.
- 5. UPDATED AIRPORT ELEVATION FROM 1215 TO 1214 AND TDZE FROM 1198 TO 1190 - UPDATED AIRPORT SURVEY.
- 6. INCREASED LNAV HAT FROM 422 TO 430 ALL CATS AND CIRCLING HAA'S FROM CAT A 465 TO 466, CAT S B AND C FROM 505 TO 506 - UPDATED AIRPORT SURVEY, TDZE AND AIRPORT ELEVATION UPDATED.
- 7. DELETED DME/DME RNP -0.3 NA - REPLACED WITH NAVSPEC NOTE.
- 8. ADDED PBN REQUIREMENTS NOTE: RNP APCH - IAW 8260.19H PARA 8-6-8 B (1).
- 9. DELETED BACKUP ALTIMETER AND ASSOCIATED VDP NA NOTE - ALTIMETER SOURCE ON WMSCR AND DEEMED RELIABLE.
- 10. ADDED CHART NOTE: RWY 34 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED - 34:1 PENETRATIONS PER 8260.19H SECTION 8-8 C (11).
- 11. ADDED CA LEG TO THE MISSED APPROACH SEGMENT - IAW 8260.58A PARA 3-5-2.
- 12. ADDED CHART NOTE: CIRCLING RWY 16 NA AT NIGHT - 20:1 PENETRATION AND IAW 8260.19H PARA 8-6-11 O 2(G).
- 13. DELETED PLANVIEW NOTE: RADAR REQUIRED FOR PROCEDURE ENTRY AT JODEB - RADAR NOT REQUIRED FOR GPS PROCEDURES.
- 14. CHANGED FAS OBSTACLE FROM 1497 TOWER TO 1316 TOWER - NEW FINAL EVALUATION.



<u>AIRPORT</u> LAMPASAS	<u>AIRPORT ID</u> KLZZ	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 34	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>CITY</u> LAMPASAS	<u>STATE</u> TX
<u>COORDINATED WITH:</u>					
A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZHU ARTCC, AIRPORT MANAGER.					
<u>FLIGHT CHECKED BY</u> ZACK SMYER	Digitally signed by DONALD H LANIER Aug 15, 2018		<u>OFFICE</u> FICO	<u>DATE</u> 08/09/2018	
<u>DEVELOPED BY</u> FRANK JACKSON JR	Digitally signed by FRANK JACKSON Jul 02, 2018		<u>OFFICE</u> AJV-5432	<u>DATE</u> 06/25/2018	
<u>APPROVED BY</u> PATRICK MULQUEEN	Digitally signed by DONALD H LANIER Aug 15, 2018		<u>OFFICE</u> AJV-5430	<u>DATE</u>	<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> SULPHUR SPRINGS MUNI	<u>AIRPORT ID</u> KSLR	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 19	<u>ORIGINAL/AMENDMENT</u> ORIG-B	<u>CITY</u> SULPHUR SPRINGS	<u>STATE</u> TX
<u>AIRPORT ELEVATION</u> 489	<u>TDZE</u> 476	<u>SUPERSEDED</u> RNAV (GPS) RWY 19	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>DATED</u> 04/02/2015	<u>MAG VAR</u> 3E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 11 OCTOBER 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>	<u>EPOCH YEAR</u> 2010

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>
MONTE		PIPIC		TF	FB	2.00	123.89	13.56	3000
LENYI		WUSNU		TF	FB	2.00	243.95	23.18	3000
PIPIC	IAF	WEDAT	NOPT	TF	FB	1.00	124.01	6.00	2500
WUSNU	IAF	WEDAT	NOPT	TF	FB	1.00	243.72	6.00	2500
PRX VOR/DME	IAF	WEDAT	NOPT	TF	FB	1.00	206.81	13.71	2500
WEDAT	IF/IAF	EVIJI		TF	FB	1.00	186.68	6.07	2000
EVIJI	FAF	ZILVA/1.80 NM TO RW19		TF	FB	0.30	186.67	2.89	
ZILVA/1.80 NM TO RW19		RW19	MAP	TF		0.30	186.67	1.80	
RW19	MAP	726 MSL		CA			186.67		
726 MSL		EDDGR		DF	FO				3000

MISSED APPROACH

MAP:

LPV: DA
 LNAV/VNAV: DA
 LNAV: RW19

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3000 DIRECT EDDGR AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. HOLD N WEDAT, RT, 186.68 INBOUND, 2500 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 186.67FAF: EVIJI

DIST FAF TO MAP: 4.69

DIST FAF TO THLD: 4.69

4. MIN ALT: WEDAT 2500, EVIJI 2000, ZILVA/1.80 NM TO RW19 1060*

5. DIST TO THLD FROM OM:

MM:

IM:

150 HAT:

250 HAT: 0.69

GS ANT:

6. MIN GP INCPT: 2000

GP ALT AT FAF : EVIJI 2000

OM:

MM:

IM:

7. GP ANGLE: 3.00

34:1: IS CLEAR

20:1: IS CLEAR

TCH: 40.0

8. MSA FROM: RW19 2600

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: CIRCLING TO RWY 1 NA AT NIGHT.
CHART NOTE: CIRCLING NA E OF RWY 1-19.
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, PROCEDURE NA BELOW -15C OR ABOVE 54C.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT PRX VOR/DME ON V583 NORTHBOUND.

ADDITIONAL FLIGHT DATA:

CHART VDP AT 1.05 NM TO RW19*
*LNAV ONLY
WAAS CHANNEL #90323
REFERENCE PATH ID: W19A
CHART FAS OBST: 589 TREE 330958N/0953641W.
HOLD S, RT, 006.64 INBOUND
LTP HAE: 115.8 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	726	3/4	250	726	3/4	250	726	3/4	250		NA				
LNAV/VNAV DA	776	1	300	776	1	300	776	1	300		NA				
LNAV MDA	840	1	364	840	1	364	840	1	364		NA				
CIRCLING	920	1	431	940	1	451	940	1 1/2	451		NA				



CHANGES - REASONS

- 1. CHANGED LPV MINIMUMS FROM 666/HAT 200 TO 726/HAT 250 ALL CATS - DUE TO RUNWAY MARKINGS BEING NON PRECISION.
- 2. REMOVED BACKUP ALTIMETER AND ASSOCIATED NOTES - MOVED TO -9 AS A CONTINGENCY NOTE.
- 3. REMOVED "DME/DME RNP-0.3 NA." AND ADDED PBN REQUIREMENTS NOTE "RNP APCH".
- 4. UPDATED PROFILE LINE 7 TO SHOW 20:1 IS CLEAR. - IAW 8260.19H
- 5. UPDATED FAS DATA CHANGED VAL FROM 35 TO 50 - RUNWAY DOESN'T SUPPORT 200' HAT.
- 6. CRC REMAINDER CHANGED FROM "F27790D9" TO "63F9D99B" - UPDATED VERTICAL ANGLE LIMIT.
- 7. CHANGED NOTE "WHEN VGSI INOP, CIRCLING RWY 1 NA AT NIGHT" TO "CIRCLING RWY 1 NA AT NIGHT" - VGSI NOT AUTHORIZED TO MITIGATE 20:1 PENETRATIONS WITHOUT A LETTER OF APPROVAL.
- 8. CHANGED LNAV/VNAV MDA FROM 766 TO 776 AND LNAV HAT FROM 374 TO 364 - TDZE VICE THRE.
- 9. UPDATED RNP VALUE FOR INTERMEDIATE SEGMENT FROM 0.5 TO 1.00 - IAW UPDAED CRITERIA IN THE .54A

THIS MINOR AMENDMENT INCORPORATES ALL DATA CONTAINED IN FDC #8/8605 T-NOTAM.



COORDINATED WITH:

A4A

☐

ALPA

☒

AOPA

☒

APA

☐

HAI

☐

NBAA

☒

OTHER:

ZFW, AMGR, STATE AERO

FLIGHT CHECKED BY

JOHN E PHILLABAUM

Digitally signed by

DONALD H LANIER

Jul 30, 2018

OFFICE

FICO

DATE

7/24/18

DEVELOPED BY

RONALD SALPINO

Digitally signed by

RONALD SALPINO

Jun 27, 2018

OFFICE

AJV-5432

DATE

06/21/2018

APPROVED BY

PATRICK MULQUEEN

Digitally signed by

DONALD H LANIER

Jul 30, 2018

OFFICE

AJV-5430

DATE

TITLE

MANAGER



FAS DATA BLOCK INFORMATION

DATA FIELD	DATA
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KSLR
RUNWAY	RW19
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W19A
LTP/FTP LATITUDE	330959.7770N
LTP/FTP LONGITUDE	0953711.1860W
LTP/FTP ELLIPSOIDAL HEIGHT	+01158
FPAP LATITUDE	330831.7700N
FPAP LONGITUDE	0953729.0000W
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	1224
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	63F9D99B
ADDITIONAL PATH POINT RECORD INFORMATION	
ICAO CODE	K4
LTP ORTHOMETRIC HEIGHT	+00142
FPAP ORTHOMETRIC HEIGHT	+00142



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

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<u>AIRPORT</u> SAWYER COUNTY	<u>AIRPORT ID</u> KHYR	<u>PROCEDURE NAME</u> ILS OR LOC RWY 21	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>CITY</u> HAYWARD	<u>STATE</u> WI
<u>AIRPORT ELEVATION</u> 1216	<u>TDZE</u> 1216	<u>SUPERSEDED</u> ILS OR LOC/DME RWY 20	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>DATED</u> 08/20/2015	<u>MAG VAR</u> 0E
<u>FACILITY</u> I-HTY	<u>COORDINATES OF FACILITIES</u> 460105.83N / 0912657.33W	<u>ACTUAL EFFECTIVE DATE</u> 11 OCTOBER 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>
RZN VOR/DME		OBBEY/I-HTY 6.37 DME					064.54	45.02	3300
GRASS/DLH VORTAC 52.50 DME	IAF	DAIVE/I-HTY 12.29 DME	NOPT				250.00 & 204.78	5.92 (HDG) & 7.61 (I-HTY)	3300
DAIVE/I-HTY 12.29 DME	IF	OBBEY/I-HTY 6.37 DME					204.78	5.92 (I-HTY)	3000

MISSED APPROACH

MAP:

ILS: DA
LOC: I-HTY 0.90 DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2200 THEN CLIMBING RIGHT TURN TO 3300 ON HEADING 060 AND I-HTY NORTHEAST COURSE TO OBBEY/I-HTY 6.37 DME AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT **SIDE OF COURSE** **OUTBOUND** **FT WITHIN** **MILES OF (IAF)**
2. HOLD NE OBBEY, RT, 204.78 INBOUND, 3300 FT. IN LIEU OF PT (IAF), MAX 5700.
3. **FAC:** 204.78 **FAF:** OBBEY/I-HTY 6.37 DME **DIST FAF TO MAP:** **DIST FAF TO THLD:** 5.47
4. **MIN ALT:** OBBEY/I-HTY 6.37 DME 3000, POVYI/I-HTY 3.30 DME 2020*
5. **DIST TO THLD FROM OM:** **MM:** **IM:** **150 HAT:** **GS ANT:** 811
6. **MIN GS INCPT:** 3000 **GS ALT AT FAF :** OBBEY/I-HTY 6.37 DME 3000 **OM:** **MM:** **IM:**
7. **GP ANGLE:** 3.00 **34:1:** **20:1:** **TCH:** 41.5
8. **MSA FROM:** HYR VOR/DME 3100

EQUIPMENT REQUIREMENTS NOTES:

DME REQUIRED.



NOTES:

CHART NOTE: RWY 21 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT GRASS ON V217 SOUTHEAST BOUND.
CHART NOTE: CIRCLING NA TO RWYS 16 AND 34.
CHART NOTE: FOR INOPERATIVE ALS, INCREASE S-ILS 21 ALL CATS VISIBILITY TO 7/8 SM, INCREASE LOC CAT A/B VISIBILITY TO 1 SM, CAT C/D TO 1 1/8 SM.

ADDITIONAL FLIGHT DATA:

CHART IN PLANVIEW: RZN 45.02 DME AT OBBEY.
CHART CIRCLING ICON.
CHART VDP AT 1.96 DME*
DISTANCE VDP TO THLD 1.06 NM
* LOC ONLY
CHART FAS OBST: 1332 TREE 460317N/0912552W.

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 21	1518	3/4	302	1518	3/4	302	1518	3/4	302	1518	3/4	302			
S-LOC 21	1600	3/4	384	1600	3/4	384	1600	3/4	384	1600	3/4	384			
CIRCLING	1860	1	644	2060	1 1/4	844	2120	2 3/4	904	2120	3	904			

CHANGES - REASONS

1. CHANGED CIRCLING CAT A MDA/HAA FROM 1840/624 TO 1860/HAA 644, CAT B FROM 2000/784 TO 2060/HAA 844, CAT C/D FROM 2080/864 TO 2120/HAA 904, VISIBILITY CAT B FROM 1 TO 1 1/4 SM, CAT C FROM 2 1/2 TO 2 3/4 SM, CAT D FROM 2 3/4 TO 3 SM - NEW CONTROLLING OBSTACLES EXIST FOR ALL CIRCLING CATEGORIES. CIRCLING CAT A: 1545 MSL TREE 55-046112 AT 460031.82N/0912516.18W, AC 1B. 1545 TREE + 300' ROC = 1845 MDA ROUNDS TO 1860. CIRCLING CAT B: 1752 MSL TOWER 55-000206 AT 460009.32N/0912432.64W; AC 1B. 1752 TOWER + 300' ROC = 2052 MDA ROUNDS TO 2060 MDA. CIRCLING CATS C/D: 1770 MSL TOWER 55-001301 AT 455952.87N/0912415.63W; AC 4D. 1770 MSL TOWER + 300' ROC + 50 (ACCURACY CODE) = 2120 MDA.
2. DELETED NOTE: FOR INOPERATIVE MALSR, WHEN USING ASHLAND ALTIMETER SETTING, INCREASE S-ILS ALL CATS VISIBILITY TO 1 1/2 MILE AND S-LOC CAT A AND B VISIBILITY TO 1 MILE - MOVED TO THE BACK OF THE 8260-9 FOR CONTINGENCY PURPOSES.
3. ADDED CHART NOTE: CIRCLING NA TO RWYS 16 AND 34 - NA CIRCLING TO RWY 16/34 - TURF RUNWAY; APPROVAL NOT RECEIVED.
4. DELETED NOTE: DME REQUIRED IAW MEMORANDUM 257 DATED 9/12/2017 IMPLEMENTATION OF FAA ORDER 8260.19H FLIGHT PROCEDURES AND AIRSPACE.
5. ADDED EQUIPMENT REQUIREMENTS NOTE: DME REQUIRED - IAW MEMORANDUM 257 DATED 9/12/2017 IMPLEMENTATION OF FAA ORDER 8260.19H FLIGHT PROCEDURES AND AIRSPACE.
6. DELETED NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE ASHLAND ALTIMETER SETTING AND INCREASE ALL DA 143 FEET AND ALL MDA 160 FEET AND INCREASE S-ILS ALL CATS VISIBILITY 3/8 MILE, S-LOC CAT C AND D VISIBILITY 3/8 MILE, AND CIRCLING CAT B AND D VISIBILITY 1/4 MILE AND CAT C VISIBILITY 1/2 MILE - MOVING WEATHER RELATED NOTES TO THE BACK OF THE 8260-9 - WEATHER TRANSMITTED ON ASOS.
7. DELETE NOTE: VDP NA WHEN USING ASHLAND ALTIMETER SETTING - MOVING WEATHER RELATED NOTES TO THE BACK OF THE 8260-9 - WEATHER TRANSMITTED ON ASOS.
8. DELETE NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NA; ADDED CHART NOTE: RWY 21 HELICOPTER VISIBILITY BELOW 3/4 SM NA - UPDATE HELICOPTER NOTE TO REFERENCE RWY 21 IAW 8260.19H PARA 8-6-11K(3).
9. CHANGED FROM ILS OR LOC/DME RWY 20 TO ILS OR LOC RWY 21 - REMOVED DME FROM PROCEDURE NAME IAW 8260 CRITERIA; RUNWAY UPDATE PER AIRNAV RUNWAY RECORD - CANCEL T-NOTAM 7/1677.
10. ADDED CHART NOTE: FOR INOPERATIVE ALS, INCREASE S-ILS 21 ALL CATS VISIBILITY TO 7/8 SM, INCREASE LOC CAT A/B VISIBILITY TO 1 SM, CAT C/D TO 1 1/8 SM - PER 8260.3C VISIBILITY TABLE.
11. REMOVED CNF CFBGJ IN DR SEGMENT AND REMOVED "CHART (CFBGJ) AT INTERSECTION OF GRASS DR LEG AND INTERMEDIATE COURSE - CF NO LONGER REQUIRED.

PDF EDITS:
REMOVE ALL LEG TYPES AND FO/FB FROM 8260-3.
ADDED "804" UNDER HAT FOR SEGMENT FROM OBBEY/I-HTY 6.37 DME TO POVY/I-HTY 3.30 DME.
REMOVED OBSTRUCTION 11 TREE (KHYRT1199) FROM SEGMENT I-HTY 0.90 DME TO OBBEY/I-HTY 6.37 DME.



<u>AIRPORT</u> SAWYER COUNTY	<u>AIRPORT ID</u> KHYR	<u>PROCEDURE NAME</u> ILS OR LOC RWY 21	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>CITY</u> HAYWARD	<u>STATE</u> WI

COORDINATED WITH:

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

<u>FLIGHT CHECKED BY</u> Flight Inspection Review Not Required - Processed IAW Aircraft Operations Group (AJW-333) Memo, Dec 22, 2017	<u>OFFICE</u>	<u>DATE</u>	Digitally signed by ALLAN WILL Aug 01, 2018
<u>DEVELOPED BY</u> MIKE MELSSEN	<u>OFFICE</u> AJV-5412	<u>DATE</u> 01/05/2018	
<u>APPROVED BY</u> GEORGE DAVIS	<u>OFFICE</u> AJV-5410	<u>DATE</u>	Digitally signed by ALLAN WILL Aug 01, 2018
			<u>TITLE</u> MANAGER



**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
GRAPHIC DEPARTURE PROCEDURES (DP)**

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>DP NAME</u>	<u>NUMBER</u>	<u>DP COMPUTER CODE</u>	<u>SUPERSEDED NUMBER</u>	<u>DATED</u>	<u>EFFECTIVE DATE</u>
BREVIG	TWO	KTS2.JIPAK	ONE	05/29/2014	8 NOVEMBER 2018

<u>TYPE:</u>	<u>OBSTACLE</u>	<u>COPTER</u>	<u>SID</u>	<u>SPECIAL</u>	<u>RNAV</u>
	☒	☐	☐	☐	☒

DP ROUTE DESCRIPTION:

TAKEOFF RWY 12: CLIMB HEADING 120.69 TO 600 THEN RIGHT TURN DIRECT JIPAK, THENCE ...

TAKEOFF RWY 23: CLIMB HEADING 225.69 TO 600 THEN LEFT TURN DIRECT JIPAK, THENCE ...

TAKEOFF RWY 30: CLIMB HEADING 300.68 TO 600 THEN LEFT TURN DIRECT JIPAK, THENCE ...

... CONTINUE CLIMB IN HOLD AT JIPAK (HOLD NW, RT, 9 MILE LEGS, 124.89 INBOUND) TO AT OR ABOVE 6000 BEFORE PROCEEDING ON COURSE.

TRANSITION ROUTES (GRAPHIC DEPICTION ONLY):

<u>TRANSITION NAME</u>	<u>TRANSITION COMPUTER CODE</u>	<u>FROM FIX/NAVAID</u>	<u>TO FIX/NAVAID</u>	<u>COURSE</u>	<u>DISTANCE</u>	<u>MEA</u>	<u>MOCA</u>	<u>CROSSING ALTITUDE/FIXES</u>

PROCEDURAL DATA NOTES:

NOTE: GPS REQUIRED.

NOTE: RNAV 1.

TAKEOFF MINIMUMS:

RWY 5: NA - TERRAIN.

RWY 12, 23: STANDARD.

RWY 30: 400 - 2 3/4 OR STANDARD WITH MINIMUM CLIMB OF 280 FT PER NM TO 600.

TAKEOFF OBSTACLES NOTES:

NOTE: RWY 12: BUSH 153 FT FROM DER, 373 FT RIGHT OF CENTERLINE, 15 FT AGL/40 FT MSL.

NOTE: RWY 23: TERRAIN 103 FT FROM DER, 300 FT RIGHT OF CENTERLINE, 69 FT MSL. POLE 263 FT FROM DER, 542 FT RIGHT OF CENTERLINE, 35 FT AGL/60 FT MSL. VEHICLES ON ROAD 135 FT FROM DER, 440 FT LEFT OF CENTERLINE, 14 FT AGL/39 FT MSL.

NOTE: RWY 30: TERRAIN BEGINNING 142 FT FROM DER, LEFT AND RIGHT OF CENTERLINE, UP TO 85 FT MSL.

CONTROLLING OBSTACLES:

RWY 30: 427 FT MSL AAO 652154.00N/1663130.00W (CEIL/VIS/CGTA), 399 FT MSL AAO 652133.05N/1663042.96W (CG).

LOST COMMUNICATIONS PROCEDURES:

ADDITIONAL FLIGHT DATA:

REFERENCE MAGVAR: PFKT 9E EPOCH YR 2020.

DME/DME ASSESSMENT: NOT CONDUCTED.

CHART HOLDING AT JIPAK (HOLD NW, RT 124.89 INBOUND, 9NM).

AIRPORTS SERVED:

<u>AIRPORT NAME</u>	<u>CITY</u>	<u>STATE</u>
BREVIG MISSION (PFKT)	BREVIG MISSION	AK

QUALITY
3
CHECKED

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
GRAPHIC DEPARTURE PROCEDURES (DP)**

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<u>DP NAME</u>	<u>NUMBER</u>	<u>DP COMPUTER CODE</u>	<u>SUPERSEDED NUMBER</u>	<u>DATED</u>	<u>EFFECTIVE DATE</u>
BREVIG	TWO	KTS2.JIPAK	ONE	05/29/2014	8 NOVEMBER 2018

COMMUNICATIONS:

AWOS-3P, ZAN, CTAF

FIXES AND/OR NAVAIDS:

REMARKS:

ABBREVIATED AMENDMENT:

NOTE: 15 FT VEGETATION USED PER FPT

Digitally signed by

DONALD H LANIER

FLIGHT INSPECTED BY:

Jul 31, 2018

OFFICE SYMBOL:

DATE:

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, DEC 22, 2017

DEVELOPED BY:

LONNIE EVERHART
(TARA N. MARTINELLI)

Digitally signed by

DONALD H LANIER

Jul 31, 2018

OFFICE SYMBOL:

AJV-5400

DATE:

06/11/2018

APPROVED BY:

LONNIE EVERHART

Digitally signed by

DONALD H LANIER

Jul 31, 2018

OFFICE SYMBOL:

AJV-5400

DATE:

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:

ZAN, AMGR

CHANGES - REASONS:

1. CHANGED THE DP COMPUTER CODE FROM FKT1.FKT TO KTS2.JIPAK PER PTS FPT/ATC REQUEST.
2. DP ROUTE DESCRIPTION BLOCK: UPDATED RWY 12 HEADING FROM 117.68 TO 120.69 DUE TO UPDATED MAGVAR 2020 EPOCH 9E.
3. DP ROUTE DESCRIPTION BLOCK: CHANGED RWY 22 TO RWY 23 TO CORRESPOND WITH WORKING AIRNAV DATA SHEET 11-8-2018.
4. DP ROUTE DESCRIPTION BLOCK: UPDATED RWY 23 HEADING FROM 222.70 TO 225.69 DUE TO UPDATED MAGVAR 2020 EPOCH 9E.
5. DP ROUTE DESCRIPTION BLOCK: UPDATED RWY 30 HEADING FROM 297.96 TO 300.68 DUE TO UPDATED MAGVAR 2020 EPOCH 9E.
6. DP ROUTE DESCRIPTION BLOCK: CHANGED CONTINUE CLIMB IN HOLD TO AT OR ABOVE 6000 BEFORE PROCEEDING ON COURSE TO CONTINUE CLIMB IN HOLD AT JIPAK (HOLD NW, RT, 9 MILE LEGS, 124.89) TO AT OR ABOVE 6000 BEFORE PROCEEDING ON COURSE.
7. PROCEDURAL DATA NOTES BLOCK: CHANGED RWY 4 TO RWY 5 AND RWY 22 TO RWY 23 TO CORRESPOND WITH WORKING AIRNAV DATA SHEET 11-8-2018.
8. TAKEOFF MINIMUMS BLOCK: CHANGED RWY 22 TO RWY 23 TO CORRESPOND WITH WORKING AIRNAV DATA SHEET 11-8-2018.
9. ADDITIONAL FLIGHT DATA BLOCK: MAGVAR CHANGED FROM 2010 12E TO 2020 9E.
10. ADDITIONAL FLIGHT DATA BLOCK: UPDATED JIPAK HOLDING FROM 121.89 TO 124.89.
11. COMMUNICATIONS BLOCK: MATCHED FREQUENCIES WITH DEPARTURE PLATE.
12. FORM 8260-15C CHANGED RW22 TO RW23.
13. FORM 8260-15C CHANGED ALTITUDE INFORMATION FROM 6000 TO AT/ABOVE 6000.

QUALITY
3
CHECKED

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
DEPARTURE (DATA RECORD)**

DP NAME							NUMBER	DP COMPUTER CODE	SUPERSEDED NUMBER	DATED	EFFECTIVE DATE
BREVIG							TWO	KTS2.JIPAK	ONE	05/29/2014	8 NOVEMBER 2018
FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS		
RW12 (AER)	652000.45N/1662818.71W	N	-	-	-	-					
600 MSL	-	-	-	VA	129.69	-					
JIPAK	650632.36N/1664639.96W	Y	FO	DF	-	-			RIGHT TURN		
JIPAK	650632.36N/1664639.96W	Y	FO	HA	133.89	9	AT/ABOVE 6000		RIGHT TURN		
RW23 (AER)	652001.18N/1662743.38W	N	-	-	-	-					
600 MSL	-	-	-	VA	234.69	-					
JIPAK	650632.36N/1664639.96W	Y	FO	DF	-	-			LEFT TURN		
JIPAK	650632.36N/1664639.96W	Y	FO	HA	133.89	9	AT/ABOVE 6000		RIGHT TURN		
RW30 (AER)	651941.66N/1662724.52W	N	-	-	-	-					
600 MSL	-	-	-	VA	309.68	-			CG 280 FT PER NM TO 600		
JIPAK	650632.36N/1664639.96W	Y	FO	DF	-	-			LEFT TURN		
JIPAK	650632.36N/1664639.96W	Y	FO	HA	133.89	9	AT/ABOVE 6000		RIGHT TURN		

QUALITY
3
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.

<u>CITY, STATE</u>	<u>AIRPORT</u>	<u>EFFECTIVE DATE</u>	<u>AMDT NO</u>
BREVIG MISSION, AK	BREVIG MISSION	8 NOVEMBER 2018	ORIG-A

TAKEOFF MINIMUMS:

RWY 5: NA - TERRAIN

TEXTUAL DEPARTURE PROCEDURES:

RWY 12, 23, 30: USE BREVIG DEPARTURE

VISUAL CLIMB OVER AIRPORT:

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 12: BUSH 153 FT FROM DER, 373 FT RIGHT OF CENTERLINE, 15 FT AGL/40 FT MSL.

NOTE: RWY 23: TERRAIN 103 FT FROM DER, 300 FT RIGHT OF CENTERLINE, 69 FT MSL. POLE 263 FT FROM DER, 542 FT RIGHT OF CENTERLINE, 35 FT AGL/60 FT MSL. VEHICLES ON ROAD 135 FT FROM DER, 440 FT LEFT OF CENTERLINE, 14 FT AGL/39 FT MSL.

NOTE: RWY 30: TERRAIN BEGINNING 142 FT FROM DER, LEFT AND RIGHT OF CENTERLINE, UP TO 85 FT MSL.

CONTROLLING OBSTACLES:

REMARKS:

Digitally signed by
DONALD H LANIER

FLIGHT INSPECTED BY:

Jul 31, 2018

OFFICE SYMBOL:

DATE:

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, DEC 22, 2017.

DEVELOPED BY:

LONNIE EVERHART
(TARA N. MARTINELLI)

Digitally signed by
DONALD H LANIER
Jul 31, 2018

OFFICE SYMBOL:
AJV-5400

DATE:
06/11/2018

APPROVED BY:

LONNIE EVERHART

Digitally signed by
DONALD H LANIER
Jul 31, 2018

OFFICE SYMBOL:
AJV-5400

DATE:

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:

ZAN, AMGR

CHANGES - REASONS:

1. TAKEOFF MINIMUMS BLOCK: CHANGED RWY 4 TO RWY 5 DUE TO UPDATED MAGVAR EPOCH YR 2020 9E.
2. TEXTUAL DEPARTURE BLOCK: CHANGED RWY 22 TO RWY 23 DUE TO UPDATED MAGVAR EPOCH YR 2020 9E.
3. TAKEOFF OBSTACLE NOTES ADDED IAW TAKEOFF MINIMUMS AND OBSTACLE DEPARTURE PROCEDURES (ODP) - MEMO 259, IMPLEMENTATION OF AFS WAIVER FOR FAA ORDER 8260-46F, DEPARTURE PROCEDURE PROGRAM.

QUALITY
3
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.													
TERMINAL ROUTES										MISSED APPROACH							
FROM		TO		COURSE AND DISTANCE				ALTITUDE		LP: CADUL LNAV: CADUL (DO NOT EXCEED 210 KIAS UNTIL HINBU) CLIMBING LEFT TURN TO 4000 DIRECT HINBU AND HOLD, CONTINUE CLIMB-IN-HOLD TO 4000. *MISSED APPROACH REQUIRES MINIMUM CLIMB OF 357 FEET PER NM TO 1500. ADDITIONAL FLIGHT DATA: HOLD E, RT, 264.87 INBOUND. CHART ARRIVAL HOLDING AT FEGEN: HOLD N, RT, 166.95 INBOUND, 4000. CHART FAS OBST: 210 TRAVERSE WAY 574508N/1522703W, 210 TRAVERSE WAY 574436N/1522632W. WAAS CHANNEL # 93941 REFERENCE PATH ID: W26A CHART CIRCLING ICON. FICTITIOUS THRESHOLD POINT (CFDVK) DO NOT CHART. MATOE TO RW26: 3.03/38. FAC CROSSES RWY C/L 4997 FT FROM THLD. CHART PLANVIEW NOTE: FINAL APPROACH OFFSET 19.07 DEGREES. LTP HAE: 17.5 M							
FEGEN (IAF)		RUGVE (TF) (FB) (RNP 1.00)		166.95 / 9.37				4000									
HINBU (IAF)		RUGVE (TF) (FB) (RNP 1.00)		308.98 / 8.61				4000									
RUGVE (IF)		MATOE (TF) (FB) (RNP 1.00)		239.32 / 6.57				2500									
MATOE (FAF)		CADUL (MAP) (TF) (FO) (RNP 0.30)		239.15 / 6.00													
CADUL (MAP)		479 MSL (CA)		239.15				4000									
479 MSL		HINBU (DF) (FO) (RNP 1.00)															
1. PT _____ SIDE OF COURSE _____ OUTBOUND _____ FT WITHIN _____ MILES OF _____ (IAF) 2. PROFILE STARTS AT RUGVE 3. FAC: 239.15 FAF: MATOE DIST FAF TO MAP: 6.00 THLD: 7.61 4. MIN. ALT: RUGVE 4000, MATOE 2500 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: CADUL 5500										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		
LP MDA	560	1 7/8	528	560	1 7/8	528	560	1 7/8	528	560	1 7/8	528					
LNAV MDA*	560	1 7/8	528	560	1 7/8	528	560	1 7/8	528	560	1 7/8	528					
LNAV MDA	940	1 7/8	908	940	1 7/8	908	940	2 1/2	908	940	2 1/2	908					
CIRCLING	940	1 7/8	861	940	1 7/8	861	940	2 1/2	861	2020	3	1941					
NOTES: CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}). CHART NOTE: CIRCLING NA NORTH OF RWY 8-26 AND WEST OF RWY 1-19. CHART NOTE: PROCEDURE NA AT NIGHT. CHART NOTE: CIRCLING TO RWY 8, 11 AND 19 NA. (CONTINUED ON PAGE 2)																	
CITY AND STATE KODIAK, AK				ELEVATION: 79 TDZE: 32 AIRPORT NAME: KODIAK				FACILITY IDENTIFIER: RNAV		PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (GPS) RWY 26, AMDT 3 8 NOVEMBER 2018						SUP: AMDT: 2 DATED 10/15/2015	

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: RAPIDLY RISING TERRAIN NORTH, WEST, AND SOUTH OF AIRPORT.

PBN REQUIREMENTS NOTE: RNP APCH.

QUALITY
18
CHECKED

CITY AND STATE KODIAK, AK	ELEVATION: 79 AIRPORT NAME: KODIAK	TDZE: 32	FACILITY IDENTIFIER: RNAV	PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (GPS) RWY 26, AMDT 3 8 NOVEMBER 2018	SUP:
					AMDT: 2
					DATED: 10/15/2015

**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	PADQ
RUNWAY	RW26
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W26A
LTP/FTP LATITUDE	574449.8990N
LTP/FTP LONGITUDE	1522840.8120W
LTP/FTP ELLIPSOIDAL HEIGHT	+00175
FPAP LATITUDE	574423.8195N
FPAP LONGITUDE	1523119.7430W
THRESHOLD CROSSING HEIGHT (TCH)	00038.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.03
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0000
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	0.0

CRC REMAINDER

67EE8474

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	PA
LTP ORTHOMETRIC HEIGHT	+00061
FPAP ORTHOMETRIC HEIGHT	+00061

QUALITY
18
CHECKED

CITY AND STATE

KODIAK, AK

ELEVATION: 79

TDZE: 32

AIRPORT NAME:

KODIAK

FACILITY
IDENTIFIER:

RNAV

PROCEDURE NO./AMDT NO./EFFECTIVE DATE:

RNAV (GPS) RWY 26, AMDT 3

8 NOVEMBER 2018

SUP:

AMDT:

2

DATED:

10/15/2015

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> BAY MINETTE MUNI	<u>AIRPORT ID</u> K1R8	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 8	<u>ORIGINAL/AMENDMENT</u> 1B	<u>CITY</u> BAY MINETTE	<u>STATE</u> AL	
<u>AIRPORT ELEVATION</u> 248	<u>TDZE</u> 231	<u>SUPERSEDED</u> RNAV (GPS) RWY 8	<u>ORIGINAL/AMENDMENT</u> 1A	<u>DATED</u> 05/28/2015	<u>MAG VAR</u> 0E	<u>EPOCH YEAR</u> 2000
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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>
GIKEY	IAF	UMMAP	NOPT	TF	FB	1.00	100.60	12.87	2000
UMMAP	IF/IAF	OTZOT		TF	FB	1.00	085.65	6.50	2000
OTZOT	FAF	RW08	MAP	TF	FO	0.30	085.72	5.51	
RW08	MAP	800 MSL		CA			085.72		800
800 MSL		UMMAP		DF	FO	1.00			2000

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW08

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 800 THEN CLIMBING LEFT TURN TO 2000 DIRECT UMMAP AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)
2. HOLD W UMMAP, RT, 085.65 INBOUND, 2000 FT. IN LIEU OF PT (IAF), MAX 4000.
3. FAC: 085.72 FAF: OTZOT DIST FAF TO MAP: 5.51 DIST FAF TO THLD: 5.51
4. MIN ALT: UMMAP 2000, OTZOT 2000
5. DIST TO THLD FROM OM: MM: IM: 150 HAT: 405 HAT: 1.14 GS ANT:
6. MIN GP INCPT: 2000 GP ALT AT FAF : OTZOT 2000 OM: MM: IM:
7. GP ANGLE: 3.00 34:1: IS CLEAR 20:1: IS CLEAR TCH: 40.0
8. MSA FROM: RW08 3100



PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: BARO-VNAV NA.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT GIKEY ON V11 NORTHWEST BOUND.
CHART NOTE: USE MOBILE REGIONAL ALTIMETER SETTING, WHEN NOT RECEIVED, USE MOBILE DOWNTOWN ALTIMETER SETTING AND INCREASE ALL DA/MDA 20 FEET; INCREASE LNAV/VNAV ALL CATS VISIBILITY 1/8 MILE.
CHART NOTE: CIRCLING RWY 26 NA AT NIGHT.

ADDITIONAL FLIGHT DATA:

CHART MOBILE REGIONAL ASOS 135.575
CHART CIRCLING ICON.
CHART A-292
WAAS CHANNEL #56620
REFERENCE PATH ID: W08A
LTP HAE: 34.6 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	636	1 3/8	405	636	1 3/8	405	636	1 3/8	405		NA				
LNAV/VNAV DA	718	1 5/8	487	718	1 5/8	487	718	1 5/8	487		NA				
LNAV MDA	660	1	429	660	1	429	660	1 3/8	429		NA				
CIRCLING	740	1	492	840	1 1/4	592	1020	3	772		NA				

CHANGES - REASONS

1. TERMINAL ROUTES: CHANGED CA LEG FROM 700 TO 800 - TO CORRECT TURNING POINT FOR MISSED.
2. CHANGED MISSED APPROACH FROM CLIMB TO 700 THEN CLIMBING LEFT TURN TO 2000 DIRECT UMMAP AND HOLD TO CLIMB TO 800 THEN CLIMBING LEFT TURN TO 2000 DIRECT UMMAP AND HOLD - TO CORRECT CA LEG ALTITUDE.
3. DELETED CHART NOTE: DME/DME RNP-0.3 NA AND ADDED PBN EQUIPMENT REQUIREMENTS NOTE: RNP APCH - PER 8260.19H DOCUMENTATION CRITERIA.
4. NOTES: DELETED HELICOPTER VISIBILITY NOTE FROM VISIBILITY REDUCTION BY HELICOPTERS NA - 34:1 PENS NO LONGER EXIST.
5. MINIMUMS: UPDATED DAS AND MDAS AND LNAV HAT - INCORPORATED AMENDMENT 1A (P-NOTAM).
6. NOTES: CHANGED CHART NOTE FROM NIGHT LANDING: RWY 26 NA TO CIRCLING RWY 26 NA AT NIGHT - CRITERIA: 8260.19H, PARA 8-6-11 O(2G).
7. ADDITIONAL FLIGHT DATA: DELETED CHART WAAS SYMBOL - INCORPORATED AMENDMENT 1A (P-NOTAM).
8. CIRCLING MINIMUMS: INCREASED CIRCLING MDA CAT B FROM 740 TO 840; VISIBILITY FROM 1 TO 1 1/4 - NEW OBSTACLE EVALUATION AND VISCHECK CALCULATIONS.
9. CIRCLING MINIMUMS: INCREASED CIRCLING MDA CAT C FROM 740 TO 1020; VISIBILITY FROM 1 1/2 TO 3 - NEW OBSTACLE EVALUATIONAND VISCHECK CALCULATIONS.
10. ADDITIONAL FLIGHT DATA: ADDED CHART CIRCLING ICON - UPDATED CIRCLING AREA RADII.
11. FAS DATA BLOCK: CHANGED FPAFP FROM 305217.7400N/0874757.7700W TO 30521.7385N/0874757.7710W, CRC REMAINDER FROM E3F284BB TO 20A6CB0B.

CANCELS T-NOTAM 8/3363.



COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZJX, MOB APP CON, AIRPORT MGR

FLIGHT CHECKED BY

ELIZABETH WHALEY

Digitally signed by

DEZ SILAGYI

Aug 09, 2018

OFFICE

FICO

DATE

08/07/2018

DEVELOPED BY

JAMES ROGERS

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JAMES ROGERS
Jul 26, 2018

OFFICE

AJV-5421

DATE

06/21/2018

APPROVED BY

JULIE MORGAN

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Aug 09, 2018

OFFICE

AJV-5420

DATE

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> ROBBINS FIELD	<u>AIRPORT ID</u> K20A	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 6	<u>ORIGINAL/AMENDMENT</u> ORIG-C	<u>CITY</u> ONEONTA	<u>STATE</u> AL	
<u>AIRPORT ELEVATION</u> 1125	<u>TDZE</u> 1121	<u>SUPERSEDED</u> RNAV (GPS) RWY 5	<u>ORIGINAL/AMENDMENT</u> ORIG-B	<u>DATED</u> 10/12/2017	<u>MAG VAR</u> 3W	<u>EPOCH YEAR</u> 2010
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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>
GAD VOR/DME		HEVOG		TF	FO	2.00	255.83	26.94	4000
VUZ VORTAC	IAF	HEVOG	NOPT	TF	FB	1.00	058.51	18.27	4000
HEVOG	IF/IAF	ZINOG		TF	FB	1.00	057.64	7.24	3000
ZINOG	FAF	RW06	MAP	TF	FO	0.30	057.71	5.76	
RW06	MAP	1525 MSL		CA			057.71		
1525 MSL		CEPET		DF	FO	1.00			4000

MISSED APPROACH

MAP:

LNAV: RW06

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 4000 DIRECT CEPET AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

- PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)
- HOLD SW HEVOG, RT, 057.64 INBOUND, 4000 FT. IN LIEU OF PT (IAF), MAX 6000.
- FAC: 057.71 FAF: ZINOG DIST FAF TO MAP: 5.76 DIST FAF TO THLD: 5.76
- MIN ALT: HEVOG 4000, ZINOG 3000
- DIST TO THLD FROM OM: MM: IM: 150 HAT: GS ANT:
- MIN GP INCPT: GP ALT AT FAF : OM: MM: IM:
- GP ANGLE: 34:1: IS NOT CLEAR 20:1: IS NOT CLEAR TCH:
- MSA FROM: RW06 3100



PBN REQUIREMENTS NOTE:

RNP APCH

NOTES:

CHART NOTE: PROCEDURE NA AT NIGHT.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON GADSDEN VOR/DME AIRWAY RADIALS 300 CW 040.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON VUZ VORTAC AIRWAY RADIALS 333 CW 137.
CHART NOTE: USE ALBERTVILLE RGNL ALTIMETER SETTING, WHEN NOT RECEIVED, USE NORTHEAST ALABAMA RGNL ALTIMETER SETTING AND INCREASE ALL MDA 60 FEET AND INCREASE CAT C VISIBILITY 1/8 SM.
CHART NOTE: RWY 6 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED.

ADDITIONAL FLIGHT DATA:

CHART: ALBERTVILLE RGNL AWOS-3.
CHART PROFILE NOTE: VISUAL SEGMENT - OBSTACLES.
FAS OBST: 1440 AAO 335558N/0862638W.
HOLD NE, RT, 237.88 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
LNAV MDA	1760	1	639	1760	1	639	1760	1 7/8	639		NA				
CIRCLING	1760	1	635	1760	1	635	1760	1 7/8	635		NA				

CHANGES - REASONS

UPDATED RWY 5 TO RWY 6-RUNWAY RENUMBERING.
UPDATED FINAL TERMINAL ROUTE FROM ZINOG FAF RW05 TO ZINOG FAF RW06-RUNWAY RENUMBERING.
UPDATED MISSED APPROACH 'FROM' TERMINAL ROUTE DESCRIPTION FROM RW05 (MAP) TO RW06 (MAP)-RUNWAY RENUMBERING.
UPDATED MISSED APPROACH 'TO' TERMINAL ROUTE DESCRIPTION FROM CEPET (FO) TO CEPET (DF) (FO) (RNP 1.00)-RUNWAY RENUMBERING.
ADDED LINE 7 NOTE 20:1 IS NOT CLEAR-IWA 8260.19H 8-6-7 G(3).
UPDATED LINE 8 MSA FROM; FROM RW05 3100 TO RW06 3100-RUNWAY RENUMBERING.
UPDATED MISSED APPROACH MAP FROM LNAV: RWY05 TO LNAV: RWY06-RUNWAY RENUMBERING.
DELETED CHART NOTE: DME/DME RNP-0.3 NA ADDED PBN EQUIPMENT REQUIREMENT NOTE RNP APCH-IWA 8260.19H 8-6-8 B(1).
UPDATED CHART NOTE FROM HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NA TO RWY 6 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED-IAW 8260.19H 8-6-11 K(3).



COORDINATED WITH:

A4A ☐ ALPA ☐ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZTL, BHM APP CON, AMGR.

FLIGHT CHECKED BY

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, DEC 22, 2017.

Digitally signed by **OFFICE**
DEZ SILAGYI
Jun 29, 2018

DATE

DEVELOPED BY

JOHN HAZELTON

Digitally signed by
JOHN HAZELTON
Jun 26, 2018

OFFICE

AJV-5421

DATE

05/18/2018

APPROVED BY

JULIE MORGAN

Digitally signed by
DEZ SILAGYI
Jun 29, 2018

OFFICE

AJV-5420

DATE

TITLE

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> ROBBINS FIELD	<u>AIRPORT ID</u> K20A	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 24	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>CITY</u> ONEONTA	<u>STATE</u> AL
<u>AIRPORT ELEVATION</u> 1125	<u>TDZE</u> 1125	<u>SUPERSEDED</u> RNAV (GPS) RWY 23	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>DATED</u> 05/31/2012	<u>MAG VAR</u> 3W
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>	<u>EPOCH YEAR</u> 2010

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>
GAD VOR/DME		CEPET		TF	FO	2.00	335.10	8.34	4000
GESTS	IAF	CEPET	NOPT	TF	FB	1.00	204.89	12.47	4000
CEPET	IF/IAF	ZOPAR		TF	FB	1.00	237.88	7.25	3000
ZOPAR	FAF	RW24	MAP	TF	FO	0.30	237.81	5.75	
RW24	MAP	1525 MSL		CA			237.81		
1525 MSL		HEVOG		DF	FO	1.00			4000

MISSED APPROACH

MAP:

LNAV: RW24

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 4000 DIRECT HEVOG AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

- PT **SIDE OF COURSE** **OUTBOUND** **FT WITHIN** **MILES OF (IAF)**
- HOLD NE CEPET, RT, 237.88 INBOUND, 4000 FT. IN LIEU OF PT (IAF), MAX 6000.
- FAC:** 237.81 **FAF:** ZOPAR **DIST FAF TO MAP:** 5.75 **DIST FAF TO THLD:** 5.75
- MIN ALT:** CEPET 4000, ZOPAR 3000
- DIST TO THLD FROM OM:** **MM:** **IM:** **150 HAT:** **GS ANT:**
- MIN GP INCPT:** **GP ALT AT FAF :** **OM:** **MM:** **IM:**
- GP ANGLE:** **34:1:** IS NOT CLEAR **20:1:** IS NOT CLEAR **TCH:**
- MSA FROM:** RW24 3100



PBN REQUIREMENTS NOTE:

RNP APCH

NOTES:

CHART NOTE: PROCEDURE NA AT NIGHT.
CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON GAD VOR/DME AIRWAY RADIALS 300 CW 040 AND GESTS ON V115 NORTHEAST BOUND.
CHART NOTE: USE ALBERTVILLE RGNL ALTIMETER SETTING, WHEN NOT RECEIVED, USE NORTHEAST ALABAMA RGNL ALTIMETER SETTING AND INCREASE ALL MDA 60 FEET AND INCREASE LNAV CAT B VISIBILITY 1/4 SM, CAT C CIRCLING VISIBILITY 1/4 SM.
CHART NOTE: RWY 24 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED.

ADDITIONAL FLIGHT DATA:

ZOPAR TO RW24: 3.00/45
CHART: ALBERTVILLE RGNL AWOS-3.
FAS OBST: 1500 AAO 340043N/0861934W.
HOLD SW, RT, 057.64 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
LNAV MDA	1820	1	695	1820	1	695	1820	2	695		NA				
CIRCLING	1820	1	695	1820	1	695	1820	2	695		NA				

CHANGES - REASONS

UPDATED RWY 23 TO RWY 24-RUNWAY RENUMBERING.
UPDATED FINAL TERMINAL ROUTE FROM ZOPAR FAF RW23 TO ZOPAR FAF RW24-RUNWAY RENUMBERING.
UPDATED MISSED APPROACH 'FROM' DESCRIPTION FROM RW23(MAP) TO RW24 (MAP)-RUNWAY RENUMBERING.
UPDATED MISSED APPROACH 'TO' TERMINAL ROUTE DESCRIPTION FROM HEVOG (FO) TO HOVOG (DF) (FO) (RNP 1.00)-RUNWAY RENUMBERING.
ADDED LINE 7 NOTE 20:1 IS NOT CLEAR-IWA 8260.19H 8-6-7 G(3).
UPDATED LINE 8 MSA FROM; FROM RW23 3100 TO RW24 3100-RUNWAY RENUMBERING.
UPDATED MISSED APPROACH MAP FROM LNAV: RWY23 TO RWY24-RUNWAY RENUMBERING.
DELETED CHART NOTE: DME/DME RNP-0.3 NA ADDED PBN EQUIPMENT REQUIREMENT NOTE RNP APCH-IWA 8260.19H 8-6-8 B(1).
ADDED CHART NOTE: RWY 24 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED-IAW 8260.19H 8-6-11 K(3).
UPDATED CHART PROFILE NOTE: FROM VGSI AND DESCENT ANGLES NOT COINCIDENT TO VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET})-IAW 8260.19H 8-6-9 M(1).
UPDATED ADDITIONAL FLIGHT DATA: FROM ZOPAR TO RW23: 3.00/45 TO; ZOPAR TO RW24: 3.00/45-RUNWAY RENUMBERING.



COORDINATED WITH:

A4A ☐ ALPA ☐ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZTL, BHM APP CON, AMGR.

FLIGHT CHECKED BY

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, DEC 22, 2017.

Digitally signed by

OFFICE

DEZ SILAGYI

Jun 29, 2018

DEVELOPED BY

JOHN HAZELTON

Digitally signed by

JOHN HAZELTON

Jun 26, 2018

OFFICE

AJV-5421

DATE

05/22/2018

APPROVED BY

JULIE MORGAN

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DEZ SILAGYI

Jun 29, 2018

OFFICE

AJV-5420

DATE

TITLE

MANAGER



**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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CITY, STATE	AIRPORT	EFFECTIVE DATE	AMDT NO
ONEONTA, AL	ROBBINS FIELD	8 NOVEMBER 2018	ORIG-B

TAKEOFF MINIMUMS:

RWY 6 STANDARD.

RWY 24 300-1 1/4 OR STANDARD WITH MINIMUM CLIMB OF 206 TO 1400.

TEXTUAL DEPARTURE PROCEDURES:

RWY 6-CLIMB HEADING 057.76 TO 2000 BEFORE TURNING.

RWY 24- CLIMB HEADING 250.00 TO 2400 BEFORE TURNING.

VISUAL CLIMB OVER AIRPORT:

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 05, TREES, BEGINNING 162 FT FROM DER, 169 FT LEFT OF CENTERLINE, UP TO 133 FT AGL/1199 FT MSL. TREE 366 FT FROM DER, 569 FT RIGHT OF CENTERLINE, 76 FT AGL/1169 FT MSL. TREES, BEGINNING 3184 FT FROM DER, 92 FT LEFT OF CENTERLINE, UP TO 129 FT AGL/1211 FT MSL. TREE 3639 FT FROM DER, 86 FT LEFT OF CENTERLINE, 147 FT AGL/1222 FT MSL. TREE 4205 FT FROM DER, 372 FT LEFT OF CENTERLINE, 107 FT AGL/1231 FT MSL. TREE 4499 FT FROM DER, 623 FT LEFT OF CENTERLINE, 152 FT AGL/1239 FT MSL.

NOTE: RWY 23, TREE, TRAVERSE WAY, BEGINNING 145 FT FROM DER, 304 FT LEFT OF CENTERLINE, UP TO 135 FT AGL/1215 FT MSL TRAVERSE WAY 222 FT FROM DER, 463 FT RIGHT OF CENTERLINE, 1147 FT MSL. TREES, BEGINNING 255 FT FROM DER, 9 FT LEFT OF CENTERLINE, UP TO 137 FT AGL/1217 FT MSL. TREE 281 FT FROM DER, 214 FT RIGHT OF CENTERLINE, 109 FT AGL/1188 FT MSL. TREE 412 FT FROM DER, 449 FT RIGHT OF CENTERLINE, 151 FT AGL/1230 FT MSL. TREES, BEGINNING 736 FT FROM DER, 8 FT RIGHT OF CENTERLINE, UP TO 157 FT AGL/1236 FT MSL. TREE 5381 FT FROM DER, 1917 FT RIGHT OF CENTERLINE, 60 FT AGL/1243 FT MSL. TREE 1 NM FROM DER, 1684 FT RIGHT OF CENTERLINE, 97 FT AGL/1270 FT MSL.

CONTROLLING OBSTACLES:

RWY 24 1270FT MSL TREE 335742.20N-08692422.52W (CLIMB GRADIENT).

OBSTACLE MANDATING ODP ROUTE DEVELOPMENT: RWY 24-2049FT MSL TOWER 335327.00N-0862813.00W.

REMARKS:

FLIGHT INSPECTED BY:

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

Digitally signed by

OFFICE SYMBOL:

DATE:

DEZ SILAGYI

Jun 29, 2018

DEVELOPED BY:

JOHN HAZELTON

JOHN E HAZELTON

Digitally signed by JOHN E HAZELTON
Date: 2018.05.23 10:09:47 -05'00'

OFFICE SYMBOL:

AJV-5421

DATE:

05/21/2018

APPROVED BY:

JULIE MORGAN

Digitally signed by

DEZ SILAGYI

Jun 29, 2018

OFFICE SYMBOL:

AJV-5420

DATE:

REQUIRED EFFECTIVE DATE:

ROUTINE

COORDINATED WITH:

A4A

ALPA

AOPA

APA

HAI

NBAA



OTHER:

ZTL, BHM APP CON, AMGR

CHANGES - REASONS:

RUNWAYS 5/23 RENUMBERED TO 6/24.

INCORPORATED TAKEOFF MINIMUMS, CLIMB GRADIENT AND CG OBSTACLE IAW P-NOTAM 8/3757.

UPDATED LOW CLOSE IN OBSTACLES.



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

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CITY, STATE	AIRPORT	EFFECTIVE DATE	AMDT NO
NOGALES, AZ	NOGALES INTL	8 NOVEMBER 2018	3

TAKEOFF MINIMUMS:

TEXTUAL DEPARTURE PROCEDURES:
USE NOGALES DEPARTURE

VISUAL CLIMB OVER AIRPORT:

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 3, TREE 58 FT FROM DER, 455 FT LEFT OF CENTERLINE, 3963 FT MSL.
TREE 80 FT FROM DER, 174 FT RIGHT OF CENTERLINE, 6 FT AGL/3958 FT MSL.
TREES BEGINNING 97 FT FROM DER, 446 FT LEFT OF CENTERLINE, UP TO 15 FT AGL/3964 FT MSL.
TREE 252 FT FROM DER, 43 FT RIGHT OF CENTERLINE, 5 FT AGL/3962 FT MSL.
TREE 261 FT FROM DER, 463 FT LEFT OF CENTERLINE, 3971 FT MSL.
TREES BEGINNING 308 FT FROM DER, 37 FT RIGHT OF CENTERLINE, UP TO 9 FT AGL/3964 FT MSL.
TREES, FENCE BEGINNING 334 FT FROM DER, 136 FT LEFT OF CENTERLINE, UP TO 3987 FT MSL.
TREES BEGINNING 368 FT FROM DER, 64 FT RIGHT OF CENTERLINE, UP TO 3991 FT MSL.
TREE, TERRAIN BEGINNING 603 FT FROM DER, 546 FT RIGHT OF CENTERLINE, UP TO 3993 FT MSL.
TREES, FENCE, TERRAIN BEGINNING 659 FT FROM DER, 13 FT LEFT OF CENTERLINE, UP TO 3995 FT MSL.
TREES, TERRAIN, FENCE BEGINNING 833 FT FROM DER, 103 FT RIGHT OF CENTERLINE, UP TO 4010 FT MSL.
TREES, TERRAIN BEGINNING 1179 FT FROM DER, 118 FT LEFT OF CENTERLINE, UP TO 5 FT AGL/3996 FT MSL.
TREES, TERRAIN BEGINNING 1199 FT FROM DER, 97 FT RIGHT OF CENTERLINE, UP TO 4036 FT MSL.
TREES, TERRAIN BEGINNING 1241 FT FROM DER, 66 FT LEFT OF CENTERLINE, UP TO 4018 FT MSL.
TREES, TERRAIN BEGINNING 1412 FT FROM DER, 90 FT RIGHT OF CENTERLINE, UP TO 4043 FT MSL.
TRAVERSE WAY, TERRAIN BEGINNING 1624 FT FROM DER, 642 FT LEFT OF CENTERLINE, UP TO 4028 FT MSL.
TERRAIN BEGINNING 1637 FT FROM DER, 2 FT RIGHT OF CENTERLINE, UP TO 4052 FT MSL.
TREES, TRAVERSE WAY, TERRAIN BEGINNING 1688 FT FROM DER, 45 FT LEFT OF CENTERLINE, UP TO 4035 FT MSL.
TERRAIN BEGINNING 1825 FT FROM DER, 38 FT RIGHT OF CENTERLINE, UP TO 4067 FT MSL.
POLE, TRAVERSE WAY, TREES BEGINNING 1853 FT FROM DER, 475 FT LEFT OF CENTERLINE, UP TO 21 FT AGL/4043 FT MSL.
TERRAIN 2033 FT FROM DER, 186 FT LEFT OF CENTERLINE, 4047 FT MSL.
TREES, TRAVERSE WAY, TERRAIN BEGINNING 2041 FT FROM DER, 74 FT LEFT OF CENTERLINE, UP TO 7 FT AGL/4052 FT MSL.
TERRAIN 2221 FT FROM DER, 269 FT LEFT OF CENTERLINE, 4055 FT MSL.
TREE, TRAVERSE WAY, TERRAIN BEGINNING 2253 FT FROM DER, 170 FT LEFT OF CENTERLINE, UP TO 18 FT AGL/4080 FT MSL.
TERRAIN BEGINNING 2354 FT FROM DER, 20 FT RIGHT OF CENTERLINE, UP TO 4068 FT MSL.
TREES, TRAVERSE WAY, POLE, TERRAIN BEGINNING 2491 FT FROM DER; 55 FT LEFT OF CENTERLINE, UP TO 14 FT AGL/4093 FT MSL.
TERRAIN BEGINNING 2539 FT FROM DER, 125 FT RIGHT OF CENTERLINE, UP TO 4087 FT MSL.
TRAVERSE WAY 2657 FT FROM DER, 32 FT LEFT OF CENTERLINE, 15 FT AGL/4095 FT MSL.
TRAVERSE WAY, TREES, TERRAIN BEGINNING 2672 FT FROM DER, 6 FT LEFT OF CENTERLINE, UP TO 15 FT AGL/4096 FT MSL.
TRAVERSE WAY, TERRAIN BEGINNING 2688 FT FROM DER, 2 FT RIGHT OF CENTERLINE, UP TO 15 FT AGL/4096 FT MSL.
TERRAIN, TRAVERSE WAY BEGINNING 2768 FT FROM DER, 98 FT RIGHT OF CENTERLINE, UP TO 4112 FT MSL.
TRAVERSE WAY 2987 FT FROM DER, 530 FT RIGHT OF CENTERLINE, 4117 FT MSL.
TRAVERSE WAY 2995 FT FROM DER, 635 FT RIGHT OF CENTERLINE, 4121 FT MSL.
TRAVERSE WAY, TERRAIN BEGINNING 3009 FT FROM DER, 489 FT RIGHT OF CENTERLINE, UP TO 4123 FT MSL.
TREE, TRAVERSE WAY, TERRAIN BEGINNING 3351 FT FROM DER, 12 FT RIGHT OF CENTERLINE, UP TO 4130 FT MSL.
TRAVERSE WAY, TERRAIN BEGINNING 3449 FT FROM DER, 633 FT RIGHT OF CENTERLINE, UP TO 4143 FT MSL.
TRAVERSE WAY 3499 FT FROM DER, 1364 FT RIGHT OF CENTERLINE, 4149 FT MSL.
TRAVERSE WAY, TERRAIN, VEGETATION BEGINNING 3570 FT FROM DER, 101 FT RIGHT OF CENTERLINE, UP TO 4155 FT MSL.
TREE, TERRAIN BEGINNING 3581 FT FROM DER, 42 FT LEFT OF CENTERLINE, UP TO 4112 FT MSL.
TERRAIN BEGINNING 4127 FT FROM DER, 627 FT RIGHT OF CENTERLINE, UP TO 4156 FT MSL.
TREE, TERRAIN BEGINNING 4143 FT FROM DER, 768 FT RIGHT OF CENTERLINE, UP TO 4180 FT MSL.
TREES, TERRAIN BEGINNING 4262 FT FROM DER, 426 FT RIGHT OF CENTERLINE, UP TO 4184 FT MSL.
TREE, TERRAIN BEGINNING 4495 FT FROM DER, 709 FT RIGHT OF CENTERLINE, UP TO 4210 FT MSL.
TERRAIN BEGINNING 4627 FT FROM DER, 1171 FT RIGHT OF CENTERLINE, UP TO 4217 FT MSL.
TREE, TERRAIN BEGINNING 4737 FT FROM DER, 216 FT RIGHT OF CENTERLINE, UP TO 4223 FT MSL.
TREE, TERRAIN BEGINNING 5806 FT FROM DER, 409 FT RIGHT OF CENTERLINE, UP TO 4241 FT MSL.
TREES, TERRAIN BEGINNING 5953 FT FROM DER, 420 FT RIGHT OF CENTERLINE, UP TO 4254 FT MSL.
TREES, TERRAIN BEGINNING 1 NM FROM DER, 58 FT RIGHT OF CENTERLINE, UP TO 4256 FT MSL.
TREES, TERRAIN BEGINNING 1 NM FROM DER, 1260 FT LEFT OF CENTERLINE, UP TO 4136 FT MSL.
TREES, TERRAIN BEGINNING 1.1 NM FROM DER, 442 FT LEFT OF CENTERLINE, UP TO 4151 FT MSL.
POLE, TREES, TERRAIN BEGINNING 1.2 NM FROM DER, 164 FT LEFT OF CENTERLINE, UP TO 16 FT AGL/4221 FT MSL.
TREES, TERRAIN BEGINNING 1.3 NM FROM DER, 84 FT LEFT OF CENTERLINE, UP TO 4254 FT MSL.
TREES, TERRAIN BEGINNING 1.4 NM FROM DER, 58 FT RIGHT OF CENTERLINE, UP TO 11 FT AGL/4326 FT MSL.

QUALITY
24
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>
NOGALES, AZ	NOGALES INTL	8 NOVEMBER 2018	3

TREES, TERRAIN BEGINNING 1.4 NM FROM DER, 25 FT LEFT OF CENTERLINE, UP TO 11 FT AGL/4283 FT MSL.
TREES, TERRAIN BEGINNING 1.5 NM FROM DER, 79 FT RIGHT OF CENTERLINE, UP TO 11 FT AGL/4327 FT MSL.
TREES, TERRAIN BEGINNING 1.7 NM FROM DER, 639 FT RIGHT OF CENTERLINE, UP TO 4345 FT MSL.
TREES, TERRAIN BEGINNING 1.8 NM FROM DER, 172 FT RIGHT OF CENTERLINE, UP TO 4367 FT MSL.
TREES, TERRAIN BEGINNING 1.9 NM FROM DER, 628 FT RIGHT OF CENTERLINE, UP TO 4384 FT MSL.
TERRAIN, TRAVERSE WAY, TREES BEGINNING 2 NM FROM DER, 935 FT RIGHT OF CENTERLINE, UP TO 4406 FT MSL.
TERRAIN 2.1 NM FROM DER, 616 FT LEFT OF CENTERLINE, 4299 FT MSL.
TREES, TERRAIN, TRAVERSE WAY BEGINNING 2.2 NM FROM DER, 1859 FT RIGHT OF CENTERLINE, UP TO 4451 FT MSL.
TREES, TRAVERSE WAY, TERRAIN BEGINNING 2.2 NM FROM DER, 234 FT LEFT OF CENTERLINE, UP TO 4359 FT MSL.
TREES, TERRAIN, TRAVERSE WAY BEGINNING 2.3 NM FROM DER, 835 FT RIGHT OF CENTERLINE, UP TO 14 FT AGL/4535 FT MSL.

NOTE: RWY 21, TREE 3 FT FROM DER, 445 FT LEFT OF CENTERLINE, 3847 FT MSL.
TREE 19 FT FROM DER, 141 FT LEFT OF CENTERLINE, 10 FT AGL/3848 FT MSL.
TREE 29 FT FROM DER, 339 FT LEFT OF CENTERLINE, 3849 FT MSL.
TREE, VEGETATION BEGINNING 45 FT FROM DER, 201 FT LEFT OF CENTERLINE, UP TO 17 FT AGL/3851 FT MSL.
TREE 48 FT FROM DER, 504 FT RIGHT OF CENTERLINE, 3845 FT MSL.
TREES, VEGETATION BEGINNING 112 FT FROM DER, 49 FT RIGHT OF CENTERLINE, UP TO 24 FT AGL/3854 FT MSL.

CONTROLLING OBSTACLES:

REMARKS:

<u>FLIGHT INSPECTED BY:</u> CHARLES D CUNNINGHAM	<i>Digitally signed by</i> DONALD H LANIER Aug 15, 2018	<u>OFFICE SYMBOL:</u> FICO	<u>DATE:</u> 08/06/2018
<u>DEVELOPED BY:</u> LONNIE EVERHART (ANDRE MARSH)	<i>Digitally signed by</i> DONALD H LANIER Aug 15, 2018	<u>OFFICE SYMBOL:</u> AJV-5400	<u>DATE:</u> 02/13/2018
<u>APPROVED BY:</u> LONNIE EVERHART	<i>Digitally signed by</i> DONALD H LANIER Aug 15, 2018	<u>OFFICE SYMBOL:</u> AJV-5400	<u>DATE:</u>

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:
ARPT MGR, ZAB, TUS ATCT

CHANGES - REASONS:
UPDATE OBSTACLE TAKEOFF NOTES - NEW VG SURVEY.



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

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CITY, STATE	AIRPORT	EFFECTIVE DATE	AMDT NO
SAN DIEGO, CA	MONTGOMERY - GIBBS EXECUTIVE	8 NOVEMBER 2018	4A

TAKEOFF MINIMUMS:

RWY 5: NA - ENVIRONMENTAL.
RWY 10L, 10R, 23, 28L, 28R: STANDARD.

TEXTUAL DEPARTURE PROCEDURES:

RWY 10L, 10R: CLIMBING RIGHT TURN.
RWY 28R, 28L: CLIMBING LEFT TURN.

ALL AIRCRAFT: CLIMB DIRECT TO MZB VORTAC. AIRCRAFT DEPARTING MZB VORTAC R-090 CW R-360 CLIMB ON COURSE. ALL OTHERS CLIMB IN MZB HOLDING PATTERN (HOLD W, RIGHT TURNS, 075 INBOUND) TO CROSS MZB VORTAC AT OR ABOVE 2300.

VISUAL CLIMB OVER AIRPORT:

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 23: TREES BEGINNING 958 FT FROM DER, 549 FT LEFT OF CENTERLINE, UP TO 456 FT MSL. TREE 1070 FT FROM DER, 719 FT LEFT OF CENTERLINE, 458 FT MSL. TREE 1093 FT FROM DER, 558 FT RIGHT OF CENTERLINE, 62 FT AGL/468 FT MSL. TREE 1152 FT FROM DER, 532 FT LEFT OF CENTERLINE, 459 FT MSL. TREES BEGINNING 1165 FT FROM DER, 531 FT LEFT OF CENTERLINE, UP TO 473 FT MSL. TREES BEGINNING 1255 FT FROM DER, 125 FT RIGHT OF CENTERLINE, UP TO 472 FT MSL. TREES, VEHICLES ON ROAD BEGINNING 1560 FT FROM DER, 79 FT RIGHT OF CENTERLINE, UP TO 81 FT AGL/483 FT MSL. TREE 1824 FT FROM DER, 189 FT LEFT OF CENTERLINE, 87 FT AGL/485 FT MSL. TREE, POLE BEGINNING 1854 FT FROM DER, 131 FT RIGHT OF CENTERLINE, UP TO 86 FT AGL/485 FT MSL. TREES BEGINNING 1954 FT FROM DER, 22 FT RIGHT OF CENTERLINE, UP TO 95 FT AGL/489 FT MSL. TREES, ANTENNA BEGINNING 1955 FT FROM DER, 333 FT LEFT OF CENTERLINE, UP TO 493 FT MSL. TREE 2400 FT FROM DER, 867 FT LEFT OF CENTERLINE, 500 FT MSL. TRANSMISSION LINES, TREES BEGINNING 2618 FT FROM DER, 414 FT LEFT OF CENTERLINE, UP TO 102 FT AGL/529 FT MSL. TREE 2703 FT FROM DER, 831 FT RIGHT OF CENTERLINE, 491 FT MSL. TREES BEGINNING 2732 FT FROM DER, 321 FT RIGHT OF CENTERLINE, UP TO 74 FT AGL/495 FT MSL. TRANSMISSION LINES, POLES, TREE BEGINNING 2786 FT FROM DER, 17 FT RIGHT OF CENTERLINE, UP TO 106 FT AGL/535 FT MSL. TRANSMISSION LINE, TREES BEGINNING 2996 FT FROM DER, 15 FT RIGHT OF CENTERLINE, UP TO 114 FT AGL/548 FT MSL.

NOTE: RWY 10L: VEGETATION 48 FT FROM DER, 495 FT RIGHT OF CENTERLINE, 430 FT MSL. VEGETATION BEGINNING 68 FT FROM DER, 76 FT LEFT OF CENTERLINE, UP TO 7 FT AGL/434 FT MSL. TREES BEGINNING 209 FT FROM DER, 493 FT LEFT OF CENTERLINE, UP TO 8 FT AGL/439 FT MSL. TREE 826 FT FROM DER, 680 FT LEFT OF CENTERLINE, 478 FT MSL. TREES BEGINNING 832 FT FROM DER, 632 FT RIGHT OF CENTERLINE, UP TO 45 FT AGL/466 FT MSL. TREES BEGINNING 951 FT FROM DER, 671 FT LEFT OF CENTERLINE, UP TO 479 FT MSL. TREES BEGINNING 1063 FT FROM DER, 578 FT RIGHT OF CENTERLINE, UP TO 55 FT AGL/472 FT MSL. TREES BEGINNING 1149 FT FROM DER, 492 FT RIGHT OF CENTERLINE, UP TO 77 FT AGL/493 FT MSL. TREES BEGINNING 1610 FT FROM DER, 677 FT LEFT OF CENTERLINE, UP TO 69 FT AGL/498 FT MSL. TREES BEGINNING 1728 FT FROM DER, 664 FT LEFT OF CENTERLINE, UP TO 501 FT MSL.

NOTE: RWY 10R: LIGHTING 39 FT FROM DER, 69 FT LEFT OF CENTERLINE, 3 FT AGL/423 FT MSL. ELECTRICAL SYSTEM 40 FT FROM DER, 65 FT LEFT OF CENTERLINE, 6 FT AGL/426 FT MSL. BUILDING, TREE BEGINNING 233 FT FROM DER, 106 FT RIGHT OF CENTERLINE, UP TO 441 FT MSL. TREE, VEGETATION BEGINNING 284 FT FROM DER, 230 FT LEFT OF CENTERLINE, UP TO 433 FT MSL. TREE 1039 FT FROM DER, 719 FT RIGHT OF CENTERLINE, 462 FT MSL. TREE 1135 FT FROM DER, 670 FT RIGHT OF CENTERLINE, 465 FT MSL. TREE 1183 FT FROM DER, 805 FT RIGHT OF CENTERLINE, 476 FT MSL. TREES BEGINNING 1247 FT FROM DER, 582 FT RIGHT OF CENTERLINE, UP TO 479 FT MSL. TREES BEGINNING 1536 FT FROM DER, 342 FT RIGHT OF CENTERLINE, UP TO 482 FT MSL. TREES BEGINNING 1925 FT FROM DER, 86 FT RIGHT OF CENTERLINE, UP TO 88 FT AGL/497 FT MSL. TREES BEGINNING 2808 FT FROM DER, 1185 FT LEFT OF CENTERLINE, UP TO 69 FT AGL/498 FT MSL.

NOTE: RWY 28L: SIGN, VEGETATION BEGINNING 11 FT FROM DER, 247 FT RIGHT OF CENTERLINE, UP TO 2 FT AGL/415 FT MSL. SIGN BEGINNING 12 FT FROM DER, 125 FT LEFT OF CENTERLINE, UP TO 2 FT AGL/418 FT MSL. VEHICLES ON HELICOPTER RAMP 523 FT FROM DER, 523 FT LEFT OF CENTERLINE, UP TO 429 FT MSL. ANTENNA 788 FT FROM DER, 570 FT LEFT OF CENTERLINE, 450 FT MSL. TREES, SIGN BEGINNING 903 FT FROM DER, 8 FT LEFT OF CENTERLINE, UP TO 461 FT MSL. TREES, POLE BEGINNING 954 FT FROM DER, 263 FT RIGHT OF CENTERLINE, UP TO 53 FT AGL/460 FT MSL. TREES, BUILDING BEGINNING 1265 FT FROM DER, 135 FT RIGHT OF CENTERLINE, UP TO 59 FT AGL/470 FT MSL. TREE 1349 FT FROM DER, 546 FT LEFT OF CENTERLINE, 464 FT MSL. TREE 1405 FT FROM DER, 496 FT RIGHT OF CENTERLINE, 62 FT AGL/473 FT MSL. TREE 1513 FT FROM DER, 541 FT LEFT OF CENTERLINE, 467 FT MSL. TREES, TOWER BEGINNING 1676 FT FROM DER, 224 FT RIGHT OF CENTERLINE, UP TO 474 FT MSL. TREE 2034 FT FROM DER, 236 FT RIGHT OF CENTERLINE, 67 FT AGL/475 FT MSL. TREES BEGINNING 2092 FT FROM DER, 174 FT RIGHT OF CENTERLINE, UP TO 68 FT AGL/477 FT MSL.

NOTE: RWY 28R: SIGN 11 FT FROM DER, 251 FT LEFT OF CENTERLINE, 2 FT AGL/415 FT MSL. POLE 594 FT FROM DER, 615 FT RIGHT OF CENTERLINE, 449 FT MSL. POLE, SIGN BEGINNING 735 FT FROM DER, 323 FT RIGHT OF CENTERLINE, UP TO 450 FT MSL. TREES, POLES BEGINNING 862 FT FROM DER, 253 FT RIGHT OF CENTERLINE, UP TO 469 FT MSL. TREES BEGINNING 988 FT FROM DER, 215 FT LEFT OF CENTERLINE, UP TO 33 FT AGL/444 FT MSL. TREE 1006 FT FROM DER, 507 FT LEFT OF CENTERLINE, 451 FT MSL. POLES, TREES BEGINNING 1206 FT FROM DER, 17 FT RIGHT OF CENTERLINE, UP TO 64 FT AGL/475 FT MSL. TREES BEGINNING 1278 FT FROM DER, 12 FT LEFT OF CENTERLINE, UP TO 56 FT AGL/467 FT MSL. SIGN, TREE, BUILDING BEGINNING 1303 FT FROM DER, 26 FT RIGHT OF CENTERLINE, UP TO 62 FT AGL/483 FT MSL. SIGN, TREES BEGINNING 1324 FT FROM DER, 12 FT RIGHT OF CENTERLINE, UP TO 68 FT AGL/488 FT MSL. TREES, TOWER BEGINNING 1406 FT FROM DER, 2 FT LEFT OF CENTERLINE, UP TO 62 FT AGL/473 FT MSL. TREES, POLE BEGINNING 1487 FT FROM DER, 319 FT RIGHT OF CENTERLINE, UP TO 71 FT AGL/493 FT MSL. TREE 2034 FT FROM DER, 263 FT LEFT OF CENTERLINE, 67 FT AGL/475 FT MSL. TREES BEGINNING

**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>
SAN DIEGO, CA	MONTGOMERY - GIBBS EXECUTIVE	8 NOVEMBER 2018	4A

2092 FT FROM DER, 290 FT LEFT OF CENTERLINE, UP TO 68 FT AGL/477 FT MSL.

CONTROLLING OBSTACLES:

OBSTACLES MANDATING ODP ROUTE DEVELOPMENT: RWY 10L, 10R, 23, 28L, 28R: 6712 AAO 325341.44N/1163834.21W.

REMARKS:

RWY 5 NA PER ATC REQUEST

FLIGHT INSPECTED BY:

CHARLES D CUNNINGHAM

Digitally signed by

ADOLFO D URRUTIA

Aug 15, 2018

OFFICE SYMBOL:

FICO

DATE:

08/06/2018

DEVELOPED BY:

LONNIE EVERHART (JOSHUA DUGAN)

Digitally signed by

ADOLFO D URRUTIA

Aug 15, 2018

OFFICE SYMBOL:

AJV-5400

DATE:

05/31/18

APPROVED BY:

Digitally signed by

LONNIE EVERHART **ADOLFO D URRUTIA**

Aug 15, 2018

OFFICE SYMBOL:

AJV-5400

DATE:

REQUIRED EFFECTIVE DATE:

ROUTINE

COORDINATED WITH:

A4A ALPA AOPA APA HAI NBAA



OTHER:

SOCAL DEP CON, MYF ATCT, AMGR

CHANGES - REASONS:

1. CHANGED RWY 5 TAKEOFF MINIMUMS FROM "STANDARD WITH MINIMUM CLIMB OF 350 FEET PER NM TO 2300" TO "NA- ENVIRONMENTAL" - PER ATC REQUEST.
2. REMOVED ALL REFERENCES TO RWY 5. - PER ATC REQUEST.
3. UPDATED LOW CLOSE IN OBSTACLES FOR ALL RUNWAYS. - NEW SURVEY.
4. REMOVED A4A AND APA FROM COORDINATED WITH. - AIRPORT NOT SERVICED BY SCHEDULED AIR CARRIERS OR AMERICAN AIRLINES.

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> SAN FRANCISCO INTL	<u>AIRPORT ID</u> KSFO	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 19L	<u>ORIGINAL/AMENDMENT</u> 3A	<u>CITY</u> SAN FRANCISCO	<u>STATE</u> CA
<u>AIRPORT ELEVATION</u> 13	<u>TDZE</u> 11	<u>SUPERSEDED</u> RNAV (GPS) RWY 19L	<u>ORIGINAL/AMENDMENT</u> 3	<u>DATED</u> 09/18/2014	<u>MAG VAR</u> 14E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>	<u>EPOCH YEAR</u> 2015

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>
UPEND	IAF	BERKS		TF	FB	1.00	193.98	11.61	5000
BERKS	IF	SHAKE		TF	FB	1.00	193.91	7.24	2800
SHAKE	FAF	ROGGE/5.50 NM TO RW19L		TF	FB	0.30	193.86	3.09	
ROGGE/5.50 NM TO RW19L		RW19L	MAP	TF	FO	0.30	193.86	5.50	
RW19L	MAP	500 MSL		CA			193.86		500
500 MSL		DUMBA		DF	FO				3000

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW19L

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 500 THEN CLIMBING LEFT TURN TO 3000 DIRECT DUMBA AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

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

193.86

FAC: SHAKE

DIST FAF TO MAP: 8.59

DIST FAF TO THLD: 8.59
4. MIN ALT: BERKS 5000, SHAKE 2800, ROGGE/5.50 NM TO RW19L 1800*
5. DIST TO THLD FROM OM:

MM:

IM:

150 HAT:

282 HAT: 0.71

GS ANT:
6. MIN GP INCPT:

2800

GP ALT AT FAF : SHAKE 2800

OM:

MM:

IM:
7. GP ANGLE:

3.00

34:1: IS NOT CLEAR

20:1: IS NOT CLEAR

TCH: 55.0
8. MSA FROM: RW19L 5100

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED.
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW 3C OR ABOVE 54C.
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
*LNAV ONLY
CHART NOTE: FOR INOPERATIVE ALS, INCREASE LPV CAT A/B VISIBILITY TO RVR 4500, LNAV/VNAV ALL CATS VISIBILITY TO RVR 6000 AND LNAV CAT A/B TO RVR 5500.
CHART NOTE: INOPERATIVE TABLE DOES NOT APPLY TO LPV CAT C/D.

ADDITIONAL FLIGHT DATA:

WAAS CHANNEL #58015
REFERENCE PATH ID: W19A
FAS OBST: 150 SHIP 374028N/1222020W.
HOLD E, LT, 283.98 INBOUND
LTP HAE: -29.4 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	293	4000	282	293	4000	282	293	5000	282	293	5000	282			
LNAV/VNAV DA	350	4000	339	350	4000	339	350	5000	339	350	5000	339			
LNAV MDA	560	4000	549	560	4000	549	560	1 3/8	549	560	1 3/8	549			



<u>AIRPORT</u>	<u>AIRPORT ID</u>	<u>PROCEDURE NAME</u>	<u>ORIGINAL/AMENDMENT</u>	<u>CITY</u>	<u>STATE</u>
SAN FRANCISCO INTL	KSFO	RNAV (GPS) RWY 19L	3A	SAN FRANCISCO	CA

CHANGES - REASONS

- 1. DELETED NOTE "DME/DME RNP-0.3 NA - ADDED REQUIREMENT TO SPECIFY THE APPLICABLE NAVIGATION SPECIFICATION IN THE PBN REQUIREMENTS BOX.
- 2. ADD PBN EQUIPMENT REQUIREMENTS NOTE "RNP APCH" - IAW 8260.19H PARA 8-6-6 B.
- 3. REMOVED FAHRENHEIT TEMP (38F) AND (130F) FROM BARO-VNAV CRITICAL HI/LOW TEMPERATURE NOTE - NO LONGER REQUIRED FOR CHARTING IAW 8260.19H PARA 8-6-9 S.
- 4. CHANGED MISSED APPROACH CLIMB TO ALTITUDE FROM 420 TO 500 - MISSED APPROACH WITH INITIAL TURNS GREATER THAN 1 DEGREE MUST PROVIDE A MINIMUM CLIMB TO ALTITUDE THAT IS EQUAL OR EXCEED THE HIGHER OF THE END OF SECTION 1 END AIRCRAFT ALTITUDE (SOC) OR 400 FEET ABOVE AIRPORT ELEVATION.
- 5. DELETED PLANVIEW NOTE "RADAR REQUIRED" - NOT REQUIRED FOR GPS PROCEDURES.
- 6. CHANGED INOPERATIVE TABLE NOTE FROM 'FOR INOPERATIVE MALSF, INCREASE LPV CAT A/B VISIBILITY TO RVR 4500, LNAV/VNAV ALL CATS VISIBILITY TO RVR 6000 AND LNAV CAT D TO 1 5/8" TO "FOR INOPERATIVE ALS, INCREASE LPV CAT A/B VISIBILITY TO RVR 4500, LNAV/VNAV ALL CATS VISIBILITY TO RVR 6000 AND LNAV CAT A/B TO RVR 5500" - UPDATED IAW 8260.3C TABLES 3-3-1, 3-3-3 AND 3-3-4.
- 7. FAS DATA: LTP/FTP LAT/LONG CHANGED FROM 373738.4280N/1222201.5970W TO 373738.4315NN1222201/5990W, CRC REMAINDER CHANGED FROM DF9A5B75 TO 7AB5DB58 - USED UPDATED AIRNAV DATA.
- 8. ADDED NOTE "HELICOPTER VISIBILITY RESTRICTION BELOW 1 SM NOT AUTHORIZED" - CAT A/B AREA UNLIT 20:1 PENETRATION.
- 9. ADDED 20:1 IS NOT CLEAR TO LINE 7 - CAT A/B AREA UNLIT 20:1 PENETRATION.



COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: ZOA, NORCAL APP CON, SFO ATCT, AMGR, CA AERO, ATA

<u>FLIGHT CHECKED BY</u> DANIEL C FAVORITE	<i>Digitally signed by</i> ROBERT G HAMILTON Aug 07, 2018	<u>OFFICE</u> FICO	<u>DATE</u> 8/2/18	
<u>DEVELOPED BY</u> GEORGETTE P. BARNETT	<i>Digitally signed by</i> GEORGETTE P BARNETT Jul 03, 2018	<u>OFFICE</u> AJV-5422	<u>DATE</u> 06/25/2018	
<u>APPROVED BY</u> JULIE MORGAN	<i>Digitally signed by</i> ROBERT G HAMILTON Aug 07, 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	KSFO
RUNWAY	RW19L
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W19A
LTP/FTP LATITUDE	373738.4315N
LTP/FTP LONGITUDE	1222201.5990W
LTP/FTP ELLIPSOIDAL HEIGHT	-00294
FPAP LATITUDE	373619.5235N
FPAP LONGITUDE	1222253.9085W
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	0112
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	7AB5DB58
<u>ADDITIONAL PATH POINT RECORD INFORMATION</u>	
ICAO CODE	K2
LTP ORTHOMETRIC HEIGHT	+00032
FPAP ORTHOMETRIC HEIGHT	+00032



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> TRACY MUNI	<u>AIRPORT ID</u> KTCY	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 26	<u>ORIGINAL/AMENDMENT</u> 1B	<u>CITY</u> TRACY	<u>STATE</u> CA
<u>AIRPORT ELEVATION</u> 193	<u>TDZE</u> 186	<u>SUPERSEDED</u> RNAV (GPS) RWY 26	<u>ORIGINAL/AMENDMENT</u> 1A	<u>DATED</u> 02/01/2018	<u>MAG VAR</u> 15E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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>
ALTAM		OMWAP		TF	FO	2.00	090.09	27.44	4000
PATYY	IAF	OMWAP	NOPT	TF	FB	1.00	315.81	13.74	3000
OMWAP	IF/IAF	IVABE		TF	FB	1.00	254.75	6.09	2000
IVABE	FAF	UCSIJ	MAP	TF	FO	0.30	254.67	4.95	
UCSIJ	MAP	640 MSL		CA			254.67		640
640 MSL		OMWAP		DF	FO	1.00			3000

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: UCSIJ

MISSED APPROACH INSTRUCTIONS:

(DO NOT EXCEED 210 KIAS UNTIL OMWAP) CLIMB TO 640 THEN CLIMBING RIGHT TURN TO 3000 DIRECT OMWAP AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. HOLD E OMWAP, RT, 254.75 INBOUND, 3000 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 254.67 FAF: IVABE DIST FAF TO MAP: 4.95 DIST FAF TO THLD: 5.61

4. MIN ALT: OMWAP 3000, IVABE 2000

5. DIST TO THLD FROM OM: MM: IM: 150 HAT: 250 HAT: 0.70 GS ANT: MM: IM:

6. MIN GP INCPT: 2000 GP ALT AT FAF : IVABE 2000 OM:

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

8. MSA FROM: UCSIJ 5600

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: CIRCLING NA SW OF RWY 12-30.
CHART NOTE: CIRCLING RWY 30 NA AT NIGHT.
CHART NOTE: RWY 26 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART NOTE: BARO-VNAV NA WHEN USING STOCKTON ALTIMETER SETTING.
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}).
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT ALTAM ON V28 SOUTHWEST BOUND AND V334 NORTHBOUND.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT PATYY ON V111-113 SOUTHBOUND.
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE STOCKTON ALTIMETER SETTING: INCREASE LPV DA TO 496, LNAV/VNAV DA TO 553; INCREASE ALL MDA 60 FEET AND LPV ALL CATS VISIBILITY 1/4 SM, LNAV/VNAV ALL CATS VISIBILITY 1/8 SM, AND LNAV CAT C VISIBILITY 1/8 SM.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
CHART R-2531
WAAS CHANNEL #49040
REFERENCE PATH ID: W26A
FAS OBST: 285 AAO 374114N/1212159W.
LTP HAE: 20.3 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	436	7/8	250	436	7/8	250	436	7/8	250		NA				
LNAV/VNAV DA	493	1 1/8	307	493	1 1/8	307	493	1 1/8	307		NA				
LNAV MDA	540	1	354	540	1	354	540	1	354		NA				
CIRCLING	580	1	387	660	1	467	660	1 1/2	467		NA				



AIRPORT	AIRPORT ID	PROCEDURE NAME	ORIGINAL/AMENDMENT	CITY	STATE
TRACY MUNI	KTCY	RNAV (GPS) RWY 26	1B	TRACY	CA

CHANGES - REASONS

- 1. DELETED NOTE " DME/DME RNP-0.3 NA - ADDED REQUIREMENT TO SPECIFY THE APPLICABLE NAVIGATION SPECIFICATION IN THE PBN REQUIREMENTS BOX.
- 2. ADD PBN EQUIPMENT REQUIREMENTS NOTE "RNP APCH" - IAW 8260.19H PARA 8-6-6 B.
- 3. REMOVED FAHRENHEIT TEMP (5F) AND (130F) FROM BARO-VNAV CRITICAL HI/LOW TEMPERTURE NOTE - NO LONGER REQUIRED FOR CHARTING IAW 8260.19H PARA 8-6-9 S.
- 4. CHANGED MISSED APPROACH CLIMB TO ALTITUDE FROM 600 TO 640 - MISSED APPROACH WITH INITIAL TURNS GREATER THAT 1 DEGREE MUST PROVIDE A MINIMUM CLIMB TO ALTITUDE THAT IS EQUAL OR EXCEED THE HIGHER OF THE END OF SECTION 1 END AIRCRAFT ALTITUDE (SOC) OR 400 FEET ABOVE AIRPORT ELEVATION.
- 5. LINE 7: ADDED 20:1 IS CLEAR - NO PENETRATIONS OF THE 20:1 SURFACE.



COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZOA, NORCAL APP CON, APT MGR, ATA

FLIGHT CHECKED BY

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, DEC 22, 2017.

DEVELOPED BY

GEORGETTE P. BARNETT

APPROVED BY

JULIE MORGAN

Digitally signed by
GEORGETTE P BARNETT
Jul 10, 2018

OFFICE

OFFICE

AJV-5422

OFFICE

AJV-5420

DATE

DATE

06/25/2018

DATE

Digitally signed by
ROBERT G HAMILTON
Jul 12, 2018

Digitally signed by
ROBERT G HAMILTON
Jul 12, 2018

TITLE
MANAGER



FAS DATA BLOCK INFORMATION

DATA FIELD	DATA
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KTCY
RUNWAY	RW26
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W26A
LTP/FTP LATITUDE	374125.9870N
LTP/FTP LONGITUDE	1212611.0370W
LTP/FTP ELLIPSOIDAL HEIGHT	+00203
FPAP LATITUDE	374125.3435N
FPAP LONGITUDE	1212803.2870W
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	1704
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	A8E5CA16
ADDITIONAL PATH POINT RECORD INFORMATION	
ICAO CODE	K2
LTP ORTHOMETRIC HEIGHT	+00526
FPAP ORTHOMETRIC HEIGHT	+00526



**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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CITY, STATE	AIRPORT	EFFECTIVE DATE	AMDT NO
CANON CITY, CO	FREMONT COUNTY	8 NOVEMBER 2018	3

TAKEOFF MINIMUMS:

RWY 17, 35: NA - ATC

RWY 11, 29: STANDARD

TEXTUAL DEPARTURE PROCEDURES:

RWY 11: CLIMB ON HEADING 112.86 AND PUB R-274.00 TO PUB VORTAC BEFORE PROCEEDING ON COURSE.

RWY 29: CLIMBING LEFT TURN TO INTERCEPT PUB R-274.00 TO PUB VORTAC BEFORE PROCEEDING ON COURSE. DO NOT EXCEED 210 KIAS UNTIL ESTABLISHED ON PUB R-274.00 EASTBOUND.

VISUAL CLIMB OVER AIRPORT:

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 11, TREE AND POLE BEGINNING 4 FT FROM DER, 20 FT LEFT OF CENTERLINE, UP TO 5383 FT MSL. POLE 9 FT FROM DER, 19 FT RIGHT OF CENTERLINE, 5383 FT MSL. TREE 28 FT FROM DER, 213 FT LEFT OF CENTERLINE, 5384 FT MSL.

NOTE: RWY 29, FENCE, NAVAID BEGINNING 8 FT FROM DER, 112 FT RIGHT OF CENTERLINE, UP TO 17 FT AGL/5450 FT MSL. VEHICLES ON ROAD BEGINNING 57 FT FROM DER, 290 FT LEFT OF CENTERLINE, UP TO 5450 FT MSL. VEHICLES ON ROAD 349 FT FROM DER, 541 FT RIGHT OF CENTERLINE, 5454 FT MSL.

CONTROLLING OBSTACLES:

OBSTACLES MANDATING ODP ROUTE DEVELOPMENT: **RWY 11, 29:** 14310 FT MSL AAO 385020.60N/1050238.00W. 12567 FT MSL AAO 384723.10N/1045931.20W.

REMARKS:

FLIGHT INSPECTED BY:

ANTHONY D VALLERA

Digitally signed by
ADOLFO D URRUTIA
Aug 15, 2018

OFFICE SYMBOL:

FICO

DATE:

08/14/2018

DEVELOPED BY:

LONNIE EVERHART (JOHN BURCH)

Digitally signed by
ADOLFO D URRUTIA
Aug 15, 2018

OFFICE SYMBOL:

AJV-5400

DATE:

05/30/2018

APPROVED BY:

LONNIE EVERHART

Digitally signed by
ADOLFO D URRUTIA
Aug 15, 2018

OFFICE SYMBOL:

AJV-5400

DATE:

REQUIRED EFFECTIVE DATE:

ROUTINE

COORDINATED WITH:

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

OTHER:

ZDV, DEN APP CON, ARPT MGR

CHANGES - REASONS:

1. CHANGED RWY 11 TEXTUAL DEPARTURE PROCEDURE FROM CLIMB ON HEADING 109.86 AND PUB R-275.00 TO PUB VORTAC BEFORE PROCEEDING ON COURSE TO CLIMB ON HEADING 112.86 AND PUB R-274.00 TO PUB VORTAC BEFORE PROCEEDING ON COURSE - AIRPORT MAGVAR CHANGED FROM 11E TO 8 E. MOVED SECONDARY AREA OUT OF RESTRICTED AREA 2601.
2. CHANGED RWY 29 TEXTUAL DEPARTURE PROCEDURE FROM CLIMBING LEFT TURN TO INTERCEPT PUB R-275.00 TO PUB VORTAC BEFORE PROCEEDING ON COURSE. DO NOT EXCEED 210 KIAS UNTIL ESTABLISHED ON PUB R-275.00 EASTBOUND TO CLIMBING LEFT TURN TO INTERCEPT PUB R-274.00 TO PUB VORTAC BEFORE PROCEEDING ON COURSE. DO NOT EXCEED 210 KIAS UNTIL ESTABLISHED ON PUB R-274.00 EASTBOUND - MOVED SECONDARY AREA OUT OF RESTRICTED AREA 2601.
3. UPDATED TAKEOFF OBSTACLE NOTES.

QUALITY
3
CHECKED

**FEDERAL AVIATION ADMINISTRATION
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.
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<u>AIRPORT</u> DELAWARE COASTAL	<u>AIRPORT ID</u> KGED	<u>PROCEDURE NAME</u> VOR RWY 4	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>CITY</u> GEORGETOWN	<u>STATE</u> DE	
<u>AIRPORT ELEVATION</u> 53	<u>TDZE</u> 51	<u>SUPERSEDED</u>	<u>ORIGINAL/AMENDMENT</u>	<u>DATED</u>	<u>MAG VAR</u> 9W	<u>EPOCH YEAR</u> 1965
<u>FACILITY</u> ATR	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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>
ATR VOR/DME		WEBIX/ATR 22.40 DME					232.74	22.40	2100
WEBIX/ATR 22.40 DME	IF	WONPA/ATR 16.40 DME					052.74	6.00 (ATR R-233)	2000

MISSED APPROACH

MAP:

ZEPTU/ATR 10.45 DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2100 DIRECT ATR VOR/DME AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

- 1. PT** **SIDE OF COURSE** **OUTBOUND** **FT WITHIN** **MILES OF (IAF)**
- 2.** HOLD SW WEBIX, LT, 052.74 INBOUND, 2100 FT. IN LIEU OF PT (IF/IAF), MAX 6000.
- 3. FAC:** 052.74 **FAF:** WONPA/ATR 16.40 DME **DIST FAF TO MAP:** 5.95 **DIST FAF TO THLD:**
- 4. MIN ALT:** WEBIX/ATR 22.40 DME 2100, WONPA/ATR 16.40 DME 2000
- 8. MSA FROM:** ATR VOR/DME 180-270 2100, 270-180 1700

EQUIPMENT REQUIREMENTS NOTES:

DME REQUIRED.

NOTES:

CHART NOTE: RWY 4 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT WATERLOO VOR/DME ON V308 EASTBOUND AND V1 NORTHEAST BOUND..
CHART NOTE: FOR INOPERATIVE ALS, INCREASE CAT A/B VISIBILITY TO 1SM, AND CAT C/D TO 1 3/8 SM.
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE SALISBURY ALTIMETER SETTING INCREASE ALL MDA 60 FEET; INCREASE S-4 CATS C/D VISIBILITY 1/8 MILE, AND CAT C CIRCLING VISIBILITY 3/8 SM.
CHART NOTE: FOR INOPERATIVE ALS WHEN USING SALISBURY ALTIMETER SETTING, INCREASE CAT A/B VISIBILITY TO 1 SM.



06/13/18: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 04/27/18

1. DELETED "STRAIGHT-IN RWY 4 NA AT NIGHT, CIRCLING RWY 4 NA AT NIGHT" NOTE - RWY 4 20:1 VISUAL SURFACE PENETRATIONS REMOVED.

2. ADDED "CHART VDP AT 11.85 DME" AND "DISTANCE VDP TO THLD 1.40 NM" TO ADDITIONAL FLIGHT DATA - VDP AUTHORIZED/RWY 4 20:1 VISUAL SURFACE PENETRATIONS REMOVED.

3. CHANGED HELICOPTER VISIBILITY NOTE FROM 1 SM TO 3/4 SM - RWY 4 20:1 VISUAL SURFACE PENETRATIONS REMOVED.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.

WONPA TO RW4: 3.02/45.

CHART VDP AT 11.85 DME

DISTANCE VDP TO THLD 1.40 NM

CHART FAS OBST: 254 TOWER 384133N/0752316W.

FAC 286 FT R OF RWY C/L EXTENDED 3000 FT FROM THLD.

HOLD NE, RT, 232.74 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-04	540	3/4	489	540	3/4	489	540	1	489	540	1	489			
CIRCLING	560	1	507	580	1	527	580	1 1/2	527	620	2	567			

CHANGES - REASONS

COORDINATED WITH:

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

FLIGHT CHECKED BY	<i>Digitally signed by</i> ROBERT G HAMILTON Aug 17, 2018	OFFICE	DATE	
STEPHEN BAUER		FICO	8/14/18	
DEVELOPED BY	<i>Digitally signed by</i> DAVID A DOWLING May 18, 2018	OFFICE	DATE	
DAVID A. DOWLING		AJV-5422	04/27/2018	
APPROVED BY	<i>Digitally signed by</i> ROBERT G HAMILTON Aug 17, 2018	OFFICE	DATE	TITLE
JULIE MORGAN		AJV-5420		MANAGER



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> BOCA RATON	<u>AIRPORT ID</u> KBCT	<u>PROCEDURE NAME</u> RNAV (GPS) Y RWY 23	<u>ORIGINAL/AMENDMENT</u> 1C	<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> 1B	<u>DATED</u> 07/19/2018	<u>MAG VAR</u> 5W
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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 ON 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: 229.37FAF: HIVURDIST FAF TO MAP: 4.50DIST FAF TO THLD: 4.50

4. MIN ALT: KISEC 2000, HIVUR 1500

5. DIST TO THLD FROM OM:MM:IM:150 HAT:250 HAT: 0.61GS ANT:

6. MIN GP INCPT: 1500GP ALT AT FAF : HIVUR 1500OM:MM:IM:

7. GP ANGLE: 3.0034:1: IS NOT CLEAR20:1: IS CLEARTCH: 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: -22.1 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	1C	BOCA RATON	FL

CHANGES - REASONS

- 1. CHANGED LTP HAE VALUE IN ADDITIONAL FLIGHT DATA FROM -22M TO -22.1M - TO CORRECT TEMPORARY PROGRAMMING BUG.
- 2. CHANGED LTP/FTP ELLIPSOIDAL HEIGHT ON FAS DATA SECTION FROM +00221 TO -00221 - TO CORRECT TEMPORARY PROGRAMMING BUG.



COORDINATED WITH:

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

FLIGHT CHECKED BY

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, DEC 22, 2017.

DEVELOPED BY

JOHNNIE BAKER III

Digitally signed by
JOHNNIE BAKER
Aug 20, 2018

APPROVED BY

MARLON ROBINSON

Digitally signed by
JOHNNIE BAKER
Aug 20, 2018

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OFFICE
JOHNNIE BAKER

Aug 20, 2018

OFFICE

AJV-5441

OFFICE

AJV-5440

DATE

DATE

08/20/2018

DATE

TITLE

MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	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 (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> NEWNAN COWETA COUNTY	<u>AIRPORT ID</u> KCCO	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 14	<u>ORIGINAL/AMENDMENT</u> 1A	<u>CITY</u> ATLANTA	<u>STATE</u> GA	
<u>AIRPORT ELEVATION</u> 970	<u>TDZE</u> 970	<u>SUPERSEDED</u> RNAV (GPS) RWY 14	<u>ORIGINAL/AMENDMENT</u> 1	<u>DATED</u> 10/22/2009	<u>MAG VAR</u> 3W	<u>EPOCH YEAR</u> 2000
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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. 052/30 CW 232/30	NOPT	DECEG	IF/IAF	3500
2. 232/30 CW 322/30		FAVBA	IAF	3500
3. 322/30 CW 052/30		CILUG	IAF	3500

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>
FAVBA	IAF	DECEG	NOPT	TF	FB	1.00	232.41	5.00	3500
CILUG	IAF	DECEG	NOPT	TF	FB	1.00	052.33	5.00	3500
DECEG	IF/IAF	GEDBE		TF	FB	1.00	142.37	7.06	2600
GEDBE	FAF	HANIP/1.90 NM TO RW14		TF	FB	0.30	142.43	3.04	
HANIP/1.90 NM TO RW14		RW14	MAP	TF	FO	0.30	142.43	1.90	
RW14	MAP	1300 MSL		CA					
1300 MSL		KACEL		DF	FO	1.00			3500

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW14

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3500 DIRECT KACEL AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

QUALITY
41
CHECKED

PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. HOLD NW DECEG, RT, 142.37 INBOUND, 3500 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 142.43

FAF: GEDBE

DIST FAF TO MAP: 4.94

DIST FAF TO THLD: 4.94

4. MIN ALT: DECEG 3500, GEDBE 2600, HANIP/1.90 NM TO RW14 1620*

5. DIST TO THLD FROM OM:

MM:

IM:

150 HAT:

330 HAT: 0.86

GS ANT:

6. MIN GP INCPT: 2600

GP ALT AT FAF : GEDBE 2600

OM:

MM:

IM:

7. GP ANGLE: 3.00

34:1: IS NOT CLEAR

20:1: IS CLEAR

TCH: 56.0

8. MSA FROM:

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -16C OR ABOVE 47C.
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART NOTE: RWY 14 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
CHART VDP AT 1.16 NM TO RW14*
*LNAV ONLY
WAAS CHANNEL #70515
REFERENCE PATH ID: W14A
CHART FAS OBST: 1119 TREE 331920N/0844638W.
HOLD SE, RT, 322.54 INBOUND
LTP HAE: 266.7 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	1300	1	330	1300	1	330	1300	1	330	1300	1	330			
LNAV/VNAV DA	1389	1 1/2	419	1389	1 1/2	419	1389	1 1/2	419	1389	1 1/2	419			
LNAV MDA	1380	1	410	1380	1	410	1380	1 1/4	410	1380	1 1/4	410			
CIRCLING	1420	1	450	1420	1	450	1560	1 1/2	590	1560	2	590			



CHANGES - REASONS

- 1. MOVED FAF/PFAF GEDBE 400.43 FT. NW. - RECALCULATED FAF/PFAF POSITION USING PUBLISHED ANGLE/TCH AND 8260-54A CRITERIA IN IPDS.
- 2. CHANGED INTERMEDIATE DISTANCE FROM 7.12 TO 7.06 AND DISTANCE FAF TO MAP/THLD FROM 4.88 TO 4.94. - NEW FAF/PFAF LOCATION.
- 3. ADDED CA LEG TO MISSED APPROACH. - FOR CODING PURPOSES.
- 4. ADDED CHART CIRCLING ICON TO ADDITIONAL FLIGHT DATA AND CHANGED CIRCLING CAT C AND D MINIMUMS FROM 1420/450- 1 1/2 AND 1520/550 - 2 TO 1560/590 - 1 1/2 AND 1560/590 - 2. - ORDER 8260.3 CHAPTER 2, NEW CIRCLING CRITERIA.
- 5. ADDED 20:1 IS CLEAR TO PROFILE VIEW. - 20:1 IS CLEAR IAW FAAO 8260.19H PARAGRAPH 8-6-7G.
- 6. MOVED ALL BACKUP ALTIMETER DATA TO REMARKS SECTION OF THE 8260-9. - FOR CONTINGENCY PURPOSES.
- 7. DELETED DEGREES FAHRENHEIT FROM UNCOMPENSATED BARO-VNAV NOTE. FAAO 8260.19H PARAGRAPH 8-6-9 S.
- 8. CHANGED NOTE: VISIBILITY REDUCTION BY HELICOPTERS NA TO RWY 14 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. - 34:1 SURFACE PENETRATED AND FAAO 8260.19H PARAGRAPH 8-6-11, K.
- 9. ADDED VDP -20:1 VISUAL SURFACE CLEAR.
- 10. CHANGED FPAP COORDINATES FROM 331754.4600N/0844523.0900W TO 331754.4650N/0844523.0865W. - NEW PFAF LOCATION AND IPDS CALCULATIONS.
- 11. CHANGED CRC REMAINDER FROM 737D05E1 TO 430B6D36. - NEW FAS DATA.
- 13. UPDATED NONCOINCIDENT NOTE TO CURRENT FORMAT. - FAAO 8260.19H PARAGRAPH 8-6-9 M.
- 14. ALTERNATE MINIMUMS STANDARD. REMOVED NA WHEN LOCAL ALTIMETER NOT RECEIVED. BACK-UP ALTIMETER DATA MOVED TO 8260-9.



COORDINATED WITH:

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

FLIGHT CHECKED BY

MARC J HINCK
Aug 15, 2018

OFFICE

FICO

DATE

08/13/2018

DEVELOPED BY

LIAM DONAHUE
LIAM DONAHUE

OFFICE

AJV-5431

DATE

06/25/2018

APPROVED BY

PATRICK MULQUEEN
Jul 23, 2018
Digitally signed by
DONALD H LANIER
Aug 15, 2018

OFFICE

AJV-5430

DATE

TITLE
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> NEWNAN COWETA COUNTY	<u>AIRPORT ID</u> KCCO	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 32	<u>ORIGINAL/AMENDMENT</u> 2A	<u>CITY</u> ATLANTA	<u>STATE</u> GA
<u>AIRPORT ELEVATION</u> 970	<u>TDZE</u> 952	<u>SUPERSEDED</u> RNAV (GPS) RWY 32	<u>ORIGINAL/AMENDMENT</u> 2	<u>DATED</u> 10/22/2009	<u>MAG VAR</u> 3W
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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. 233/30 CW 053/30	NOPT	KACEL	IF/IAF	3500
2. 053/30 CW 143/30		ODUSE	IAF	3500
3. 143/30 CW 233/30		WEVOS	IAF	3500

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>
ODUSE	IAF	KACEL	NOPT	TF	FB	1.00	052.50	5.00	3500
WEVOS	IAF	KACEL	NOPT	TF	FB	1.00	232.58	5.00	3500
KACEL	IF/IAF	SECOD		TF	FB	1.00	322.54	6.19	2500
SECOD	FAF	RW32	MAP	TF	FO	0.30	322.49	4.81	
RW32	MAP	1242 MSL		CA			322.49		
1242 MSL		DECEG		DF	FO	1.00			3500

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW32

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3500 DIRECT DECEG AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. HOLD SE KACEL, RT, 322.54 INBOUND, 3500 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 322.49FAF: SECODDIST FAF TO MAP: 4.81DIST FAF TO THLD: 4.81

4. MIN ALT: KACEL 3500, SECOD 2500

5. DIST TO THLD FROM OM:MM:IM:150 HAT:290 HAT: 0.86GS ANT:MM:IM:

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

7. GP ANGLE: 3.0034:1: IS NOT CLEAR20:1: IS CLEARTCH: 40.0

8. MSA FROM:

PBN REQUIREMENTS NOTE:

RNP APCH

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -16C OR ABOVE 46C.
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART NOTE: FOR INOPERATIVE ALS, INCREASE LPV AND LNAV/VNAV ALL CATS AND LNAV CATS C/D VISIBILITIES TO 1 1/8 SM.
CHART NOTE: RWY 32 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
CHART VDP AT 1.19 NM TO RW32*
*LNAV ONLY
WAAS CHANNEL #77528
REFERENCE PATH ID: W32A
CHART FAS OBST: 1104 PWR LINE TWR 331548N/0844345W.
HOLD NW, RT, 142.37 INBOUND
LTP HAE: 254.1 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	1242	1	290	1242	1	290	1242	1	290	1242	1	290			
LNAV/VNAV DA	1286	1	334	1286	1	334	1286	1	334	1286	1	334			
LNAV MDA	1360	1	408	1360	1	408	1360	1	408	1360	1	408			
CIRCLING	1420	1	450	1420	1	450	1560	1 1/2	590	1560	2	590			



CHANGES - REASONS

- 1. MOVED PFAF/FAF FIX SECOD 379.01 FT SW. - RECALCULATED FAF/PFAF POSITION USING PUBLISHED ANGLE/TCH AND 8260-54A CRITERIA IN IPDS.
- 2. CHANGED INTERMEDIATE DISTANCE FROM 6.25 TO 6.19 AND DISTANCE FAF TO MAP/THLD FROM 4.75 TO 4.81. - NEW PFAF/FAF LOCATION.
- 3. ADDED VDP AT 1.19 NM TO RW 32. - 20:1 SURFACE NO LONGER PENETRATED.
- 4. CHANGED NOTE: VISIBILITY REDUCTION BY HELICOPTERS NA TO RWY 32 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. - 34:1 SURFACE PENETRATED AND FAAO 8260.19H PARAGRAPH 8-6-11, K.
- 5. DELETED 1016 FAS OBST IN ADDITIONAL FLIGHT DATA. - OBSTACLE IS FOR THE LNAV/VNAV AND NOT FOR THE NONPRECISION (LNAV).
- 6. CHANGED CRC REMAINDER FROM 40BC0F2A TO E2DAFB7D - FPAP LAT/LONG UPDATED.
- 7. ADDED CHART CIRCLING ICON TO ADDITIONAL FLIGHT DATA AND CHANGED CIRCLING CAT C AND D MINIMUMS FROM 1420/450- 1 1/2 AND 1520/550 - 2 TO 1560/590 - 1 1/2 AND 1560/590 - 2. - ORDER 8260.3 CHAPTER 2, NEW CIRCLING CRITERIA.
- 8. MOVED ALL BACKUP ALTIMETER DATA TO REMARKS SECTION OF THE 8260-9. - FOR CONTINGENCY PURPOSES.
- 9. CHANGED INOPERATIVE ALS NOTE FROM FOR INOPERATIVE MALSR, INCREASE LNAVNNAV ALL CATS AND LNAV CATS C AND D VISIBILITIES TO 1 1/4 MILE. TO FOR INOPERATIVE ALS, INCREASE LPV AND LNAV/VNAV ALL CATS AND LNAV CATS C/D VISIBILITIES TO 1 1/8 SM. - AJV VISI CALCULATOR AND FAAO 8260.3C CHAPTER 3 VISIBILITY CRITERIA.
- 10. DELETED NOTE: INOPERATIVE TABLE DOES NOT APPLY TO LPV ALL CATS AND LNAV CATS A AND B. - AJV VISI CALCULATOR AND FAAO 8260.3C CHAPTER 3 VISIBILITY CRITERIA.
- 11. UPDATED VGSI NOT COINCIDENT NOTE TO CURRENT FORMAT.- FAAO 8269.19H PARAGRAPH 8-6-9 M.

PDF EDITS:
1. ADD SECOD TO LINE 6 OF PROFILE VIEW.



COORDINATED WITH:

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

FLIGHT CHECKED BY

MARC J HINCK
Digitally signed by
DONALD H LANIER
Aug 15, 2018

OFFICE

FICO

DATE

08/13/2018

DEVELOPED BY

LIAM DONAHUE
Digitally signed by
LIAM DONAHUE
Jul 16, 2018

OFFICE

AJV-5431

DATE

06/27/2018

APPROVED BY

PATRICK MULQUEEN
Digitally signed by
DONALD H LANIER
Aug 15, 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	KCCO
RUNWAY	RW32
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W32A
LTP/FTP LATITUDE	331820.9620N
LTP/FTP LONGITUDE	0844550.0580W
LTP/FTP ELLIPSOIDAL HEIGHT	+02541
FPAP LATITUDE	331928.7965N
FPAP LONGITUDE	0844659.1735W
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	1072
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0

CRC REMAINDER E2DAFB7D

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K7
LTP ORTHOMETRIC HEIGHT	+02831
FPAP ORTHOMETRIC HEIGHT	+02831



**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
VOR STANDARD INSTRUMENT APPROACH PROCEDURE**

TITLE 14 CFR PART 97.23

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<u>AIRPORT</u> NEWNAN COWETA COUNTY	<u>AIRPORT ID</u> KCCO	<u>PROCEDURE NAME</u> VOR-A	<u>ORIGINAL/AMENDMENT</u> 8A	<u>CITY</u> ATLANTA	<u>STATE</u> GA	
<u>AIRPORT ELEVATION</u> 970	<u>TDZE</u>	<u>SUPERSEDED</u> VOR/DME-A	<u>ORIGINAL/AMENDMENT</u> 8	<u>DATED</u> 03/11/2010	<u>MAG VAR</u> 1E	<u>EPOCH YEAR</u> 1965
<u>FACILITY</u> LGC	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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>
UKAVE/LGC 16.00 DME CCW	IAF	HOGAN/LGC 16.00 DME					16.00 DME ARC		3000
RAVOC/LGC 16.00 DME CW	IAF	HOGAN/LGC 16.00 DME					16.00 DME ARC		3000
LGC VORTAC	IAF	HOGAN/LGC 16.00 DME					053.31	16.00	3000
HOGAN/LGC 16.00 DME	IF	TRILE/LGC 22.00 DME					053.31	6.00 (LGC R-053)	2500

MISSED APPROACH

MAP:

PAYOK/LGC 26.98 DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 1800 THEN CLIMBING RIGHT TURN TO 3000 VIA LGC VORTAC R-053 TO HOGAN/16.00 DME AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)
2. PROFILE STARTS AT HOGAN
3. FAC: 053.31 FAF: TRILE/LGC 22.00 DME DIST FAF TO MAP: DIST FAF TO THLD:
4. MIN ALT: HOGAN/LGC 16.00 DME 3000, TRILE/LGC 22.00 DME 2500
8. MSA FROM: LGC VORTAC 3500

EQUIPMENT REQUIREMENTS NOTES:

DME REQUIRED.

NOTES:

CHART PLAINVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT LGC VORTAC VIA V222 SOUTHWEST BOUND.

ADDITIONAL FLIGHT DATA:



FAC CROSSES MIDPOINT OF RWY 14-32.
CHART CIRCLING ICON.
CHART LGC R-159 AT UKAVE.
CHART LGC R-341 AT RAVOC.
CHART FAS OBST: 1256 TOWER 331639N/0844753W.
HOLD SW, RT, 053.31 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
CIRCLING	1520	1	550	1520	1 1/4	550	1560	1 1/2	590	1560	2	590			

CHANGES - REASONS

1. CHANGED FAS OBSTACLE FROM 1104 POWERLINE 331848N/0844710W TO 1256 TOWER 331639N/0844753W. - OBSTACLE DATABASE UPDATE.
2. ADDED CHART CIRCLING ICON TO ADDITIONAL FLIGHT DATA. - ORDER 8260.3, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED.
3. CHANGED CIRCLING MDA/HAA S FROM 1420/450, 1420/450, 1420/450, AND 1520/550 TO 1520/550, 1550/550, 1560/590, AND 1560/590. - NEW CIRCLING CRITERIA, AND NEW FINAL AND CIRCLING CATS C/D CONTROLLING OBSTACLE.
4. MOVED ALL BACKUP ALTIMETER DATA FROM NOTES TO THE 8260-9 REMARKS SECTION. - FOR CONTINGENCY PURPOSES.
5. CHANGED PROCEDURE NAME FROM VOR/DME-A TO VOR-A. - FAAO 8260.19H NAMING CONVENTIONS.
6. ADDED EQUIPMENT REQUIREMENT NOTE: DME REQUIRED. - DME IS REQUIRED TO FLY PROCEDURE.
7. DELETED THE CHARTING OF 1188 TOWER FROM ADDL FLT DATA. 7:1 NO LONGER APPLIES.

COORDINATED WITH:

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

FLIGHT CHECKED BY	Digitally signed by	OFFICE	DATE	
MARC J HINCK	DONALD H LANIER	FICO	08/13/2018	
	Aug 15, 2018			
DEVELOPED BY	Digitally signed by	OFFICE	DATE	
LIAM DONAHUE	LIAM DONAHUE	AJV-5431	06/26/2018	
	Jul 23, 2018			
APPROVED BY	Digitally signed by	OFFICE	DATE	TITLE
PATRICK MULQUEEN	DONALD H LANIER	AJV-5430		MANAGER
	Aug 15, 2018			



**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
NDB STANDARD INSTRUMENT APPROACH PROCEDURE
TITLE 14 CFR PART 97.27**

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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> BALDWIN COUNTY RGNL	<u>AIRPORT ID</u> KMLJ	<u>PROCEDURE NAME</u> NDB RWY 28	<u>ORIGINAL/AMENDMENT</u> 4A	<u>CITY</u> MILLEDGEVILLE	<u>STATE</u> GA	
<u>AIRPORT ELEVATION</u> 385	<u>TDZE</u> 379	<u>SUPERSEDED</u> NDB RWY 28	<u>ORIGINAL/AMENDMENT</u> 4	<u>DATED</u> 02/01/2018	<u>MAG VAR</u> 4W	<u>EPOCH YEAR</u> 2000
<u>FACILITY</u> UMB	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>		

TERMINAL ROUTES

FROM	FIX TYPE	TO	FIX TYPE	LEG TYPE	FO/FB	RNP	COURSE	DISTANCE	ALTITUDE
BEYLO INT		UMB NDB					203.81	9.82	2400
HADOC INT		UMB NDB					289.66	6.93	2400
RIPPI INT		UMB NDB					035.56	17.29	2400
SINCA INT		UMB NDB					083.45	22.83	2400

MISSED APPROACH

MAP:

3.67 NM AFTER UMB NDB

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 1400 THEN CLIMBING LEFT TURN TO 2400 DIRECT UMB NDB AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT L **SIDE OF COURSE** 096.03 **OUTBOUND** 2400 **FT WITHIN** 10 **MILES OF** UMB (IAF)
- 2.
3. **FAC:** 276.03 **FAF:** UMB NDB **DIST FAF TO MAP:** 3.67 **DIST FAF TO THLD:** 3.67
4. **MIN ALT:** UMB NDB 1600
8. **MSA FROM:** UMB NDB 2300

EQUIPMENT REQUIREMENTS NOTES:

NOTES:

CHART NOTE: RWY 28 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.

CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE MIDDLE GEORGIA RGNL ALTIMETER SETTING AND INCREASE ALL MDA 100 FEET AND INCREASE S-28 VISIBILITY CAT C/D 1/4 SM AND CIRCLING CAT C 1/2 SM.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
UMB NDB TO RW28 3.07/44.
769 AAO 330820N/0830953W
CHART FAS OBST: 609 TREE 331008N/0831326W.
HOLD E, RT, 276.03 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-28	960	1	581	960	1	581	960	1 3/4	581	960	1 3/4	581			
CIRCLING	960	1	575	960	1	575	1100	2	715	1280	3	895			

CHANGES - REASONS

1. CHANGED ALL INSTANCES OF AIRPORT NAME FROM "BALDWIN COUNTY" TO "BALDWIN COUNTY RGNL" - ABBREVIATED AMENDMENT FOR AIRPORT NAME CHANGE..

COORDINATED WITH:

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

FLIGHT CHECKED BY

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS
GROUP (AJW-33) MEMO, DEC 22, 2017.

DEVELOPED BY

JOHN THORNTON

APPROVED BY

JULIE MORGAN

Digitally signed by

JOHN R THORNTON

Jun 20, 2018

Digitally signed by

DEZ SILAGYI

Jul 31, 2018

OFFICE

OFFICE

AJV-5421

OFFICE

AJV-5420

DATE

DATE

06/12/2018

DATE

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> BALDWIN COUNTY RGNL	<u>AIRPORT ID</u> KMLJ	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 10	<u>ORIGINAL/AMENDMENT</u> 2A	<u>CITY</u> MILLEDGEVILLE	<u>STATE</u> GA
<u>AIRPORT ELEVATION</u> 385	<u>TDZE</u> 385	<u>SUPERSEDED</u> RNAV (GPS) RWY 10	<u>ORIGINAL/AMENDMENT</u> 2	<u>DATED</u> 02/01/2018	<u>MAG VAR</u> 4W
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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. 006/30 CW 186/30	NOPT	IBUDY	IF/IAF	3000
1. 186/30 CW 006/30		IBUDY	IF/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>
IBUDY	IF/IAF	OZBRN		TF	FB	1.00	095.84	8.43	2200
OZBRN	FAF	RW10	MAP	TF	FO	0.30	095.94	5.05	
RW10	MAP	785 MSL		CA			095.94		
785 MSL		FETOP		DF	FO	1.00			3000

MISSED APPROACH

MAP:

LNAV: RW10

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3000 DIRECT FETOP AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. HOLD W IBUDY, RT, 095.84 INBOUND, 3000 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 095.94

FAF: OZBRN

DIST FAF TO MAP: 5.05

DIST FAF TO THLD: 5.05

4. MIN ALT: IBUDY 3000, OZBRN 2200

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 NOT CLEAR

20:1 IS CLEAR

TCH:

8. MSA FROM:

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: RWY 10 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART NOTE: INOPERATIVE TABLE DOES NOT APPLY TO CATS A/B.
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE MIDDLE GEORGIA RGNL ALTIMETER SETTING AND INCREASE ALL MDA 100 FEET AND INCREASE LNAV VISIBILITY CAT C/D 1/4 SM AND CIRCLING CAT C 1/2 SM.
CHART NOTE: VDP NA WHEN USING MIDDLE GEORGIA RGNL ALTIMETER SETTING.

ADDITIONAL FLIGHT DATA:

OZBRN TO RW10: 3.30/46.7
CHART CIRCLING ICON.
CHART VDP AT 1.48 NM TO RW10
CHART FAS OBST: 690 TOWER 330930N/0831842W.
HOLD E, RT, 276.15 INBOUND

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD - CAT D 900-3, 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
LNAV MDA	1000	1	615	1000	1	615	1000	1 1/2	615	1000	1 1/2	615			
CIRCLING	1000	1	615	1000	1	615	1100	2	715	1280	3	895			

CHANGES - REASONS

1. CHANGED ALL INSTANCES OF AIRPORT NAME FROM "BALDWIN COUNTY" TO "BALDWIN COUNTY RGNL" - ABBREVIATED AMENDMENT FOR AIRPORT NAME CHANGE.
2. ADDED "MAX 6000" TO PROFILE LINE 2 - MAX HOLDING ALTITUDE REQUIRED ON THE NEW FORMS.
3. ADDED "20:1: IS CLEAR" TO PROFILE LINE 7 - IAW 8260.19H PARA. 8-6-7. G.(3).
4. DELETED "DME/DME RNP-0.3 NA" NOTE AND ADDED PBN REQUIREMENTS NOTE "RNP APCH" - IAW 8260.19H 8-6-8.
5. DELETED RWY "28" FROM HELICOPTER VISIBILITY REDUCTION NOTE - HELICOPTER VISIBILITY REDUCTION ONLY APPLICABLE TO THE RUNWAY TO WHICH THE FAC IS ALIGNED.
6. ADDED "CHART CIRCLING ICON" TO ADDITIONAL FLIGHT DATA - NEW CIRCLING CRITERIA WAS APPLIED TO AMDT 2 AND NEW CIRCLING CRITERIA WAS DOCUMENTED ON ALL FORMS/MAPS WITH THE EXCEPTION OF THIS NOTE; NEW CIRCLING CRITERIA WAS ALSO FLIGHT CHECKED WITH THE NDB RWY 28 AMDT 4.



COORDINATED WITH:

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

FLIGHT CHECKED BY

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, DEC 22, 2017.

DEVELOPED BY

JOHN THORNTON

Digitally signed by
JOHN R THORNTON
Jun 20, 2018

Digitally signed by

DEZ SILAGYI

Jul 31, 2018

OFFICE

AJV-5421

DATE

06/12/2018

APPROVED BY

JULIE MORGAN

Digitally signed by
DEZ SILAGYI
Jul 31, 2018

OFFICE

AJV-5420

DATE

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> BALDWIN COUNTY RGNL	<u>AIRPORT ID</u> KMLJ	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 28	<u>ORIGINAL/AMENDMENT</u> 2A	<u>CITY</u> MILLEDGEVILLE	<u>STATE</u> GA
<u>AIRPORT ELEVATION</u> 385	<u>TDZE</u> 379	<u>SUPERSEDED</u> RNAV (GPS) RWY 28	<u>ORIGINAL/AMENDMENT</u> 2	<u>DATED</u> 02/01/2018	<u>MAG VAR</u> 4W
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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. 186/30 CW 006/30	NOPT	FETOP	IF/IAF	3000
2. 006/30 CW 186/30		FETOP	IF/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>
FETOP	IF/IAF	LAXHE		TF	FB	1.00	276.15	8.00	2200
LAXHE	FAF	WADAX/2.50 NM TO RW28		TF	FB	0.30	276.06	3.14	
WADAX/2.50 NM TO RW28		RW28	MAP	TF	FO	0.30	276.06	2.50	
RW28	MAP	670 MSL		CA			276.06		
670 MSL		IBUDY		DF	FO	1.00			3000

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW28

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3000 DIRECT IBUDY AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. HOLD E FETOP, RT, 276.15 INBOUND, 3000 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 276.06FAF: LAXHEDIST FAF TO MAP: 5.64DIST FAF TO THLD: 5.64

4. MIN ALT: FETOP 3000, LAXHE 2200, WADAX/2.50 NM TO RW28 1180*

5. DIST TO THLD FROM OM:MM:IM:150 HAT:291 HAT: 0.84GS ANT:

6. MIN GP INCPT: 2200GP ALT AT FAF : LAXHE 2200OM:MM:IM:

7. GP ANGLE: 3.0034:1: IS NOT CLEAR20:1: IS CLEARTCH: 44.3

8. MSA FROM:

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: BARO-VNAV AND VDP NA WHEN USING MIDDLE GEORGIA RGNL 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 -15C OR ABOVE 54C.
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE MIDDLE GEORGIA RGNL ALTIMETER SETTING: INCREASE LPV DA TO 754; INCREASE LNAV/VNAV DA TO 783 AND ALL VISIBILITIES 1/8 SM; INCREASE ALL MDA 100 FEET AND LNAV VISIBILITY CATS C/D 3/8 SM AND CIRCLING VISIBILITY CAT C 1/2 SM.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
CHART VDP AT 0.99 NM TO RW28*
*LNAV ONLY
WAAS CHANNEL #82318
REFERENCE PATH ID: W28A
CHART FAS OBST: 463 TREE 330911N/0831401W.
HOLD W, RT, 095.84 INBOUND
LTP HAE: 81.8 M

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD - CAT D 900-3, 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
LPV DA	670	1	291	670	1	291	670	1	291	670	1	291			
LNAV/VNAV DA	699	1	320	699	1	320	699	1	320	699	1	320			
LNAV MDA	720	1	341	720	1	341	720	1	341	720	1	341			
CIRCLING	920	1	535	940	1	555	1100	2	715	1280	3	895			



AIRPORT	AIRPORT ID	PROCEDURE NAME	ORIGINAL/AMENDMENT	CITY	STATE
BALDWIN COUNTY RGNL	KMLJ	RNAV (GPS) RWY 28	2A	MILLEDGEVILLE	GA

CHANGES - REASONS

- 1. CHANGED ALL INSTANCES OF AIRPORT NAME FROM "BALDWIN COUNTY" TO "BALDWIN COUNTY RGNL"-ABBREVIATED AMENDMENT FOR AIRPORT NAME CHANGE.
- 2. ADDED "MAX 6000" TO PROFILE LINE 2 - MAX HOLDING ALTITUDE REQUIRED ON THE NEW FORMS.
- 3. ADDED "20:1: IS CLEAR" TO PROFILE LINE 7 - IAW 8260.19H PARA. 8-6-7. G.(3).
- 4. DELETED "DME/DME RNP-0.3 NA" NOTE AND ADDED PBN REQUIREMENTS NOTE "RNP APCH" - IAW 8260.19H 8-6-8.
- 5. DELETED RWY "10" FROM HELICOPTER VISIBILITY REDUCTION NOTE - HELICOPTER VISIBILITY REDUCTION ONLY APPLICABLE TO THE RUNWAY TO WHICH THE FAC IS ALIGNED.
- 6. ADDED "CHART CIRCLING ICON" TO ADDITIONAL FLIGHT DATA - NEW CIRCLING CRITERIA WAS APPLIED TO AMDT 2 AND NEW CIRCLING CRITERIA WAS DOCUMENTED ON ALL FORMS/MAPS WITH THE EXCEPTION OF THIS NOTE; NEW CIRCLING CRITERIA WAS ALSO FLIGHT CHECKED WITH THE NDB RWY 28 AMDT 4.



COORDINATED WITH:

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

FLIGHT CHECKED BY

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, DEC 22, 2017.

Digitally signed by

DEZ SILAGYI

OFFICE

DATE

DEVELOPED BY

JOHN THORNTON

Digitally signed by

JOHN R THORNTON

Jun 20, 2018

Jul 31, 2018

OFFICE

DATE

AJV-5421

06/12/2018

APPROVED BY

JULIE MORGAN

Digitally signed by

DEZ SILAGYI

Jul 31, 2018

OFFICE

DATE

TITLE

MANAGER



FAS DATA BLOCK INFORMATION

DATA FIELD	DATA
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KMLJ
RUNWAY	RW28
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W28A
LTP/FTP LATITUDE	330914.2600N
LTP/FTP LONGITUDE	0831356.6700W
LTP/FTP ELLIPSOIDAL HEIGHT	+00818
FPAP LATITUDE	330917.3630N
FPAP LONGITUDE	0831542.7345W
THRESHOLD CROSSING HEIGHT (TCH)	00044.3
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)	50.0
CRC REMAINDER	D78AF7C6
ADDITIONAL PATH POINT RECORD INFORMATION	
ICAO CODE	K7
LTP ORTHOMETRIC HEIGHT	+01094
FPAP ORTHOMETRIC HEIGHT	+01094



**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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CITY, STATE	AIRPORT	EFFECTIVE DATE	AMDT NO
MILLEDGEVILLE, GA	BALDWIN COUNTY RGNL	8 NOVEMBER 2018	1A

TAKEOFF MINIMUMS:

RWY 10: STANDARD.

RWY 28: 300-1 OR STANDARD WITH MINIMUM CLIMB OF 330 FT PER NM TO 700.

TEXTUAL DEPARTURE PROCEDURES:

RWY 10: CLIMB HEADING 095.99 TO 1000 BEFORE TURNING.

RWY 28: CLIMB HEADING 276.00 TO 1400 BEFORE TURNING RIGHT.

VISUAL CLIMB OVER AIRPORT:

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 10: TREES BEGINNING 67 FT FROM DER, 87 FT RIGHT OF CENTERLINE, UP TO 100 FT AGL/449 FT MSL.

UTILITY POLES BEGINNING 196 FT FROM DER, 268 FT RIGHT OF CENTERLINE, UP TO 30 FT AGL/372 FT MSL.

TREES BEGINNING 62 FT FROM DER, 298 FT LEFT OF CENTERLINE, UP TO 100 FT AGL/445 FT MSL.

UTILITY POLES BEGINNING 135 FT FROM DER, 381 FT LEFT OF CENTERLINE, UP TO 30 FT AGL/380 FT MSL.

MULTIPLE STRUCTURES BEGINNING 242 FT FROM DER, 523 FT LEFT OF CENTERLINE, UP TO 19 FT AGL/369 FT MSL.

NOTE: RWY 28: TREES BEGINNING 12 FT FROM DER, 64 FT RIGHT OF CENTERLINE, UP TO 100 FT AGL/500 FT MSL.

TERRAIN 729 FT FROM DER, 495 FT RIGHT OF CENTERLINE, 437 FT MSL.

TREES BEGINNING 515 FT FROM DER, 59 FT LEFT OF CENTERLINE, UP TO 100 FT AGL/534 FT MSL.

CONTROLLING OBSTACLES:

RWY 28: 543 FT MSL TREE 330927.06N/0831545.98W (CLIMB GRADIENT), 548 FT MSL TREE 330924.63N/0831547.72W (CLIMB GRADIENT TERMINATION ALTITUDE), 550 FT MSL TREE 330922.15N/0831552.02W (CEILING/VISIBILITY).

OBSTACLES MANDATING ODP ROUTE DEVELOPMENT: RWY 10, 28: 1360 FT MSL STACK 331139.00N/0831758.00W.



**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>
MILLEDGEVILLE, GA	BALDWIN COUNTY RGNL	8 NOVEMBER 2018	1A

REMARKS:

THIS AMENDMENT DOES NOT MEET REQUIREMENTS FOR A FULL PERIODIC REVIEW, LAST CONDUCTED 8/11/2016.

FLIGHT INSPECTED BY:

OFFICE SYMBOL:

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

DEZ SILAGYI

OFFICE SYMBOL:

DATE:

JOHN THORNTON

JOHN R THORNTON

Jul 31, 2018

06/19/2018

Jun 20, 2018

AJV-5421

APPROVED BY:

Digitally signed by

OFFICE SYMBOL:

DATE:

JULIE MORGAN

DEZ SILAGYI

Jul 31, 2018

AJV-5420

REQUIRED EFFECTIVE DATE:

ROUTINE

COORDINATED WITH:

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

☐☒☒☐☐☒

OTHER:

ZTL, AIRPORT MANAGER

CHANGES - REASONS:

1. CHANGED AIRPORT NAME FROM BALDWIN COUNTY TO BALDWIN COUNTY RGNL.
2. ADDED REMARK "THIS AMENDMENT DOES NOT MEET REQUIREMENTS FOR A FULL PERIODIC REVIEW, LAST CONDUCTED 8/11/2016" - ABBREVIATED AMENDMENT TO CHANGE AIRPORT NAME ONLY.



**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
GRAPHIC DEPARTURE PROCEDURES (DP)**

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>DP NAME</u>	<u>NUMBER</u>	<u>DP COMPUTER CODE</u>	<u>SUPERSEDED NUMBER</u>	<u>DATED</u>	<u>EFFECTIVE DATE</u>
HONOLULU	TWO	HNL2.HNL	ONE	03/12/2009	8 NOVEMBER 2018

<u>TYPE:</u>	<u>OBSTACLE</u>	<u>COPTER</u>	<u>SID</u>	<u>SPECIAL</u>	<u>RNAV</u>
	☒	☐	☐	☐	☐

DP ROUTE DESCRIPTION:

TAKEOFF RWYS 4 L/R, 8 L/R: CLIMBING RIGHT TURN TO 3000 ON HEADING 155 TO INTERCEPT HNL R-125 TO HAUNA INT BEFORE PROCEEDING ON COURSE, OR ...
TAKEOFF RWYS 22 L/R, 26 L/R: CLIMBING LEFT TURN TO 3000 ON HEADING 140 TO INTERCEPT HNL R-171 TO ALANA INT BEFORE PROCEEDING ON COURSE, OR ...
... FOR VISUAL CLIMB OVER AIRPORT: OBTAIN ATC APPROVAL FOR VCOA WHEN REQUESTING IFR CLEARANCE. CLIMB IN VISUAL CONDITIONS TO CROSS DANIEL K. INOUE INTL AIRPORT SOUTHBOUND AT 1600, CONTINUE CLIMB TO 3000 ON HNL R-171 TO ALANA INT BEFORE PROCEEDING ON COURSE.

TRANSITION ROUTES (GRAPHIC DEPICTION ONLY):

<u>TRANSITION NAME</u>	<u>TRANSITION COMPUTER CODE</u>	<u>FROM FIX/NAVAID</u>	<u>TO FIX/NAVAID</u>	<u>COURSE</u>	<u>DISTANCE</u>	<u>MEA</u>	<u>MOCA</u>	<u>CROSSING ALTITUDE/FIXES</u>

PROCEDURAL DATA NOTES:

TAKEOFF MINIMUMS:

4W, 8W, 22W, 26W: NA - ATC
RWYS 22 L/R, 26R: STANDARD
RWYS 4 L/R: STANDARD WITH MINIMUM CLIMB OF 425 FEET PER NM TO 1900, DO NOT EXCEED 180 KIAS UNTIL SOUTHEAST BOUND ON 155 HEADING, OR 1700 - 2 1/2 FOR VCOA.
RWY 8L: STANDARD WITH MINIMUM CLIMB OF 310 FEET PER NM TO 1000, OR 1700 - 2 1/2 FOR VCOA.
RWY 8R: STANDARD WITH MINIMUM CLIMB OF 270 FEET PER NM TO 1000, OR 1700 - 2 1/2 FOR VCOA.
RWY 26L: STANDARD WITH MINIMUM CLIMB OF 237 FEET PER NM TO 300, OR 1700 - 2 1/2 FOR VCOA.

TAKEOFF OBSTACLES NOTES:

NOTE: RWY 4L, MULTIPLE LIGHTS BEGINNING 630 FEET FROM DER, 236 FEET LEFT OF CENTERLINE, 102 FEET RIGHT OF CENTERLINE, UP TO 84 FEET AGL / 92 FEET MSL. LIGHT ON BLDG 669 FEET FROM DER, 394 FEET LEFT OF CENTERLINE, 29 FEET AGL / 37 FEET MSL. STACK ON BLDG 2488 FEET FROM DER, 219 FEET RIGHT OF CENTERLINE 72 FEET AGL / 80 FEET MSL. MULTIPLE TREES BEGINNING 1253 FEET FROM DER, 209 FEET LEFT OF CENTERLINE, 935 FEET RIGHT OF CENTERLINE, UP TO 64 FEET AGL / 72 FEET MSL. BUSH 450 FEET FROM DER, 234 FEET LEFT OF CENTERLINE, 14 FEET AGL / 22 FEET MSL.
NOTE: RWY 4R, STACK ON BLDG, 2442 FEET FROM DER, 283 FEET LEFT OF CENTERLINE, 72 FEET AGL / 80 FEET MSL. MULTIPLE TREES BEGINNING 1206 FEET FROM DER, 711 FEET LEFT OF CENTERLINE, 433 FEET RIGHT OF CENTERLINE, UP TO 64 FEET AGL / 72 FEET MSL. MULTIPLE LIGHTS BEGINNING 1072 FEET FROM DER, 399 FEET LEFT OF CENTERLINE, 504 FEET RIGHT OF CENTERLINE, UP TO 36 FEET AGL / 44 FT MSL. POLE 2110 FEET FROM DER, 951 FEET LEFT OF CENTERLINE, 59 FEET AGL / 67 FEET MSL.
NOTE: RWY 22L, MULTIPLE BUSHES BEGINNING 265 FEET FROM DER, 396 FEET RIGHT OF CENTERLINE, UP TO 17 FEET AGL / 31 FEET MSL. TREE 1065 FEET FROM DER, 499 FEET RIGHT OF CENTERLINE, 30 FEET AGL / 38 FEET MSL.
NOTE: RWY 22R, ROD ON OL ASR 1451 FEET FROM DER, 827 FEET RIGHT OF CENTERLINE, 76 FEET AGL / 84 FEET MSL. TREE 853 FEET FROM DER, 308 FEET RIGHT OF CENTERLINE, 43 FEET AGL / 51 FEET MSL. NOTE: RWY 26L, SHIP 1.1 NM FROM DER, ON CENTERLINE, 208 FEET AGL / 208 FEET MSL.
NOTE: RWY 26R, MULTIPLE LIGHT POLES BEGINNING 2120 FEET FROM DER, 813 FEET RIGHT OF CENTERLINE, UP TO 105 FEET AGL/111 FEET MSL.

CONTROLLING OBSTACLES:

RWYS 4 L/R: 4140 MSL TOWER, 213024.00N/1580830.00W. 1439 MSL AAO, 211937.75N/1574937.92W.
RWY 8L: 4140 MSL TOWER, 213024.00N/1580830.00W. 454 MSL TOWER, 211916.00N/1575223.00W. 3305 MSL AAO, 212112.32N/1574719.40W. RWY 8R: 4140 MSL TOWER, 213024.00N/1580830.00W. 700 MSL AAO, 211843.95N/1575057.17W. CONT:3305 MSL AAO, 212112.32N/1574719.40W.
RWYS 22L/R: 4140 MSL TOWER, 213024.00N/1580830.00W. 2586 MSL TOWER, 212312.00N/1580619.00W.
RWY26L: 4140 MSL TOWER, 213024.00N/1680830.00W. 2586 MSL TOWER, 212312.00N/1580619.00W. 208 MSL SHIP, 211824.49N/1575755.75W.
RWY 26R: 4140 MSL TOWER, 213024.00N/1580830.00W. 2586 MSL TOWER, 212312.00N/1580619.00W.
RWY 4L, 4R, 8L, BR, 26L (VCOA) 1299 FT MSL AAO 212212.00N/1575213.00W (VCA).



**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
GRAPHIC DEPARTURE PROCEDURES (DP)**

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>DP NAME</u>	<u>NUMBER</u>	<u>DP COMPUTER CODE</u>	<u>SUPERSEDED NUMBER</u>	<u>DATED</u>	<u>EFFECTIVE DATE</u>
HONOLULU	TWO	HNL2.HNL	ONE	03/12/2009	8 NOVEMBER 2018

LOST COMMUNICATIONS PROCEDURES:

ADDITIONAL FLIGHT DATA:

REFERENCE MAG VAR: PHNL E11 EPOCH YR: 1990

AIRPORTS SERVED:

<u>AIRPORT NAME</u>	<u>CITY</u>	<u>STATE</u>
DANIEL K. INOUE INTL (PHNL)	HONOLULU	HI

COMMUNICATIONS:

HNL ATIS, HNL CLNC DEL, HNL GND CON, HNL ATCT, HCF APP CON

FIXES AND/OR NAVAIDS:

REMARKS:

ABREV AMDT



**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
GRAPHIC DEPARTURE PROCEDURES (DP)**

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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.

<u>DP NAME</u>	<u>NUMBER</u>	<u>DP COMPUTER CODE</u>	<u>SUPERSEDED NUMBER</u>	<u>DATED</u>	<u>EFFECTIVE DATE</u>
HONOLULU	TWO	HNL2.HNL	ONE	03/12/2009	8 NOVEMBER 2018

FLIGHT INSPECTED BY:

PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, DECEMBER 22, 2017, SUBJECT: FLIGHT INSPECTION REVIEW NOT REQUIRED.

OFFICE SYMBOL:

DATE: *Digitally signed by*
ADOLFO D URRUTIA
Jul 06, 2018

DEVELOPED BY:

KELLY DEAN

KELLY D DEAN  Digitally signed by KELLY D DEAN
Date: 2018.06.21 13:32:20 -05'00'

OFFICE SYMBOL:

DATE:

AJV-5431 06/21/2018

APPROVED BY:

PATRICK MULQUEEN, MANAGER

Digitally signed by
ADOLFO D URRUTIA
Jul 06, 2018

OFFICE SYMBOL:

DATE:

AJV-5430

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:

AMGR, HNL ATCT, USAF, HCF APCH

CHANGES - REASONS:

1. ADDED WATERWAYS NA TO TAKEOFF MINIMUMS - NO RAPT EXISTS TO AUTHORIZED DP'S FROM WATERWAYS, NA PER NEW SOP.
2. CHANGED ALL REFERENCES USING VIA TO ON - QC RECOMMENDATION
3. CHANGED VCOA INSTRUCTIONS IN DP ROUTE DESCRIPTION TO REQUIRE CLIMB OVER AIRPORT INSTEAD OF VOR - VCOA IS AUTHORIZED ONLY OVER AIRPORTS.
4. REPLACED TERMINOLOGY OF CLIMB IN VISUAL CONDITIONS TO VCOA - UPDATED TO NEW CRITEIA FORMAT.

QUALITY
3
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
HONOLULU, HI	DANIEL K INOUE INTL	8 NOVEMBER 2018	8B

TAKEOFF MINIMUMS:

TEXTUAL DEPARTURE PROCEDURES:
USE HONOLULU DEPARTURE

VISUAL CLIMB OVER AIRPORT:

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 4L, MULTIPLE LIGHTS BEGINNING 630 FEET FROM DER, 236 FEET LEFT OF CENTERLINE, 102 FEET RIGHT OF CENTERLINE, UP TO 84 FEET AGL / 92 FEET MSL. LIGHT ON BLDG 669 FEET FROM DER, 394 FEET LEFT OF CENTERLINE, 29 FEET AGL / 37 FEET MSL. STACK ON BLDG 2488 FEET FROM DER, 219 FEET RIGHT OF CENTERLINE 72 FEET AGL / 80 FEET MSL. MULTIPLE TREES BEGINNING 1253 FEET FROM DER, 209 FEET LEFT OF CENTERLINE, 935 FEET RIGHT OF CENTERLINE, UP TO 64 FEET AGL / 72 FEET MSL. BUSH 450 FEET FROM DER, 234 FEET LEFT OF CENTERLINE, 14 FEET AGL / 22 FEET MSL.

NOTE: RWY 4R, STACK ON BLDG, 2442 FEET FROM DER, 283 FEET LEFT OF CENTERLINE, 72 FEET AGL / 80 FEET MSL. MULTIPLE TREES BEGINNING 1206 FEET FROM DER, 711 FEET LEFT OF CENTERLINE, 433 FEET RIGHT OF CENTERLINE, UP TO 64 FEET AGL / 72 FEET MSL. MULTIPLE LIGHTS BEGINNING 1072 FEET FROM DER, 399 FEET LEFT OF CENTERLINE, 504 FEET RIGHT OF CENTERLINE, UP TO 36 FEET AGL / 44 FT MSL. POLE 2110 FEET FROM DER, 951 FEET LEFT OF CENTERLINE, 59 FEET AGL / 67 FEET MSL.

NOTE: RWY 22L, MULTIPLE BUSHES BEGINNING 265 FEET FROM DER, 396 FEET RIGHT OF CENTERLINE, UP TO 17 FEET AGL / 31 FEET MSL. TREE 1065 FEET FROM DER, 499 FEET RIGHT OF CENTERLINE, 30 FEET AGL / 38 FEET MSL.

NOTE: RWY 22R, ROD ON OL ASR 1451 FEET FROM DER, 827 FEET RIGHT OF CENTERLINE, 76 FEET AGL / 84 FEET MSL. TREE 853 FEET FROM DER, 308 FEET RIGHT OF CENTERLINE, 43 FEET AGL / 51 FEET MSL.

NOTE: RWY 26L, SHIP 1.1 NM FROM DER, ON CENTERLINE, 208 FEET AGL / 208 FEET MSL.

NOTE: RWY 26R, MULTIPLE LIGHT POLES BEGINNING 2120 FEET FROM DER, 813 FEET RIGHT OF CENTERLINE, UP TO 105 FEET AGL/111 FEET MSL.

CONTROLLING OBSTACLES:

REMARKS:

FLIGHT INSPECTED BY:

PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, DECEMBER 22, 2017, SUBJECT: FLIGHT INSPECTION REVIEW NOT REQUIRED.

OFFICE SYMBOL:

DATE:

*Digitally signed by
ADOLFO D URRUTIA*

DEVELOPED BY:

KELLY DEAN

KELLY D DEAN

*Digitally signed by KELLY D DEAN
Date: 2018.07.02 12:29:54 -05'00'*

OFFICE SYMBOL:

AJV-5431

Jul 06, 2018

DATE:

07/02/2018

APPROVED BY:

PATRICK MULQUEEN

*Digitally signed by
ADOLFO D URRUTIA
Jul 06, 2018*

OFFICE SYMBOL:

AJV-5430

DATE:

REQUIRED EFFECTIVE DATE:

ROUTINE

COORDINATED WITH:

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

OTHER:

CHANGES - REASONS:

1. ADDED TAKEOFF OBSTACLE NOTES - PROVIDE LOW CLOSE IN INFO TO AIRCRAFT USING ALL SIDS. PER MEMO 259.

QUALITY
3
CHECKED

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> DUPAGE	<u>AIRPORT ID</u> KDPA	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 20R	<u>ORIGINAL/AMENDMENT</u> 1F	<u>CITY</u> CHICAGO/WEST CHICAGO	<u>STATE</u> IL	
<u>AIRPORT ELEVATION</u> 759	<u>TDZE</u> 757	<u>SUPERSEDED</u> RNAV (GPS) RWY 20R	<u>ORIGINAL/AMENDMENT</u> 1E	<u>DATED</u> 03/29/2018	<u>MAG VAR</u> 1W	<u>EPOCH YEAR</u> 1985
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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>
DPA VOR/DME		DUKBE		TF	FO	2.00	031.39	14.66	3000
NUELG		DUKBE		TF	FO	2.00	072.58	22.21	3000
FARMM	IAF	DUKBE	NOPT	TF	FB	1.00	151.94	16.11	3000
DUKBE	IF/IAF	FRTZZ		TF	FB	1.00	195.06	6.20	2500
FRTZZ	FAF	SUCOP/1.80 NM TO RW20R		TF	FB	0.30	195.04	3.55	
SUCOP/1.80 NM TO RW20R		RW20R	MAP	TF	FO	0.30	195.04	1.80	
RW20R	MAP	1043 MSL		CA			195.04		
1043 MSL		FABUG		DF	FB	1.00			
FABUG		JOT VOR/DME		TF	FO	1.00	187.21	16.33	2500

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW20R

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2500 DIRECT FABUG AND ON TRACK 187.21 TO JOT VOR/DME AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. HOLD N DUKBE, RT, 195.06 INBOUND, 3000 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 195.04 FAF: FRTZZ DIST FAF TO MAP: 5.35 DIST FAF TO THLD: 5.35

4. MIN ALT: DUKBE 3000, FRTZZ 2500, SUCOP/1.80 NM TO RW20R 1360*

5. DIST TO THLD FROM OM: MM: IM: 150 HAT: 286 HAT: 0.77 GS ANT:

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

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

8. MSA FROM: RW20R 3400

PBN REQUIREMENTS NOTE:

RNP APCH

NOTES:

CHART NOTE: RWY 20R 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 PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT FARMM ON V24-100-228 NORTHWEST BOUND.
CHART NOTE: CIRCLING RWY 15, 28, 33 NA AT NIGHT.

ADDITIONAL FLIGHT DATA:

CHART VDP AT 1.14 NM TO RW20R*
*LNAV ONLY
WAAS CHANNEL #45921
REFERENCE PATH ID: W20A
CHART FAS OBST: 908 BLDG 415513N/0881522W.
HOLD SW, RT, 051.00 INBOUND
LTP HAE: 197 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	1043	7/8	286	1043	7/8	286	1043	7/8	286	1043	7/8	286			
LNAV/VNAV DA	1080	1	323	1080	1	323	1080	1	323	1080	1	323			
LNAV MDA	1160	1	403	1160	1	403	1160	1 1/8	403	1160	1 1/8	403			
CIRCLING	1260	1	501	1260	1	501	1360	1 3/4	601	1360	2	601			



CHANGES - REASONS

- 1. PROFILE LINE 7, 20:1 IS CLEAR ADDED - IAW 8260.19H PARA 8-6-7G(3).
- 2. PROFILE NOTE ADDED: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}) - ALTHOUGH VGSI IS PUBLISHED AT SAME ANGLE AND TCH AS THE RNAV FINAL, THE VGSI HAS NOT BEEN COMMISSIONED AND IS NOT VISUALLY COINCIDENT BASED ON FLIGHT CHECK ASSESSMENT.
- 3. NOTE DELETED: DME/DME RNP-0.3 NA - NOTE REPLACED WITH NEW PBN EQUIPMENT REQUIREMENT NOTE.
- 4. PBN REQUIREMENTS NOTE ADDED: RNP APCH - PER MEMO 257.
- 5. FAHRENHEIT TEMPS DELETED FROM NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -16C (4F) OR ABOVE 54C (130F) - PER 8260.19H 8-6-9S.
- 6. NOTE DELETED: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE AURORA ALTIMETER SETTING AND INCREASE ALL DA 37 FEET, MDA 40 FEET, INCREASE LPV VISIBILITY ALL CATS 1/8 MILE, LNAV CAT C/D VISIBILITY 1/4 MILE - PRIMARY ALTIMETER SOURCE LOCAL, ON-AIRPORT AND ON WMSCR.
- 7. NOTE DELETED: VDP AND BARO-VNAV NA WHEN USING AURORA ALTIMETER SETTING - PRIMARY ALTIMETER SOURCE LOCAL, ON-AIRPORT AND ON WMSCR.
- 8. NOTE DELETED: ALTERNATE MINIMUMS NA WHEN LOCAL WEATHER NOT AVAILABLE - PRIMARY ALTIMETER SOURCE LOCAL, ON-AIRPORT AND ON WMSCR.
- 9. CHANGED NOTE: "NIGHT LANDING: RWY 15, 28, 33 NA" TO "CIRCLING RWY 15, 28, 33 NA AT NIGHT" - UPDATED CRITERIA.



COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZAU, ORD APP CON, DPA ATCT, AMGR

FLIGHT CHECKED BY

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, DEC 22, 2017.

DEVELOPED BY Digitally signed by
ANDREA CHANEY **ANDREA J CHANEY**
Jul 20, 2018

APPROVED BY
PATRICK MULQUEEN

OFFICE Digitally signed by DATE
DAVID TEFFETELLER
Aug 01, 2018

OFFICE DATE
AJV-5433 07/10/2018

Digitally signed by OFFICE DATE TITLE
DAVID TEFFETELLER AJV-5430 MANAGER
Aug 01, 2018



FAS DATA BLOCK INFORMATION

DATA FIELD	DATA
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KDPA
RUNWAY	RW20R
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W20A
LTP/FTP LATITUDE	415451.0760N
LTP/FTP LONGITUDE	0881448.5230W
LTP/FTP ELLIPSOIDAL HEIGHT	+00197
FPAP LATITUDE	415324.6000N
FPAP LONGITUDE	0881517.4200W
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	0440
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	4C4269D2
ADDITIONAL PATH POINT RECORD INFORMATION	
ICAO CODE	K5
LTP ORTHOMETRIC HEIGHT	+02303
FPAP ORTHOMETRIC HEIGHT	+02303



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

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CITY, STATE	AIRPORT	EFFECTIVE DATE	AMDT NO
CHICAGO/WEST CHICAGO, IL	DUPAGE	8 NOVEMBER 2018	1B

TAKEOFF MINIMUMS:

RWY 2L, 2R, 10, 20L, 20R, 28, 22: STANDARD.

RWY 15: 300-1 3/8 OR STANDARD WITH MINIMUM CLIMB OF 205 FT PER NM TO 1000.

TEXTUAL DEPARTURE PROCEDURES:

VISUAL CLIMB OVER AIRPORT:

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 2L, ELECTRICAL SYSTEM 9 FT FROM DER, 60 FT LEFT OF CENTERLINE, 5 FT AGL/756 FT MSL. TRANSMISSION LINE, POLE BEGINNING 1075 FT FROM DER, 621 FT LEFT OF CENTERLINE, UP TO 39 FT AGL/792 FT MSL. FENCE, TRANSMISSION LINE BEGINNING 1431 FT FROM DER, 745 FT LEFT OF CENTERLINE, UP TO 44 FT AGL/799 FT MSL. TREE, FENCE BEGINNING 1635 FT FROM DER, 635 FT LEFT OF CENTERLINE, UP TO 807 FT MSL. TREES BEGINNING 2248 FT FROM DER, 447 FT LEFT OF CENTERLINE, UP TO 831 FT MSL. TREE 2795 FT FROM DER, 930 FT LEFT OF CENTERLINE, 835 FT MSL. TREES BEGINNING 2832 FT FROM DER, 368 FT LEFT OF CENTERLINE, UP TO 836 FT MSL. TREES BEGINNING 2868 FT FROM DER, 407 FT LEFT OF CENTERLINE, UP TO 841 FT MSL. TREE 3866 FT FROM DER, 790 FT LEFT OF CENTERLINE, 104 FT AGL/856 FT MSL.

NOTE: RWY 2R, LIGHTING 2 FT FROM DER, 30 FT LEFT OF CENTERLINE, 1 FT AGL/759 FT MSL.

NOTE: RWY 10, LIGHTING, NAVAID BEGINNING 39 FT FROM DER, 77 FT RIGHT OF CENTERLINE, UP TO 757 FT MSL. BUILDING 629 FT FROM DER, 611 FT LEFT OF CENTERLINE, 22 FT AGL/777 FT MSL. TOWER 699 FT FROM DER, 632 FT LEFT OF CENTERLINE, 36 FT AGL/792 FT MSL. TREE 845 FT FROM DER, 679 FT LEFT OF CENTERLINE, 805 FT MSL. TREE, POLE, TOWER BEGINNING 871 FT FROM DER, 1 FT LEFT OF CENTERLINE, UP TO 815 FT MSL. TREE, BUILDING, POLE, STACK BEGINNING 1435 FT FROM DER, 133 FT RIGHT OF CENTERLINE, UP TO 827 FT MSL. TREES BEGINNING 1944 FT FROM DER, 130 FT RIGHT OF CENTERLINE, UP TO 829 FT MSL. TREES BEGINNING 2369 FT FROM DER, 170 FT LEFT OF CENTERLINE, UP TO 839 FT MSL. TREE 3006 FT FROM DER, 502 FT RIGHT OF CENTERLINE, 841 FT MSL. TREES BEGINNING 3396 FT FROM DER, 885 FT RIGHT OF CENTERLINE, UP TO 849 FT MSL.

NOTE: RWY 15, TREE, FENCE, VEHICLES ON TRAVERSE WAY BEGINNING 3 FT FROM DER, 240 FT LEFT OF CENTERLINE, UP TO 796 FT MSL. TREE, VEHICLES ON TRAVERSE WAY, BUILDING BEGINNING 136 FT FROM DER, 9 FT LEFT OF CENTERLINE, UP TO 44 FT AGL/797 FT MSL. TREE 493 FT FROM DER, 458 FT LEFT OF CENTERLINE, 809 FT MSL. TREE 538 FT FROM DER, 564 FT LEFT OF CENTERLINE, 813 FT MSL. TREE, VEHICLES ON TRAVERSE WAY BEGINNING 564 FT FROM DER, 74 FT RIGHT OF CENTERLINE, UP TO 74 FT AGL/836 FT MSL. TREE, VEHICLES ON TRAVERSE WAY, BUILDING, POLE, TRANSMISSION LINE BEGINNING 697 FT FROM DER, 8 FT RIGHT OF CENTERLINE, UP TO 838 FT MSL. TREES BEGINNING 1578 FT FROM DER, 29 FT LEFT OF CENTERLINE, UP TO 95 FT AGL/850 FT MSL. TOWER 1 NM FROM DER, 1677 FT LEFT OF CENTERLINE, 165 FT AGL/927 FT MSL.

NOTE: RWY 20L, SIGN BEGINNING 19 FT FROM DER, 89 FT RIGHT OF CENTERLINE, UP TO 3 FT AGL/752 FT MSL. FENCE 209 FT FROM DER, 547 FT LEFT OF CENTERLINE, 10 FT AGL/757 FT MSL. TREE 614 FT FROM DER, 481 FT LEFT OF CENTERLINE, 773 FT MSL. TREES BEGINNING 1058 FT FROM DER, 725 FT LEFT OF CENTERLINE, UP TO 805 FT MSL. TREE 1204 FT FROM DER, 736 FT LEFT OF CENTERLINE, 806 FT MSL. TREE 1455 FT FROM DER, 812 FT LEFT OF CENTERLINE, 816 FT MSL. TREES BEGINNING 1482 FT FROM DER, 398 FT LEFT OF CENTERLINE, UP TO 820 FT MSL. TREES BEGINNING 2194 FT FROM DER, 967 FT LEFT OF CENTERLINE, UP TO 844 FT MSL. TREES BEGINNING 2346 FT FROM DER, 888 FT LEFT OF CENTERLINE, UP TO 102 FT AGL/849 FT MSL.

NOTE: RWY 20R, VERTICAL STRUCTURE 19 FT FROM DER, 88 FT LEFT OF CENTERLINE, 3 FT AGL/753 FT MSL. TREE 645 FT FROM DER, 616 FT RIGHT OF CENTERLINE, 768 FT MSL.

NOTE: RWY 28, SIGN 38 FT FROM DER, 454 FT RIGHT OF CENTERLINE, 3 FT AGL/756 FT MSL. BUILDING 974 FT FROM DER, 681 FT RIGHT OF CENTERLINE, 781 FT MSL. TREE 1227 FT FROM DER, 683 FT RIGHT OF CENTERLINE, 789 FT MSL. TREE 1951 FT FROM DER, 968 FT LEFT OF CENTERLINE, 810 FT MSL. TREE 2146 FT FROM DER, 971 FT LEFT OF CENTERLINE, 814 FT MSL. TREES BEGINNING 2603 FT FROM DER, 1025 FT LEFT OF CENTERLINE, UP TO 830 FT MSL. TREE 2874 FT FROM DER, 1073 FT RIGHT OF CENTERLINE, 837 FT MSL.

NOTE: RWY 33, TERRAIN 15 FT FROM DER, 436 FT LEFT OF CENTERLINE, 759 FT MSL. NAVAID, TERRAIN BEGINNING 50 FT FROM DER, 94 FT RIGHT OF CENTERLINE, UP TO 760 FT MSL. BUILDING 195 FT FROM DER, 451 FT RIGHT OF CENTERLINE, 24 FT AGL/778 FT MSL. BUILDING 239 FT FROM DER, 424 FT RIGHT OF CENTERLINE, 25 FT AGL/780 FT MSL. TREE, FENCE BEGINNING 335 FT FROM DER, 338 FT LEFT OF CENTERLINE, UP TO 807 FT MSL. TREE, POLE, VEHICLES ON TRAVERSE WAY, BUILDING BEGINNING 354 FT FROM DER, 154 FT RIGHT OF CENTERLINE, UP TO 810 FT MSL. TREE, POLE BEGINNING 653 FT FROM DER, 168 FT RIGHT OF CENTERLINE, UP TO 812 FT MSL. TREE, POLE BEGINNING 704 FT FROM DER, 340 FT RIGHT OF CENTERLINE, UP TO 817 FT MSL. TREE, POLE, TRANSMISSION LINE BEGINNING 713 FT FROM DER, 6 FT LEFT OF CENTERLINE, UP TO 826 FT MSL. TREE, POLE BEGINNING 835 FT FROM DER, 29 FT RIGHT OF CENTERLINE, UP TO 832 FT MSL. TREE, POLE BEGINNING 904 FT FROM DER, 76 FT RIGHT OF CENTERLINE, UP TO 836 FT MSL. TREES BEGINNING 1068 FT FROM DER, 521 FT LEFT OF CENTERLINE, UP TO 838 FT MSL. TREE, POLE, TRANSMISSION LINE BEGINNING 1106 FT FROM DER, 153 FT RIGHT OF CENTERLINE, UP TO 841 FT MSL. TREES BEGINNING 1687 FT FROM DER, 20 FT LEFT OF CENTERLINE, UP TO 844 FT MSL. TREES BEGINNING 1865 FT FROM DER, 11 FT RIGHT

**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>
CHICAGO/WEST CHICAGO, IL	DUPAGE	8 NOVEMBER 2018	1B

OF CENTERLINE, UP TO 847 FT MSL. TREES BEGINNING 2250 FT FROM DER, 247 FT LEFT OF CENTERLINE, UP TO 96 FT AGL/854 FT MSL. TREES BEGINNING 2450 FT FROM DER, 32 FT RIGHT OF CENTERLINE, UP TO 110 FT AGL/859 FT MSL.

CONTROLLING OBSTACLES:

RWY 15: 927 FT MSL TOWER 415354.25N/0881314.62W

REMARKS:

TAKEOFF MINIMUMS FOR RWY 15 UPDATED TO COMPLY WITH CURRENT CRITERIA. CONTROLLING OBSTACLE (927 FT MSL TOWER) IS NOT A NEW OBSTACLE.

FLIGHT INSPECTED BY:

MARC WEBBER

Digitally signed by
ROBERT G HAMILTON
Aug 08, 2018

OFFICE SYMBOL:

FICO

DATE:

7/31/18

DEVELOPED BY:

LONNIE EVERHART (DALE SICKELS)

Digitally signed by
ROBERT G HAMILTON
Aug 08, 2018

OFFICE SYMBOL:

AJV-5400

DATE:

04/26/2018

APPROVED BY:

LONNIE EVERHART

Digitally signed by
ROBERT G HAMILTON
Aug 08, 2018

OFFICE SYMBOL:

AJV-5400

DATE:

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:

CHI APP CON, DPA ATCT, AMGR

CHANGES - REASONS:

1. UPDATED RWY 15 FROM STANDARD TO 300-1 3/8 OR STANDARD WITH 205 FT/NM TO 1000 - MITIGATES OBSTACLE PENETRATION
2. ADDED 927 FT MSL TOWER TO CONTROLLING OBSTACLES - REQUIRED BY CRITERIA.
3. UPDATED TAKEOFF OBSTACLE NOTES ALL RUNWAYS - NEW SURVEY DATA.



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> HENDRICKS COUNTY-GORDON GRAHAM FLD <u>AIRPORT ELEVATION</u> 898	<u>AIRPORT ID</u> K2R2	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 18	<u>ORIGINAL/AMENDMENT</u> 1C	<u>CITY</u> INDIANAPOLIS	<u>STATE</u> IN
	<u>TDZE</u> 898	<u>SUPERSEDED</u> RNAV (GPS) RWY 18	<u>ORIGINAL/AMENDMENT</u> 1B	<u>DATED</u> 03/29/2018	<u>MAG VAR</u> 3W
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>	<u>EPOCH YEAR</u> 1965

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>
EDMEW	IAF	GAKNE	NOPT	TF	FB	1.00	219.13	23.74	2700
JELLS	IAF	GAKNE	NOPT	TF	FB	1.00	116.72	9.15	2700
GAKNE	IF/IAF	FOBAG		TF	FB	1.00	183.41	7.03	2500
FOBAG	FAF	JANPO/1.70 NM TO RW18		TF	FB	0.30	183.41	3.19	
JANPO/1.70 NM TO RW18		RW18	MAP	TF	FO	0.30	183.41	1.70	
RW18	MAP	1420 MSL		CA			183.41		1420
1420 MSL		GAKNE		DF	FO	1.00			2700

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW18

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 1420 THEN CLIMBING RIGHT TURN TO 2700 DIRECT GAKNE AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT	SIDE OF COURSE	OUTBOUND	FT WITHIN	MILES OF (IAF)
2.	HOLD N GAKNE, RT, 183.41 INBOUND, 2700 FT. IN LIEU OF PT (IAF), MAX 6000.			
3. FAC:	183.41	FAF: FOBAG	DIST FAF TO MAP: 4.89	DIST FAF TO THLD: 4.89
4. MIN ALT:	GAKNE 2700, FOBAG 2500, JANPO/1.70 NM TO RW18 1480*			
5. DIST TO THLD FROM OM:	MM:	IM:	150 HAT:	285 HAT: 0.76
6. MIN GP INCPT:	2500	GP ALT AT FAF : FOBAG 2500	OM:	MM:
7. GP ANGLE:	3.00	34:1: IS NOT CLEAR	20:1: IS CLEAR	TCH: 44.0
8. MSA FROM:	RW18 3100			

PBN REQUIREMENTS NOTE:

RNP APCH

NOTES:

CHART NOTE: RWY 18 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART NOTE: BARO-VNAV NA.
*LNAV ONLY
CHART NOTE: USE INDIANAPOLIS INTL ALTIMETER SETTING .
CHART PLAVNVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT EDMEW ON V96-285 NORTH BOUND.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT JELLS ON V24-128-399 NORTHWEST BOUND.

ADDITIONAL FLIGHT DATA:

CHART INDIANAPOLIS INTL ASOS.
CHART CIRCLING ICON.
WAAS CHANNEL #56533
REFERENCE PATH ID: W18A
CHART FAS OBST: 1002 TREE 394646N/0862903W.
LTP HAE: 240.6 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	1215	1	317	1215	1	317	1215	1	317		NA				
LNAV/VNAV DA	1242	1 1/8	344	1242	1 1/8	344	1242	1 1/8	344		NA				
LNAV MDA	1300	1	402	1300	1	402	1300	1 1/8	402		NA				
CIRCLING	1380	1	482	1560	1	662	1600	2	702		NA				

CHANGES - REASONS

1. RAISED MISSED APPROACH CA LEG FROM 1300 TO 1420. - PERIODIC EVALUATION REQUIRED HIGHER CA LEG.
2. REMOVED DME/DME RNP-0.3 NA AND ADDED EQUIPMENT REQUIREMENTS NOTE: RNP APCH - 8260.58A TABLE 1-2-1.



COORDINATED WITH:

A4A ☐ ALPA ☐ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZID, AMGR, IND APP CON

FLIGHT CHECKED BY

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS
GROUP (AJW-33) MEMO, DEC 22, 2017.

DEVELOPED BY

JIMMY S. HUGHES

Digitally signed by

JIMMY S HUGHES

Jul 11, 2018

APPROVED BY

JULIE MORGAN

OFFICE

OFFICE

AJV-5422

OFFICE

AJV-5420

DATE

Digitally signed by

ROBERT G HAMILTON

Aug 03, 2018

DATE

07/11/2018

DATE

Digitally signed by

ROBERT G HAMILTON

Aug 03, 2018

TITLE

MANAGER

FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	2R2
RUNWAY	RW18
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W18A
LTP/FTP LATITUDE	394510.1815N
LTP/FTP LONGITUDE	0862830.4125W
LTP/FTP ELLIPSOIDAL HEIGHT	+02406
FPAP LATITUDE	394341.0100N
FPAP LONGITUDE	0862831.2400W
THRESHOLD CROSSING HEIGHT (TCH)	00044.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1408
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	9F27A92B

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K5
LTP ORTHOMETRIC HEIGHT	+02736
FPAP ORTHOMETRIC HEIGHT	+02736



FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
ILS STANDARD INSTRUMENT APPROACH PROCEDURE

TITLE 14 CFR PART 97.29

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<u>AIRPORT</u> TERRE HAUTE RGNL	<u>AIRPORT ID</u> KHUF	<u>PROCEDURE NAME</u> ILS OR LOC RWY 5	<u>ORIGINAL/AMENDMENT</u> 23C	<u>CITY</u> TERRE HAUTE	<u>STATE</u> IN	
<u>AIRPORT ELEVATION</u> 589	<u>TDZE</u> 578	<u>SUPERSEDED</u> ILS OR LOC RWY 5	<u>ORIGINAL/AMENDMENT</u> 23B	<u>DATED</u> 03/29/2018	<u>MAG VAR</u> 2W	<u>EPOCH YEAR</u> 2000
<u>FACILITY</u> I-HUF	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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>
TTH VORTAC		YINNO LOM/TTH 9.16 DME	FAF/IAF				226.79	9.16	2300
WORKE INT/BIB 35.16 DME	IAF	CSUCH/TTH 20.00 DME	NOPT				045.52	13.06 (TTH R-226)	2200
CSUCH/TTH 20.00 DME	IF	YINNO LOM/TTH 9.16 DME					049.20	10.81 (I-HUF)	2200

MISSED APPROACH

MAP:

ILS: DA
LOC: 4.66 NM AFTER YINNO LOM/TTH 9.16 DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2300 DIRECT TTH VORTAC AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

- PT R SIDE OF COURSE 229.20 OUTBOUND 2300 FT WITHIN 10 MILES OF YINNO LOM (IAF)
-
- FAC: 049.20 FAF: YINNO LOM/TTH 9.16 DME DIST FAF TO MAP: 4.66 DIST FAF TO THLD: 4.66
- MIN ALT: YINNO LOM/TTH 9.16 DME 2200
- DIST TO THLD FROM OM: 4.66 MM: IM: 150 HAT: GS ANT: 749
- MIN GS INCPT: 2200 GS ALT AT FAF : OM: 2125 MM: IM:
- GP ANGLE: 3.00 34:1: 20:1: TCH: 39.8
- MSA FROM: HU LOM 2600

EQUIPMENT REQUIREMENTS NOTES:

ADF OR DME REQUIRED.



NOTES:

CHART NOTE: VDP NA WHEN USING PARIS ALTIMETER SETTING.
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE PARIS ALTIMETER SETTING AND INCREASE ALL DA 61 FEET AND ALL MDA 80 FEET, INCREASE S-LOC 5 CATS C/D VISIBILITY TO RVR 4500.
CHART NOTE: FOR INOPERATIVE ALS, INCREASE S-LOC-5 CAT C/D VISIBILITY TO RVR 5500, WHEN USING PARIS ALTIMETER SETTING INCREASE S-ILS 5 ALL CATS VISIBILITIES TO RVR 4500 AND S-LOC RWY 5 ALL CATS VISIBILITY 1/2 SM.
CHART NOTE: **RVR 1800 AUTHORIZED WITH USE OF FD OR AP OR HUD TO DA, NA WHEN USING PARIS ALTIMETER SETTING.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON
CHART: ASR.
CHART VDP AT 5.53 DME*
DISTANCE VDP TO THLD 1.03 NM
* LOC ONLY
CHART FAS OBST: 687 TREE 392536N/0872026W.
HOLD NE, RT, 229.00 INBOUND

MINIMUMS:

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

ALTERNATE: NA ☐ ILS: STANDARD; LOC: 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
S-ILS 05**	778	2400	200	778	2400	200	778	2400	200	778	2400	200			
S-LOC 05	940	2400	362	940	2400	362	940	3500	362	940	3500	362			
CIRCLING	1020	1	431	1040	1	451	1220	1 3/4	631	1220	2	631			



CHANGES - REASONS

- 1. CHANGED INOP NOTE FROM: FOR INOP MALSR, WHEN USING PARIS ALTIMETER SETTING INCREASE S-ILS 5 ALL CATS VISIBILITY TO RVR 5000 AND S-LOC RWY 5 CATS C/D VISIBILITY TO 1 3/8. TO: FOR INOPERATIVE ALS, INCREASE S-LOC-5 CAT C/D VISIBILITY TO RVR 5500, WHEN USING PARIS ALTIMETER SETTING INCREASE S-ILS 5 ALL CATS VISIBILITIES TO RVR 4500 AND S-LOC RWY 5 ALL CATS VISIBILITY 1/2 MILE. - NEW VIS CHECK.
- 2. UPDATED LOC CONTROLLING OBST ID FROM KHUFT00028 TO 18-041715 - NEW OBSTACLE DATABASE.
- 3. LOWERED CAT-D CIRCLING MDA FROM 1260 HAA/671 2 1/4 TO 1220 HAA/631 2 - 860 TOWER (5D) MATCHING VOR RWY 5 AMDT 18.
- 4. CHANGED BU ALTIMETER NOTE FROM WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE PARIS, IL ALTIMETER SETTING AND INCREASE ALL DA 61 FEET AND ALL MDA 80 FEET, INCREASE S-LOC 5 CATS C/D VISIBILITY TO RVR 4000 AND CIRCLING CAT C/D VISIBILITY 1/4/MILE. TO WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE PARIS, IL ALTIMETER SETTING AND INCREASE ALL DA 61 FEET AND ALL MDA 80 FEET, INCREASE S-LOC 5 CATS C/D VISIBILITY TO RVR 4500 - NEW VIS CHECK.
- 5. ADDED ADF OR DME REQUIRED - IAW 8260.19H 8-6-8.
- 6. REMOVED NON PRECISION ALTERNATE MINIMUMS - YINNO LOM NOT MONITORED.
- 7. UPDATED TO NEW CIRCLING RADII - TO MATCH VOR RWY 5 AMDT 18.
- 8. YINNO DME DISTANCE CHANGED FROM 9.19 TO 9.16 - CORRECT ADMINISTRATIVE ERROR.
- 9. ADDED VDP TO PROCEDURE.

PDF EDITS:

- 1. NOTES: ADDED "NA WHEN USING PARIS ALTIMETER SETTING." TO RVR 1800 NOTE.
- 2. ALT MINS LOC: REPLACED STANDARD WITH NA.
- 3. REMOVED PROFILE #6: YINNO LOM/TTH 9.16 DME 2200.
- 4. CIRCLING CAT-B ADJUSTMENT CHANGED FROM HA20 TO HAA.
- 5. ADDED THRESHOLD COORDINATES TO AIRSPACE LETTER.
- 6. ADDED GS INTCP TO ILS FINAL.

THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 04/02/2018.

- 1. TERMINAL ROUTES: COURSE FROM WORKE TO CSUCH CHANGED FROM 049.82 TO 045.52 TO CORRECT ADMINISTRATIVE ERROR.
- 2. ALTERNATE: LOC CHANGED FROM NA TO STANDARD.



COORDINATED WITH:

A4A ☒ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: ZID ARTCC, HUF ATCT, AMGR

FLIGHT CHECKED BY

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, DEC 22, 2017.

DEVELOPED BY

LONNIE EVERHART (PETE BUSSEY)

APPROVED BY

LONNIE EVERHART

OFFICE

OFFICE

AJV-5400

OFFICE

AJV-5400

DATE

DATE

04/02/2018

DATE

Digitally signed by
ROBERT G HAMILTON
Aug 14, 2018

Digitally signed by
ROBERT G HAMILTON
Aug 14, 2018

Digitally signed by
ROBERT G HAMILTON
Aug 14, 2018

TITLE

MANAGER



**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
LOC BC STANDARD INSTRUMENT APPROACH PROCEDURE
TITLE 14 CFR PART 97.25**

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<u>AIRPORT</u> TERRE HAUTE RGNL	<u>AIRPORT ID</u> KHUF	<u>PROCEDURE NAME</u> LOC BC RWY 23	<u>ORIGINAL/AMENDMENT</u> 19D	<u>CITY</u> TERRE HAUTE	<u>STATE</u> IN	
<u>AIRPORT ELEVATION</u> 589	<u>TDZE</u> 582	<u>SUPERSEDED</u> LOC BC RWY 23	<u>ORIGINAL/AMENDMENT</u> 19C	<u>DATED</u> 03/29/2018	<u>MAG VAR</u> 2W	<u>EPOCH YEAR</u> 2000
<u>FACILITY</u> I-HUF	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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>
JUMOM/TTH 15.00 DME CW	IAF	FIMAP/TTH 15.00 DME	NOPT				15.00 DME ARC (TTH LR-036)		2400
LUPCE/TTH 15.00 DME CCW	IAF	FIMAP/TTH 15.00 DME	NOPT				15.00 DME ARC (TTH LR-053)		2400
FIMAP/TTH 15.00 DME	IF	HUDOL/TTH 10.00 DME					229.22	5.00 (I-HUF)	2400
HUDOL/TTH 10.00 DME		TTH VORTAC					229.22	10.00 (I-HUF)	1700

MISSED APPROACH

MAP:

LOC: BRNTN/TTH 2.30 DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2000 THEN CLIMBING LEFT TURN TO 2400 DIRECT TTH VORTAC AND HOLD (TACAN AIRCRAFT CLIMB TO 2600 VIA TTH VORTAC R-228 TO HIPPO/TTH 10.00 DME AND HOLD SW, RT, 048.31 INBOUND)

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT L **SIDE OF COURSE** 049.22 **OUTBOUND** 2400 **FT WITHIN** 10 **MILES OF** TTH VORTAC (IAF)
- 2.
3. **FAC:** 229.22 **FAF:** TTH VORTAC **DIST FAF TO MAP:** 2.30 **DIST FAF TO THLD:** 3.02
4. **MIN ALT:** TTH VORTAC 1700
8. **MSA FROM:** TTH VORTAC 2600

EQUIPMENT REQUIREMENTS NOTES:

NOTES:

CHART PROFILE NOTE: DISREGARD GS INDICATIONS.
CHART NOTE: SIMULTANEOUS RECEPTION OF I-HUF AND TTH VORTAC DME REQUIRED.



CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE PARIS, IL ALTIMETER SETTING AND INCREASE ALL MDA 80 FEET AND S-23 CAT C VISIBILITY 1/4 MILE, CAT D VISIBILITY 1/8 MILE AND CIRCLING CAT C/D/E VISIBILITIES 1/4 MILE.
CHART PLANVIEW NOTE: PROCEDURE TURN NA FOR CAT E
CHART NOTE: CIRCLING NA FOR CAT E NW OF RWY 5-23.
CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).

ADDITIONAL FLIGHT DATA:

CHART: ASR.
CHART CIRCLING ICON.
TTH VORTAC TO RW23: 3.33/50.
CHART TTH R-254 AT JUMOM.
CHART TTH R-189 AT LUPCE.
FAS OBST: 719 TREE 392822N/0871650W.
HOLD NE, RT, 229.00 INBOUND
HOLD SW, RT, 048.31 INBOUND

MINIMUMS:

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

ALTERNATE: NA ☐ LOC: STANDARD - CAT D 800-2 1/4, CAT E 800-2 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-LOC 23	980	1	398	980	1	398	980	1 1/8	398	980	1 1/4	398	980	1 1/2	398
CIRCLING	1020	1	431	1040	1	451	1220	1 3/4	631	1220	2 1/4	631	1260	2 1/2	671

CHANGES - REASONS

- REMOVED NOTE CIRCLING RWY 14 NA AT NIGHT - 20:1 PENETRATION REMOVED APRIL 2014.
- RAISED CIRCLING CAT C MDA FROM 1040/HAA 451 VISIBILITY 1 1/2 TO 1220/HAA 631 VISIBILITY 1 3/4 - TO MATCH VOR RWY 5.
- RAISED CIRCLING CAT D MDA FROM 1140/HAA 551 VISIBILITY 2 TO 1220/HAA 631 VISIBILITY 2 - TO MATCH VOR RWY 5.
- RAISED CIRCLING CAT E MDA FROM 1220/HAA 631 VISIBILITY 2 1/4 TO 1260/HAA 671 VISIBILITY 2 1/2 - MATCH ASR MINIMUMS.
- ADDED CHART NOTE: CHART CIRCLING ICON - IAW 8260.19H PARA 8-6-10
- UPDATED CIRCLING RADII - IAW 8260.3C
- CHANGED CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE PARIS ALTIMETER SETTING AND INCREASE ALL MDA 80 FEET AND S-23 CATS C/D VISIBILITIES 1/4 MILE TO CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE PARIS, IL ALTIMETER SETTING AND INCREASE ALL MDA 80 FEET AND S-23 CAT C VISIBILITY 1/4 MILE, CAT D VISIBILITY 1/8 MILE AND CIRCLING CAT C/D/E VISIBILITIES 1/4 MILE - NEW VIS CHECK.
- INCREASED S-23 CAT C VISIBILITY FROM 1 MILE TO 1 1/8 MILE - NEW VIS CHECK
- CHANGED CONTROLLING OBST FOR CIRCLING CAT A/B FROM 719 TREE TO 720 TREE - TO MATCH VOR RWY 5, NO IMPACT.
- ADDED CHART NOTE: SIMULTANEOUS RECEPTION OF I-HUF AND TTH VORTAC REQUIRED.
- ADDED NAMED FIX (BRNTN) FOR MAP - IAW 8260.19H 2-10-5A

COORDINATED WITH:

A4A ☒ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: ZID ARTCC, HUF ATCT, AMGR

FLIGHT CHECKED BY

SCOTT WIEBE

Digitally signed by
ROBERT G HAMILTON
Aug 14, 2018

OFFICE

FICO

DATE

07/29/2018

DEVELOPED BY

LONNIE EVERHART (STEVEN SCHUTRUM)

Digitally signed by
ROBERT G HAMILTON
Aug 14, 2018

OFFICE

AJV-5400

DATE

04/12/2018

APPROVED BY

LONNIE EVERHART

Digitally signed by
ROBERT G HAMILTON
Aug 14, 2018

OFFICE

AJV-5400

DATE

TITLE
MANAGER

QUALITY
9
CHECKED

**U.S. DEPARTMENT OF TRANSPORTATION -- FEDERAL AVIATION ADMINISTRATION
RADAR -- STANDARD INSTRUMENT APPROACH PROCEDURE -- FLIGHT STANDARDS SERVICE -- FAR PART 97.31**

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.

Initial approach minimum altitude(s) shall correspond with those established for enroute operation in the particular area or as set forth below. Positive identification must be established with the radar controller. From initial contact with radar to final authorized landing minimums, the instructions of the radar controller are mandatory except when; (A) Visual contact is established on final approach at or before descent to the authorized landing minimums; or (B) at pilot's discretion if it appears desirable to discontinue the approach.

Except when the radar controller may direct otherwise prior to final approach, a missed approach shall be executed as provided below when; (A) communications on final approach is lost for more than 5 seconds during a precision approach, or for more than 30 seconds during a surveillance approach; (B) directed by radar controllers; (C) visual contact is not established upon descent to authorized landing minimums; or (D) if landing is not accomplished.

RADAR TERMINAL AREA MANEUVERING SECTORS AND ALTITUDES <i>(Sectors and distances measured from radar antenna)</i>												MISSED APPROACH			
FROM	T O	DISTANCE	ALTITUDE	DISTANCE	ALTITUDE	DISTANCE	ALTITUDE	DISTANCE	ALTITUDE	DISTANCE	ALTITUDE	MAP:			
												RWY 5, 23, 32: THLD.			
AS ESTABLISHED BY THE CURRENT TERRE HAUTE ASR MINIMUM VECTORING ALTITUDE CHART.												RWY 5: CLIMB TO 2500, THEN RIGHT TURN DIRECT TTH VORTAC AND HOLD, NE, RT, 2291NBOUND. RWY 23: CLIMB TO 2500, THEN LEFT TURN DIRECT TTH VORTAC AND HOLD, NE, RT, 2291NBOUND. RWY 32: CLIMB TO 1500, THEN CLIMBING RIGHT TURN TO 2500 DIRECT TTH VORTAC AND HOLD NE, RT, 229 INBOUND, (CONT ON 8260-10)			

MINIMUMS

TAKEOFF:		STANDARD		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	V I S	HAT/HAA	DH/MDA	V I S	HAT/HAA	DH/MDA	V I S	HAT/HAA	DH/MDA	V I S	HAT/HAA
S-5		1220	2400	642	1220	2400	642	1220	1 3/8	642	1220	1 3/8	642	1220	1 3/8	642
S-23		1100	1	518	1100	1	518	1100	1 3/8	518	1100	1 3/8	518	1100	1 3/8	518
S-32		960	1	371	960	1	371	960	1	371	960	1	371	960	1	371
CIRCLING		1220	1	631	1220	1	631	1220	1 7/8	631	1220	2	631	1260	2 1/2	671

NOTES:

RWY 5: FAF 6 MILES FROM THRESHOLD, MINIMUM ALTITUDE 2500, FINAL APPROACH COURSE 045. RECOMMENDED ALTITUDES: 5 MILES 2180, 4 MILES 1880, 3 MILES 1560, 2 MILES 1240.
RWY 23: FAF 6 MILES FROM THRESHOLD, MINIMUM ALTITUDE 2500, FINAL APPROACH COURSE 225, RECOMMENDED ALTITUDES: 5 MILES 2180, 4 MILES 1880, 3 MILES 1560, 2 MILES 1240.
RWY 32: FAF 6 MILES FROM THRESHOLD, MINIMUM ALTITUDE 2500, MINIMUM ALTITUDE 2 MILE FIX 1240, FINAL APPROACH COURSE 313, RECOMMENDED ALTITUDE: 5 MILES 2180, 4 MILES 1880, 3 MILES 1560, 2 MILES 1240.
CHART NOTE: CIRCLING NA NW OF RWY 5-23 FOR CAT E AIRCRAFT. @NA WHEN CONTROL TOWER CLOSED.
CHART NOTE: WHEN CONTROL TOWER CLOSED, PROCEDURE NA. #CAT E 800 - 2 1/2

ADDITIONAL FLIGHT DATA

TDZE: 578 RWY: 5 TDZE: 582 RWY: 23
TDZE: 589 RWY: 32 TDZE: RWY:

FAS OBST:
RWY 5: 910 TOWER 392222.00N/0872328.00W
RWY 23: 849 AAO 393009.88N/0871106.43W
RWY 32: 703 TREE 392659.13N/0871603.19W
CHART: CIRCLING ICON.

QUALITY
16
CHECKED

LOST COMMUNICATIONS (ALL RWYS): As directed by ATC on initial contact.

MAG VAR: 2E EPOCH YEAR: 2000

CITY AND STATE	ELEVATION: 589 AIRPORT NAME:	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP
TERRE HAUTE, IN	TERRE HAUTE RGNL	HUF ASR	RADAR 1, AMDT 5B 8 NOVEMBER 2018	AMDT: 5A
				DATED: 03/29/18

U.S. 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.	
RADAR-1		INSTRUMENT APPROACH PROCEDURE FLIGHT STANDARDS SERVICES		
MISSED APPROACH (CONT): RWY 32: CONTINUE CLIMB-IN-HOLD TO 2500. NOTES (CONT): CHART NOTE: RWY 5, FOR INOPERATIVE ALS, INCREASE CAT E VISIBILITY TO 1 7/8 SM. CHART NOTE: RWY 32, HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.				
QUALITY 16 CHECKED				
CITY AND STATE	ELEVATION: 589 TDZE:	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
TERRE HAUTE, IN	AIRPORT NAME: TERRE HAUTE RGNL	HUF ASR	RADAR 1, AMDT 5B 8 NOVEMBER 2018	AMDT: 5A
				DATED: 03/29/18

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> TERRE HAUTE RGNL	<u>AIRPORT ID</u> KHUF	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 5	<u>ORIGINAL/AMENDMENT</u> ORIG-E	<u>CITY</u> TERRE HAUTE	<u>STATE</u> IN
<u>AIRPORT ELEVATION</u> 589	<u>TDZE</u> 578	<u>SUPERSEDED</u> RNAV (GPS) RWY 5	<u>ORIGINAL/AMENDMENT</u> ORIG-D	<u>DATED</u> 03/29/2018	<u>MAG VAR</u> 2W
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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>
TTH VORTAC		POKHY		TF	FO	2.00	230.05	15.13	2600
GOZUM	IAF	POKHY	NOPT	TF	FB	1.00	315.96	10.87	2600
IFIGO	IAF	POKHY	NOPT	TF	FB	1.00	134.28	8.40	2600
POKHY	IF/IAF	SOXME		TF	FB	1.00	049.10	6.02	2100
SOXME	FAF	VARUY/1.70 NM TO RW05		TF	FB	0.30	049.17	2.91	
VARUY/1.70 NM TO RW05		RW05	MAP	TF	FO	0.30	049.17	1.70	
RW05	MAP	880 MSL		CA			049.17		
880 MSL		IPEDY		DF	FO	1.00			2400

MISSED APPROACH

MAP:

LPV: DA
 LNAV/VNAV: DA
 LNAV: RW05

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2400 DIRECT IPEDY AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT	SIDE OF COURSE	OUTBOUND	FT WITHIN	MILES OF	(IAF)
2.	HOLD SW POKHY, RT, 049.10 INBOUND, 2600 FT. IN LIEU OF PT (IAF), MAX 6000.				
3. FAC:	049.17	FAF: SOXME	DIST FAF TO MAP: 4.61	DIST FAF TO THLD: 4.61	
4. MIN ALT:	POKHY 2600, SOXME 2100, VARUY/1.70 NM TO RW05 1140*				
5. DIST TO THLD FROM OM:	MM:	IM:	150 HAT:	302 HAT: 0.83	GS ANT:
6. MIN GP INCPT: 2100	GP ALT AT FAF : SOXME 2100			OM:	MM: IM:
7. GP ANGLE: 3.00	34:1: IS CLEAR	20:1: IS CLEAR	TCH: 39.8		
8. MSA FROM:	RW05 2600				

PBN REQUIREMENTS NOTES:

RNP APCH.

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -16C (4F) OR ABOVE 47C (116F).
*LNAV ONLY
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON TTH VORTAC AIRWAY RADIALS 140 CW 320.
CHART NOTE: VDP AND BARO-VNAV NA WHEN USING PARIS ALTIMETER SETTING.
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE PARIS ALTIMETER SETTING AND INCREASE ALL DA 61 FEET, AND ALL MDA 80 FEET. INCREASE LPV VISIBILITY ALL CATS AND LNAV CAT C VISIBILITY 1/4 SM AND CIRCLING CAT C/D VISIBILITY 1/4 SM.
CHART NOTE: FOR INOPERATIVE ALS, INCREASE LPV ALL CATS VISIBILITY TO RVR 4500, LNAV/VNAV ALL CATS AND LNAV CAT C/D VISIBILITY TO RVR 5500, WHEN USING PARIS ALTIMETER SETTING INCREASE LPV AND LNAV/VNAV VISIBILITY ALL CATS TO RVR 6000, INCREASE LNAV CAT C/D VISIBILITY TO 1 3/8 SM.

ADDITIONAL FLIGHT DATA:

CHART: ASR.
CHART CIRCLING ICON.
CHART VDP AT 1.03 NM TO RW05*
*LNAV ONLY
WAAS CHANNEL #82109
REFERENCE PATH ID: W05A
FAS OBST: 679 TREE 392503N/0872008W.
HOLD NE, RT, 229.34 INBOUND
LTP HAE: 141.6 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
LPV DA	880	2400	302	880	2400	302	880	2400	302	880	2400	302			
LNAV/VNAV DA	929	4000	351	929	4000	351	929	4000	351	929	4000	351			
LNAV MDA	940	2400	362	940	2400	362	940	3500	362	940	5000	362			
CIRCLING	1020	1	431	1040	1	451	1220	1 3/4	631	1220	2	631			



CHANGES - REASONS

- 1. RAISED CIRCLING CAT C MDA FROM 1040/HAA 451 VISIBILITY 1 1/2 TO 1220/HAA 631 VISIBILITY 1 3/4 - 857 ELEVATOR TO MATCH VOR RWY 5 AMDT 18.
- 2. RAISED CIRCLING CAT D MDA FROM 1140/HAA 551 VISIBILITY 2 TO 1220/HAA 631 - 860 TOWER TO MATCH VOR RWY 5 AMDT 18.
- 3. CHANGED INOP NOTE FROM: FOR INOPERATIVE MALSR, FOR INOPERATIVE MALSR INCREASE LPV VISIBILITY ALL CATS 1/2 MILE AND LNAV CAT D VISIBILITY 1/4 MILE. TO: FOR INOPERATIVE ALS, INCREASE LPV ALL CATS VISIBILITY TO RVR 4500, LNAV/VNAV ALL CATS AND LNAV CAT C/D VISIBILITY TO RVR 5500. - NEW VIS CHECK.
- 4. CHANGED INOP NOTE FROM: FOR INOPERATIVE MALSR, WHEN USING PARIS ALTIMETER SETTING INCREASE LPV VISIBILITY ALL CATS TO RVR 6000, LNAV/VNAV ALL CATS AND LNAV CAT D TO 1 1/2 AND CAT C TO 1 1/4 TO: FOR INOPERATIVE ALS, WHEN USING PARIS ALTIMETER SETTING INCREASE LPV AND LNAV/VNAV VISIBILITY ALL CATS TO RVR 6000, INCREASE LNAV CAT C/D TO 1 3/8 SM. - NEW INOP TABLE.
- 5. CHART PBN NAVSPEC REQUIREMENT NOTE: RNP APCH. - IAW 8260.19H PARA 8-6-8.
- 6. DELETED NOTE: DME/DME RNP-0.3 NA. - IAW 8260.19H PARA 8-6-8.
- 7. RAISED LPV, LNAV/VNAV, LNAV HMAS FROM 655/656/690 TO 665/812/840 - NEW IPDS EVALUATION.
- 8. CHANGED CONTROLLING OBST FOR CIRCLING CAT A FROM 719 TREE TO 720 TREE - TO MATCH VOR RWY 5 AMDT 18, NO IMPACT.
- 9. CHANGED CONTROLLING OBST FOR CIRCLING CAT B FROM 693 TANK TO 720 TREE - TO MATCH VOR RWY 5 AMDT 18, NO IMPACT.
- 10. ADDED REMARK, ALL VEGETATION NO HIGHER THEN 30 FEET WITHIN 5 NM OF KHUF - PER FPO CHECKLIST PROVIDED FOR RWY 23 RNAV (GPS) AMENDMENT 1.
- 11. UPDATED TO NEW CIRCLING RADII - TO MATCH VOR RWY 5 AMDT 18.
- 12. CHART CIRCLING ICON - IAW 8260.19H PARA 8-6-10.
- 13. UPDATED LPV CONTROLLING OBST ID FROM KHUF0030 TO 18-024971 - NEW OBSTACLE DATABASE.
- 14. RAISED LNAV CAT-C VISIBILITY FROM RVR 2400 TO RVR 3500 - NEW VIS CHECK.
- 15. FAS DATA: UPDATED THRESHOLD COORDINATES - PER CURRENT AIRNAV DATA.
- 16. CHANGED CRC REMAINDER FROM B352AB79 TO 4F4EEB1C - UPDATED THRESHOLD COORDINATES AND FPAP COORDINATES.
- 17. CHANGED BU ALITMETER NOTE FROM: INCREASE LPV AND LNAV/VNAV VISIBILITY ALL CATS AND LNAV CAT C VISIBILITY 1/4 MILE. TO: INCREASE LPV VISIBILITY ALL CATS AND LNAV CAT C VISIBILITY 1/4 SM AND CIRCLING CAT C/D VISIBILITY 1/4 SM.

- PDF EDITS:
- 1. ADDED HAA TO CIRCLING CAT-B.
 - 2. CHANGED INCORRECTLY PULLED REMARK FORM CRITICAL TEMP REMARKS; AVERAGE COLD TEMPERATURE DERIVED FROM STANDARD -30C ISA DEVIATION.
 - 3. ADDED THRESHOLD COORDINATES TO AIRSPACE LETTER; 392625.88N/0871923.37W.



COORDINATED WITH:

A4A ☒ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: ZID, HUF ATCT, AMGR, ATA

FLIGHT CHECKED BY

SCOTT WIEBE

DEVELOPED BY

LONNIE EVERHART (PETE BUSSEY)

APPROVED BY

LONNIE EVERHART

Digitally signed by
ROBERT G HAMILTON
Aug 14, 2018

Digitally signed by
ROBERT G HAMILTON
Aug 14, 2018

Digitally signed by
ROBERT G HAMILTON
Aug 14, 2018

OFFICE

FICO

OFFICE

AJV-5400

OFFICE

AJV-5400

DATE

7/29/18

DATE

04/03/2018

DATE

TITLE

MANAGER



FAS DATA BLOCK INFORMATION

DATA FIELD	DATA
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KHUF
RUNWAY	RW05
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W05A
LTP/FTP LATITUDE	392625.8800N
LTP/FTP LONGITUDE	0871923.3715W
LTP/FTP ELLIPSOIDAL HEIGHT	+01416
FPAP LATITUDE	392726.4575N
FPAP LONGITUDE	0871758.9605W
THRESHOLD CROSSING HEIGHT (TCH)	00039.8
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	4F4EEB1C
ADDITIONAL PATH POINT RECORD INFORMATION	
ICAO CODE	K5
LTP ORTHOMETRIC HEIGHT	+01744
FPAP ORTHOMETRIC HEIGHT	+01744



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> TERRE HAUTE RGNL	<u>AIRPORT ID</u> KHUF	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 14	<u>ORIGINAL/AMENDMENT</u> ORIG-D	<u>CITY</u> TERRE HAUTE	<u>STATE</u> IN
<u>AIRPORT ELEVATION</u> 589	<u>TDZE</u> 579	<u>SUPERSEDED</u> RNAV (GPS) RWY 14	<u>ORIGINAL/AMENDMENT</u> ORIG-C	<u>DATED</u> 03/29/2018	<u>MAG VAR</u> 2W
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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. 047/30 CW 227/30	NOPT	JOSTO	IF/IAF	2600
2. 227/30 CW 317/30		ENOCU	IAF	2600
3. 317/30 CW 047/30		CUDAN	IAF	2600

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>
CUDAN	IAF	JOSTO	NOPT	TF	FB	1.00	046.81	5.00	2600
ENOCU	IAF	JOSTO	NOPT	TF	FB	1.00	226.79	5.00	2600
JOSTO	IF/IAF	FETOV		TF	FB	1.00	136.78	6.07	2300
FETOV	FAF	RW14	MAP	TF	FO	0.30	136.84	5.19	
RW14	MAP	980 MSL		CA			136.84		
980 MSL		CORIE		DF	FO	1.00			2600

MISSED APPROACH

MAP:

LNAV: RW14

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2600 DIRECT CORIE AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. HOLD NW JOSTO, RT, 136.78 INBOUND, 2600 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 136.84

FAF: FETOV

DIST FAF TO MAP: 5.19

DIST FAF TO THLD: 5.19

4. MIN ALT: JOSTO 2600, FETOV 2300

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 NOT CLEAR

20:1: IS CLEAR

TCH:

8. MSA FROM:

PBN REQUIREMENTS NOTES:

RNP APCH.

NOTES:

CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART NOTE: VDP NA WHEN USING PARIS ALTIMETER SETTING.
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE PARIS ALTIMETER SETTING AND INCREASE ALL MDA 80 FEET, LNAV CAT C/D VISIBILITY 1/8 SM, AND CIRCLING CAT C/D 1/4 SM.
CHART NOTE: RWY 14 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.

ADDITIONAL FLIGHT DATA:

CHART: ASR.
CHART CIRCLING ICON.
FETOV TO RW14: 3.04/55.
CHART VDP AT 1.22 NM TO RW14*
*LNAV ONLY
CHART FAS OBST: 711 TOWER 392942N/0872257W.
CHART 825 TOWER 393051N/0872356W.
HOLD SE, RT, 317.02 INBOUND

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
LNAV MDA	980	1	401	980	1	401	980	1 1/4	401	980	1 1/4	401			
CIRCLING	1020	1	431	1040	1	451	1220	1 3/4	631	1220	2	631			



CHANGES - REASONS

- 1. UPDATED TO NEW CIRCLING RADII - TO MATCH VOR RWY 5 AMDT 18.
- 2. CHART CIRCLING ICON - IAW 8260.19H PARA 8-6-10.
- 3. RAISED CIRCLING CAT C MDA FROM 1040/HAA 451 VISIBILITY 1 1/2 TO 1220/HAA 631 VISIBILITY 1 3/4 - 857 ELEVATOR TO MATCH VOR RWY 5 AMDT 18.
- 4. RAISED CIRCLING CAT D MDA FROM 1140/HAA 551 TO 1220/HAA 631 - 860 TOWER TO MATCH VOR RWY 5 AMDT 18.
- 5. UPDATE BU ALTIMETER NOTE FROM: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE PARIS ALTIMETER SETTING AND INCREASE ALL MDA 80 FEET AND LNAV CAT D VISIBILITY 1/4 MILE TO: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE PARIS ALTIMETER SETTING AND INCREASE ALL MDA 80 FEET, VISIBILITY LNAV CAT D AND CIRCLING CAT C/D 1/4 SM - NEW VIS CHECK.
- 6. CHART PBN NAVSPEC REQUIREMENT NOTE: RNP APCH. - IAW 8260.19H PARA 8-6-8.
- 7. DELETED NOTE: DME/DME RNP-0.3 NA. - IAW 8260.19H PARA 8-6-8.
- 8. UPDATED 34:1 PENETRATIONS FOR RWY 14 - NEW IPDS EVALUATION.
- 9. RAISED, LNAV HMAS FROM 670 TO 880 - NEW IPDS EVALUATION.
- 10. CHANGED CONTROLLING OBST FOR CIRCLING CAT A FROM 719 TREE TO 720 TREE - TO MATCH VOR RWY 5 AMDT 18 NO IMPACT.
- 11. CHANGED CONTROLLING OBST FOR CIRCLING CAT B FROM 693 TANK TO 720 TREE - TO MATCH VOR RWY 5 AMDT 18 NO IMPACT.
- 12. ADDED REMARK, ALL VEGETATION NO HIGHER THEN 30 FEET WITHIN 5 NM OF KHUF - PER FPO CHECKLIST PROVIDED FOR RWY 23 RNAV (GPS) AMENDMENT 1.
- 13. RAISED TDZE FROM 578 TO 579 - CURRENT AIRNAV DATA.
- 14. LOWERED LNAV HAT FROM 402 TO 401 - TDZE RAISED FROM 578 TO 579 PER CURRENT AIRNAV DATA.
- 15. ADDED CHART NOTE: RWY 14 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED - 34:1 PENETRATIONS IDENTIFIED FOR RWY 14.
- 16. DELETED NOTE VISIBILITY REDUCTION BY HELICOPTERS NOT AUTHORIZED- 20:1 AREA CLEAR.
- 17. DELETED NOTE STRAIGHT-IN/CIRCLING RWY 14 NA AT NIGHT- 20:1 CLEAR.
- 18. ADDED VDP AND ASSOCIATED NA NOTE BACK - 20:1 AREA CLEAR.

- PDF EDITS:
- 1. UPDATED CAT-B CIRCLING ADJUSTMENT TO HAA.
 - 2. ADDED THRESHOLD COORDINATES TO AIRSPACE LETTER.



<u>AIRPORT</u> TERRE HAUTE RGNL	<u>AIRPORT ID</u> KHUF	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 14	<u>ORIGINAL/AMENDMENT</u> ORIG-D	<u>CITY</u> TERRE HAUTE	<u>STATE</u> IN
<u>COORDINATED WITH:</u>					
A4A ☒ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ <u>OTHER:</u> ZID, HUF ATCT, ARPT MGR, ATA					
<u>FLIGHT CHECKED BY</u> SCOTT WIEBE	<i>Digitally signed by</i> ROBERT G HAMILTON Aug 14, 2018		<u>OFFICE</u> FICO	<u>DATE</u> 07/29/2018	
<u>DEVELOPED BY</u> LONNIE EVERHART (PETE BUSSEY)	<i>Digitally signed by</i> ROBERT G HAMILTON Aug 14, 2018		<u>OFFICE</u> AJV-5400	<u>DATE</u> 04/05/2018	
<u>APPROVED BY</u> LONNIE EVERHART	<i>Digitally signed by</i> ROBERT G HAMILTON Aug 14, 2018		<u>OFFICE</u> AJV-5400	<u>DATE</u>	<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> TERRE HAUTE RGNL	<u>AIRPORT ID</u> KHUF	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 23	<u>ORIGINAL/AMENDMENT</u> 1D	<u>CITY</u> TERRE HAUTE	<u>STATE</u> IN
<u>AIRPORT ELEVATION</u> 589	<u>TDZE</u> 582	<u>SUPERSEDED</u> RNAV (GPS) RWY 23	<u>ORIGINAL/AMENDMENT</u> 1C	<u>DATED</u> 03/29/2018	<u>MAG VAR</u> 2W
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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>
TTH VORTAC		IPEDY		TF	FO	2.00	047.93	9.02	2400
VANJI	IAF	IPEDY	NOPT	TF	FB	1.00	143.45	7.84	2400
MATAN	IAF	IPEDY	NOPT	TF	FB	1.00	269.29	7.25	2400
IPEDY	IF/IAF	IMTEW		TF	FB	1.00	229.34	6.50	2400
IMTEW	FAF	CUVOS/1.70 NM TO RW23		TF	FB	0.30	229.28	3.83	
CUVOS/1.70 NM TO RW23		RW23	MAP	TF	FO	0.30	229.23	1.70	
RW23	MAP	782 MSL		CA			229.23		
782 MSL		POKHY		DF	FO	1.00			2600

MISSED APPROACH

MAP:

LPV: DA
 LNAV/VNAV: DA
 LNAV: RW23

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2600 DIRECT POKHY AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT	SIDE OF COURSE	OUTBOUND	FT WITHIN	MILES OF	(IAF)
2.	HOLD NE IPEDY, RT, 229.34 INBOUND, 2400 FT. IN LIEU OF PT (IAF), MAX 6000.				
3. FAC:	229.28	FAF: IMTEW	DIST FAF TO MAP: 5.53	DIST FAF TO THLD: 5.53	
4. MIN ALT:	IPEDY 2400, IMTEW 2400, CUVOS/1.70 NM TO RW23 1160*				
5. DIST TO THLD FROM OM:	MM:	IM:	150 HAT:	200 HAT: 0.45	GS ANT:
6. MIN GP INCPT: 2400	GP ALT AT FAF : IMTEW 2400			OM:	MM: IM:
7. GP ANGLE: 3.00	34:1	IS CLEAR	20:1	IS CLEAR	TCH: 55.0
8. MSA FROM:	RW23 2600				

PBN REQUIREMENTS NOTES:

RNP APCH.

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -16C (4F) OR ABOVE 47C (116F).
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON TTH VORTAC AIRWAY RADIALS 317 CW 137.
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE PARIS, IL ALTIMETER SETTING AND INCREASE ALL DA 61 FEET AND ALL MDA 80 FEET, INCREASE LPV AND LNAV/VNAV VISIBILTY ALL CATS 1/8 MILE, INCREASE LNAV AND CIRCLING CATS C/D VISIBILTIES 1/4 MILE.
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART NOTE: BARO-VNAV AND VDP NA WHEN USING PARIS ALTIMETER SETTING.

ADDITIONAL FLIGHT DATA:

CHART: ASR.
CHART CIRCLING ICON.
CHART VDP AT 1.15 NM TO RW23*
*LNAV ONLY
WAAS CHANNEL #72625
REFERENCE PATH ID: W23A
CHART FAS OBST: 720 TREE 392752N/0871623W.
HOLD SW, RT, 049.10 INBOUND
LTP HAE: 144.6 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
LPV DA	782	3/4	200	782	3/4	200	782	3/4	200	782	3/4	200			
LNAV/VNAV DA	874	7/8	292	874	7/8	292	874	7/8	292	874	7/8	292			
LNAV MDA	980	1	398	980	1	398	980	1 1/8	398	980	1 1/8	398			
CIRCLING	1020	1	431	1040	1	451	1220	1 3/4	631	1220	2	631			



<u>AIRPORT</u>	<u>AIRPORT ID</u>	<u>PROCEDURE NAME</u>	<u>ORIGINAL/AMENDMENT</u>	<u>CITY</u>	<u>STATE</u>
TERRE HAUTE RGNL	KHUF	RNAV (GPS) RWY 23	1D	TERRE HAUTE	IN

CHANGES - REASONS

1. RAISED CIRCLING CAT C MDA FROM 1040/HAA 451 VISIBILITY 1 1/2 TO 1220/HAA 631 VISIBILITY 1 3/4 - 857 ELEVATOR TO MATCH VOR RWY 5.
2. RAISED CIRCLING CAT D MDA FROM 1140/HAA 551 VISIBILITY 2 TO 1220/HAA 671 VISIBILITY 2 - 860 TOWER TO MATCH VOR RWY 5.
3. ADDED CHART NOTE: CHART CIRCLING ICON - IAW 8260.19H PARA 8-6-10.
4. UPDATED CIRCLING RADII - BRING UP TO CURRENT CRITERIA IAW 8260.3C
5. CHANGED CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE PARIS, IL ALTIMETER SETTING AND INCREASE ALL DA 61 FEET AND ALL MDA 80 FEET, INCREASE LPV VISIBILITY ALL CATS 1/8 MILE, INCREASE LNAV/VNAV ALL CATS AND LNAV CATS C AND D VISIBILTY 1/4 MILE TO CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE PARIS, IL ALTIMETER SETTING AND INCREASE ALL DA 61 FEET AND ALL MDA 80 FEET, INCREASE LPV AND LNAV/VNAV VISIBILTY ALL CATS 1/8 MILE, INCREASE LNAV AND CIRCLING CATS C/D VISIBILTIES 1/4 MILE - NEW VIS CHECK
6. REPLACED CHART NOTE: DME/DME RNP-0.3 NA WITH CHART PBN NAVSPEC REQUIREMENT NOTE: RNP APCH. - IAW 8260.19H PARA 8-6-8.
7. CHANGED CONTROLLING OBST FOR CIRCLING CAT A FROM 692 TREE TO 720 TREE - TO MATCH VOR RWY 5 NO IMPACT.
8. CHANGED CONTROLLING OBST FOR CIRCLING CAT B FROM 693 TANK TO 720 TREE - TO MATCH VOR RWY 5 NO IMPACT.
9. RAISED LPV HMAS FROM 614 TO 615, LNAV/VNAV HMAS FROM 704 TO 800, AND LNAV HMAS FROM 840 TO 879 - NEW IPDS EVALUATION.
10. CHANGED LNAV FAS OBST FROM 694 TREE TO 720 TREE - INCORPORATE P-NOTAM 5/3051.
11. CHANGED LNAV/VNAV CNTL OBST FROM 684 TREE TO 713 TREE - UPDATED DATABASE.
12. DELETED HELICOPTER VISIBILTY REDUCTION NOTE - NEW IPDS EVALUATION, 34:1 CLEAR.
13. CHANGE AIRPORT NAME FROM TERRE HAUTE-HULMAN FIELD TO TERRE HAUTE RGNL - INCORPORATE P-NOTAM 7/0637.
14. DELETED NOTE: CIRCLING RWY 36 NA AT NIGHT - INCORPORATE P-NOTAM 7/0637 (RWY CLOSED).
15. DELETE NOTE: WHEN VGSI INOP, CIRCLING RWY 18 NA AT NIGHT - INCORPORATE P-NOTAM 7/0637 (RWY CLOSED).
16. ADDED CHART VDP AT 1.15NM TO RW23 - INCORPORATE P-NOTAM 5/3051.
17. CHANGED THRESHOLD ELEVATION TO TOUCHDOWN ZONE ELEVATION - INCORPORATE P-NOTAM 4/1053.
18. INCREASED LNAV MDA FROM 940 VIS 1 TO 980 VIS 1 1/8 - INCORPORATE P-NOTAM 5/3051.



COORDINATED WITH:

A4A ☒ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: ZID ARTCC, HUF ATCT, AMGR

FLIGHT CHECKED BY

	Digitally signed by	OFFICE	DATE
	ROBERT G HAMILTON		
	Aug 14, 2018		

DEVELOPED BY

LONNIE EVERHART (STEVEN SCHUTRUM)	Digitally signed by	OFFICE	DATE
	ROBERT G HAMILTON	AJV-5400	04/12/2018

APPROVED BY

LONNIE EVERHART	Digitally signed by	OFFICE	DATE	TITLE
	ROBERT G HAMILTON	AJV-5400		MANAGER
	Aug 14, 2018			



FAS DATA BLOCK INFORMATION

DATA FIELD	DATA
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KHUF
RUNWAY	RW23
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W23A
LTP/FTP LATITUDE	392726.4375N
LTP/FTP LONGITUDE	0871758.9880W
LTP/FTP ELLIPSOIDAL HEIGHT	+01446
FPAP LATITUDE	392625.8600N
FPAP LONGITUDE	0871923.4000W
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	0000
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	35.0
CRC REMAINDER	211D838B
ADDITIONAL PATH POINT RECORD INFORMATION	
ICAO CODE	K5
LTP ORTHOMETRIC HEIGHT	+01775
FPAP ORTHOMETRIC HEIGHT	+01775



FEDERAL AVIATION ADMINISTRATION
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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> TERRE HAUTE RGNL	<u>AIRPORT ID</u> KHUF	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 32	<u>ORIGINAL/AMENDMENT</u> ORIG-D	<u>CITY</u> TERRE HAUTE	<u>STATE</u> IN
<u>AIRPORT ELEVATION</u> 589	<u>TDZE</u> 589	<u>SUPERSEDED</u> RNAV (GPS) RWY 32	<u>ORIGINAL/AMENDMENT</u> ORIG-C	<u>DATED</u> 03/29/2018	<u>MAG VAR</u> 2W
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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. 227/30 CW 047/30	NOPT	CORIE	IF/IAF	2600
2. 047/30 CW 137/30		KMETZ	IAF	2600
3. 137/30 CW 227/30		FOBKA	IAF	2600

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>
FOBKA	IAF	CORIE	NOPT	TF	FB	1.00	227.07	5.00	2600
KMETZ	IAF	CORIE	NOPT	TF	FB	1.00	046.97	5.00	2600
CORIE	IF/IAF	APENY		TF	FB	1.00	317.02	6.07	2300
APENY	FAF	RW32	MAP	TF	FO	0.30	316.95	5.14	
RW32	MAP	960 MSL		CA			316.95		
960 MSL		JOSTO		DF	FO	1.00			2600

MISSED APPROACH

MAP:

LNAV: RW32

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2600 DIRECT JOSTO AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. HOLD SE CORIE, RT, 317.02 INBOUND, 2600 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 316.95FAF: APENYDIST FAF TO MAP: 5.14DIST FAF TO THLD: 5.14

4. MIN ALT: CORIE 2600, APENY 2300

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 NOT CLEAR20:1: IS CLEARTCH:

8. MSA FROM:

PBN REQUIREMENTS NOTES:

RNP APCH.

NOTES:

CHART NOTE: VDP NA WHEN USING PARIS ALTIMETER SETTING.
CHART NOTE: RWY 32 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE PARIS ALTIMETER SETTING AND INCREASE ALL MDAS 80 FEET, LNAV CAT C/D VISIBILITY TO 1 3/8 SM AND CIRCLING CAT C/D 1/4 SM.

ADDITIONAL FLIGHT DATA:

CHART: ASR.
CHART CIRCLING ICON.
APENY TO RW32: 3.04/50.
CHART VDP AT 0.90 NM TO RW32*
*LNAV ONLY
CHART FAS OBST: 701 TREE 392609N/0871623W.
HOLD NW, RT, 136.78 INBOUND

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
LNAV MDA	960	1	371	960	1	371	960	1	371	960	1 1/4	371			
CIRCLING	1020	1	431	1040	1	451	1220	1 3/4	631	1220	2	631			



CHANGES - REASONS

- 1. RAISED LNAV MDA FROM 940/HAT 351 TO 960 HAT/ 371 - INCORPORATE NOTAM FDC 8/0007.
- 2. RAISED CIRCLING CAT C MDA FROM 1040/HAA 451 VISIBILITY 1 1/2 TO 1220/HAA 631 VISIBILITY 1 3/4 - 857 ELEVATOR TO MATCH VOR RWY 5 AMDT 18.
- 3. RAISED CIRCLING CAT D MDA FROM 1140/HAA 551 TO 1220/HAA 631 - 860 TOWER TO MATCH VOR RWY 5 AMDT 18.
- 5. UPDATE BU ALTIMETER NOTE FROM: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE PARIS ALTIMETER SETTING AND INCREASE ALL MDA 80 FEET AND INCREASE LNAV CATC. C/D VISIBILITIES 1/4 MILE. TO: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE PARIS ALTIMETER SETTING AND INCREASE ALL MDAS 80 FEET AND LNAV CAT C/D VISIBILITY TO 1 3/8 SM.
- AND CIRCLING CAT C/D 1/4 SM - NEW VIS CHECK AND INCORPORATE NOTAM FDC 8/0007.
- 6. CHART PBN NAVSPEC REQUIREMENT NOTE: RNP APCH. - IAW 8260.19H PARA 8-6-8.
- 7. DELETED NOTE: DME/DME RNP-0.3 NA. - IAW 8260.19H PARA 8-6-8.
- 8. RAISED LNAV HMAS FROM 670 TO 860 - NEW IPDS EVALUATION.
- 9. CHANGED CONTROLLING OBST FOR CIRCLING CAT A FROM 719 TREE TO 720 TREE - TO MATCH VOR RWY 5 AMDT 18 NO IMPACT.
- 10. CHANGED CONTROLLING OBST FOR CIRCLING CAT B FROM 693 TANK TO 720 TREE - TO MATCH VOR RWY 5 AMDT 1 NO IMPACT.
- 11. DELETED NOTE: CIRCLING RWY 14 NA AT NIGHT - NO 20:1 PENETRATIONS IDENTIFIED.
- 12. CHART NOTE: RWY 32 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. - INCORPORATE NOTAM FDC 8/0007.
- 13. ADDED VDP TO PROCEDURE - 20:1 IS CLEAR
- 14. CHANGED FAS OBST FROM 670 TREE TO 701 TREE - INCORPORATE NOTAM FDC 8/0007.
- 15. UPDATED CIRCLING RADII - TO MATCH VOR RWY 5 AMDT 18.

PDF EDIT:

- 1. CHANGED CHART VDP MILEAGE FROM 0.9 TO 0.90.



COORDINATED WITH:

A4A ☒ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: ZID, HUF ATCT, ARPT MGR

<u>FLIGHT CHECKED BY</u>	<i>Digitally signed by</i>	<u>OFFICE</u>	<u>DATE</u>	
SCOTT WIEBE	ROBERT G HAMILTON	FICO	7/29/18	
	Aug 14, 2018			
<u>DEVELOPED BY</u>	<i>Digitally signed by</i>	<u>OFFICE</u>	<u>DATE</u>	
LONNIE EVERHART (PETE BUSSEY)	ROBERT G HAMILTON	AJV-5400	04/05/2018	
	Aug 14, 2018			
<u>APPROVED BY</u>	<i>Digitally signed by</i>	<u>OFFICE</u>	<u>DATE</u>	<u>TITLE</u>
LONNIE EVERHART	ROBERT G HAMILTON	AJV-5400		MANAGER
	Aug 14, 2018			



**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
VOR 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.

AIRPORT TERRE HAUTE RGNL	AIRPORT ID KHUF	PROCEDURE NAME VOR RWY 5	ORIGINAL/AMENDMENT 18	CITY TERRE HAUTE	STATE IN
AIRPORT ELEVATION 589	TDZE 578	SUPERSEDED VOR RWY 5	ORIGINAL/AMENDMENT 17F	DATED 03/29/2018	MAG VAR 2E
EPOCH YEAR 1965	FACILITY TTH	COORDINATES OF FACILITIES	ACTUAL EFFECTIVE DATE 8 NOVEMBER 2018	REQUIRED EFFECTIVE DATE ROUTINE	CANCEL/SUSPEND

TERMINAL ROUTES

FROM	FIX TYPE	TO	FIX TYPE	LEG TYPE	FO/FB	RNP	COURSE	DISTANCE	ALTITUDE
TTH VORTAC		RILLY/TTH 9.00 DME					227.90	9.00	2200

MISSED APPROACH

MAP:

TTH 4.51 DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2300 DIRECT TTH VORTAC AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT R SIDE OF COURSE 227.90 OUTBOUND 2200 FT WITHIN 10 MILES OF RILLY (IAF)
- 2.
3. FAC: 047.90 FAF: RILLY/TTH 9.00 DME DIST FAF TO MAP: DIST FAF TO THLD: 4.49
4. MIN ALT: RILLY/TTH 9.00 DME 2100, BAIZA/6.51 DME 1280
8. MSA FROM: TTH VORTAC 2600

EQUIPMENT REQUIREMENTS NOTES:

DME REQUIRED

NOTES:

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

CHART NOTE: VDP NA WHEN USING PARIS, IL ALTIMETER SETTING.

CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE PARIS, IL ALTIMETER SETTING AND INCREASE ALL MDA 80 FEET, S-5 CAT C/D VISIBILITIES TO RVR 4500 AND CIRCLING CAT C/D VISIBILITIES 1/4 MILE.

CHART NOTE: FOR INOPERATIVE ALS, INCREASE S-5 CAT C/D VISIBLTY TO RVR 5500

ADDITIONAL FLIGHT DATA:



CHART: MAX ENTRY 6000 AT RILLY.
CHART: ASR.
CHART CIRCLING ICON.
RILLY TO RW05: 3.10/50.
CHART VDP AT 5.53 DME
DISTANCE VDP TO THLD 1.03 NM
CHART FAS OBST: 689 TREE 392630N/0872057W.
HOLD NE, RT, 229.00 INBOUND

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
S-05	940	2400	362	940	2400	362	940	3500	362	940	3500	362			
CIRCLING	1020	1	431	1040	1	451	1220	1 3/4	631	1220	2	631			

CHANGES - REASONS

1. REMOVED NOTE "CIRCLING RWY 14 NA AT NIGHT" - 20:1 PENETRATION REMOVED APRIL 2014.
2. RAISED CIRCLING CAT C MDA FROM 1040/HAA 451 VISIBILITY 1 1/2 TO 1220/HAA 631 VISIBILITY 1 3/4 - NEW CNTL OBST 857 ELEVATOR.
3. RAISED CIRCLING CAT D MDA FROM 1140/HAA 551 VISIBILITY 2 TO 1220/HAA 631 VISIBILITY 2 - NEW CTL OBST 860 TOWER.
4. ADDED CHART NOTE: CHART CIRCLING ICON - IAW 8260.19H PARA 8-6-10
5. UPDATED CIRCLING RADII - CURRENT CRITERIA
6. CHANGED CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE PARIS, IL ALTIMETER SETTING AND INCREASE ALL MDA 80 FEET AND S-5 CATS C/D VISIBILITIES 1/4 MILE TO CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE PARIS, IL ALTIMETER SETTING AND INCREASE ALL MDA 80 FEET AND S-5 CAT C/D VISIBILITY TO RVR 4500 AND CIRCLING CAT C/D VISIBILITIES 1/4 MILE - NEW VIS CHECK.
7. CHANGED INOP NOTE FROM: FOR INOPERATIVE MALSR INCREASE S-5 CAT D VISIBILITY TO RVR 6000 TO: FOR INOPERATIVE ALS, INCREASE S-5 CAT C/D VISIBILITY TO RVR 5500 - NEW VIS CHECK.
8. CHANGED CONTROLLING OBST FOR CIRCLING CAT A FROM 720 (2C) TREE TO DIFFERENT 720 (1A) TREE - UPDATED IAPA EVALUATION.
9. CHANGED CONTROLLING OBST FOR CIRCLING CAT B FROM 730 TREE TO 720 TREE - UPDATED IAPA EVALUATION.
10. INCREASED CAT C VISIBILTY FROM 2400 RVR TO 3500 RVR - NEW VIS CHECK.
11. MOVED CHART NOTE: DME REQUIRED FROM NOTES TO EQUIPMENT REQUIREMENT NOTES - IAW 8260.19H PARA 8-6-8.
12. ADDED VDP AT 5.53 DME/ 1.03 NM TO THLD - 20:1 AREA CLEAR.
13. ADDED "CHART MAX 6000 AT RILLY" TO ADTL FLIGHT DATA.
14. ADDED STEPDOWN FIX BIAZA - TO MAINTAIN PUBLISHED 940 MDA.
15. LOWERED CAT D VISIBILITY FROM RVR 5000 TO RVR 3500 - NEW VIS CHECK.
16. LOWERED FAF ALTITUDE FROM 2200 TO 2100 - CRITERIA 8260.3C 2-6-1 A.
17. LOWERED VDA FROM 3.30/50 TO 3.10/50 - TO BRING WITHIN .20 DEG OF THE VGSI.

COORDINATED WITH:

A4A ☒ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: ZID ARTCC, HUF ATCT, AMGR

FLIGHT CHECKED BY	Digitally signed by	OFFICE	DATE	
SCOTT WIEBE	ROBERT G HAMILTON	FICO	07/29/2018	
Aug 14, 2018	Digitally signed by	OFFICE	DATE	
DEVELOPED BY	ROBERT G HAMILTON	AJV-5400	04/11/2018	
LONNIE EVERHART (STEVEN SCHUTRUM)	Aug 14, 2018			
APPROVED BY	Digitally signed by	OFFICE	DATE	TITLE
LONNIE EVERHART	ROBERT G HAMILTON	AJV-5400		MANAGER
Aug 14, 2018				



**FEDERAL AVIATION ADMINISTRATION
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.

<u>AIRPORT</u> TERRE HAUTE RGNL	<u>AIRPORT ID</u> KHUF	<u>PROCEDURE NAME</u> VOR RWY 23	<u>ORIGINAL/AMENDMENT</u> 21	<u>CITY</u> TERRE HAUTE	<u>STATE</u> IN
<u>AIRPORT ELEVATION</u> 589	<u>TDZE</u> 582	<u>SUPERSEDED</u> VOR RWY 23	<u>ORIGINAL/AMENDMENT</u> 20D	<u>DATED</u> 03/29/2018	<u>MAG VAR</u> 2E
<u>FACILITY</u> TTH	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 1965

MISSED APPROACH

MAP:

3.02 NM AFTER TTH VORTAC OR AT TTH 3.02 DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2300 THEN LEFT TURN DIRECT TTH VORTAC AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT L **SIDE OF COURSE** 049.22 **OUTBOUND** 2400 **FT WITHIN** 10 **MILES OF** TTH VORTAC (IAF)

2.

3. **FAC:** 229.22 **FAF:** TTH VORTAC **DIST FAF TO MAP:** 3.02 **DIST FAF TO THLD:** 3.02

4. **MIN ALT:** TTH VORTAC 1600

8. **MSA FROM:** TTH VORTAC 2600

EQUIPMENT REQUIREMENTS NOTES:

NOTES:

CHART NOTE: VDP NA WHEN USING PARIS, IL ALTIMETER SETTING.

CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE PARIS, IL ALTIMETER SETTING AND INCREASE ALL MDA 80 FEET, INCREASE S-23 AND CIRCLING CATS C/D VISIBILITIES 1/4 MILE.

ADDITIONAL FLIGHT DATA:

CHART: MAX 6000 AT TTH VORTAC.

CHART: ASR.

CHART CIRCLING ICON.

TTH VORTAC TO RW23: 3.02/50.

CHART VDP AT 1.94 DME

DISTANCE VDP TO THLD 1.08 NM

CHART FAS OBST: 720 TREE 392752N/0871623W.

HOLD NE, RT, 229.00 INBOUND

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
S-23	980	1	398	980	1	398	980	1 1/8	398	980	1 1/8	398			
CIRCLING	1020	1	431	1040	1	451	1220	1 3/4	631	1220	2	631			

CHANGES - REASONS

1. REMOVED NOTE CIRCLING RWY 14 NA AT NIGHT - 20:1 PENETRATION REMOVED APRIL 2014.
2. RAISED CIRCLING CAT C MDA FROM 1040/HAA 451 VISIBILITY 1 1/2 TO 1220/HAA 631 VISIBILITY 1 3/4 - NEW CNTL OBST 857 ELEVATOR
3. RAISED CIRCLING CAT D MDA FROM 1140/HAA 551 VISIBILITY 2 TO 1220/HAA 631 VISIBILITY 2 - NEW CNTL OBST 860 TOWER.
4. ADDED CHART NOTE: CHART CIRCLING ICON.
5. UPDATED CIRCLING RADII - IAW 8260.3C
6. CHANGED CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE PARIS, IL ALTIMETER SETTING AND INCREASE ALL MDA 80 FEET AND S-23 CATS C/D VISIBILITIES 1/4 MILE TO CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE PARIS, IL ALTIMETER SETTING AND INCREASE ALL MDA 80 FEET, INCREASE S-23 AND CIRCLING CATS C/D VISIBILITIES 1/4 MILE - NEW VIS CHECK.
7. CHANGED CONTROLLING OBST FOR CIRCLING CAT A/B FROM 719 TREE TO 720 TREE - NEW IAPA EVALUATION.
8. INCREASED S-23 CAT C VISIBILITY FROM 1 MILE TO 1 1/8 MILE - NEW VIS CHECK.
9. ADDED REMARK, ALL VEGETATION NO HIGHER THEN 30 FEET WITHIN 5 NM OF KHUF - PER FPO CHECKLIST PROVIDED FOR RWY 23 RNAV (GPS) AMENDMENT 1.
10. ADDED VDP AT 1.94 DME/ 1.08 NM TO THLD - 20:1 AREA CLEAR.
11. CHANGED FAS OBST FROM 719 100' TREE TO 720 TREE - UPDATED IAPA EVALUATION
12. UPDATED FAC FROM 229.20 TO 229.22 - UPDATED IAPA EVALUATION.
13. CHANGED INTERMEDIATE PT CNTL OBST FROM 940 TOWER TO 993 TOWER - UPDATED DATABASE.
14. CHANGED PROCEDURE TURN OBST FROM 1027 TOWER TO 1063 AAO - UPDATED IAPA EVALUATION.
15. ADDED MA LVL SFC OBST, 1046 TOWER, AND 722 TERRAIN - NOT PREVIOUSLY DOCUMENTED.
16. CHANGED MSA CNTL OBST FROM 1551 TOWER TO 1549 TOWER - UPDATED DATABASE.
17. RAISED CAT C AND LOWERED CAT D VISIBILTIES BY 1/8 MILE - NEW VIS CHECK.
18. ADDED CHART PROFILE VIEW: MAX ENTRY ALT AT TTH VORTAC 6000 FT TO ADTL FLIGHT DATA.
19. LOWERED FAF ALTITUDE FROM 1700 TO 1600 - CRITERIA 8260.3C 2-6-1 A.
20. DELETED NON-COINCIDENT NOTE - VDA COINCIDENT.
21. VDA LOWERED FROM 3.39/31 TO 3.02/50 - MATCH VGSI

COORDINATED WITH:

A4A ☒ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: ZID ARTCC, HUF ATCT, AMGR

<u>FLIGHT CHECKED BY</u>	<i>Digitally signed by</i>	<u>OFFICE</u>	<u>DATE</u>	
SCOTT WIEBE	ROBERT G HAMILTON	FICO	07/29/2018	
	Aug 14, 2018			
<u>DEVELOPED BY</u>	<i>Digitally signed by</i>	<u>OFFICE</u>	<u>DATE</u>	
LONNIE EVERHART (STEVEN SCHUTRUM)	ROBERT G HAMILTON	AJV-5400	04/11/2018	
	Aug 14, 2018			
<u>APPROVED BY</u>	<i>Digitally signed by</i>	<u>OFFICE</u>	<u>DATE</u>	<u>TITLE</u>
LONNIE EVERHART	ROBERT G HAMILTON	AJV-5400		MANAGER
	Aug 14, 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> KINGMAN AIRPORT - CLYDE CESSNA FIELD	<u>AIRPORT ID</u> K9K8	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 18	<u>ORIGINAL/AMENDMENT</u> 1	<u>CITY</u> KINGMAN	<u>STATE</u> KS
<u>AIRPORT ELEVATION</u> 1607	<u>TDZE</u> 1599	<u>SUPERSEDED</u> RNAV (GPS) RWY 18	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>DATED</u> 05/10/2007	<u>MAG VAR</u> 6E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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>
HUT VOR/DME		UGAWU		TF	FO	2.00	213.67	11.59	4000
ICT VORTAC		CALOR		TF	FB	2.00	280.23	19.33	4000
WIPET		DACEF		TF	FB	2.00	038.27	6.19	4000
CALOR	IAF	UGAWU	NOPT	TF	FB	1.00	272.26	5.55	3300
DACEF	IAF	UGAWU	NOPT	TF	FB	1.00	092.12	5.55	3300
UGAWU	IF/IAF	UNIKY		TF	FB	1.00	182.19	5.94	3100
UNIKY	FAF	WOBEB/1.65 NM TO RW18		TF	FO	0.30	182.18	2.95	
WOBEB/1.65 NM TO RW18		RW18	MAP	TF	FB	0.30	182.18	1.65	
RW18	MAP	1920 MSL		CA			182.18		
1920 MSL		BIRCA		DF	FO	1.00			3600

MISSED APPROACH

MAP:

LP: RW18
LNAV: RW18

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3600 DIRECT BIRCA AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. HOLD N UGAWU, RT, 182.19 INBOUND, 3300 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 182.18FAF: UNIKYDIST FAF TO MAP: 4.60DIST FAF TO THLD: 4.60

4. MIN ALT:UGAWU 3300, UNIKY 3100, WOBEB/1.65 NM TO RW18 2160

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 NOT CLEAR20:1: IS CLEARTCH:

8. MSA FROM:RW18 4000

PBN REQUIREMENTS NOTES:

RNP APCH.

NOTES:

CHART NOTE: RWY 18 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON HUT VOR/DME AIRWAY RADIALS 149 CW 292.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON ICT VORTAC AIRWAY RADIALS 212 CW 007.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT WIPET ON V280 SOUTHWEST BOUND.
CHART NOTE: CIRCLING RWY 11, 29 NA AT NIGHT.
CHART SPEED ICON IN PLANVIEW AT CALOR: MAX 210 KIAS.
CHART SPEED ICON IN PLANVIEW AT DACEF: MAX 210 KIAS.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
UNIKY TO RW18: 3.00/36.
CHART VDP AT 0.89 NM TO RW18CHART VDP AT 0.89 NM TO RW18
WAAS CHANNEL #77742
REFERENCE PATH ID: W18A
CHART FAS OBST: 1667 TREE 374102N/0980707W.
CHART FAS OBST: 1719 TREE 374021N/0980644W.
HOLD S, RT, 002.16 INBOUND
LTP HAE: 459.2 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	1920	1	321	1920	1	321	1920	1	321		NA				
LNAV MDA	1980	1	381	1980	1	381	1980	1 1/8	381		NA				
CIRCLING	2040	1	433	2060	1	453	2160	1 1/2	553		NA				



AIRPORT	AIRPORT ID	PROCEDURE NAME	ORIGINAL/AMENDMENT	CITY	STATE
KINGMAN AIRPORT - CLYDE CESSNA FIELD	K9K8	RNAV (GPS) RWY 18	1	KINGMAN	KS

CHANGES - REASONS

1. ADDED WAAS CAPABILITY AND LP AND ALL ASSOCIATED NOTES - PER INTERNAL POLICY TO ADD WAAS TO NON WAAS PROCEDURES.
2. CHANGED TERMINAL ROUTE FROM HUT VOR/DME TO UGAWU COURSE FROM "213.66" TO "213.67" - UGAWU FIX MOVED FOR FINAL COURSE ALIGNMENT AND TO MEET MINIMUM LEG LENGTH CRITERIA FOR T-INITIAL.
3. CHANGED TERMINAL ROUTE FROM ICT VORTAC TO CALOR COURSE AND DISTANCE FROM "280.01/19.87" TO "280.23/19.33" - CALOR FIX MOVED TO MEET MINIMUM LEG LENGTH CRITERIA FOR T-INITIAL.
4. CHANGED TERMINAL ROUTE FROM WIPET TO DACEF COURSE AND DISTANCE FROM "042.18/6.53" TO "038.27/6.19" - DACEF FIX MOVED TO MEET MINIMUM LEG LENGTH CRITERIA FOR T-INITIAL.
5. CHANGED TERMINAL ROUTE FROM CALOR TO UGAWU COURSE AND DISTANCE FROM "272.27/5.00" TO "272.26/5.55" - CALOR FIX MOVED TO MEET MINIMUM LEG LENGTH CRITERIA FOR T-INITIAL AND UGAWU FIX MOVED FOR FINAL COURSE ALIGNMENT .
6. CHANGED TERMINAL ROUTE FROM DACEF TO UGAWU COURSE AND DISTANCE FROM "092.15/5.00" TO "092.12/5.55" - DACEF FIX MOVED TO MEET MINIMUM LEG LENGTH CRITERIA FOR T-INITIAL AND UGAWU FIX MOVED FOR FINAL COURSE ALIGNMENT .
7. CHANGED TERMINAL ROUTE FROM UGAWU TO UNIKY COURSE AND DISTANCE FROM "182.21/6.00" TO "182.19/5.94" - UGAWU AND UNIKY FIXES MOVED FOR FINAL COURSE AND VDA ALIGNMENT.
8. ADDED TERMINAL ROUTE FROM UNIKY TO WOBEB/1.65 NM TO RW18 COURSE 182.18 DISTANCE 2.95 - ADDED WOBEB STEPDOWN TO ACHIEVE LOWER MINIMUMS.
9. ADDED TERMINAL ROUTE FROM WOBEB/1.65 NM TO RW18 TO RW 18 (MAP) COURSE 182.18 DISTANCE 1.65 - ADDED WOBEB STEPDOWN TO ACHIEVE LOWER MINIMUMS.
10. CHANGED TERMINAL ROUTE FROM RW18 (MAP) CA LEG ALTITUDE FROM "2120" TO "1920" AND COURSE FROM "182.20" TO "182.18" - ADDED LP MINIMUMS WITH LOWER MDA AND COURSE ALIGNED TO RWY 18 TRUE BEARING.
11. CHANGED TERMINAL ROUTE ALTITUDE FROM CA LEG TO BIRCA FROM "2120 MSL" TO "1920 MSL" - ADDED LP MINIMUMS WITH LOWER MDA.
12. CHANGED LINE 2 COURSE INBOUND FROM "182.21" TO "182.19" - UGAWU FIX MOVED FOR FINAL COURSE ALIGNMENT.
13. CHANGED LINE 3 FAC FROM "182.20" TO "182.18" - COURSE ALIGNED TO MEET RWY 18 TRUE BEARING.
14. CHANGED LINE 3 DIST FAF TO...ADDED "MAP: 4.60 AND CHANGED THLD: FROM "4.54" TO "4.60" - UNIKY FIX MOVED FOR FINAL COURSE ALIGNMENT AND VDA ALIGNMENT TO VGSI.
15. ADDED LINE 4 MIN ALT. "WOBEB/1.65 NM TO RW18 2160" - STEPDOWN FIX WOBEB ADDED TO ACHIEVE LOWER MDA.
16. CHANGED LINE 7 FROM "34:1 IS CLEAR" TO "34:1 IS NOT CLEAR" AND ADDED "20:1 IS CLEAR" - PER .19H PARA 8-6-7 G (3) RNAV PROCEDURES MUST STATE WHETHER 20:1 AND 34:1 OBSTACLE SURFACES ARE CLEAR OR NOT.
17. ADDED LP MDA TO MINIMUMS: CAT A-C MDA 1920/VIS 1 SM/HAT 321 - PER INTERNAL POLICY TO ADD WAAS TO NON WAAS PROCEDURES.
18. CHANGED LNAV MINIMUMS MDA CAT A-C FROM "2120" TO "1980", CHANGED CAT C VISIBILITY FROM "1 1/2 SM" TO "1 1/8 SM", CHANGED HAT CAT A-C FROM "521" TO "381" - PROCEDURE RE-EVALUATED AGAINST NEW DESIGN CRITERIA AND NEW OBSTACLE EVALUATION COMPLETED.
19. CHANGED CIRCLING MINIMUMS CAT A-C FROM "MDA 2160/HAA 555" TO CAT A "MDA 2040/HAA 433"; CAT B "MDA 2060/HAA 453"; CAT C "MDA 2160/HAA 553" - PROCEDURE RE-EVALUATED AGAINST NEW DESIGN CRITERIA AND NEW OBSTACLE EVALUATION COMPLETED.
20. REMOVED NOTE: GPS OR RNP 0.3 REQUIRED. DME/DME RNP-0.3 NA AND REPLACED WITH "PBN REQUIREMENTS NOTE: RNP APCH" - PER .19H EQUIPMENT REQUIREMENTS NOTES.
21. REMOVED NOTE: USE WICHITA MID-CONTINENT ALTIMETER SETTING - PER .19H 8-6-9 F(3) NOT REQUIRED WHEN ASOS NON-FED TRANSMITS TO WMSCR. DATA PLACED ON BACK OF -9 FOR NOTAM CONTINGENCY.
22. ADDED NOTE "CHART NOTE: RWY 18 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED - 34:1 OBSTACLE SURFACE PENETRATIONS.
23. ADDED NOTE "CHART SPEED ICON IN PLANVIEW AT CALOR: MAX 210 KIAS - SPEED RESTRICTION USED TO ACHIEVE MINIMUM T-INITIAL LEG LENGTH.
24. ADDED NOTE "CHART SPEED ICON IN PLANVIEW AT DACEF: MAX 210 KIAS - SPEED RESTRICTION USED TO ACHIEVE MINIMUM T-INITIAL LEG LENGTH.
25. CHANGED ADDITIONAL FLIGHT DATA NOTE: FROM "FAS OBST: 1739 TREE 374441/980602" TO "CHART FAS OBST: 1719 TREE 374021N/0980644W, 1667 TREE 374102N/0980707W" - PROCEDURE RE-EVALUATED AGAINST NEW DESIGN CRITERIA AND NEW OBSTACLE EVALUATION COMPLETED.
26. ADDED ADDITIONAL FLIGHT DATA NOTE: "CHART VDP AT 0.89 NM TO RW18 - AIRPORT ADDED LOCAL ALTIMETER SOURCE ON WMSCR.
27. CHANGED ADDITIONAL FLIGHT DATA NOTE FROM "UNIKY TO RW18: 3.04/36" TO "UNIKY TO RW18: 3.00/36" - PER 8260.3C PARA 2-6-2 TO ALIGN VDA TO VGSI.
28. ADDED "CHART NOTE: CIRCLING RWY 11, 29 NA AT NIGHT" - NO SURVEY, UNABLE TO VERIFY VISUAL SURFACE CLEAR.
29. CHANGED ARRIVAL RESTICTION RADIALS FOR ARRIVALS AT HUT VOR/DME FROM "091 CW 331" TO "149 CW 292" - CORRECTED PREVIOUS AMENDMENT.
30. CHANGED ARRIVAL RESTICTION RADIALS FOR ARRIVALS AT ICT VORTAC FROM "159 CW 039" TO "212 CW 007" - CORRECTED PREVIOUS AMENDMENT.
31. ADDED "CHART CIRCLING ICON" IN ADDITIONAL FLIGHT DATA - NEW CIRCLING CRITERIA APPLIED.



COORDINATED WITH:

A4A ☐ **ALPA** ☐ **AOPA** ☒ **APA** ☐ **HAI** ☐ **NBAA** ☒ **OTHER:** ZKC, ICT APCH CON, ICT FSS, ARPT MGR, KS STATE AERO

<u>FLIGHT CHECKED BY</u> ANTHONY D VALLERA	<i>Digitally signed by</i> DEZ SILAGYI Aug 06, 2018	<u>OFFICE</u> FICO	<u>DATE</u> 8/4/18	
<u>DEVELOPED BY</u> DEZ SILAGYI (DARREN HOOPER)	<i>Digitally signed by</i> DEZ SILAGYI Aug 06, 2018	<u>OFFICE</u> AJV-5421	<u>DATE</u> 05/15/2018	
<u>APPROVED BY</u> JULIE MORGAN	<i>Digitally signed by</i> DEZ SILAGYI Aug 06, 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	9K8
RUNWAY	RW18
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W18A
LTP/FTP LATITUDE	374026.1210N
LTP/FTP LONGITUDE	0980716.7575W
LTP/FTP ELLIPSOIDAL HEIGHT	+04592
FPAP LATITUDE	373857.8240N
FPAP LONGITUDE	0980732.7130W
THRESHOLD CROSSING HEIGHT (TCH)	00036.4
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1440
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	0.0
CRC REMAINDER	ACC93D35
<u>ADDITIONAL PATH POINT RECORD INFORMATION</u>	
ICAO CODE	K3
LTP ORTHOMETRIC HEIGHT	+04873
FPAP ORTHOMETRIC HEIGHT	+04873



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> KINGMAN AIRPORT - CLYDE CESSNA FIELD	<u>AIRPORT ID</u> K9K8	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 36	<u>ORIGINAL/AMENDMENT</u> 1	<u>CITY</u> KINGMAN	<u>STATE</u> KS
<u>AIRPORT ELEVATION</u> 1607	<u>TDZE</u> 1597	<u>SUPERSEDED</u> RNAV (GPS) RWY 36	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>DATED</u> 05/10/2007	<u>MAG VAR</u> 6E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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>
HUT VOR/DME		BIRCA		TF	FO	2.00	192.95	32.62	4000
ICT VORTAC		FARPI		TF	FB	2.00	226.88	27.38	4000
SAFER		KOSKE		TF	FB	2.00	062.48	21.89	4000
FARPI	IAF	BIRCA	NOPT	TF	FB	1.00	272.23	5.55	3600
KOSKE	IAF	BIRCA	NOPT	TF	FB	1.00	092.09	5.55	3600
BIRCA	IF/IAF	SESSU		TF	FB	1.00	002.16	6.00	3200
SESSU	FAF	BUGAC/1.78 NM TO RW36		TF	FB	0.30	002.17	3.14	
BUGAC/1.78 NM TO RW36		RW36	MAP	TF	FO	0.30	002.17	1.78	
RW36	MAP	1920 MSL		CA			002.17		
1920 MSL		UGAWU		DF	FO	1.00			3300

MISSED APPROACH

MAP:

LP: RW36
LNAV: RW36

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3300 DIRECT UGAWU AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)
2. HOLD S BIRCA, RT, 002.16 INBOUND, 3600 FT. IN LIEU OF PT (IAF), MAX 6000.
3. FAC: 002.17

FAF: SESSU

DIST FAF TO MAP: 4.92

DIST FAF TO THLD: 4.92
4. MIN ALT: BIRCA 3600, SESSU 3200, BUGAC/1.78 NM TO RW36 2200
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 NOT CLEAR

20:1: IS CLEAR

TCH:
8. MSA FROM: RW36 3800

PBN REQUIREMENTS NOTES:

RNP APCH.

NOTES:

CHART NOTE: RWY 36 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON HUT VOR/DME AIRWAY RADIALS 149 CW 262.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON ICT VORTAC AIRWAY RADIALS 154 CW 249.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT SAFER ON V74 NORTHWEST BOUND.
CHART NOTE: CIRCLING RWY 11, 29 NA AT NIGHT.
CHART SPEED ICON IN PLANVIEW AT FARPI: MAX 210 KIAS.
CHART SPEED ICON IN PLANVIEW AT KOSKE: MAX 210 KIAS.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
SESSU TO RW36: 3.00/36.
CHART VDP AT 0.9 NM TO RW36
WAAS CHANNEL #82042
REFERENCE PATH ID: W36A
CHART FAS OBST: 1660 TREE 373938N/0980732W.
CHART FAS OBST: 1719 TREE 374004N/0980806W.
HOLD N, RT, 182.19 INBOUND
LTP HAE: 458.5 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
LP MDA	1920	1	323	1920	1	323	1920	1	323		NA				
LNAV MDA	1980	1	383	1980	1	383	1980	1 1/8	383		NA				
CIRCLING	2040	1	433	2060	1	453	2160	1 1/2	553		NA				



AIRPORT	AIRPORT ID	PROCEDURE NAME	ORIGINAL/AMENDMENT	CITY	STATE
KINGMAN AIRPORT - CLYDE CESSNA FIELD	K9K8	RNAV (GPS) RWY 36	1	KINGMAN	KS

CHANGES - REASONS

1. ADDED WAAS CAPABILITY AND LP AND ALL ASSOCIATED NOTES - PER INTERNAL POLICY TO ADD WAAS TO NON WAAS PROCEDURES.
2. CHANGED TERMINAL ROUTE FROM HUT VOR/DME TO BIRCA COURSE AND DISTANCE FROM "192.93/32.70" TO "192.95/32.62" - BIRCA FIX MOVED FOR FINAL COURSE ALIGNMENT AND TO MEET MINIMUM LEG LENGTH CRITERIA FOR T-INITIAL.
3. CHANGED TERMINAL ROUTE FROM ICT VORTAC TO FARPI COURSE AND DISTANCE FROM "227.58/27.83" TO "226.88/27.38" - FARPI FIX MOVED TO MEET MINIMUM LEG LENGTH CRITERIA FOR T-INITIAL.
4. CHANGED TERMINAL ROUTE FROM SAFER TO KOSKE COURSE AND DISTANCE FROM "063.34/22.33" TO "062.48/21.89" - KOSKE FIX MOVED TO MEET MINIMUM LEG LENGTH CRITERIA FOR T-INITIAL.
5. CHANGED TERMINAL ROUTE FROM FARPI TO BIRCA COURSE AND DISTANCE FROM "272.23/5.00" TO "272.23/5.55" - FARPI FIX MOVED TO MEET MINIMUM LEG LENGTH CRITERIA FOR T-INITIAL AND BIRCA FIX MOVED FOR FINAL COURSE ALIGNMENT .
6. CHANGED TERMINAL ROUTE FROM KOSKE TO BIRCA COURSE AND DISTANCE FROM "092.11/5.00" TO "092.09/5.55" - KOSKE FIX MOVED TO MEET MINIMUM LEG LENGTH CRITERIA FOR T-INITIAL AND BIRCA FIX MOVED FOR FINAL COURSE ALIGNMENT .
7. CHANGED TERMINAL ROUTE FROM BIRCA TO SESSU COURSE AND DISTANCE FROM "002.17/6.15" TO "002.16/6.00" - BIRCA AND SESSU FIXES MOVED FOR FINAL COURSE AND VDA ALIGNMENT.
8. ADDED TERMINAL ROUTE FROM SESSU TO BUGAC/1.78 NM TO RW36 COURSE 002.17 DISTANCE 3.14 - NEW FORMS CRITERIA APPLIED.
9. ADDED TERMINAL ROUTE FROM BUGAC/1.78 NM TO RW36 TO RW36 (MAP) COURSE 002.17 DISTANCE 1.78 - NEW FORMS CRITERIA APPLIED.
10. CHANGED TERMINAL ROUTE FROM RW36 (MAP) CA LEG ALTITUDE FROM "2080" TO "1920" AND COURSE FROM "002.18" TO "002.17" - ADDED LP MINIMUMS WITH LOWER MDA AND COURSE ALIGNED TO RWY 36 TRUE BEARING.
11. CHANGED TERMINAL ROUTE ALTITUDE FROM CA LEG TO UGAWU FROM "2080 MSL" TO "1920 MSL" - ADDED LP MINIMUMS WITH LOWER MDA.
12. CHANGED LINE 3 FAC FROM "002.18" TO "002.17" - COURSE ALIGNED TO MEET RWY 36 TRUE BEARING.
13. CHANGED LINE 3 DIST FAF TO...ADDED "MAP: 4.92 AND CHANGED THLD: FROM "4.85" TO "4.92" - SESSU FIX MOVED FOR FINAL COURSE ALIGNMENT AND VDA ALIGNMENT TO VGSI.
14. CHANGED LINE 4 MIN ALT. "BUGAC/2.63 NM TO RW36 2480" TO "BUGAC/1.78 NM TO RW36 2200 - STEPDOWN FIX BUGAC ADJUSTED TO MATCH FINAL COURSE DESCENT ANGLE 3.00.
15. CHANGED LINE 7 FROM "34:1 IS CLEAR" TO "34:1 IS NOT CLEAR" AND ADDED "20:1 IS CLEAR" - PER .19H PARA 8-6-7 G (3) RNAV PROCEDURES MUST STATE WHETHER 20:1 AND 34:1 OBSTACLE SURFACES ARE CLEAR OR NOT.
16. ADDED LP MDA TO MINIMUMS: CAT A-C MDA 1920/VIS 1 SM/HAT 323 - PER INTERNAL POLICY TO ADD WAAS TO NON WAAS PROCEDURES.
17. CHANGED LNAV MINIMUMS MDA CAT A-C FROM "2080" TO "1980", CHANGED CAT C VISIBILITY FROM "1 1/4 SM" TO "1 1/8 SM", CHANGED HAT CAT A-C FROM "483" TO "323" - PROCEDURE RE-EVALUATED AGAINST NEW DESIGN CRITERIA AND NEW OBSTACLE EVALUATION COMPLETED.
18. CHANGED CIRCLING MINIMUMS CAT A-C FROM "MDA 2160/HAA 555" TO CAT A "MDA 2040/HAA 433"; CAT B "MDA 2060/HAA 453"; CAT C "MDA 2160/HAA 553" - PROCEDURE RE-EVALUATED AGAINST NEW DESIGN CRITERIA AND NEW OBSTACLE EVALUATION COMPLETED.
19. REMOVED NOTE: GPS OR RNP 0.3 REQUIRED. DME/DME RNP-0.3 NA AND REPLACED WITH "PBN REQUIREMENTS NOTE: RNP APCH" - PER .19H EQUIPMENT REQUIREMENTS NOTES.
20. REMOVED NOTE: USE WICHITA MID-CONTINENT ALTIMETER SETTING - PER .19H 8-6-9 F(3) NOT REQUIRED WHEN ASOS NON-FED TRANSMITS TO WMSCR. DATA PLACED ON BACK OF -9 FOR NOTAM CONTINGENCY.
21. REMOVED NOTE "PROCEDURE NA AT NIGHT" - RWY 36 HAS SINCE ADDED VG SURVEY.
22. ADDED NOTE "CHART NOTE: RWY 18 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED - 34:1 OBSTACLE SURFACE PENETRATIONS.
23. ADDED NOTE "CHART SPEED ICON IN PLANVIEW AT FARPI: MAX 210 KIAS - SPEED RESTRICTION USED TO ACHIEVE MINIMUM T-INITIAL LEG LENGTH.
24. ADDED NOTE "CHART SPEED ICON IN PLANVIEW AT KOSKE: MAX 210 KIAS - SPEED RESTRICTION USED TO ACHIEVE MINIMUM T-INITIAL LEG LENGTH.
25. CHANGED ADDITIONAL FLIGHT DATA NOTE: FROM "FAS OBST: 1709 TREE 374006/980757" TO "CHART FAS OBST: 1719 TREE 374004N/0980806W, 1660 TREE 373938N/0980732W" - PROCEDURE RE-EVALUATED AGAINST NEW DESIGN CRITERIA AND NEW OBSTACLE EVALUATION COMPLETED.
26. ADDED ADDITIONAL FLIGHT DATA NOTE: "CHART VDP AT 0.90 NM TO RW36 - AIRPORT ADDED LOCAL ALTIMETER SOURCE ON WMSCR.
27. CHANGED ADDITIONAL FLIGHT DATA NOTE FROM "SESSU TO RW36: 3.04/36" TO "SESSU TO RW36: 3.00/36" - PER 8260.3C PARA 2-6-2 TO ALIGN VDA TO VGSI.
28. ADDED "CHART NOTE: CIRCLING RWY 11, 29 NA AT NIGHT" - NO SURVEY. UNABLE TO VERIFY VISUAL SURFACE CLEAR.
29. CHANGED ARRIVAL RESTRICTION RADIALS FOR ARRIVALS AT HUT VOR/DME FROM "070 CW 310" TO "149 CW 262" - CORRECTED PREVIOUS AMENDMENT.
30. CHANGED ARRIVAL RESTRICTION RADIALS FOR ARRIVALS AT ICT VORTAC FROM "159 CW 347" TO "154 CW 249" - CORRECTED PREVIOUS AMENDMENT.
31. ADDED "CHART CIRCLING ICON" IN ADDITIONAL FLIGHT DATA - NEW CIRCLING CRITERIA APPLIED.



AIRPORT

KINGMAN AIRPORT - CLYDE CESSNA
FIELD

AIRPORT ID

K9K8

PROCEDURE NAME

RNAV (GPS) RWY 36

ORIGINAL/AMENDMENT

1

CITY

KINGMAN

STATE

KS

COORDINATED WITH:

A4A ☐

ALPA ☐

AOPA ☒

APA ☐

HAI ☐

NBAA ☒

OTHER: ZKC, ICT APCH CON, ICT FSS, ARPT MGR, KS STATE AERO

FLIGHT CHECKED BY

ANTHONY D VALLERA

Digitally signed by

DEZ SILAGYI

Aug 06, 2018

DEVELOPED BY

DEZ SILAGYI (DARREN HOOPER)

Digitally signed by

DEZ SILAGYI

Aug 06, 2018

APPROVED BY

JULIE MORGAN

Digitally signed by

DEZ SILAGYI

Aug 06, 2018

OFFICE

FICO

DATE

8/4/18

OFFICE

AJV-5421

DATE

05/16/2018

OFFICE

AJV-5420

DATE

TITLE

MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	9K8
RUNWAY	RW36
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W36A
LTP/FTP LATITUDE	373944.0410N
LTP/FTP LONGITUDE	0980724.3625W
LTP/FTP ELLIPSOIDAL HEIGHT	+04585
FPAP LATITUDE	374112.3380N
FPAP LONGITUDE	0980708.4015W
THRESHOLD CROSSING HEIGHT (TCH)	00036.4
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1440
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	0.0
CRC REMAINDER	0A3C107A

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K3
LTP ORTHOMETRIC HEIGHT	+04867
FPAP ORTHOMETRIC HEIGHT	+04867



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> LYONS-RICE COUNTY MUNI	<u>AIRPORT ID</u> KLYO	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 17	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>CITY</u> LYONS	<u>STATE</u> KS
<u>AIRPORT ELEVATION</u> 1692	<u>TDZE</u> 1692	<u>SUPERSEDED</u> RNAV (GPS) RWY 17R	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>DATED</u> 09/15/2016	<u>MAG VAR</u> 6E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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>
HUT VOR/DME		PAPDY		TF	FO	2.00	330.67	35.25	3400
DISKS		JUTMA		TF	FB	2.00	056.76	27.58	3900
JUTMA	IAF	PAPDY	NOPT	TF	FB	1.00	103.44	6.00	3400
PAPDY	IF/IAF	TOZGO		TF	FB	1.00	173.51	6.50	3300
TOZGO	FAF	DAVGE/1.70 NM TO RW17		TF	FB	0.30	173.51	3.21	
DAVGE/1.70 NM TO RW17		RW17	MAP	TF	FO	0.30	173.51	1.70	
RW17	MAP	2080 MSL		CA			173.51		
2080 MSL		OCISE		DF	FO	1.00			3400

MISSED APPROACH

MAP:

LP: RW17

LNAV: RW17

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3400 DIRECT OCISE AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. HOLD N PAPDY, RT, 173.51 INBOUND, 3400 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 173.51FAF: TOZGODIST FAF TO MAP: 4.91DIST FAF TO THLD: 4.91

4. MIN ALT: PAPDY 3400, TOZGO 3300, DAVGE/1.70 NM TO RW17 2260

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 NOT CLEAR20:1: IS NOT CLEARTCH:

8. MSA FROM: RW17 4000

PBN REQUIREMENTS NOTE:

RNP APCH

NOTES:

CHART NOTE: RWY 17 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED.
CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON HUT VOR/DME AIRWAY RADIALS 245 CW 057.
CHART NOTE: STRAIGHT-IN/CIRCLING RWY 17 NA AT NIGHT.
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE HUTCHINSON ALTIMETER SETTING.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
TOZGO TO RW17: 3.00/45.
WAAS CHANNEL #99339
REFERENCE PATH ID: W17A
CHART FAS OBST: 1747 TRANSMISSION LINE 382105N/0981346W, 1779 TREE 382227N/0981259W.
1950 AAO 382553N/0981510W.
HOLD S, RT, 353.51 INBOUND
LTP HAE: 488.6 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	2080	1	388	2080	1	388		NA			NA				
LNAV MDA	2120	1	428	2120	1	428		NA			NA				
CIRCLING	2260	1	568	2260	1	568		NA			NA				



CHANGES - REASONS

- 1. ALL REFERENCES TO RWY 17R CHANGED TO RWY 17 - 17R/35L ALREADY RENUMBERED DUE TO TOTAL REMOVAL OF TURF RWYS 17L/35R AND 14/32, VERIFIED WITH AIRPORT MANAGER AND SATELLITE IMAGERY.
- 2. CHART FAS OBST CHANGED FROM '1747 ANT 382047N/0981336W' TO '1747 TRANSMISSION LINE 382105N/0981346W' - NEW LP SDF-MAP CONTROLLING OBS PER IPDS BUILD/OBS DB.
- 3. DELETED 'CHART NOTE: CIRCLING NA TO RWYS 14-32 AND 17L-35R' - THESE TURF RUNWAYS HAVE ALREADY BEEN TOTALLY REMOVED (VERIFIED WITH AIRPORT MANAGER AND SATELLITE IMAGERY).
- 4. REPLACED 'CHART NOTE: DME/DME RNP-0.3 NA' WITH 'PBN REQUIREMENTS NOTE: RNP APCH' - PER UPDATED CRITERIA IN 8260.19H.
- 5. ADDED 'RWY 17' TO 'CHART NOTE: RWY 17 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED' - PER 8260.19H UPDATED CRITERIA.
- 6. ADDED 'CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET})' - COMMISSIONED PAPI'S ADDED TO RWY PER AIRNAV DATA, VERIFIED BY APT MGR.
- 7. FAS DATA: CRC REMAINDER CHANGED FROM 0AF95EE3 TO 8B0522EA - RUNWAY DATA BLOCK CHANGED FROM RW17R TO RW17.
- 8. ADDED 'WHEN LOCAL ALTIMETER SETTING NOT RECEIVED...' BEFORE CHART NOTE 'USE HUTCHINSON ALTIMETER SETTING' - AIRPORT ADDED LOCAL AWOS, VERIFIED BY LOCAL AIRPORT DATA REP.
- 9. CHANGED CHART NOTE 'NIGHT LANDING: RWY 17 NA' TO 'STRAIGHT-IN/CIRCLING RWY 17 NA AT NIGHT' - 8260.19H CRITERIA VERBIAGE.
- 10. ALTERNATE MINS CHANGED FROM 'NA' TO 'STANDARD - NA WHEN LOCAL WEATHER NOT AVAILABLE' - PRIMARY LOCAL ALTIMETER ADDED.
- 11. CHANGED 'CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON HUT VOR/DME AIRWAY RADIALS 240 CW 052' TO '...245 CW 057' - HUT MAGVAR PREVIOUSLY UPDATED.



<u>AIRPORT</u> LYONS-RICE COUNTY MUNI	<u>AIRPORT ID</u> KLYO	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 17	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>CITY</u> LYONS	<u>STATE</u> KS
<u>COORDINATED WITH:</u>					
A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZKC, AMGR					
<u>FLIGHT CHECKED BY</u> JOHN D JEFFERS	Digitally signed by ROBERT G HAMILTON Jul 23, 2018		<u>OFFICE</u> FICO	<u>DATE</u> 7/19/18	
<u>DEVELOPED BY</u> LUCAS MCCLOUD	Digitally signed by LUCAS MCCLOUD Jun 28, 2018		<u>OFFICE</u> AJV-5422	<u>DATE</u> 06/04/2018	
<u>APPROVED BY</u> JULIE MORGAN	Digitally signed by ROBERT G HAMILTON Jul 23, 2018		<u>OFFICE</u> AJV-5420	<u>DATE</u>	<u>TITLE</u> MANAGER



FAS DATA BLOCK INFORMATION

DATA FIELD	DATA
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KLYO
RUNWAY	RW17
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W17A
LTP/FTP LATITUDE	382046.6515N
LTP/FTP LONGITUDE	0981343.0645W
LTP/FTP ELLIPSOIDAL HEIGHT	+04886
FPAP LATITUDE	381917.4610N
FPAP LONGITUDE	0981342.0960W
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	1408
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	0.0
CRC REMAINDER	8B0522EA
ADDITIONAL PATH POINT RECORD INFORMATION	
ICAO CODE	K3
LTP ORTHOMETRIC HEIGHT	+05157
FPAP ORTHOMETRIC HEIGHT	+05157



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> LYONS-RICE COUNTY MUNI	<u>AIRPORT ID</u> KLYO	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 35	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>CITY</u> LYONS	<u>STATE</u> KS
<u>AIRPORT ELEVATION</u> 1692	<u>TDZE</u> 1689	<u>SUPERSEDED</u> RNAV (GPS) RWY 35L	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>DATED</u> 09/15/2016	<u>MAG VAR</u> 6E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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>
DISKS		ATZOS		TF	FB	2.00	115.14	29.15	3500
GUTER		IDEZY		TF	FB	2.00	229.86	17.63	3400
IDEZY	IAF	OCISE	NOPT	TF	FB	1.00	263.61	8.00	3400
HUT VOR/DME	IAF	OCISE	NOPT	TF	FB	1.00	296.37	16.38	3400
ATZOS	IAF	OCISE	NOPT	TF	FB	1.00	063.44	6.00	3400
OCISE	IF/IAF	EBAXY		TF	FB	1.00	353.51	6.50	3300
EBAXY	FAF	SIRGE/1.80 NM TO RW35		TF	FB	0.30	353.51	3.17	
SIRGE/1.80 NM TO RW35		RW35	MAP	TF	FO	0.30	353.51	1.80	
RW35	MAP	2016 MSL		CA			353.51		
2016 MSL		PAPDY		DF	FO	1.00			3400

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW35

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3400 DIRECT PAPDY AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT	SIDE OF COURSE	OUTBOUND	FT WITHIN	MILES OF	(IAF)
2.	HOLD S OCISE, RT, 353.51 INBOUND, 3400 FT. IN LIEU OF PT (IAF), MAX 6000.				
3. FAC:	353.51	FAF: EBAXY	DIST FAF TO MAP: 4.97	DIST FAF TO THLD: 4.97	
4. MIN ALT:	OCISE 3400, EBAXY 3300, SIRGE/1.80 NM TO RW35 2280*				
5. DIST TO THLD FROM OM:	MM:	IM:	150 HAT:	327 HAT: 0.94	GS ANT:
6. MIN GP INCPT: 3300	GP ALT AT FAF : EBAXY 3300			OM:	MM: IM:
7. GP ANGLE: 3.00	34:1: IS CLEAR	20:1: IS CLEAR	TCH: 45.0		
8. MSA FROM:	RW35 4000				

PBN REQUIREMENTS NOTE:

RNP APCH

NOTES:

CHART NOTE: BARO-VNAV AND VDP NA WHEN USING HUTCHINSON ALTIMETER SETTING.
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -18C OR ABOVE 54C.
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON HUT VOR/DME AIRWAY RADIALS 230 CW 021.
CHART NOTE: CIRCLING RWY 17 NA AT NIGHT.
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE HUTCHINSON ALTIMETER SETTING.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
CHART VDP AT 1.15 NM TO RW35*
*LNAV ONLY
WAAS CHANNEL #42639
REFERENCE PATH ID: W35A
CHART FAS OBST: 1741 TREE 381955N/0981355W.
HOLD N, RT, 173.51 INBOUND
LTP HAE: 482.5 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
LPV DA	2016	1 1/8	327	2016	1 1/8	327		NA			NA				
LNAV/VNAV DA	2016	1 1/8	327	2016	1 1/8	327		NA			NA				
LNAV MDA	2080	1	391	2080	1	391		NA			NA				
CIRCLING	2260	1	568	2260	1	568		NA			NA				



CHANGES - REASONS

- 1. ALL REFERENCES TO RWY 35L CHANGED TO RWY 35 - 17R/35L ALREADY RENUMBERED DUE TO TOTAL REMOVAL OF TURF RWYS 17L/35R AND 14/32, VERIFIED WITH AIRPORT MANAGER AND SATELLITE IMAGERY.
- 2. DELETED 'CHART NOTE: CIRCLING NA TO RWYS 14-32 AND 17L-35R' - THESE TURF RUNWAYS HAVE ALREADY BEEN TOTALLY REMOVED (VERIFIED WITH AIRPORT MANAGER AND SATELLITE IMAGERY).
- 3. REPLACED 'CHART NOTE: DME/DME RNP-0.3 NA' WITH 'PBN REQUIREMENTS NOTE: RNP APCH' - PER UPDATED CRITERIA IN 8260.19H.
- 4. ADDED 'CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET})' - COMMISSIONED PAPI'S ADDED TO RWY PER AIRNAV DATA, VERIFIED BY APT MGR.
- 5. FAS DATA: CRC REMAINDER CHANGED FROM 5498D93D TO D79D5C26 - RUNWAY DATA BLOCK CHANGED FROM RW35L TO RW35.
- 6. ADDED 'WHEN LOCAL ALTIMETER SETTING NOT RECEIVED...' BEFORE CHART NOTE 'USE HUTCHINSON ALTIMETER SETTING' - AIRPORT ADDED LOCAL AWOS, VERIFIED BY LOCAL AIRPORT DATA REP.
- 7. ADDED VDP - AIRPORT ADDED LOCAL AWOS (REMOTE ALTIMETER WAS THE ONLY THING PREVIOUSLY PREVENTING VDP PUBLICATION).
- 8. ADDED CHART NOTE 'BARO-VNAV AND VDP NA WHEN USING HUTCHINSON ALTIMETER SETTING' - VDP PUBLISHED DUE TO ADDITION OF LOCAL AWOS.
- 9. CHANGED CHART NOTE 'NIGHT LANDING: RWY 17 NA' TO 'CIRCLING RWY 17 NA AT NIGHT' - 8260.19H CRITERIA VERBIAGE.
- 10. ALTERNATE MINS CHANGED FROM 'NA' TO 'STANDARD - NA WHEN LOCAL WEATHER NOT AVAILABLE' - PRIMARY LOCAL ALTIMETER ADDED.
- 11. CHANGED 'CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON HUT VOR/DME AIRWAY RADIALS 225 CW 257' TO '...230 CW 021' - HUT MAGVAR PREVIOUSLY UPDATED.
- 12. CHANGED CHART NOTE FROM 'BARO-VNAV NA' TO 'FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -18C OR ABOVE 54C' - PRIMARY LOCAL ALTIMETER ADDED.



<u>AIRPORT</u> LYONS-RICE COUNTY MUNI	<u>AIRPORT ID</u> KLYO	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 35	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>CITY</u> LYONS	<u>STATE</u> KS
<u>COORDINATED WITH:</u>					
A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZKC, AMGR					
<u>FLIGHT CHECKED BY</u> JOHN D JEFFERS	<i>Digitally signed by</i> ROBERT G HAMILTON Jul 23, 2018		<u>OFFICE</u> FICO	<u>DATE</u> 7/19/18	
<u>DEVELOPED BY</u> LUCAS MCCLOUD	<i>Digitally signed by</i> LUCAS MCCLOUD Jun 28, 2018		<u>OFFICE</u> AJV-5422	<u>DATE</u> 06/04/2018	
<u>APPROVED BY</u> JULIE MORGAN	<i>Digitally signed by</i> ROBERT G HAMILTON Jul 23, 2018		<u>OFFICE</u> AJV-5420	<u>DATE</u>	<u>TITLE</u> MANAGER



FAS DATA BLOCK INFORMATION

DATA FIELD	DATA
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KLYO
RUNWAY	RW35
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W35A
LTP/FTP LATITUDE	382003.1565N
LTP/FTP LONGITUDE	0981342.5860W
LTP/FTP ELLIPSOIDAL HEIGHT	+04825
FPAP LATITUDE	382132.3470N
FPAP LONGITUDE	0981343.5555W
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	1408
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	D79D5C26
ADDITIONAL PATH POINT RECORD INFORMATION	
ICAO CODE	K3
LTP ORTHOMETRIC HEIGHT	+05097
FPAP ORTHOMETRIC HEIGHT	+05097



**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>
LYONS, KS	LYONS-RICE COUNTY MUNI	8 NOVEMBER 2018	ORIG-A

TAKEOFF MINIMUMS:

RWY 17, 35: STANDARD.

TEXTUAL DEPARTURE PROCEDURES:

VISUAL CLIMB OVER AIRPORT:

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 17, TREES BEGINNING 262 FT FROM DER, 261 FT LEFT OF CENTERLINE, UP TO 1718 FT MSL.
TREE 1115 FT FROM DER, 493 FT RIGHT OF CENTERLINE, 1712 FT MSL.
TREES BEGINNING 1293 FT FROM DER, 366 FT RIGHT OF CENTERLINE, UP TO 1726 FT MSL.
TREES BEGINNING 1518 FT FROM DER, 683 FT RIGHT OF CENTERLINE, UP TO 1727 FT MSL.

NOTE: RWY 35, BLDG 82 FT FROM DER, 469 FT RIGHT OF CENTERLINE, 28 FT AGL/1722 FT MSL.
TREE 87 FT FROM DER, 398 FT LEFT OF CENTERLINE, 1717 FT MSL.
POLE 475 FT FROM DER, 499 FT RIGHT OF CENTERLINE, 40 FT AGL/1732 FT MSL.
POLE 623 FT FROM DER, 219 FT LEFT OF CENTERLINE, 47 FT AGL/1740 FT MSL.
POLES BEGINNING 623 FT FROM DER, 235 FT LEFT OF CENTERLINE, UP TO 50 FT AGL/1744 FT MSL.
POLE 1896 FT FROM DER, 204 FT RIGHT OF CENTERLINE, 44 FT AGL/1741 FT MSL.
POLES AND TREE BEGINNING 1897 FT FROM DER, 14 FT LEFT OF CENTERLINE, UP TO 49 FT AGL/1746 FT MSL.

CONTROLLING OBSTACLES:

REMARKS:



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

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CITY, STATE

LYONS, KS

AIRPORT

LYONS-RICE COUNTY MUNI

EFFECTIVE DATE

8 NOVEMBER 2018

AMDT NO

ORIG-A

FLIGHT INSPECTED BY:

FLIGHT INSPECTION REVIEW NOT RQD - PROCESSED IAW
AIRCRAFT OPS GROUP (AJW-333) MEMO, 12-22-17.

Digitally signed by

DEZ SILAGYI

Jul 06, 2018

OFFICE SYMBOL:

DATE:

DEVELOPED BY:

LUCAS MCCLOUD

Digitally signed by

LUCAS MCCLOUD

Jun 05, 2018

OFFICE SYMBOL:

AJV-5422

DATE:

06/05/2018

APPROVED BY:

JULIE MORGAN

Digitally signed by

DEZ SILAGYI

Jul 06, 2018

OFFICE SYMBOL:

AJV-5420

DATE:

REQUIRED EFFECTIVE DATE:

ROUTINE

COORDINATED WITH:

A4A

ALPA

AOPA

APA

HAI

NBAA

☐☒☒☐☐☒

OTHER:

ZKC, AMGR

CHANGES - REASONS:

1. TAKEOFF MINIMUMS: DELETED 'RWY 14, 17L, 32, 35R: NA ENVIRONMENTAL' - RWYS 17L/35R AND 14/32 HAVE ALREADY BEEN TOTALLY REMOVED (VERIFIED WITH AIRPORT MANAGER AND SATELLITE IMAGERY).
2. ALL REFERENCES TO RWY 17R/35L CHANGED TO RWY 17/35 - RUNWAYS ALREADY RENUMBERED DUE TO TOTAL REMOVAL OF TURF RWYS 17L/35R AND 14/32 (VERIFIED WITH AIRPORT MANAGER AND SATELLITE IMAGERY).

QUALITY
6
CHECKED

**FEDERAL AVIATION ADMINISTRATION
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.
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<u>AIRPORT</u> LYONS-RICE COUNTY MUNI	<u>AIRPORT ID</u> KLYO	<u>PROCEDURE NAME</u> VOR-A	<u>ORIGINAL/AMENDMENT</u> 4B	<u>CITY</u> LYONS	<u>STATE</u> KS
<u>AIRPORT ELEVATION</u> 1692	<u>TDZE</u>	<u>SUPERSEDED</u> VOR-A	<u>ORIGINAL/AMENDMENT</u> 4A	<u>DATED</u> 12/07/2017	<u>MAG VAR</u> 4E
<u>FACILITY</u> HUT	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<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>
EXPEL/HUT 28.00 DME		FOSIL/HUT 20.00 DME	FAF/IAF				142.00	8.00 (HUT R-322)	3400
HUT VOR/DME	IAF	ZEGNI/HUT 13.00 DME	NOPT				322.00	13.00	3300
ZEGNI/HUT 13.00 DME	IF	FOSIL/HUT 20.00 DME					322.00	7.00 (HUT R-322)	3300

MISSED APPROACH

MAP:

NUYXE/HUT 24.55 DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3400 ON HUT VOR/DME R-322 TO EXPEL/HUT 28.00 DME AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)
2. HOLD SE FOSIL, RT, 322.00 INBOUND, 3300 FT. IN LIEU OF PT (IAF), MAX 6000.
3. FAC: 322.00 FAF: FOSIL/HUT 20.00 DME DIST FAF TO MAP: DIST FAF TO THLD:
4. MIN ALT: FOSIL/HUT 20.00 DME 3300
8. MSA FROM: HUT VOR/DME 4000

EQUIPMENT REQUIREMENTS NOTES:

DME REQUIRED.

NOTES:

CHART NOTE: CIRCLING TO RWY 17 NA AT NIGHT.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON HUT VOR/DME AIRWAY RADIALS 262 CW 021.
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE HUTCHINSON ALTIMETER SETTING.

ADDITIONAL FLIGHT DATA:

QUALITY
6
CHECKED

FAC CROSSES MIDPOINT OF RWY 17-35.
CHART CIRCLING ICON.
CHART FAS OBST: 2010 TOWER 381633N/0981211W.
HOLD NW, RT, 142.00 INBOUND

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
CIRCLING	2400	1	708	2400	1	708		NA			NA				

CHANGES - REASONS

- DELETED 'CHART NOTE: CIRCLING NA TO RWYS 14-32 AND 17L-35R' - THESE TURF RUNWAYS HAVE ALREADY BEEN TOTALLY REMOVED (VERIFIED WITH AIRPORT MANAGER AND SATELLITE IMAGERY).
- CHANGED NOTE 'CIRCLING TO RWY 17R NA AT NIGHT' TO '...RWY 17 NA...' - 17R/35L ALREADY RENUMBERED TO 17/35 DUE TO TOTAL REMOVAL OF TURF RWYS 17L/35R AND 14/32, VERIFIED WITH AIRPORT MANAGER AND SATELLITE IMAGERY.
- CHANGED 'DME REQUIRED' FROM 'CHART NOTE' TO 'EQUIPMENT REQUIREMENT NOTE' - 8260.19H CRITERIA UPDATE/NEW FORMS.
- CHANGED NOTE 'USE HUTCHINSON ALTIMETER SETTING; WHEN NOT RECEIVED, USE SALINA ALTIMETER SETTING AND INCREASE ALL MDAS 80 FEET' TO 'WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE HUTCHINSON ALTIMETER SETTING' - AIRPORT ADDED LOCAL AWOS (VERIFIED BY LOCAL AIRPORT DATA REP).
- ALTERNATE MINS CHANGED FROM 'NA' TO 'STANDARD - NA WHEN LOCAL WEATHER NOT AVAILABLE' - PRIMARY LOCAL ALTIMETER ADDED.

COORDINATED WITH:

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

FLIGHT CHECKED BY

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, DEC 22, 2017.

DEVELOPED BY

LUCAS MCCLOUD

APPROVED BY

JULIE MORGAN

Digitally signed by

DEZ SILAGYI

Jul 06, 2018

Digitally signed by

DEZ SILAGYI

Jul 06, 2018

Digitally signed by

LUCAS MCCLOUD

Jun 28, 2018

OFFICE

OFFICE

OFFICE

AJV-5422

AJV-5420

DATE

DATE

06/05/2018

DATE

TITLE

MANAGER

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

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CITY, STATE	AIRPORT	EFFECTIVE DATE	AMDT NO
CAMPBELLSVILLE, KY	TAYLOR COUNTY	8 NOVEMBER 2018	ORIG-A

TAKEOFF MINIMUMS:

RWY 23: STANDARD.

RWY 5: STANDARD WITH MINIMUM CLIMB OF 260 FT PER NM TO 2000 OR 1000-2 1/2 FOR VCOA.

TEXTUAL DEPARTURE PROCEDURES:

VISUAL CLIMB OVER AIRPORT:

RWY 5: OBTAIN ATC APPROVAL FOR VCOA WHEN REQUESTING IFR CLEARANCE. CLIMB IN VISUAL CONDITIONS TO CROSS TAYLOR COUNTY AIRPORT AT OR ABOVE 1800 BEFORE PROCEEDING ON COURSE.

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 05, BUILDING, TREES BEGINNING 56 FT FROM DER, 398 FT LEFT OF CENTERLINE, UP TO 25 FT AGL/945 FT MSL. FENCE 208 FT FROM DER, 267 FT RIGHT OF CENTERLINE, 9 FT AGL/933 FT MSL. FENCE 724 FT FROM DER, 329 FT RIGHT OF CENTERLINE, 6 FT AGL/939 FT MSL. TRANSMISSION LINE, POLES BEGINNING 1467 FT FROM DER, 877 FT RIGHT OF CENTERLINE, UP TO 26 FT AGL/968 FT MSL. TREES BEGINNING 1856 FT FROM DER, 168 FT RIGHT OF CENTERLINE, UP TO 81 FT AGL/1002 FT MSL. POLES, TRANSMISSION LINE, TREES BEGINNING 1935 FT FROM DER, 668 FT LEFT OF CENTERLINE, UP TO 36 FT AGL/980 FT MSL. TRANSMISSION LINE, POLES, TREES BEGINNING 2133 FT FROM DER, 258 FT LEFT OF CENTERLINE, UP TO 39 FT AGL/981 FT MSL. TREES BEGINNING 2248 FT FROM DER, 464 FT LEFT OF CENTERLINE, UP TO 83 FT AGL/1005 FT MSL. TREES BEGINNING 3256 FT FROM DER, 856 FT RIGHT OF CENTERLINE, UP TO 91 FT AGL/1031 FT MSL. TREE 3956 FT FROM DER, 1143 FT LEFT OF CENTERLINE, 89 FT AGL/1025 FT MSL.

NOTE: RWY 23, VEHICLES ON ROADWAY BEGINNING 3 FT FROM DER, 427 FT LEFT OF CENTERLINE, UP TO 13 FT AGL/882 FT MSL. VEHICLES ON ROADWAY 4 FT FROM DER, 346 FT RIGHT OF CENTERLINE, 16 FT AGL/883 FT MSL. TRANSMISSION LINE, POLES BEGINNING 81 FT FROM DER, 400 FT RIGHT OF CENTERLINE, UP TO 29 FT AGL/894 FT MSL. TREE 573 FT FROM DER, 591 FT LEFT OF CENTERLINE, 49 FT AGL/909 FT MSL. TREE 669 FT FROM DER, 575 FT LEFT OF CENTERLINE, 60 FT AGL/920 FT MSL. BUILDING 1094 FT FROM DER, 156 FT RIGHT OF CENTERLINE, 39 FT AGL/899 FT MSL. TREES, ELEVATOR BEGINNING 1145 FT FROM DER, 248 FT RIGHT OF CENTERLINE, UP TO 65 FT AGL/926 FT MSL. TREE 2732 FT FROM DER, 738 FT LEFT OF CENTERLINE, 69 FT AGL/949 FT MSL. TREE 3722 FT FROM DER, 1197 FT LEFT OF CENTERLINE, 112 FT AGL/978 FT MSL. TREE 4854 FT FROM DER, 1708 FT LEFT OF CENTERLINE, 100 FT AGL/999 FT MSL.

CONTROLLING OBSTACLES:

RWY 5: 1570 FT MSL TOWER 372534.00N-0851639.00W

VCOA: RWY 5 - 1115 FT MSL TOWER 371924.00N-0851929.00W VCA; 1570 FT MSL TOWER 372534.00N-0851639.00W VCOA DIVERSE

REMARKS:

<u>FLIGHT INSPECTED BY:</u>	<i>Digitally signed by</i> BEV L BORDY Jul 30, 2018 <i>Digitally signed by</i>	<u>OFFICE SYMBOL:</u>	<u>DATE:</u>
STEPHEN K KOCH		FICO	7/25/18
<u>DEVELOPED BY:</u>	<i>Digitally signed by</i> BEV L BORDY Jul 30, 2018 <i>Digitally signed by</i>	<u>OFFICE SYMBOL:</u>	<u>DATE:</u>
LONNIE EVERHART (GREG BENNETT)		AJV-5400	05/07/2018
<u>APPROVED BY:</u>	<i>Digitally signed by</i> BEV L BORDY Jul 30, 2018	<u>OFFICE SYMBOL:</u>	<u>DATE:</u>
LONNIE EVERHART		AJV-5400	

REQUIRED EFFECTIVE DATE:

ROUTINE

COORDINATED WITH:

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

OTHER:

ZID, AMGR



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

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CITY, STATE

CAMPBELLSVILLE, KY

AIRPORT

TAYLOR COUNTY

EFFECTIVE DATE

11 OCTOBER 2018

AMDT NO

ORIG-A

CHANGES - REASONS:

1. CHANGED RWY 5 TAKEOFF MINIMUMS FROM "STANDARD" TO "STANDARD WITH MINIMUM CLIMB OF 260 FT PER NM TO 2000 OR 1000-2 1/2 FOR VCOA" - CLEARED NOTAM 8/3214 FOR NEW CONTROLLING OBSTACLE.
2. DEVELOPED A VCOA - REQUIRED BY CRITERIA AND APPROVED BY ATC.
3. UPDATED TAKEOFF OBSTACLE NOTES - NEW SURVEY DATA



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> LAKE CUMBERLAND RGNL	<u>AIRPORT ID</u> KSME	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 5	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>CITY</u> SOMERSET	<u>STATE</u> KY	
<u>AIRPORT ELEVATION</u> 927	<u>TDZE</u> 927	<u>SUPERSEDED</u>	<u>ORIGINAL/AMENDMENT</u>	<u>DATED</u>	<u>MAG VAR</u> 5W	<u>EPOCH YEAR</u> 2005
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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. 315/30 CW 135/30	NOPT	315/15 CW 135/15		3900
1. 315/15 CW 135/15		TOOLY	IF/IAF	3600
2. 135/30 CW 315/30		135/15 CW 315/15		3900
2. 135/15 CW 315/15		TOOLY	IF/IAF	3600

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>
TOOLY	IF/IAF	JIBEX		TF	FB	1.00	044.79	6.30	3000
JIBEX	FAF	RW05	MAP	TF	FO	0.30	044.84	6.14	
RW05	MAP	1177 MSL		CA			044.84		
1177 MSL		AZLEC		DF	FO	1.00			3600

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW05

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3600 DIRECT AZLEC AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. HOLD SW TOOLY, RT, 044.79 INBOUND, 3600 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 044.84

FAF: JIBEX

DIST FAF TO MAP: 6.14

DIST FAF TO THLD: 6.14

4. MIN ALT: TOOLY 3600, JIBEX 3000

5. DIST TO THLD FROM OM:

MM:

IM:

150 HAT:

250 HAT: 0.64

GS ANT:

6. MIN GP INCPT: 3000

GP ALT AT FAF : JIBEX 3000

OM:

MM:

IM:

7. GP ANGLE: 3.12

34:1: IS NOT CLEAR

20:1: IS CLEAR

TCH: 52.0

8. MSA FROM:

PBN REQUIREMENTS NOTE:

RNP APCH

NOTES:

CHART NOTE: CIRCLING RWY 23 NA AT NIGHT.
CHART NOTE: RWY 5 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -16C OR ABOVE 54C.

ADDITIONAL FLIGHT DATA:

CHART PLANVIEW NOTE: FINAL APPROACH COURSE OFFSET 3.00 DEGREES.
CHART CIRCLING ICON.
CHART VDP AT 1.22 NM TO RW05*
*LNAV ONLY
WAAS CHANNEL #65941
REFERENCE PATH ID: W05A
CHART FAS OBST: 1216 TOWER 370221N/0843842W.
HOLD NE, RT, 228.02 INBOUND
LTP HAE: 248.5 M

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD - CAT C, 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
LPV DA	1177	3/4	250	1177	3/4	250	1177	3/4	250	1177	3/4	250			
LNAV/VNAV DA	1547	1 3/4	620	1547	1 3/4	620	1547	1 3/4	620	1547	1 3/4	620			
LNAV MDA	1480	1	553	1480	1	553	1480	1 5/8	553	1480	1 5/8	553			
CIRCLING	1580	1	653	1700	1	773	2100	3	1173	2100	3	1173			

CHANGES - REASONS

ORIGINAL PROCEDURE

08/21/19: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 06/19/18.
1. ADDED TDZE OF "927" TO PAGE 1 OF THE -3 FORM.



<u>AIRPORT</u> LAKE CUMBERLAND RGNL	<u>AIRPORT ID</u> KSME	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 5	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>CITY</u> SOMERSET	<u>STATE</u> KY
<u>COORDINATED WITH:</u>					
A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZID, ARPT MGR					
<u>FLIGHT CHECKED BY</u> MARC JOHN HINCK		Digitally signed by DAVID TEFFETELLER Aug 21, 2018	<u>OFFICE</u> FIOG	<u>DATE</u> 08/13/2018	
<u>DEVELOPED BY</u> JAMES LAFFERTY		Digitally signed by JAMES LAFFERTY Aug 21, 2018	<u>OFFICE</u> AJV-5433	<u>DATE</u> 06/19/2018	
<u>APPROVED BY</u> PATRICK MULQUEEN		Digitally signed by DAVID TEFFETELLER Aug 21, 2018	<u>OFFICE</u> AJV-5430	<u>DATE</u>	<u>TITLE</u> MANAGER



FAS DATA BLOCK INFORMATION

DATA FIELD	DATA
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KSME
RUNWAY	RW05
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W05A
LTP/FTP LATITUDE	370255.6570N
LTP/FTP LONGITUDE	0843716.3440W
LTP/FTP ELLIPSOIDAL HEIGHT	+02485
FPAP LATITUDE	370404.1025N
FPAP LONGITUDE	0843604.9475W
THRESHOLD CROSSING HEIGHT (TCH)	00052.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.12
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0000
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	F71DAEEB
ADDITIONAL PATH POINT RECORD INFORMATION	
ICAO CODE	K5
LTP ORTHOMETRIC HEIGHT	+02786
FPAP ORTHOMETRIC HEIGHT	+02786



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> LAKE CUMBERLAND RGNL	<u>AIRPORT ID</u> KSME	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 23	<u>ORIGINAL/AMENDMENT</u> 2	<u>CITY</u> SOMERSET	<u>STATE</u> KY
<u>AIRPORT ELEVATION</u> 927	<u>TDZE</u> 927	<u>SUPERSEDED</u> RNAV (GPS) RWY 23	<u>ORIGINAL/AMENDMENT</u> 1A	<u>DATED</u> 08/20/2015	<u>MAG VAR</u> 5W
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>	<u>EPOCH YEAR</u> 2005

TAA

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>ALTITUDE</u>
1. 138/30 CW 318/30	NOPT	AZLEC	IF/IAF	3600
2. 318/30 CW 138/30		AZLEC	IF/IAF	3600

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>
AZLEC	IF/IAF	HITFO		TF	FB	1.00	228.02	8.00	2900
HITFO	FAF	BABME/2.60 NM TO RW23		TF	FB	0.30	227.95	3.44	
BABME/2.60 NM TO RW23		RW23	MAP	TF	FO	0.30	227.95	2.60	
RW23	MAP	1327 MSL		CA			227.95		
1327 MSL		TOOLY		DF	FO	1.00			3600

MISSED APPROACH

MAP:

LP: RW23
 LNAV: RW23

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3600 DIRECT TOOLY AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. HOLD NE AZLEC, RT, 228.02 INBOUND, 3600 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 227.95 FAF: HITFO DIST FAF TO MAP: 6.04 DIST FAF TO THLD: 6.04

4. MIN ALT: HITFO 2900, BABME/2.60 NM TO RW23 1820*

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

6. MIN GP INCPT: GP ALT AT FAF :

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

8. MSA FROM:

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: CIRCLING RWY 23 NA AT NIGHT.
CHART NOTE: RWY 23 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED.
CHART NOTE: STRAIGHT-IN RWY 23 NA AT NIGHT.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
HITFO TO RW23: 3.00/53.20.
WAAS CHANNEL #53641
REFERENCE PATH ID: W23A
CHART FAS OBST: 1330 TREE 370428N/0843505W, 1391 TREE 370414N/0843452W.
CHART: 1694 TOWER 370817N/0843208W.
HOLD SW, RT, 044.79 INBOUND
LTP HAE: 250.8 M

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD - CAT C, 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	1580	1	653	1580	1	653	1580	1 7/8	653	1580	1 7/8	653			
LNAV MDA	1660	1	733	1660	1	733	1660	2	733	1660	2	733			
CIRCLING	1660	1	733	1700	1	773	2100	3	1173	2100	3	1173			



AIRPORT	AIRPORT ID	PROCEDURE NAME	ORIGINAL/AMENDMENT	CITY	STATE
LAKE CUMBERLAND RGNL	KSME	RNAV (GPS) RWY 23	2	SOMERSET	KY

CHANGES - REASONS

- 1. DELETED CHART NOTE; WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE MONTICELLO ALTIMETER SETTING AND INCREASE ALL MDAS 60 FEET AND LNAV CAT C AND D AND CIRCLING CAT C VISIBILITY 1/4 MILE - CHART NOTE NO LONGER REQUIRED. NOTE MOVED TO BACK OF -9 AS CONTINGENCY NOTE.
- 2. CHANGED CHART NOTE FROM "NIGHT LANDING: RWY 23 NA" TO "STRAIGHT-IN RWY 23 NA AT NIGHT." - CHART NOTE UPDATED REFLECTING THAT STRAIGHT-IN TO RWY 23 IS NA AT NIGHT DUE TO 20:1 PENETRATIONS .
- 3. CHANGED CHART NOTE FROM "HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NA" TO "RWY 23 HELICOPTER VISIBILITY REDUCTION BELOW 1SM NOT AUTHORIZED" - NEW CHART NOTE ADDS DESIGNATED RWY TO HELICOPTER VISIBILITY REDUCTION.
- 4. ADDED ADDITIONAL FLIGHT DATA NOTE; CHART CIRCLING ICON - CIRCLING ICON REQUIRED TO SHOW THAT NEW CIRCLING AREA DIMENSIONS ARE BEING USED.
- 5. DELETED PLANVIEW NOTE; FINAL APPROACH COURSE OFFSET 15.05 (DEGREES) - PROCEDURE RE-BUILT AS STRAIGHT-IN PER ATC/FPT REQUEST. OFF-SET REMOVED.
- 6. CHANGED DIST FAF TO MAP/THLD FROM "5.52/5.97" TO "6.04/6.04" - MAP FIX REMOVED, THLD USED AS MAP. FAF MOVED TO ACHIEVE A 3.00 DESCENT ANGLE.
- 7. CHANGED FAS OBST FROM "1439 100' TREE 370449N/0843328W" TO "1391 TREE 370414N/0843452W" - FAS OBSTACLE UPDATED THROUGH PROCEDURE BUILD.
- 8. CHANGED LNAV MDA/HAT FROM "1700/773" TO "1660/733". CAT B VISIBILITY CHANGED FROM "1 1/4" TO "1" CAT C FROM "2 1/4" TO "2", AND CAT D FROM "2 1/2" TO "2" - LOWER MDA/HAT AND VISIBILITIES ACHIEVED FROM PROCEDURE BUILD AND UPGRADED SURVEY INFORMATION.
- 9. ADDED LP MINIMA - LP MINIMA ADDED PER ATC/FPT.
- 10. CHANGED MISSED APPROACH INSTRUCTIONS FROM "CLIMB TO 3600 DIRECT HIXUX AND TRACK 225 TO SITOW AND HOLD" TO "CLIMB TO 3600 DIRECT TOOLY AND HOLD" - FIX "HIXUX" NOT REQUIRED FOR MISSED APPROACH PROCEDURE. FIX ELIMINATED AND MISSED APPROACH SENT DIRECT MISSED APPROACH HOLDING FIX "TOOLY".
- 11. ADDED STEP-DOWN-FIX TO PROCEDURE AT 2.60 NM - STEP-DOWN FIX ADDED TO PROCEDURE AT 2.60NM PER ATC/FPT REQUEST.
- 12. DELETED LEFT AND RIGHT HALF'S OF TAA - TAA MODIFIED PER FPT REQUEST. IAF'S FOR LEFT AND RIGHT BASES DELETED.
- 13. ADDED CHART NOTE: CIRCLING RWY 23 NA AT NIGHT - CIRCLING RWY 23 NA DUE TO 20:1 SURFACE PENETRATIONS.
- 14. DELETED NOTE: "DME/DME RNP-0.3 NA" - IAW 8260.19H, PARA 1-1-5F(14), REMOVED THE REQUIREMENT FOR THIS NOTE.
- 15. ADDED "PBN REQUIREMENTS NOTE: RNP APCH" - EQUIPMENT REQUIREMENTS NOTE APPLIED PER 8260.58A, CHANGE 1.
- 16. ADDED HOLD-IN-LIEU MAX HOLDING OF 6000 AT AZLEC (IF/IAF) - NEW FORM REQUIREMENTS ADDED MAXIMUM ALTITUDE.



<u>AIRPORT</u> LAKE CUMBERLAND RGNL	<u>AIRPORT ID</u> KSME	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 23	<u>ORIGINAL/AMENDMENT</u> 2	<u>CITY</u> SOMERSET	<u>STATE</u> KY
<u>COORDINATED WITH:</u>					
A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZID, ARPT MGR					
<u>FLIGHT CHECKED BY</u> MARC J HINCK		Digitally signed by DAVID TEFFETELLER Aug 21, 2018	<u>OFFICE</u> FICO	<u>DATE</u> 08/13/2018	
<u>DEVELOPED BY</u> JAMES LAFFERTY		Digitally signed by JAMES LAFFERTY Jun 26, 2018	<u>OFFICE</u> AJV-5433	<u>DATE</u> 11/07/2017	
<u>APPROVED BY</u> PATRICK MULQUEEN		Digitally signed by DAVID TEFFETELLER Aug 21, 2018	<u>OFFICE</u> AJV-5430	<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	KSME
RUNWAY	RW23
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W23A
LTP/FTP LATITUDE	370331.7785N
LTP/FTP LONGITUDE	0843634.4695W
LTP/FTP ELLIPSOIDAL HEIGHT	+02508
FPAP LATITUDE	370226.4215N
FPAP LONGITUDE	0843750.2295W
THRESHOLD CROSSING HEIGHT (TCH)	00053.2
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	FCED4BF4

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K5
LTP ORTHOMETRIC HEIGHT	+00281
FPAP ORTHOMETRIC HEIGHT	+00281



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		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: _____															
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: _____															
8. MSA FROM: _____										MAG VAR: _____			EPOCH YEAR: _____		
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT															
ALTERNATE: N A															
CATEGORY =====>															
		DH/MDA VIS		DH/MDA VIS				DH/MDA VIS				DH/MDA VIS			
NOTES:															
PROCEDURE CANCELED EFFECTIVE 8 NOVEMBER 2018															
CITY AND STATE SOMERSET, KY		ELEVATION: 927 TDZE: 927 AIRPORT NAME: LAKE CUMBERLAND RGNL		FACILITY IDENTIFIER: RNAV		PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (GPS) Z RWY 5, AMDT 1A, 07/29/2010						SUP: AMDT: 1 DATED 01/15/2009			

**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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CITY, STATE	AIRPORT	EFFECTIVE DATE	AMDT NO
DE RIDDER, LA	BEAUREGARD RGNL	8 NOVEMBER 2018	5

TAKEOFF MINIMUMS:

RWY 14, 18, 36: STANDARD.

RWY 32, 300-2 1/4 OR STANDARD WITH MINIMUM CLIMB OF 215 FT PER NM TO 600.

TEXTUAL DEPARTURE PROCEDURES:

VISUAL CLIMB OVER AIRPORT:

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 14, VEHICLE ON ROAD 707 FT FROM DER, 613 FT LEFT OF CENTERLINE, 15 FT AGL/224 FT MSL. TREES BEGINNING 1307 FT FROM DER, 566 FT RIGHT OF CENTERLINE, UP TO 100 FT AGL/299 FT MSL. TREES BEGINNING 1765 FT FROM DER, 40 FT RIGHT OF CENTERLINE, UP TO 100 FT AGL/309 FT MSL.

NOTE: RWY 18, TREES BEGINNING 52 FT FROM DER, 222 FT LEFT OF CENTERLINE, UP TO 220 FT MSL. TREE 151 FT FROM DER, 271 FT RIGHT OF CENTERLINE, 100 FT AGL/208 FT MSL. TREES BEGINNING 580 FT FROM DER, 353 FT RIGHT OF CENTERLINE, UP TO 263 FT MSL.

NOTE: RWY 32, VEGETATION 129 FT FROM DER, 162 FT LEFT OF CENTERLINE, 203 FT MSL. VEGETATION 164 FT FROM DER, 227 FT LEFT OF CENTERLINE, 205 FT MSL. TREE, VEGETATION BEGINNING 251 FT FROM DER, 16 FT LEFT OF CENTERLINE, UP TO 248 FT MSL. TREE 298 FT FROM DER, 189 FT RIGHT OF CENTERLINE, 216 FT MSL. TREES BEGINNING 610 FT FROM DER, 141 FT LEFT OF CENTERLINE, UP TO 100 FT AGL/299 FT MSL. TREES BEGINNING 722 FT FROM DER, 203 FT RIGHT OF CENTERLINE, UP TO 100 FT AGL/309 FT MSL. TOWER 1.7 NM FROM DER, 1400 FT RIGHT OF CENTERLINE, 275 FT AGL/479 FT MSL.

NOTE: RWY 36, TREES BEGINNING 556 FT FROM DER, 351 FT RIGHT OF CENTERLINE, UP TO 266 FT MSL. POLE 563 FT FROM DER, 352 FT LEFT OF CENTERLINE, 36 FT AGL/238 FT MSL. TREES BEGINNING 634 FT FROM DER, 369 FT LEFT OF CENTERLINE, UP TO 285 FT MSL. TREES BEGINNING 650 FT FROM DER, 1 FT LEFT OF CENTERLINE, UP TO 295 FT MSL. TREE 659 FT FROM DER, 558 FT RIGHT OF CENTERLINE, 270 FT MSL. TREES BEGINNING 710 FT FROM DER, 465 FT RIGHT OF CENTERLINE, UP TO 273 FT MSL. TREES BEGINNING 2033 FT FROM DER, 140 FT RIGHT OF CENTERLINE, UP TO 284 FT MSL. TREE 2234 FT FROM DER, 372 FT RIGHT OF CENTERLINE, 290 FT MSL. TREE 2304 FT FROM DER, 313 FT RIGHT OF CENTERLINE, 291 FT MSL. TREES BEGINNING 2372 FT FROM DER, 73 FT RIGHT OF CENTERLINE, UP TO 299 FT MSL. TREES BEGINNING 2615 FT FROM DER, 219 FT LEFT OF CENTERLINE, UP TO 298 FT MSL. TREES BEGINNING 2784 FT FROM DER, 184 FT LEFT OF CENTERLINE, UP TO 299 FT MSL. TREE 3607 FT FROM DER, 540 FT LEFT OF CENTERLINE, 305 FT MSL. TREE 4277 FT FROM DER, 473 FT LEFT OF CENTERLINE, 313 FT MSL.

CONTROLLING OBSTACLES:

RWY 32: 479 FT MSL TOWER 305140.00N/0932209.00W.

REMARKS:

FLIGHT INSPECTED BY:	<i>Digitally signed by</i> DONALD H LANIER	OFFICE SYMBOL:	DATE:
ZACK SMYER	Aug 10, 2018	FICO	8/8/18
DEVELOPED BY:	<i>Digitally signed by</i> LIAM DONAHUE	OFFICE SYMBOL:	DATE:
LIAM DONAHUE	Jul 17, 2018	AJV-5431	07/05/2018
APPROVED BY:	<i>Digitally signed by</i> DONALD H LANIER	OFFICE SYMBOL:	DATE:
PATRICK MULQUEEN	Aug 10, 2018	AJV-5430	

REQUIRED EFFECTIVE DATE:

ROUTINE

COORDINATED WITH:

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

OTHER:

ZHU, POE APP CON, AMGR

**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>
DE RIDDER, LA	BEAUREGARD RGNL	8 NOVEMBER 2018	5

CHANGES - REASONS:

1. CHANGED TAKEOFF MINIMUMS FOR RUNWAY 32 FROM STANDARD TO 300-2 1/4 OR STANDARD WITH MINIMUM CLIMB OF 215 FT PER NM TO 600. - NEW CONTROLLING OBSTACLE, 22-020115, RWY 32: 479 MSL TOWER 305140.00N/0932209.00W.
2. UPDATED TAKEOFF OBSTACLE NOTES. - MAP STUDY AND NEW SURVEY DATA.
3. ADDED RWY 32: 479 MSL TOWER 305140.00N/0932209.00W TO CONTROLLING OBSTACLE SECTION. - NEW OBSTACLE CAUSES CLIMB GRADIENT AND CLIMB TO ALTITUDE FOR RUNWAY 32.



**FEDERAL AVIATION ADMINISTRATION
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.

<u>AIRPORT</u> BELFAST MUNI	<u>AIRPORT ID</u> KBST	<u>PROCEDURE NAME</u> NDB RWY 15	<u>ORIGINAL/AMENDMENT</u> 4	<u>CITY</u> BELFAST	<u>STATE</u> ME	
<u>AIRPORT ELEVATION</u> 198	<u>TDZE</u> 198	<u>SUPERSEDED</u> NDB RWY 15	<u>ORIGINAL/AMENDMENT</u> 3A	<u>DATED</u> 10/23/2008	<u>MAG VAR</u>	<u>EPOCH YEAR</u>
<u>FACILITY</u>	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u>	<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 11/08/2018

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:

QUALITY
22
CHECKED

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

ALTERNATE: NA ☐

<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>

CHANGES - REASONS

COORDINATED WITH:

A4A ☐ ALPA ☐ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZBW, BGR APP CON, AIRPORT MANAGER, ATA

FLIGHT CHECKED BY

OFFICE

DATE

DEVELOPED BY *Digitally signed by*
ROBERT G HAMILTON
JOSHUA LEETE Jul 10, 2018

OFFICE
AJV-5422
DATE
07/03/2018

APPROVED BY *Digitally signed by*
ROBERT G HAMILTON
JULIE A. MORGAN Jul 10, 2018

OFFICE
AJV-5420
DATE
TITLE
MANAGER



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

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CITY, STATE	AIRPORT	EFFECTIVE DATE	AMDT NO
PRESQUE ISLE, ME	NORTHERN MAINE RGNL ARPT AT PRESQUE IS	8 NOVEMBER 2018	5

TAKEOFF MINIMUMS:

RWY 1: 300-1 WITH MINIMUM CLIMB OF 241 FT PER NM TO 1200 OR STANDARD WITH MINIMUM CLIMB OF 460 FEET PER NM TO 800 OR 1100-3 FOR VCOA.

RWY 10: 300 - 1 3/4 OR STANDARD WITH MINIMUM CLIMB OF 264 FEET PER NM TO 900.

RWY 19: STANDARD WITH MINIMUM CLIMB OF 273 FT PER NM TO 1700 OR 1100-3 FOR VCOA.

RWY 28: 200 - 1 3/8 OR STANDARD WITH MINIMUM CLIMB OF 306 FEET PER NM TO 800.

TEXTUAL DEPARTURE PROCEDURES:

RWY 10: CLIMB HEADING 095.67 TO 1600 BEFORE PROCEEDING ON COURSE.

VISUAL CLIMB OVER AIRPORT:

RWY 1, 19: OBTAIN ATC APPROVAL FOR VCOA WHEN REQUESTING IFR CLEARANCE. CLIMB IN VISUAL CONDITIONS TO CROSS NORTHERN MAINE RGNL ARPT AT OR ABOVE 1500 BEFORE PROCEEDING ON COURSE.

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 01: TERRAIN 10 FT FROM DER, 372 FT LEFT OF CENTERLINE, 535 FT MSL.

TERRAIN 172 FT FROM DER, 473 FT LEFT OF CENTERLINE, 545 FT MSL.

TERRAIN 406 FT FROM DER, 513 FT RIGHT OF CENTERLINE, 549 FT MSL.

TERRAIN 657 FT FROM DER, 523 FT LEFT OF CENTERLINE, 564 FT MSL.

VEHICLES ON ROAD, NAVAID BEGINNING 948 FT FROM DER, ON CENTERLINE, UP TO 570 FT MSL.

TERRAIN 1418 FT FROM DER, 231 FT LEFT OF CENTERLINE, 579 FT MSL.

VEHICLES ON ROAD 1462 FT FROM DER, 13 FT LEFT OF CENTERLINE, 586 FT MSL.

TREE, VEHICLES ON ROAD BEGINNING 1479 FT FROM DER, 210 FT LEFT OF CENTERLINE, UP TO 55 FT AGL/601 FT MSL.

TERRAIN 2186 FT FROM DER, 787 FT RIGHT OF CENTERLINE, 607 FT MSL.

TREE 2406 FT FROM DER, 409 FT RIGHT OF CENTERLINE, 33 FT AGL/630 FT MSL.

POLE 2586 FT FROM DER, 1112 FT RIGHT OF CENTERLINE, 38 FT AGL/662 FT MSL.

TREE, POLE BEGINNING 2723 FT FROM DER, 908 FT RIGHT OF CENTERLINE, UP TO 41 FT AGL/678 FT MSL.

TREE, POLE BEGINNING 2791 FT FROM DER, 13 FT RIGHT OF CENTERLINE, UP TO 51 FT AGL/694 FT MSL.

POLE, TERRAIN, TREE, BUILDING BEGINNING 3663 FT FROM DER, 687 FT RIGHT OF CENTERLINE, UP TO 29 FT AGL/713 FT MSL.

TREE 1.1 NM FROM DER, 1517 FT RIGHT OF CENTERLINE, 61 FT AGL/734 FT MSL.

TREE 1.1 NM FROM DER, 1609 FT RIGHT OF CENTERLINE, 61 FT AGL/738 FT MSL.

TREE 1.2 NM FROM DER, 1850 FT RIGHT OF CENTERLINE, 70 FT AGL/749 FT MSL.

TREE 2.5 NM FROM DER, 3528 FT LEFT OF CENTERLINE, 100 FT AGL/960 FT MSL.

NOTE: RWY 10: TREE, VEHICLES ON ROAD BEGINNING 35 FT FROM DER, 423 FT RIGHT OF CENTERLINE, UP TO 38 FT AGL/508 FT MSL.

POLE 447 FT FROM DER, 610 FT RIGHT OF CENTERLINE, 43 FT AGL/519 FT MSL.

TREE 519 FT FROM DER, 517 FT RIGHT OF CENTERLINE, 58 FT AGL/535 FT MSL.

TREE, POLE BEGINNING 649 FT FROM DER, 472 FT RIGHT OF CENTERLINE, UP TO 77 FT AGL/553 FT MSL.

TREE 2610 FT FROM DER, 132 FT LEFT OF CENTERLINE, 73 FT AGL/544 FT MSL.

TREE 1.3 NM FROM DER, 1697 FT RIGHT OF CENTERLINE, 59 FT AGL/748 FT MSL.

TREE 1.4 NM FROM DER, 1657 FT RIGHT OF CENTERLINE, 67 FT AGL/760 FT MSL.

TREE 1.4 NM FROM DER, 1665 FT RIGHT OF CENTERLINE, 76 FT AGL/764 FT MSL.

NOTE: RWY 19: TREE 1542 FT FROM DER, 903 FT LEFT OF CENTERLINE, 64 FT AGL/515 FT MSL.

TREE 1888 FT FROM DER, 922 FT RIGHT OF CENTERLINE, 70 FT AGL/508 FT MSL.

NOTE: RWY 28: TREE 50 FT FROM DER, 471 FT RIGHT OF CENTERLINE, 18 FT AGL/487 FT MSL.

TREE 160 FT FROM DER, 467 FT LEFT OF CENTERLINE, 39 FT AGL/494 FT MSL.

VEGETATION 176 FT FROM DER, 257 FT RIGHT OF CENTERLINE, 18 FT AGL/488 FT MSL.

TREE 294 FT FROM DER, 409 FT LEFT OF CENTERLINE, 40 FT AGL/500 FT MSL.

TREES BEGINNING 603 FT FROM DER, 28 FT LEFT OF CENTERLINE, UP TO 47 FT AGL/527 FT MSL.

TREE 1181 FT FROM DER, 537 FT RIGHT OF CENTERLINE, 48 FT AGL/523 FT MSL.

TREE 1188 FT FROM DER, 638 FT RIGHT OF CENTERLINE, 62 FT AGL/537 FT MSL.



**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>
PRESQUE ISLE, ME	NORTHERN MAINE RGNL ARPT AT PRESQUE IS	8 NOVEMBER 2018	5

TREE 3865 FT FROM DER, 386 FT RIGHT OF CENTERLINE, 100 FT AGL/620 FT MSL.
TREE 4093 FT FROM DER, 755 FT LEFT OF CENTERLINE, 100 FT AGL/610 FT MSL.
TREE 5952 FT FROM DER, 2045 FT RIGHT OF CENTERLINE, 100 FT AGL/700 FT MSL.
TREE 1.1 NM FROM DER, 2261 FT RIGHT OF CENTERLINE, 100 FT AGL/720 FT MSL.

CONTROLLING OBSTACLES:

RWY 1: 694 FEET MSL TREE 464232.29N/0680308.47W (CLIMB GRADIENT), 1010 FEET MSL TREE 464411.72N/0680530.44W (CLIMB GRADIENT TERMINATION ALTITUDE), 713 FEET MSL POLE 464240.91N/0680309.97W (CEILING), 696 FEET MSL TREE 464254.04N/0680308.41W (VISIBILITY).

RWY 10: 760 FEET MSL TREE 464123.43N/0675932.81W (CLIMB GRADIENT), 764 FEET MSL TREE 464123.72N/0675930.69W (CLIMB GRADIENT TERMINATION ALTITUDE/CEILING/VISIBILITY).

RWY 19: 1341 FEET MSL AAO 463647.99N/0680047.94W.

RWY 28: 700 FEET MSL TREE 464108.43N/0680433.04W (CLIMB GRADIENT), 720 FEET MSL TREE 464108.55N/0680444.85W (CLIMB GRADIENT TERMINATION ALTITUDE/CEILING/VISIBILITY).

RWY 1, 19 (VCOA): 1341 FEET MSL AAO 463647.99N/0680047.94W.

OBSTACLE MANDATING ODP ROUTE DEVELOPMENT: RWY 10: 1391 FEET MSL TOWER 464429.80N/0675601.80W.

REMARKS:

IN VCOA INSTRUCTIONS, NAME OF AIRPORT WAS INTENTIONALLY SHORTENED (REMOVED "AT PRESQUE ISLE") TO REDUCE CONFUSION ON WHAT POINT TO CROSS WHEN EXECUTING THE VCOA.

FLIGHT INSPECTED BY: *Digitally signed by*

RUSSELL P ELLIOTT **ROBERT G HAMILTON**
Aug 15, 2018

OFFICE SYMBOL:

FICO

DATE:

08/09/2018

DEVELOPED BY: *Digitally signed by*

RUSS ROSLEWSKI **RUSSELL ROSLEWSKI**
Jul 12, 2018

OFFICE SYMBOL:

AJV-5421

DATE:

06/29/2018

APPROVED BY: *Digitally signed by*

JULIE MORGAN **ROBERT G HAMILTON**
Aug 15, 2018

OFFICE SYMBOL:

AJV-5420

DATE:

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:

ZBW, AIRPORT MANAGER

CHANGES - REASONS:

1. TAKEOFF MINIMUMS RWY 1, REMOVED CEILING/VIS WITH STANDARD CG OPTION - NEW CONTROLLING OBSTACLES AND CURRENT CRITERIA.
2. TAKEOFF MINIMUMS RWY 1, ADDED CEILING/VIS WITH NON-STANDARD CG OPTION - NEW CONTROLLING OBSTACLES AND CURRENT CRITERIA.
3. TAKEOFF MINIMUMS RWY 1, INCREASED STANDARD MINIMUMS CG FROM 456 TO 460 AND LOWERED CGTA FROM 900 TO 800 - NEW CONTROLLING OBSTACLES AND CURRENT CRITERIA.
4. TAKEOFF MINIMUMS RWY 1, ADDED VCOA OPTION - REMOVAL OF STANDARD CG OPTION.
5. TAKEOFF MINIMUMS RWY 10, INCREASED CG FROM 262 TO 264 - NEW CONTROLLING OBSTACLES AND CURRENT CRITERIA.
6. TAKEOFF MINIMUMS RWY 19, REMOVED CEILING/VIS WITH STANDARD CG OPTION - NEW CONTROLLING OBSTACLES AND CURRENT CRITERIA.
7. TAKEOFF MINIMUMS RWY 19, INCREASED CG FROM 230 TO 273 AND CGTA FROM 1600 TO 1700 - NEW CONTROLLING OBSTACLES AND CURRENT CRITERIA.
8. TAKEOFF MINIMUMS RWY 19, ADDED VCOA OPTION - REMOVAL OF STANDARD CG OPTION.
9. TAKEOFF MINIMUMS RWY 28, ADDED CEILING/VIS/CG - NEW CONTROLLING OBSTACLES AND CURRENT CRITERIA.
10. TEXTUAL DEPARTURE PROCEDURES, RWY 1, REMOVED - NO LONGER NECESSARY WITH CHANGES TO TAKEOFF MINIMUMS.

QUALITY
19
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>
PRESQUE ISLE, ME	NORTHERN MAINE RGNL ARPT AT PRESQUE IS	8 NOVEMBER 2018	5

11. TEXTUAL DEPARTURE PROCEDURES, RWY 10, CHANGED RUNWAY HEADING TO ACTUAL VALUE, LOWERED CLIMB-TO ALTITUDE FROM 1700 TO 1600 - NEW CONTROLLING OBSTACLES AND CURRENT CRITERIA.

12. ADDED VCOA FOR RUNWAYS 1 AND 19 - TO ALLOW OPTION FOR STANDARD CG.



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> CHARLEVOIX MUNI	<u>AIRPORT ID</u> KCVX	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 27	<u>ORIGINAL/AMENDMENT</u> ORIG-B	<u>CITY</u> CHARLEVOIX	<u>STATE</u> MI	
<u>AIRPORT ELEVATION</u> 669	<u>TDZE</u> 662	<u>SUPERSEDED</u> RNAV (GPS) RWY 27	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>DATED</u> 02/09/2012	<u>MAG VAR</u> 5W	<u>EPOCH YEAR</u> 1985
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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>
IROTO		COKOS		TF	FO	2.00	038.08	9.83	3000
GLR VOR/DME	IAF	COKOS	NOPT	TF	FB	1.00	336.26	21.48	3000
PLN VORTAC	IAF	COKOS	NOPT	TF	FB	1.00	218.39	21.86	3000
COKOS	IF/IAF	HISUM		TF	FB	1.00	269.85	7.70	2600
HISUM	FAF	HOMVO/1.90 NM TO RW27		TF	FB	0.30	269.72	4.00	
HOMVO/1.90 NM TO RW27		RW27	MAP	TF	FO	0.30	269.72	1.90	
RW27	MAP	1069 MSL		CA	FO		269.72		
1069 MSL		COKOS		DF	FO	1.00			3000

MISSED APPROACH

MAP:

LNAV: RW27

MISSED APPROACH INSTRUCTIONS:

CLIMBING LEFT TURN 3000 DIRECT COKOS AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. HOLD E COKOS, RT, 269.85 INBOUND, 3000 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 269.72

FAF: HISUM

DIST FAF TO MAP: 5.90

DIST FAF TO THLD: 5.90

4. MIN ALT: COKOS 3000, HISUM 2600, HOMVO/1.90 NM TO RW27 1300

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 NOT CLEAR

20:1: IS CLEAR

TCH:

8. MSA FROM: RW27 3200

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: CIRCLING NA TO RWYS 4 AND 22.
CHART NOTE: RWY 27 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:

HOMVO TO RW27: 3.05/45.
CHART VDP AT 1.33 NM TO RW27
CHART FAS OBST: 791 POLE 451857N/0851447W.

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
LNAV MDA	1100	1	438	1100	1	438	1100	1 1/4	438	1100	1 1/2	438			
CIRCLING	1280	1	611	1280	1	611	1280	1 3/4	611	1280	2	611			

CHANGES - REASONS

1. DELETED DME/DME RNP-0.3 NA - IAW 8260.19H 8-6-8 (B(1)) PBN NAVSPEC.
2. ADDED PBN NOTE RNP APCH - IAW 8260.19H 8-6-8 (B(1)) PBN NAVSPEC.
3. MOVED VDP NA WITH PLN ALTIMETER NOTE TO REMARKS SECTION OF 8260.9 - IAW 8260.19H 8-6-9 (F(3)) RELIABLE WEATHER SOURCE DO NOT REQUIRE PUBLISHED BACKUP ALTIMETER INFORMATION.
4. CHANGED INTERMEDIATE RNP VALUE FROM 0.50 TO 1.00 - UPDATED CODING VALUE FOR INTERMEDIATE SEGMENT.
5. MOVED SDF DISTANCE FROM 1.89 TO 1.90 - IAW 8260.19H 8-6-4 (B) TERMINAL ROUTE DOCUMENTATION TO THE HUNDREDTH FOR STEPDOWN FIX.
6. ADDED CA LEG TO MISSED APPROACH - IAW 8260.19H APPENDIX K AND L, REQUIRED FOR CODING.
7. MOVED VDP DISTANCE TO RWY FROM 1.27 NM TO 1.33 NM - UPDATED CALCULATION.
8. CHANGED VGSI AND DESCENT ANGLE NOTE TO INCLUDE ANGLE AND TCH FORMATTING - IAW 8260.19H 8-6-9 (M(2)) VGSI OR TCH NOT COINCIDENT NOTE INFORMATION.
9. ADDED HELICOPTER VISIBILITY REDUCTION BELOW 3/4SM NOT AUTHORIZED NOTE - AIRPORT HAS 34:1 PENETRATIONS.
10. CHANGED 34:1 NOTE FROM CLEAR TO NOT CLEAR - AIRPORT HAS 34:1 PENETRATIONS.



COORDINATED WITH:

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

FLIGHT CHECKED BY

PROCESSED IAW FLIGHT INSPECTION GROUP (AJW-33) MEMO, DECEMBER 22,2017
SUBJECT: FLIGHT INSPECTION REVIEW NOT REQUIRED

DEVELOPED BY

SCOTT BAGENSIE

APPROVED BY

PATRICK MULQUEEN

Digitally signed by
SCOTT BAGENSIE
Jul 18, 2018

Digitally signed by
DAVID TEFFETELLER
Aug 01, 2018

OFFICE	Digitally signed by	DATE
	DAVID TEFFETELLER	
	Aug 01, 2018	
OFFICE		DATE
AJV-5433		07/12/2018

OFFICE	DATE	TITLE
AJV-5430		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 2900 DIRECT OJANA AND HOLD. ADDITIONAL FLIGHT DATA: HOLD N, RT, 183.64 INBOUND. CHART FAS OBST: 859 TREE 432530N/0855958W CHART FAS OBST: 879 TREE 432303N/0860051W DISTANCE TO THLD FROM 276 HAT: 0.75 NM. CHART VDP AT 1.07 NM TO RW01* *LNAV ONLY. WAAS CHANNEL # 56505 REFERENCE PATH ID: W01A CHART AIRPORT ELEV: 772 LTP HAE: 195.7 M											
HEVMI (IAF)				SACOL (NOPT) (TF) (FB) (RNP 1.00)				093.56 / 5.00				2900													
DOSYA (IAF)				SACOL (NOPT) (TF) (FB) (RNP 1.00)				273.72 / 5.00				2900													
SACOL (IF/IAF)				ZORHO (TF) (FB) (RNP 1.00)				003.64 / 6.10				2300													
ZORHO (FAF)				RW01 (MAP) (TF) (FO) (RNP 0.30)				003.64 / 4.65																	
RW01 (MAP)				1036 MSL (CA)				003.64				2900													
1036 MSL				OJANA (DF) (FO) (RNP 1.00)																					
1. PT _____ SIDE OF COURSE _____ OUTBOUND _____ FT WITHIN _____ MILES OF _____ (IAF) 2. HOLD S SACOL, RT, 003.64 INBOUND, 2900 FT. IN LIEU OF PT (IAF) 3. FAC: 003.64 FAF: ZORHO DIST FAF TO MAP: 4.65 THLD: 4.65 4. MIN. ALT: SACOL 2900, ZORHO 2300 5. DIST TO THLD FROM OM: _____ MM: _____ IM: _____ 150 HAT: _____ 100 HAT: _____ GS ANT: _____ 6. MIN GS INCPT: 2300 GS ALT AT: ZORHO 2300 OM: _____ MM: _____ IM: _____ 7. GS ANGLE: 3.00 TCH: 45.0 34:1 IS NOT CLEAR 8. MSA FROM: _____																MAG VAR: 4W EPOCH YEAR: 1995									
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	1036	1	276	1036	1	276	1036	1	276	1036	1	276													
LNAV/VNAV DA	1129	1 1/4	369	1129	1 1/4	369	1129	1 1/4	369	1129	1 1/4	369													
LNAV MDA	1140	1	380	1140	1	380	1140	1	380	1140	1 1/4	380													
CIRCLING	1260	1	488	1260	1	488	1260	1 1/2	488	1340	2	568													
NOTES: CHART NOTE: BARO-VNAV NA WHEN USING MUSKEGON ALTIMETER SETTING. CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -16C (4F) OR ABOVE 47C (116F). CHART NOTE: RWY 1 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. CHART NOTE: DME/DME RNP-0.3 NA. (CONTINUED ON PAGE 2)																									
CITY AND STATE				ELEVATION: 772 TDZE: 760				FACILITY IDENTIFIER: RNAV		PROCEDURE NO./AMDT NO./EFFECTIVE DATE:				SUP: RNAV (GPS) RWY 36											
FREMONT, MI				AIRPORT NAME: FREMONT MUNI						RNAV (GPS) RWY 1, AMDT 1C				AMDT: 1B											
										8 NOVEMBER 2018				DATED 07/30/2009											



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: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE MUSKEGON ALTIMETER SETTING AND INCREASE ALL DA 65 FT, AND ALL VISIBILITIES 1/4 MILE. INCREASE ALL MDA 80 FT, AND CAT C/D VISIBILITIES 1/4 MILE.

CHART NOTE: VDP NA WHEN USING MUSKEGON ALTIMETER SETTING.

TAA

	FROM	TO	ALT
1.	274/30 CW 094/30 (NOPT)	SACOL (IF/IAF) (FB)	2900
2.	094/30 CW 184/30	HEVMI (IAF) (FB)	2900
3.	184/30 CW 274/30	DOSYA (IAF) (FB)	2900

QUALITY
16
CHECKED

CITY AND STATE

FREMONT, MI

ELEVATION: 772

TDZE: 760

AIRPORT NAME:

FREMONT MUNI

FACILITY
IDENTIFIER:
RNAV

PROCEDURE NO./AMDT NO./EFFECTIVE DATE:

RNAV (GPS) RWY 1, AMDT 1C

8 NOVEMBER 2018

SUP: RNAV (GPS) RWY 36

AMDT: 1B

DATED: 07/30/2009

**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	KFFX
RUNWAY	RW01
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W01A
LTP/FTP LATITUDE	432540.6765N
LTP/FTP LONGITUDE	0855947.3480W
LTP/FTP ELLIPSOIDAL HEIGHT	+01957
FPAP LATITUDE	432709.7900N
FPAP LONGITUDE	0855948.1100W
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	0768
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0

CRC REMAINDER

562908CB

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K5
LTP ORTHOMETRIC HEIGHT	+02296
FPAP ORTHOMETRIC HEIGHT	+02296

QUALITY
16
CHECKED

CITY AND STATE FREMONT, MI	ELEVATION: 772 AIRPORT NAME: FREMONT MUNI	TDZE: 760 FREMONT MUNI	FACILITY IDENTIFIER: RNAV	PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (GPS) RWY 1, AMDT 1C 8 NOVEMBER 2018	SUP: RNAV (GPS) RWY 36
					AMDT: 1B
					DATED: 07/30/2009

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: RW19										
RUBUC (IAF)				OJANA (NOPT) (TF) (FB) (RNP 1.00)			093.56 / 5.00				2900		CLIMB TO 2900 DIRECT SACOL AND HOLD.										
PAMEQ (IAF)				OJANA (NOPT) (TF) (FB) (RNP 1.00)			273.72 / 5.00				2900												
OJANA (IF/IAF)				NOBNY (TF) (FB) (RNP 1.00)			183.64 / 6.16				2500												
NOBNY (FAF)				RW19 (MAP) (TF) (RNP 0.30)			183.64 / 5.23																
RW19 (MAP)				1074 MSL (CA)			183.64						ADDITIONAL FLIGHT DATA: HOLD S, RT, 003.64 INBOUND. CHART FAS OBST: 958 TREE 432951N/0855950W. DISTANCE TO THLD FROM 305 HAT: 0.83 NM. CHART VDP AT 1.34 NM TO RW19* *LNAV ONLY. WAAS CHANNEL # 82405 REFERENCE PATH ID: W19A 1109 AAO 433157N/0855936W LTP HAE: 200.6 M										
1074 MSL				SACOL (DF) (FO) (RNP 1.00)							2900												
1. PT _____ SIDE OF COURSE _____ OUTBOUND _____ FT WITHIN _____ MILES OF _____ (IAF)														MAG VAR: 4W EPOCH YEAR: 1995									
2. HOLD N OJANA, RT, 183.64 INBOUND, 2900 FT. IN LIEU OF PT (IAF)																							
3. FAC: 183.64 FAF: NOBNY DIST FAF TO MAP: 5.23 THLD: 5.23																							
4. MIN. ALT: OJANA 2900, NOBNY 2500																							
5. DIST TO THLD FROM OM: _____ MM: _____ IM: _____ 150 HAT: _____ 100 HAT: _____ GS ANT: _____																							
6. MIN GS INCPT: 2500 GS ALT AT: NOBNY 2500 OM: _____ MM: _____ IM: _____																							
7. GS ANGLE: 3.00 TCH: 40.0 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								
LPV DA	1074	1	305	1074	1	305	1074	1	305	1074	1	305											
LNAV/VNAV DA	1295	2	526	1295	2	526	1295	2	526	1295	2	526											
LNAV MDA	1220	1	451	1220	1	451	1220	1 1/4	451	1220	1 1/2	451											
CIRCLING	1260	1	488	1260	1	488	1260	1 1/2	488	1340	2	568											
NOTES: CHART NOTE: BARO-VNAV NA WHEN USING MUSKEGON ALTIMETER SETTING. CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -16C (4F) OR ABOVE 47C (116F). CHART NOTE: RWY 19 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. CHART NOTE: DME/DME RNP-0.3 NA. (CONTINUED ON PAGE 2)																							
CITY AND STATE FREMONT, MI				ELEVATION: 772 TDZE: 769 AIRPORT NAME: FREMONT MUNI				FACILITY IDENTIFIER: RNAV		PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (GPS) RWY 19, AMDT 1D 8 NOVEMBER 2018				SUP: RNAV (GPS) RWY 18 AMDT: 1C DATED 08/23/2012									



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 PROFILE NOTE: VGSi AND RNAV GLIDEPATH NOT COINCIDENT (VGSi ANGLE {ANGLE}/TCH {FEET}).

CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE MUSKEGON ALTIMETER SETTING AND INCREASE

ALL DA 65 FT, AND ALL VISIBILITIES 1/4 MILE. INCREASE ALL MDA 80 FT, AND CAT C/D VISIBILITIES 1/4 MILE.

CHART NOTE: VDP NA WHEN USING MUSKEGON ALTIMETER SETTING.

TAA

	FROM	TO	ALT
1.	094/30 CW 274/30 (NOPT)	OJANA (IF/IAF)	2900
2.	274/30 CW 004/30	PAMEQ (IAF)	2900
3.	004/30 CW 094/30	RUBUC (IAF)	2900

QUALITY
16
CHECKED

CITY AND STATE FREMONT, MI	ELEVATION: 772 AIRPORT NAME: FREMONT MUNI	TDZE: 769 FACILITY IDENTIFIER: RNAV	PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (GPS) RWY 19, AMDT 1D 8 NOVEMBER 2018	SUP: RNAV (GPS) RWY 18
				AMDT: 1C
				DATED: 08/23/2012

**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	KFFX
RUNWAY	RW19
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W19A
LTP/FTP LATITUDE	432644.8745N
LTP/FTP LONGITUDE	0855947.8970W
LTP/FTP ELLIPSOIDAL HEIGHT	+02006
FPAP LATITUDE	432515.7400N
FPAP LONGITUDE	0855947.1200W
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	0768
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
 <u>CRC REMAINDER</u>	 A2E2EA4E

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K5
LTP ORTHOMETRIC HEIGHT	+02345
FPAP ORTHOMETRIC HEIGHT	+02345

QUALITY
16
CHECKED

CITY AND STATE FREMONT, MI	ELEVATION: 772 AIRPORT NAME: FREMONT MUNI	TDZE: 769 FREMONT MUNI	FACILITY IDENTIFIER: RNAV	PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (GPS) RWY 19, AMDT 1D 8 NOVEMBER 2018	SUP: RNAV (GPS) RWY 18
					AMDT: 1C
					DATED: 08/23/2012

**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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CITY, STATE	AIRPORT	EFFECTIVE DATE	AMDT NO
FREMONT, MI	FREMONT MUNI	8 NOVEMBER 2018	ORIG-A

TAKEOFF MINIMUMS:

RWY 01, 10, 19, 28: STANDARD

TEXTUAL DEPARTURE PROCEDURES:

VISUAL CLIMB OVER AIRPORT:

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 01: LIGHTING 40 FT FROM DER, 90 FT RIGHT OF CENTERLINE, 4 FT AGL/772 FT MSL. LIGHTING 40 FT FROM DER, 89 FT LEFT OF CENTERLINE, 4 FT AGL/772 FT MSL. TERRAIN 78 FT FROM DER, 483 FT LEFT OF CENTERLINE, 774 FT MSL. TRANSMISSION LINE 1154 FT FROM DER, 727 FT LEFT OF CENTERLINE, 49 FT AGL/817 FT MSL. TREE, CATENARY, POLE, TRANSMISSION LINE BEGINNING 1157 FT FROM DER, 41 FT RIGHT OF CENTERLINE, UP TO 843 FT MSL. TREE 1247 FT FROM DER, 659 FT LEFT OF CENTERLINE, 830 FT MSL. TREES BEGINNING 1358 FT FROM DER, 493 FT LEFT OF CENTERLINE, UP TO 842 FT MSL. TREE 2047 FT FROM DER, 970 FT LEFT OF CENTERLINE, 843 FT MSL. TREE 2632 FT FROM DER, 412 FT RIGHT OF CENTERLINE, 844 FT MSL.

NOTE: RWY 10: LIGHTING 6 FT FROM DER, 19 FT RIGHT OF CENTERLINE, 2 FT AGL/771 FT MSL. LIGHTING 7 FT FROM DER, 19 FT LEFT OF CENTERLINE, 2 FT AGL/771 FT MSL. TREES BEGINNING 910 FT FROM DER, 399 FT RIGHT OF CENTERLINE, UP TO 839 FT MSL. TREE 1458 FT FROM DER, 485 FT RIGHT OF CENTERLINE, 841 FT MSL. POLE 1486 FT FROM DER, 380 FT RIGHT OF CENTERLINE, 48 FT AGL/812 FT MSL. TREES BEGINNING 2254 FT FROM DER, 16 FT LEFT OF CENTERLINE, UP TO 855 FT MSL. TREE 2850 FT FROM DER, 326 FT RIGHT OF CENTERLINE, 863 FT MSL. TREE 3040 FT FROM DER, 225 FT RIGHT OF CENTERLINE, 867 FT MSL.

NOTE: RWY 19: LIGHTING 39 FT FROM DER, 124 FT RIGHT OF CENTERLINE, 4 FT AGL/755 FT MSL. LIGHTING 40 FT FROM DER, 125 FT LEFT OF CENTERLINE, 4 FT AGL/755 FT MSL. TRANSMISSION LINE 1139 FT FROM DER, 616 FT RIGHT OF CENTERLINE, 30 FT AGL/784 FT MSL. TREES BEGINNING 1759 FT FROM DER, 878 FT LEFT OF CENTERLINE, UP TO 810 FT MSL. TREE 2038 FT FROM DER, 318 FT RIGHT OF CENTERLINE, 806 FT MSL. TREES BEGINNING 2107 FT FROM DER, 239 FT RIGHT OF CENTERLINE, UP TO 813 FT MSL. TREES BEGINNING 2175 FT FROM DER, 395 FT RIGHT OF CENTERLINE, UP TO 814 FT MSL. TREES BEGINNING 2184 FT FROM DER, 464 FT RIGHT OF CENTERLINE, UP TO 822 FT MSL. TREES BEGINNING 2399 FT FROM DER, 1131 FT LEFT OF CENTERLINE, UP TO 824 FT MSL.

NOTE: RWY 28: TREE 742 FT FROM DER, 657 FT LEFT OF CENTERLINE, 829 FT MSL. TREES BEGINNING 951 FT FROM DER, 652 FT LEFT OF CENTERLINE, UP TO 838 FT MSL. TREE 1798 FT FROM DER, 498 FT RIGHT OF CENTERLINE, 863 FT MSL.

CONTROLLING OBSTACLES:

REMARKS:

FLIGHT INSPECTED BY: *Digitally signed by*
JEFFREY W HARING **ROBERT G HAMILTON**
Jul 23, 2018

OFFICE SYMBOL: **DATE:**
FICO 7/17/18

DEVELOPED BY: *Digitally signed by*
GEORGETTE BARNETT **GEORGETTE P BARNETT**
Aug 17, 2017

OFFICE SYMBOL: **DATE:**
AJV-5422 08/15/2017

APPROVED BY: *Digitally signed by*
JULIE MORGAN **ROBERT G HAMILTON**
Jul 23, 2018

OFFICE SYMBOL: **DATE:**
AJV-5420

REQUIRED EFFECTIVE DATE:
ROUTINE

COORDINATED WITH:

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

OTHER:
ZAU, MKG APP CON, AMGR

CHANGES - REASONS:

1. RUNWAY NUMBERS CHANGED FROM RWY 36, 09, 18, 27, TO RWY 01, 10, 19, 28 - AIRPORT MAGVAR CHANGED FROM 4W/1995 TO 6W/2020.
2. UPDATED LOW CLOSE-IN OBSTACLES - NEW OBSTACLE DATA SURVEY.



**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>
FREMONT, MI	FREMONT MUNI	8 NOVEMBER 2018	ORIG-A

3. CHANGED RWY 27 TAKEOFF MINIMUMS: CHANGED FROM "300-1 1/2 OR STANDARD WITH A MINIMUM CLIMB OF 211 FEET PER NM TO 1100, OR ALTERNATIVELY, WITH STANDARD TAKEOFF MINIMUMS AND A NORMAL 200 FEET PER NM CLIMB GRADIENT, TAKEOFF MUST OCCUR NO LATER THAN 1400 FEET PRIOR TO DEPARTURE END OF RUNWAY" TO "STANDARD" - NEW OBSTACLE DATA IN DATABASE.



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> GOGEBIC-IRON COUNTY	<u>AIRPORT ID</u> KIWD	<u>PROCEDURE NAME</u> ILS OR LOC RWY 27	<u>ORIGINAL/AMENDMENT</u> 3B	<u>CITY</u> IRONWOOD	<u>STATE</u> MI	
<u>AIRPORT ELEVATION</u> 1230	<u>TDZE</u> 1230	<u>SUPERSEDED</u> ILS OR LOC RWY 27	<u>ORIGINAL/AMENDMENT</u> 3A	<u>DATED</u> 06/03/2010	<u>MAG VAR</u> 0E	<u>EPOCH YEAR</u> 1985
<u>FACILITY</u> I-IWD	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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>

MISSED APPROACH

MAP:

ILS: DA
LOC: 3.20 NM AFTER KLAAY OM/IWD 3.50 DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3300 THEN RIGHT TURN DIRECT IWD VOR/DME AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT L SIDE OF COURSE 090.00 OUTBOUND 3300 FT WITHIN 15 MILES OF IWD (IAF)

2.

3. FAC: 270.00 FAF: KLAAY OM/IWD 3.50 DME DIST FAF TO MAP: 3.20 DIST FAF TO THLD: 3.20

4. MIN ALT: KLAAY OM/IWD 3.50 DME 2500*

5. DIST TO THLD FROM OM: 3.20 MM: 0.5 IM: 150 HAT: GS ANT: 1046

6. MIN GS INCPT: 2800 GS ALT AT FAF : OM: 2311 MM: 1433 IM:

7. GP ANGLE: 3.00 34:1: 20:1: TCH: 55.0

8. MSA FROM: IWD VOR/DME 3200

EQUIPMENT REQUIREMENTS NOTES:

NOTES:

*LOC ONLY
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE ASHLAND ALTIMETER SETTING AND INCREASE ALL DA 132 FEET AND ALL MDA 140 FEET, INCREASE S-LOC 27 CAT C/D VISIBILITY 1/2 MILE, CIRCLING CAT A/B VISIBILITY 1/4 MILE AND CIRCLING CAT C 1/2 MILE.



CHART NOTE: FOR INOPERATIVE ALS WHEN USING ASHLAND ALTIMETER SETTING, INCREASE S-ILS 27 ALL CATS VISIBILITY TO 1.

ADDITIONAL FLIGHT DATA:

CHART MINNEAPOLIS CENTER 133.55 AND VIS GREEN BAY FSS FREQUENCY.
CHART FAS OBST: 1419 TREES 463210N/0900300W.
HOLD W, LT, 079.00 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 27	1430	1/2	200	1430	1/2	200	1430	1/2	200	1430	1/2	200			
S-LOC 27	1720	1/2	490	1720	1/2	490	1720	3/4	490	1720	1	490			
CIRCLING	2100	1	870	2100	1 1/4	870	2100	2 1/2	870	2220	3	990			

CHANGES - REASONS

1. CHANGED ALL REFERENCES FROM IWD VORTAC TO IWD VOR/DME - TACR PROJECT.
2. ADD CHART NOTE "WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE ASHLAND ALTIMETER SETTING AND INCREASE ALL DA 132 FEET AND ALL MDA 140 FEET, INCREASE S-LOC 27 CAT C/D VISIBILITY 1/2 MILE, CIRCLING CAT A/B VISIBILITY 1/4 MILE AND CIRCLING CAT C 1/2 MILE." - INCORPORATED P-NOTAM 0/1214.
3. ADDED CHART NOTE "FOR INOPERATIVE MALSR, WHEN USING ASHLAND ALTIMETER SETTING, INCREASE S-ILS 27 ALL CATS VISIBILITY TO 1." - INCORPORATED P-NOTAM 0/1214.
4. CHANGED CHANGE #4 FROM "FOR INOPERATIVE MALSR, WHEN USING ASHLAND ALTIMETER SETTING, INCREASE S-ILS 27 ALL CATS VISIBILITY TO 1." TO "FOR INOPERATIVE ALS, WHEN USING ASHLAND ALTIMETER SETTING, INCREASE S-ILS 27 ALL CATS VISIBILITY TO 1." - 8260.19H, CHAPTER 8.
5. REMOVED REMARK "PROCEDURE NA WHEN LOCAL ALTIMETER NOT AVAILABLE BECAUSE NO ALTIMETER SOURCE WITHIN 70 MILES" - KAXS ADDED AS ALTERNATE ALTIMETER.
6. REMOVED REMARK "MESSABE AIRLINES PUTS LCL WEATHER 0730-1700 & 2030-1030 DAILY" - IWD NOW EQUIPPED WITH AW0S-3.



COORDINATED WITH:

A4A

☒

ALPA

☒

AOPA

☒

APA

☐

HAI

☐

NBAA

☒

OTHER:

ZMP ARTCC, AMGR

Digitally signed by

FLIGHT CHECKED BY

DEZ SILAGYI

Aug 22, 2018

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, DEC 22, 2017.

DEVELOPED BY

LONNIE EVERHART (DALE SICKELS)

Digitally signed by

DEZ SILAGYI

Aug 22, 2018

OFFICE

AJV-5400

DATE

07/03/2018

APPROVED BY

LONNIE EVERHART

Digitally signed by

DEZ SILAGYI

Aug 22, 2018

OFFICE

AJV-5400

DATE

TITLE

MANAGER



**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
VOR/DME 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.
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AIRPORT GOGEBIC-IRON COUNTY	AIRPORT ID KIWD	PROCEDURE NAME VOR RWY 9	ORIGINAL/AMENDMENT 13A	CITY IRONWOOD	STATE MI
AIRPORT ELEVATION 1230	TDZE 1230	SUPERSEDED VOR/DME RWY 9	ORIGINAL/AMENDMENT 13	DATED 05/07/2009	MAG VAR 1E
FACILITY IWD	COORDINATES OF FACILITIES	ACTUAL EFFECTIVE DATE 8 NOVEMBER 2018	REQUIRED EFFECTIVE DATE ROUTINE	CANCEL/SUSPEND	EPOCH YEAR 1980

TERMINAL ROUTES

FROM	FIX TYPE	TO	FIX TYPE	LEG TYPE	FO/FB	RNP	COURSE	DISTANCE	ALTITUDE
IWD VOR/DME		BEDAY/IWD 6.30 DME					259.00	6.30	3400

MISSED APPROACH

MAP:

DIMNI/0.80 DME FIX

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3300 THEN CLIMBING LEFT TURN TO 3400 ON HEADING 240 AND IWD R-259 TO BEDAY/6.30 DME AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT R SIDE OF COURSE 259.00 OUTBOUND 3400 FT WITHIN 10 MILES OF BEDAY (IAF)
- 2.
3. FAC: 079.00 FAF: BEDAY/IWD 6.30 DME DIST FAF TO MAP: DIST FAF TO THLD: 5.50
4. MIN ALT: BEDAY/IWD 6.30 DME 3000
8. MSA FROM: IWD VOR/DME 3200

EQUIPMENT REQUIREMENTS NOTES:

DME REQUIRED.

NOTES:

CHART NOTE: RWY 9 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NA.

CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE ASHLAND ALTIMETER SETTING AND INCREASE ALL MDA 140 FEET, INCREASE S-9 VISIBILITY CAT C 1/4 MILE, AND CAT D 1/2 MILE. INCREASE CIRCLING VISIBILITY CAT A/B 1/4 MILE AND CAT C 1/2 MILE.

ADDITIONAL FLIGHT DATA:

BEDAY TO RW09: 2.96/47.

FAS OBST: 1477 AAO 463214N/0901419W.

FAC CROSSES RWY C/L EXTENDED 5055 FT FROM THLD.

HOLD W, RT, 079.00 INBOUND

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD - CAT A, B 900-2, CAT C 900-2 1/2, 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
S-09	1740	1	510	1740	1	510	1740	1 1/2	510	1740	1 1/2	510			
CIRCLING	2100	1	870	2100	1 1/4	870	2100	2 1/2	870	2220	3	990			

CHANGES - REASONS

1. CHANGED ALL REFERENCES FROM IWD VORTAC TO IWD VOR/DME - TACR PROJECT.
2. REMOVE /DME FROM PROCEDURE NAME - DME NO LONGER PART OF PROCEDURE NAMING CONVENTION.
3. ADDED EQUIPMENT REQUIREMENTS NOTE: DME REQUIRED - NEW NOTE FORMAT PER 8260.19H 8-6-8 (2)(C).

COORDINATED WITH:

A4A ☒ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZMP ARTCC, AMGR
Digitally signed by

FLIGHT CHECKED BY

DEZ SILAGYI

Aug 22, 2018

OFFICE

DATE

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, DEC 22, 2017.

DEVELOPED BY

Lonnie Everhart (DALE SICKELS)

Digitally signed by

DEZ SILAGYI

Aug 22, 2018

OFFICE

AJV-5400

DATE

07/06/2018

APPROVED BY

Lonnie Everhart

Digitally signed by

DEZ SILAGYI

Aug 22, 2018

OFFICE

AJV-5400

DATE

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> MASON COUNTY	<u>AIRPORT ID</u> KLDM	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 8	<u>ORIGINAL/AMENDMENT</u> ORIG-D	<u>CITY</u> LUDINGTON	<u>STATE</u> MI
<u>AIRPORT ELEVATION</u> 646	<u>TDZE</u> 643	<u>SUPERSEDED</u> RNAV (GPS) RWY 8	<u>ORIGINAL/AMENDMENT</u> ORIG-C	<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> 8 NOVEMBER 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>	<u>EPOCH YEAR</u> 1985

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>
YULNU		JAMAG		TF	FB	2.00	141.35	8.76	3000
HIC VOR/DME		HIKAS		TF	FB	2.00	292.58	43.09	3000
MBL VOR/DME		FINOB		TF	FO	2.00	222.63	29.56	3000
JAMAG	IAF	FINOB	NOPT	TF	FB	1.00	163.78	5.00	3000
HIKAS	IAF	FINOB	NOPT	TF	FB	1.00	343.84	5.00	3000
FINOB	IF/IAF	ZEKOP		TF	FB	1.00	073.81	6.97	2500
ZEKOP	FAF	RW08	MAP	TF	FO	0.30	073.91	5.65	
RW08	MAP	1046 MSL		CA			073.91		
1046 MSL		CEYNA		DF	FB	1.00			
CEYNA		WELKO		TF	FO	1.00	152.31	14.50	3000

MISSED APPROACH

MAP:

LNAV: RW08

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3000 DIRECT CEYNA AND ON TRACK 152.31 TO WELKO AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)
2. HOLD W FINOB, RT, 073.81 INBOUND, 3000 FT. IN LIEU OF PT (IAF), MAX 6000.
3. FAC: 073.91FAF: ZEKOPDIST FAF TO MAP: 5.65DIST FAF TO THLD: 5.65
4. MIN ALT: FINOB 3000, ZEKOP 2500
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 NOT CLEAR20:1: IS CLEARTCH:
8. MSA FROM: RW08 2600

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: CIRCLING RWY 1, 19 NA AT NIGHT.
CHART NOTE: RWY 8 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT YULNU ON V55 NORTHWEST BOUND, AND ARRIVALS AT MBL VOR/DME ON V271 NORTHBOUND, AND ARRIVALS ON HIC VOR/DME AIRWAY RADIALS 303 CW 332.

ADDITIONAL FLIGHT DATA:

CHART PROFILE NOTE: VISUAL SEGMENT - OBSTACLES.
CHART VDP AT 1.10 NM TO RW08
CHART FAS OBST: 799 TOWER 435708N/0862534W.
HOLD S, RT, 355.03 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
LNAV MDA	1140	1	497	1140	1	497	1140	1 3/8	497	1140	1 3/8	497			
CIRCLING	1160	1	514	1160	1	514	1200	1 1/2	554	1300	2	654			

CHANGES - REASONS

1. ADDED 20:1 IS CLEAR NOTE - IAW 8260.19H 8-6-7(G). DOCUMENTING 34:1/20:1 SURFACES CLEAR OR NOT CLEAR.
2. ADDED NOTE: RNP APCH NAVSPEC AND DELETED EQUIPMENT NOTE "DME/DME RNP -0.3 NA" - IAW 8260.19H 8-6-8 (B1) REPLACEMENT OF THE NOTE: DME/DME RNP 0-3 NA.
3. REMOVED CHART NOTE: DME/DME RNP 0.3 NA - IAW 8260.19H UPDATES (F,15) REPLACING THE NOTE WITH NAVSPEC NOTE.
4. REMOVED CHART NOTE FOR ALTERNATE ALTIMETER AND PLACED IT IN THE REMAKS SECTION OF THE 8260-9 - IAW 8260.19H 8-6-9 (F 4) PLACING ALTERNATE ALITIMETER INFORMATION IN THE REMARKS SECTION AS A CONTINGENCY AVAILABILITY.
5. DELETED NOTE "NIGHT LANDING: RWY 8 CAT C/D AND RWY 26 NA" AND REPLACED IT WITH "CIRCLING RWY 1, 19 NA AT NIGHT" - RWY 8 VISUAL SURFACE CLEAR; NO SURVEY TO RWY 1, 19, UNABLE TO VERIFY VISUAL SURFACE IS CLEAR.
6. MODIFIED THE RNP VALUE TO THE INTERMEDIATE SEGMENT FROM 0.5 TO 1.0 - IAW 8260.19H TABLE 1-2-1.
7. ADDED VDP - 20:1 VISUAL SURFACE CLEAR IN UPDATED AIRPORT OBSTACLES.



<u>AIRPORT</u> MASON COUNTY	<u>AIRPORT ID</u> KLDM	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 8	<u>ORIGINAL/AMENDMENT</u> ORIG-D	<u>CITY</u> LUDINGTON	<u>STATE</u> MI
<u>COORDINATED WITH:</u>					
A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZMP, AMGR					
<u>FLIGHT CHECKED BY</u> PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, DECEMBER 22, 2017, SUBJECT: FLIGHT INSPECTION REVIEW NOT REQUIRED.			<i>Digitally signed by</i> <u>OFFICE</u> DAVID TEFFETELLER <u>DATE</u> FIOG Aug 01, 2018 02/12/2008		
<u>DEVELOPED BY</u> SCOTT BAGENSIE			<i>Digitally signed by</i> <u>OFFICE</u> SCOTT BAGENSIE <u>DATE</u> Jul 13, 2018 AJV-5433 05/24/2018		
<u>APPROVED BY</u> PATRICK MULQUEEN			<i>Digitally signed by</i> <u>OFFICE</u> DAVID TEFFETELLER <u>DATE</u> Aug 01, 2018 AJV-5430		
			<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.

AIRPORT MASON COUNTY	AIRPORT ID KLDM	PROCEDURE NAME RNAV (GPS) RWY 26	ORIGINAL/AMENDMENT ORIG-A	CITY LUDINGTON	STATE MI
AIRPORT ELEVATION 646	TDZE 646	SUPERSEDED RNAV (GPS) RWY 26	ORIGINAL/AMENDMENT ORIG	DATED 04/10/2008	MAG VAR 3W
FACILITY RNAV	COORDINATES OF FACILITIES	ACTUAL EFFECTIVE DATE 8 NOVEMBER 2018	REQUIRED EFFECTIVE DATE ROUTINE	CANCEL/SUSPEND	EPOCH YEAR 1985

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>
HIC VOR/DME		PECOF		TF	FB	2.00	338.22	31.78	2700
PECOF	IAF	TULHE		TF	FB	1.00	254.27	5.00	2500
MBL VOR/DME	IAF	TULHE		TF	FB	1.00	163.22	15.43	2500
TULHE	IF	SAYXE		TF	FB	1.00	254.19	6.39	2500
SAYXE	FAF	JILIN/2.50 NM TO RW26		TF	FB	0.30	254.09	3.10	
JILIN/2.50 NM TO RW26		RW26	MAP	TF	FO	0.30	254.09	2.50	
RW26	MAP	975 MSL		CA			254.09		
975 MSL		EMGEF		DF	FO	1.00			2500

MISSED APPROACH

MAP:

LPV: DA
 LNAV/VNAV: DA
 LNAV: RW26

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2500 DIRECT EMGEF AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)
2. PROFILE STARTS AT TULHE
3. FAC: 254.09 FAF: SAYXE DIST FAF TO MAP: 5.61 DIST FAF TO THLD: 5.61
4. MIN ALT: TULHE 2500, SAYXE 2500, JILIN/2.50 NM TO RW26 1480*
5. DIST TO THLD FROM OM: MM: IM: 150 HAT: 329 HAT: 0.91 GS ANT: MM: IM:
6. MIN GP INCPT: 2500 GP ALT AT FAF : SAYXE 2500 OM: MM: IM:
7. GP ANGLE: 3.00 34:1: IS NOT CLEAR 20:1: IS CLEAR TCH: 40.0
8. MSA FROM: RW26 2600

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: CIRCLING RWY 1, 19 NA AT NIGHT.
CHART NOTE: RWY 26 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}).
*LNAV ONLY
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT MBL VOR/DME ON V271 NORTHBOUND AND ARRIVALS ON HIC VOR/DME AIRWAY RADIALS 303 CW 027.

ADDITIONAL FLIGHT DATA:

CHART VDP AT 0.98 NM TO RW26*
*LNAV ONLY
WAAS CHANNEL #49206
REFERENCE PATH ID: W26A
CHART FAS OBST: 737 TREE 435758N/0862252W.
HOLD W, RT, 073.94 INBOUND
LTP HAE: 161.8 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	975	1 1/4	329	975	1 1/4	329	975	1 1/4	329	975	1 1/4	329			
LNAV/VNAV DA	1020	1 1/4	374	1020	1 1/4	374	1020	1 1/4	374	1020	1 1/4	374			
LNAV MDA	1000	1	354	1000	1	354	1000	1	354	1000	1 1/4	354			
CIRCLING	1160	1	514	1160	1	514	1200	1 1/2	554	1300	2	654			



CHANGES - REASONS

- 1. UPDATED AIRWAY NOTE FOR MBL VOR/DME - IAW 8260.19H 8-2-5 (E) REPLACING THE WORD "VIA" WITH "ON" TO READ "...MBL VOR/DME ON V271..."
- 2. ADDED CHART PROFILE NOTE: "VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE} / TCH {FEET})" - IAW 8260.19H 8-6-9 (M(1)) VGSI NOT COINCIDENT NOTE.
- 3. MOVED THE ALTERNATE ALTIMETER NOTE , BARO-VNAV NA WITH ALTERNATE ALTIMETER NOTE AND VDP NA WITH ALTERNATE ALTIMETER NOTE TO THE FORM 8260-9 REMARKS SECTION AS A CONTIGENCY PLAN - IAW 8260.19H 8-6-9 (F(4)), (E(8)), (E(9)) WHEN AN ALTIMETER SOURCE QUALIFIES AS A WMSCR SOURCE.
- 4. DELETED "DME/DME RNP 0.3 NA" NOTE AND REPLACED IT WITH CHART PBN NAVSPEC REQUIREMENT NOTE: "RNP APCH" - IAW 8260.19H 8-6-8 (B(1)) EQUIPMENT REQUIREMENT FOR PERFORMANCE BASED NAVIGATION.
- 5. UPDATED CIRCLING NOTE TO INCLUDE RWYS 1/19 AS NA AT NIGHT - IAW 8260.19H 8-6-11 (O(2(NOTE)))) FOR CIRCLING NA AT NIGHT COMBINED CHART NOTE.
- 6. UPDATED BARO-VNAV CHART NOTE AND CHANGED HIGH TEMPERATURES FROM 47C/116F TO 54C - IAW 8260.19H 8-6-9 (S) BARO-VNAV HIGH/LOW TEMP NOTE.
- 7. CHANGED VISUAL SURFACE NOTE FOR 20:1 PENETRATIONS FROM "20:1 NOT CLEAR" TO "20:1 CLEAR" - UPDATED OBSTACLE SURVEY.
- 8. ADDED MISSED APPROACH "CA" LEG - SEGMENT NEEDED FOR CODING.
- 9. REMOVED CIRCLING TO RW 8 NA AT NIGHT - UPDATED AIRPORT OBSTACLE SURVEY AND PROCEDURE EVALUATION.
- 10. REMOVED CHART OBSTACLE FROM ADDITIONAL DATA, "CHART 1009 TOWER" - UPDATED OBSTACLE SURVEY.
- 11. ADDED HELICOPTER VISIBILITY REDUCTION NA NOTE - IAW 8260.19H 8-6-11 (K(3)) MINIMUMS.



COORDINATED WITH:

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

FLIGHT CHECKED BY

PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-333) MEMO, DECEMBER 22, 2017,
SUBJECT: FLIGHT INSPECTION REVIEW NOT REQUIRED

DEVELOPED BY

SCOTT BAGENSIE

APPROVED BY

PATRICK MULQUEEN

Digitally signed by

SCOTT BAGENSIE

Jul 09, 2018

Digitally signed by

DAVID TEFFETELLER

Aug 01, 2018

OFFICE

FIOG

OFFICE

AJV-5433

OFFICE

AJV-5430

Digitally signed by

DAVID TEFFETELLER

Aug 01, 2018

DATE

02/12/2008

DATE

05/25/2018

DATE

TITLE

MANAGER



FAS DATA BLOCK INFORMATION

DATA FIELD	DATA
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KLDM
RUNWAY	RW26
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W26A
LTP/FTP LATITUDE	435749.4905N
LTP/FTP LONGITUDE	0862343.7605W
LTP/FTP ELLIPSOIDAL HEIGHT	+01618
FPAP LATITUDE	435720.4800N
FPAP LONGITUDE	0862540.4000W
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	1224
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	880A99BC
ADDITIONAL PATH POINT RECORD INFORMATION	
ICAO CODE	K5
LTP ORTHOMETRIC HEIGHT	+00197
FPAP ORTHOMETRIC HEIGHT	+00197



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

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AIRPORT CHERRY CAPITAL	AIRPORT ID KTVC	PROCEDURE NAME RNAV (GPS) RWY 10	ORIGINAL/AMENDMENT 3	CITY TRAVERSE CITY	STATE MI
AIRPORT ELEVATION 624	TDZE 624	SUPERSEDED RNAV (GPS) RWY 10	ORIGINAL/AMENDMENT 2	DATED 12/07/2017	MAG VAR 5W
FACILITY RNAV	COORDINATES OF FACILITIES	ACTUAL EFFECTIVE DATE 8 NOVEMBER 2018	REQUIRED EFFECTIVE DATE ROUTINE	CANCEL/SUSPEND	EPOCH YEAR 1985

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>
IROTO		CUBKO		TF	FB	2.00	249.94	38.78	3000
BABBE		FEPEX		TF	FB	2.00	338.60	29.44	3600
CUBKO	IAF	BEAAR	NOPT	TF	FB	1.00	178.66	9.56	3000
FEPEX	IAF	BEAAR	NOPT	TF	FB	1.00	025.22	6.28	3000
BEAAR	IF/IAF	PEETR		TF	FB	1.00	098.50	6.10	2600
PEETR	FAF	RW10	MAP	TF	FO	0.30	098.60	6.04	
RW10	MAP	909 MSL		CA			098.60		
909 MSL		ROPTÉ		DF	FB	1.00			
ROPTÉ		LADIN		TF	FO	1.00	156.81	24.48	4000

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW10

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 4000 DIRECT ROPTÉ AND ON TRACK 156.81 TO LADIN AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT	SIDE OF COURSE	OUTBOUND	FT WITHIN	MILES OF	(IAF)
2.	HOLD W BEAAR, RT, 098.50 INBOUND, 3000 FT. IN LIEU OF PT (IAF), MAX 6000.				
3. FAC:	098.60	FAF: PEETR	DIST FAF TO MAP: 6.04	DIST FAF TO THLD: 6.04	
4. MIN ALT:	BEAAR 3000, PEETR 2600				
5. DIST TO THLD FROM OM:	MM:	IM:	150 HAT:	285 HAT: 0.73	GS ANT:
6. MIN GP INCPT: 2600	GP ALT AT FAF : PEETR 2600			OM:	MM: IM:
7. GP ANGLE: 3.00	34:1: IS NOT CLEAR	20:1: IS CLEAR	TCH: 52.0		
8. MSA FROM:	RW10 3600				

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -19C (-2F) OR ABOVE 54C (130F).
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT IROTO ON V193-320 NORTHEAST BOUND.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT BABBE ON V193 SOUTH BOUND.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT CUBKO ON V133 NORTHWEST BOUND.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT FEPEX ON V420 WEST BOUND.
CHART NOTE: RWY 10 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART NOTE: FOR INOPERATIVE ALS, INCREASE LPV VISIBILITY ALL CATS 1/8 SM.
CHART NOTE: INOPERATIVE TABLE DOES NOT APPLY TO LNAV/VNAV ALL CATS AND LNAV CATS C/D.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON
CHART VDP AT 3.43 NM TO RW10*
*LNAV ONLY
WAAS CHANNEL #42610
REFERENCE PATH ID: W10A
CHART FAS OBST: 1551 TOWER 444521N/0854044W.
HOLD SE, RT, 321.43 INBOUND
LTP HAE: 155.6 M

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD - CAT A, B 1200-2, CAT C, 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
LPV DA	909	3/4	285	909	3/4	285	909	3/4	285	909	3/4	285			
LNAV/VNAV DA	1983	5	1359	1983	5	1359	1983	5	1359	1983	5	1359			
LNAV MDA	1780	3/4	1156	1780	1	1156	1780	3	1156	1780	3	1156			
CIRCLING	1780	1 1/4	1156	1780	1 1/2	1156	1780	3	1156	1780	3	1156			



AIRPORT	AIRPORT ID	PROCEDURE NAME	ORIGINAL/AMENDMENT	CITY	STATE
CHERRY CAPITAL	KTVC	RNAV (GPS) RWY 10	3	TRAVERSE CITY	MI

CHANGES - REASONS

- 1. CHANGED LPV MINIMUMS VISIBILITY ALL CATS FROM "7/8 SM" TO "3/4 SM" - AIRPORT ADDED MALSR LIGHTING; NEW VISIBILITY CHECKS COMPLETED.
- 2. CHANGED LNAV MINIMUMS VISIBILITY: CAT FROM "1 1/4 SM" TO "3/4 SM"; CAT B FROM "1 1/2 SM" TO "1 SM" - AIRPORT ADDED MALSR LIGHTING; NEW VISIBILITY CHECKS COMPLETED.
- 3. REMOVED CHART NOTE: "DME/DME RNP-0.3 NA" AND REPLACED WITH "PBN REQUIREMENTS NOTE: RNP APCH" - PER .19H EQUIPMENT REQUIREMENTS NOTES.
- 4. REMOVED CHART NOTE: "CIRCLING RWY 18 NA AT NIGHT" - 20:1 PENETRATIONS REMOVED.
- 5. ADDED CHART NOTE: "FOR INOPERATIVE ALS, INCREASE LPV VISIBILITY ALL CATS 1/8 SM" - VISIBILITY MINIMUMS AUTHORIZATION 8260.3C SECTION 3-3, 82660.19H 8-6-11 O (3).
- 6. ADDED CHART NOTE: "INOPERATIVE TABLE DOES NOT APPLY TO LNAV/VNAV ALL CATS AND LNAV CATS C/D" - VISIBILITY MINIMUMS AUTHORIZATION 8260.3C SECTION 3-3, 82660.19H 8-6-11 O (3).



COORDINATED WITH:

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

FLIGHT CHECKED BY	Digitally signed by	OFFICE	DATE	
GLEN D FREEMAN	ROBERT G HAMILTON	FICO	7/11/18	
	Jul 13, 2018			
DEVELOPED BY	Digitally signed by	OFFICE	DATE	
DEZ SILAGYI (DARREN HOOPER)	ROBERT G HAMILTON	AJV-5421	06/21/2018	
	Jul 13, 2018			
APPROVED BY	Digitally signed by	OFFICE	DATE	TITLE
JULIE MORGAN	ROBERT G HAMILTON	AJV-5420		MANAGER
	Jul 13, 2018			



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KTVC
RUNWAY	RW10
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W10A
LTP/FTP LATITUDE	444428.2605N
LTP/FTP LONGITUDE	0853527.0925W
LTP/FTP ELLIPSOIDAL HEIGHT	+01556
FPAP LATITUDE	444422.4875N
FPAP LONGITUDE	0853322.3490W
THRESHOLD CROSSING HEIGHT (TCH)	00052.0
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
CRC REMAINDER	A50B01E2
<u>ADDITIONAL PATH POINT RECORD INFORMATION</u>	
ICAO CODE	K5
LTP ORTHOMETRIC HEIGHT	+01901
FPAP ORTHOMETRIC HEIGHT	+01901



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> PRINCETON MUNI	<u>AIRPORT ID</u> KPNM	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 15	<u>ORIGINAL/AMENDMENT</u> ORIG-C	<u>CITY</u> PRINCETON	<u>STATE</u> MN
<u>AIRPORT ELEVATION</u> 980	<u>TDZE</u> 980	<u>SUPERSEDED</u> RNAV (GPS) RWY 15	<u>ORIGINAL/AMENDMENT</u> ORIG-B	<u>DATED</u> 03/29/2018	<u>MAG VAR</u> 3E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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>
CIVOL		HIDED		TF	FB	2.00	264.73	6.50	5000
DAYLE		HODUP		TF	FB	2.00	029.74	7.07	4000
HIDED	IAF	GOLLF	NOPT	TF	FB	1.00	249.06	6.00	3000
HODUP	IAF	GOLLF	NOPT	TF	FB	1.00	068.86	6.00	3000
GOLLF	IF/IAF	LASIY		TF	FB	1.00	158.96	6.97	2600
LASIY	FAF	SOYOL	MAP	TF	FO	0.30	159.00	4.47	
SOYOL	MAP	1380 MSL		CA			159.00		
1380 MSL		GOLLF		DF	FO	1.00			3000

MISSED APPROACH

MAP:

LNAV: SOYOL

MISSED APPROACH INSTRUCTIONS:

CLIMBING RIGHT TURN TO 3000 DIRECT GOLLF AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)
2. HOLD N GOLLF, LT, 158.96 INBOUND, 3000 FT. IN LIEU OF PT (IAF), MAX 6000.
3. FAC: 159.00

FAF: LASIY

DIST FAF TO MAP: 4.47

DIST FAF TO THLD: 4.96
4. MIN ALT: GOLLF 3000, LASIY 2600
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 NOT CLEAR

20:1: IS CLEAR

TCH:
8. MSA FROM: SOYOL 3500

PBN REQUIREMENTS NOTE:

RNP APCH

NOTES:

CHART NOTE: RWY 15 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT CIVOL ON V218 SOUTHBOUND.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT DAYLE ON T330 SOUTHEAST BOUND.

ADDITIONAL FLIGHT DATA:

CHART PLANVIEW NOTE: FINAL APPROACH COURSE OFFSET 4.12 DEGREES.
LASIY TO RW15: 3.00/41.
CHART VDP AT 1.37 NM TO RW15
FAS OBST: 1202 AAO 453733N/0933844W.
FAC CROSSES RWY C/L EXTENDED 3000 FT FROM THLD.

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
LNAV MDA	1460	1	480	1460	1	480	1460	1 3/8	480		NA				
CIRCLING	1640	1	660	1640	1	660	1640	1 3/4	660		NA				

CHANGES - REASONS

1. ADDED PBN REQUIREMENTS NOTE: RNP APCH - EQUIPMENT REQUIREMENTS NOTE APPLIED PER 8260.58A, CHANGE 1 AND 8260.19H, PARA 8-6-8B(1)
2. DELETED NOTE: "DME/DME RNP-0.3 NA" - IAW 8260.19H, PARA 1-1-5F(14), REMOVED THE REQUIREMENT FOR THIS NOTE.
3. ADDED "20:1 CLEAR" TO LINE 7 - NEW CRITERIA REQUIRES STATUS OF BOTH THE 20:1 AND 34:1 SURFACES AREAS BE SHOWN.
4. CHANGED VDP LOCATION FROM "1.81 NM" TO "1.37 NM" - LOWER LNAV MINIMA MOVED VDP LOCATION CLOSER TO MAP.
5. CHANGED LNAV MDA/HAT/VIS FROM "1600/620/1 CATS A-B AND 1600/620-1 3/4 CAT C" TO "1460/480/1 CATS A-B AND 1460/480/1 3/8 CAT C" - NEW CONTROLLING OBSTACLE FOUND DURING CHART STUDY LOWERING APPROACH MINIMA TO NEAR ORIGINAL MINIMA.
6. ADDED MAX ALTITUDE 6000 AT IF/IAF/MISSED APPROACH FIX GOLLF - NEW REPORTS FORMAT ADDS MAX HOLDING ALTITUDES.



COORDINATED WITH:

A4A ☐ **ALPA** ☒ **AOPA** ☒ **APA** ☐ **HAI** ☐ **NBAA** ☒ **OTHER:** ZMP, PNM FSS, STATE AERO

FLIGHT CHECKED BY

PAUL R ARMSTRONG

Digitally signed by
DAVID TEFFETELLER
Aug 16, 2018

OFFICE

FICO

DATE

08/08/2018

DEVELOPED BY

JAMES LAFFERTY

Digitally signed by
JAMES LAFFERTY
Jul 09, 2018

OFFICE

AJV-5433

DATE

06/01/2018

APPROVED BY

PATRICK MULQUEEN

Digitally signed by
DAVID TEFFETELLER
Aug 16, 2018

OFFICE

AJV-5430

DATE

TITLE
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> PRINCETON MUNI	<u>AIRPORT ID</u> KPNM	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 33	<u>ORIGINAL/AMENDMENT</u> ORIG-B	<u>CITY</u> PRINCETON	<u>STATE</u> MN	
<u>AIRPORT ELEVATION</u> 980	<u>TDZE</u> 980	<u>SUPERSEDED</u> RNAV (GPS) RWY 33	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>DATED</u> 03/29/2018	<u>MAG VAR</u> 3E	<u>EPOCH YEAR</u> 1995
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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>
KEYEN	IAF	ZAPIN	NOPT	TF	FB	1.00	062.39	5.06	3100
UDILE	IAF	ZAPIN	NOPT	TF	FB	1.00	242.55	5.27	3100
ZAPIN	IF/IAF	ZODOG		TF	FB	1.00	332.47	6.07	2600
ZODOG	FAF	RW33	MAP	TF	FO	0.30	334.91	4.89	
RW33	MAP	1380 MSL		CA			334.91		
1380 MSL		ZAPIN		DF	FO	1.00			3100

MISSED APPROACH

MAP:

LNAV: RW33

MISSED APPROACH INSTRUCTIONS:

CLIMBING RIGHT TURN 3100 DIRECT ZAPIN AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

- PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)
- HOLD SE ZAPIN, RT, 332.47 INBOUND, 3100 FT. IN LIEU OF PT (IAF), MAX 6000.
- FAC: 334.91 FAF: ZODOG DIST FAF TO MAP: 4.89 DIST FAF TO THLD: 4.89
- MIN ALT: ZAPIN 3100, ZODOG 2600
- DIST TO THLD FROM OM: MM: IM: 150 HAT: GS ANT:
- MIN GP INCPT: GP ALT AT FAF : OM: MM: IM:
- GP ANGLE: 34:1: IS NOT CLEAR 20:1: IS CLEAR TCH:
- MSA FROM: RW33 3500



PBN REQUIREMENTS NOTE:

RNP APCH

NOTES:

CHART NOTE: RWY 33 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT KEYEN ON V510-T330 NORTHWEST BOUND.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT UDILE ON V218 NORTHBOUND.

ADDITIONAL FLIGHT DATA:

ZODOG TO RW33: 3.04/41.
CHART VDP AT 1.44 NM TO RW33
FAS OBST: 1220 AAO 452932N/0933340W.
1244 AAO 452824N/0933424W.

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
LNAV MDA	1500	1	520	1500	1	520	1500	1 3/8	520		NA				
CIRCLING	1640	1	660	1640	1	660	1640	1 3/4	660		NA				

CHANGES - REASONS

1. ADDED PBN REQUIREMENTS NOTE: RNP APCH - EQUIPMENT REQUIREMENTS NOTE APPLIED PER 8260.58A, CHANGE 1 AND 8260.19H, PARA 8-6-8B(1)
2. DELETED NOTE: "DME/DME RNP-0.3 NA" - IAW 8260.19H, PARA 1-1-5F(14), REMOVED THE REQUIREMENT FOR THIS NOTE.
3. ADDED "20:1 CLEAR" TO LINE 7 - NEW CRITERIA REQUIRES THE STATUS OF BOTH THE 20:1 AND 34:1 SURFACES BE SHOWN.
4. CHANGED LNAV MDA/HAT FROM "1560/580" TO "1500/520" - LOWERED MINIMA BACK TO ORIGINAL LEVELS USING NEW CONTROLLING OBSTACLE FOUND DURING CHART STUDY.
5. CHANGED VDP LOCATION FROM "1.67 NM" TO "1.44 NM" - LOWERING MDA MOVED VDP IN CLOSER TO MAP.
6. CHANGED LNAV CAT C VISIBILITY FROM "1 5/8" TO "1 3/8" - LOWER MINIMA CHANGED VISIBILITY MINIMA.
7. ADDED MAX HOLDING ALTITUDE OF 6000 TO IF/IAF/MISSED APPROACH FIX ZAPIN - NEW REPORTS FORMAT ADDS MAX HOLDING ALTITUDES.



<u>AIRPORT</u> PRINCETON MUNI	<u>AIRPORT ID</u> KPNM	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 33	<u>ORIGINAL/AMENDMENT</u> ORIG-B	<u>CITY</u> PRINCETON	<u>STATE</u> MN
<u>COORDINATED WITH:</u>					
A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZMP, PNM FSS, STATE AERO					
<u>FLIGHT CHECKED BY</u> PAUL R ARMSTRONG		Digitally signed by DAVID TEFFETELLER Aug 16, 2018		<u>OFFICE</u> FICO	<u>DATE</u> 08/08/2018
<u>DEVELOPED BY</u> JAMES LAFFERTY		Digitally signed by JAMES LAFFERTY Jul 09, 2018		<u>OFFICE</u> AJV-5433	<u>DATE</u> 06/01/2018
<u>APPROVED BY</u> PATRICK MULQUEEN		Digitally signed by DAVID TEFFETELLER Aug 16, 2018		<u>OFFICE</u> AJV-5430	<u>TITLE</u> MANAGER



**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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CITY, STATE	AIRPORT	EFFECTIVE DATE	AMDT NO
CABOOL, MO	CABOOL MEMORIAL	8 NOVEMBER 2018	3

TAKEOFF MINIMUMS:

RWY 3: 300-1 OR STANDARD WITH MINIMUM CLIMB OF 461 FT PER NM TO 1600.

RWY 21: 500-3 OR STANDARD WITH MINIMUM CLIMB OF 578 FT PER NM TO 1600.

TEXTUAL DEPARTURE PROCEDURES:

RWY 3: CLIMB HEADING 029.79 TO 1800 BEFORE TURNING RIGHT.

RWY 21: CLIMB HEADING 209.79 TO 1900 BEFORE TURNING LEFT.

VISUAL CLIMB OVER AIRPORT:

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 3: TREE 16 FT FROM DER, 312 FT RIGHT OF CENTERLINE, 1242 FT MSL. TREES BEGINNING 34 FT FROM DER, 189 FT LEFT OF CENTERLINE, UP TO 1258 FT MSL. TREES BEGINNING 68 FT FROM DER, 255 FT RIGHT OF CENTERLINE, UP TO 1271 FT MSL. TREES, TERRAIN, POLE BEGINNING 182 FT FROM DER, 12 FT RIGHT OF CENTERLINE, UP TO 103 FT AGL/1302 FT MSL. TREES, TRAVERSE WAY BEGINNING 477 FT FROM DER, 11 FT LEFT OF CENTERLINE, UP TO 1267 FT MSL. TREES BEGINNING 1478 FT FROM DER, 492 FT LEFT OF CENTERLINE, UP TO 1269 FT MSL. TREES BEGINNING 1643 FT FROM DER, 31 FT LEFT OF CENTERLINE, UP TO 1274 FT MSL. TREES BEGINNING 1745 FT FROM DER, 13 FT RIGHT OF CENTERLINE, UP TO 1309 FT MSL. TREES BEGINNING 1815 FT FROM DER, 124 FT LEFT OF CENTERLINE, UP TO 78 FT AGL/1283 FT MSL. TREES BEGINNING 2127 FT FROM DER, 37 FT LEFT OF CENTERLINE, UP TO 89 FT AGL/1284 FT MSL. TREE 3693 FT FROM DER, 1344 FT RIGHT OF CENTERLINE, 1316 FT MSL. TREES BEGINNING 3775 FT FROM DER, 1187 FT RIGHT OF CENTERLINE, UP TO 1337 FT MSL. TREES BEGINNING 3882 FT FROM DER, 891 FT RIGHT OF CENTERLINE, UP TO 1367 FT MSL. TREES BEGINNING 3977 FT FROM DER, 933 FT RIGHT OF CENTERLINE, UP TO 1376 FT MSL. TREES BEGINNING 4074 FT FROM DER, 1042 FT RIGHT OF CENTERLINE, UP TO 1398 FT MSL. TREES, TERRAIN BEGINNING 4345 FT FROM DER, 628 FT RIGHT OF CENTERLINE, UP TO 1459 FT MSL. TREES BEGINNING 5448 FT FROM DER, 1796 FT RIGHT OF CENTERLINE, UP TO 1372 FT MSL.

NOTE: RWY 21: POLE 0 FT FROM DER, 200 FT RIGHT OF CENTERLINE, 1249 FT MSL. TREES, TRAVERSE WAY BEGINNING 6 FT FROM DER, 41 FT LEFT OF CENTERLINE, UP TO 86 FT AGL/1298 FT MSL. POLE 46 FT FROM DER, 373 FT RIGHT OF CENTERLINE, 1259 FT MSL. TREES, BUILDING BEGINNING 107 FT FROM DER, 286 FT RIGHT OF CENTERLINE, UP TO 1277 FT MSL. TREES, POLE, TRAVERSE WAY BEGINNING 188 FT FROM DER, 10 FT RIGHT OF CENTERLINE, UP TO 1280 FT MSL. TREES, TRAVERSE WAY BEGINNING 342 FT FROM DER, 15 FT LEFT OF CENTERLINE, UP TO 1299 FT MSL. TREES, TERRAIN BEGINNING 450 FT FROM DER, 218 FT LEFT OF CENTERLINE, UP TO 1317 FT MSL. TREES, BUILDING, POLE, TRAVERSE WAY BEGINNING 655 FT FROM DER, 346 FT RIGHT OF CENTERLINE, UP TO 1299 FT MSL. TREES BEGINNING 841 FT FROM DER, 271 FT LEFT OF CENTERLINE, UP TO 1337 FT MSL. TREES BEGINNING 1341 FT FROM DER, 446 FT LEFT OF CENTERLINE, UP TO 1339 FT MSL. TREES BEGINNING 1436 FT FROM DER, 239 FT LEFT OF CENTERLINE, UP TO 1355 FT MSL. TREES, TRAVERSE WAY, POLE BEGINNING 1903 FT FROM DER, 419 FT RIGHT OF CENTERLINE, UP TO 1300 FT MSL. TREE 2101 FT FROM DER, 653 FT LEFT OF CENTERLINE, 1363 FT MSL. TREES BEGINNING 2133 FT FROM DER, 337 FT LEFT OF CENTERLINE, UP TO 1374 FT MSL. TREES, TERRAIN, POLE, ANTENNA BEGINNING 2326 FT FROM DER, 58 FT LEFT OF CENTERLINE, UP TO 1377 FT MSL. TREES, POLE BEGINNING 2549 FT FROM DER, 839 FT RIGHT OF CENTERLINE, UP TO 1314 FT MSL. TREES BEGINNING 3231 FT FROM DER, 1156 FT RIGHT OF CENTERLINE, UP TO 1320 FT MSL. TREES BEGINNING 3551 FT FROM DER, 1269 FT RIGHT OF CENTERLINE, UP TO 1325 FT MSL. TREE 1 NM FROM DER, 1712 FT LEFT OF CENTERLINE, 1379 FT MSL. TREES BEGINNING 1 NM FROM DER, 1542 FT LEFT OF CENTERLINE, UP TO 1400 FT MSL. TREES BEGINNING 1.5 NM FROM DER, 2823 FT LEFT OF CENTERLINE, UP TO 1460 FT MSL. TREE 1.9 NM FROM DER, 2978 FT LEFT OF CENTERLINE, 1529 FT MSL.

CONTROLLING OBSTACLES:

RWY 3: 1459 FEET MSL TREE 370837.00N/0920407.00W.

RWY 21: 1374 FEET MSL TREE 370721.62N/0920517.02W (CLIMB GRADIENT).

1679 FEET MSL AAO 370547.67N/0920602.07W (CLIMB-TO ALTITUDE) (CEILING). 1660 FEET MSL AAO 370524.76N/0920640.50W (VISIBILITY).

OBSTACLES MANDATING ODP ROUTE DEVELOPMENT: **RWY 3:** 1659 FEET MSL AAO 370905.83N/0920247.32W. **RWY 21:** 1932 FEET MSL TOWER 370520.92N/0920323.71W.

REMARKS:



**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>
CABOOL, MO	CABOOL MEMORIAL	8 NOVEMBER 2018	3

<u>FLIGHT INSPECTED BY:</u>	<i>Digitally signed by</i> ROBERT G HAMILTON Jun 04, 2018	<u>OFFICE SYMBOL:</u>	<u>DATE:</u>
ZACH SMYER		FICO	5/9/2018

<u>DEVELOPED BY:</u>	<i>Digitally signed by</i> ROBERT G HAMILTON Jun 04, 2018	<u>OFFICE SYMBOL:</u>	<u>DATE:</u>
LONNIE EVERHART (ANDRE TUCKER)		AJV-5413	12/27/2017

<u>APPROVED BY:</u>	<i>Digitally signed by</i> ROBERT G HAMILTON Jun 04, 2018	<u>OFFICE SYMBOL:</u>	<u>DATE:</u>
LONNIE EVERHART		AJV-5400	

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:
ZKC, AMGR

CHANGES - REASONS:

CHANGED RWY 3 TAKEOFF MINIMUMS FROM " 300-2 1/2 OR STANDARD WITH MINIMUM CLIMB OF 453 FT PER NM TO 1700" TO "300-1 OR STANDARD WITH MINIMUM CLIMB OF 461 FT PER NM TO 1600" - OLD CONTROLLING OBSTACLE CALCULATED WITH NEW CRITERIA.

CHANGED RWY 21 TAKEOFF MINIMUMS FROM "500-3 OR STANDARD WITH MINIMUM CLIMB OF 298 FT PER NM TO 1900" TO "500-3 OR STANDARD WITH MINIMUM CLIMB OF 578 FT PER NM TO 1600" - NEW CONTROLLING OBSTACLE.

CHANGED RWY 21 ROUTING ALTITUDE FROM 2000 TO 1900 - NEW CONTROLLING OBSTACLES.

CHANGED TAKEOFF OBSTACLE NOTES - NEW TAKEOFF OBSTACLES.

5/9/18: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 12/27/17.

1. CHANGED RWY 21 TAKEOFF MINIMUMS CEILING AND VISIBILITY FROM 500-2 1/2 TO 500-3.
2. CHANGED RWY 21 TEXTUAL DEPARTURE PROCEDURE CLIMB-TO ALTITUDE FROM 1800 TO 1900.

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> LAMAR MUNI	<u>AIRPORT ID</u> KLLU	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 35	<u>ORIGINAL/AMENDMENT</u> ORIG-B	<u>CITY</u> LAMAR	<u>STATE</u> MO
<u>AIRPORT ELEVATION</u> 1010	<u>TDZE</u> 1005	<u>SUPERSEDED</u> RNAV (GPS) RWY 35	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>DATED</u> 05/26/2016	<u>MAG VAR</u> 2E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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. 288/30 CW 047/30	NOPT	FIXUK	IF/IAF	3100
2. 047/30 CW 167/30		HUROS	IAF	3100
3. 167/30 CW 288/30		TOYCU	IAF	3100

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>
HUROS	IAF	FIXUK	NOPT	TF	FB	1.00	047.37	8.10	3100
TOYCU	IAF	FIXUK	NOPT	TF	FB	1.00	287.55	8.10	3100
FIXUK	IF/IAF	ZERES		TF	FB	1.00	347.45	6.86	2600
ZERES	FAF	HOVRI/1.70 NM TO RW35		TF	FB	0.30	347.43	3.23	
HOVRI/1.70 NM TO RW35		RW35	MAP	TF	FO	0.30	347.43	1.70	
RW35	MAP	1310 MSL		CA			347.43		
1310 MSL		ROYOC		DF	FO	1.00			3100

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW35

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3100 DIRECT ROYOC AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. HOLD S FIXUK, RT, 347.45 INBOUND, 3100 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 347.43FAF: ZERESDIST FAF TO MAP: 4.93DIST FAF TO THLD: 4.93

4. MIN ALT: FIXUK 3100, ZERES 2600, HOVRI/1.70 NM TO RW35 1560*

5. DIST TO THLD FROM OM:MM:IM:150 HAT:305 HAT: 0.88GS ANT:

6. MIN GP INCPT: 2600GP ALT AT FAF : ZERES 2600OM:MM:IM:

7. GP ANGLE: 3.0034:1: IS NOT CLEAR20:1: IS CLEARTCH: 40.0

8. MSA FROM:

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: RWY 35 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART NOTE: BARO-VNAV NA.
*LNAV ONLY
CHART NOTE: USE JOPLIN ALTIMETER SETTING.
CHART NOTE: CIRCLING RWY 21 NA AT NIGHT.

ADDITIONAL FLIGHT DATA:

CHART: CIRCLING ICON
CHART: JOPLIN ASOS
WAAS CHANNEL #77536
REFERENCE PATH ID: W35A
CHART FAS OBST: 1069 POLE 372851N/0941919W.
HOLD N, RT, 167.38 INBOUND
LTP HAE: 275.6 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	1310	1	305	1310	1	305	1310	1	305		NA				
LNAV/VNAV DA	1310	1	305	1310	1	305	1310	1	305		NA				
LNAV MDA	1380	1	375	1380	1	375	1380	1	375		NA				
CIRCLING	1520	1	510	1620	1	610	1620	1 3/4	610		NA				



<u>AIRPORT</u>	<u>AIRPORT ID</u>	<u>PROCEDURE NAME</u>	<u>ORIGINAL/AMENDMENT</u>	<u>CITY</u>	<u>STATE</u>
LAMAR MUNI	KLLU	RNAV (GPS) RWY 35	ORIG-B	LAMAR	MO

CHANGES - REASONS

1. TERMINAL ROUTES, FIXUK TO ZERES, RNP VALUE CHANGED FROM 0.50 TO 1.00 - INTERMEDIATE RNP VALUE UPDATED TO NEW VALUE.
2. TERMINAL ROUTES, RW35 (MAP) TO 1295 MSL CHANGED TO RW35 (MAP) TO 1310 MSL - CA ALTITUDE MUST BE THE LOWEST OF DA, MDA OR 400 ABOVE AIRPORT ELEVATION.
3. TERMINAL ROUTES, 1295 MSL TO ROYOC CHANGED TO 1310 MSL TO ROYOC - CA ALTITUDE MUST BE THE LOWEST OF DA, MDA OR 400 ABOVE AIRPORT ELEVATION.
4. PROFILE LINE 7, 20:1 IS CLEAR ADDED - IAW 8260.19H PARA 8-6-7G(3).
5. LPV MINIMA CHANGED FROM 1295 DA TO 1310 DA FOR CATS A-C - PROCEDURES WITH CHARTED THRE TO BE AMENDED TO USE TDZE PER MEMO 203 DATED FEB 21, 2014.
6. LNAV/VNAV MINIMA CHANGED FROM 1295 DA TO 1310 DA FOR CATS A-C - PROCEDURES WITH CHARTED THRE TO BE AMENDED TO USE TDZE PER MEMO 203 DATED FEB 21, 2014.
7. LNAV MINIMA CHANGED FROM 1360 MDA/370 HATH TO 1380 MDA/375 HAT FOR CATS A-C - NEW LNAV CONTROLLING OBSTACLE. PROCEDURES WITH CHARTED THRE TO BE AMENDED TO USE TDZE PER MEMO 203 DATED FEB 21, 2014.
8. ADDITIONAL FLIGHT DATA, FAS OBST: 1054 TREE 372846N/0941830W CHANGED TO 1069 POLE 372851N/0941919W - NEW CONTROLLING OBSTACLE WITH NEW EVALUATION.
9. ADDITIONAL FLIGHT DATA, DISTANCE TO THLD FROM 305 HATH: 0.83 NM CHANGED TO DISTANCE TO THLD FROM 305 HAT: 0.88 NM - PROCEDURES WITH CHARTED THRE TO BE AMENDED TO USE TDZE PER MEMO 203 DATED FEB 21, 2014.
10. NOTE DELETED: DME/DME RNP-0.3 NA - NOTE REPLACED WITH NEW PBN EQUIPMENT REQUIREMENT NOTE.
11. PBN REQUIREMENTS NOTE ADDED: RNP APCH - PER MEMO 257.
12. RWY 03 DELETED FROM NOTE: CIRCLING TO RWY 03/21 NA AT NIGHT - 20:1 PENETRATIONS FOR RWY 3 REMOVED BY APPLICATION OF NEW VISUAL AREAS.
13. NOTE CHANGED FROM 'HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED' TO 'RWY 35 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED' - 34:1 PENETRATIONS - PUBLISHED IAW 8260.19H PARA 8-6-11K(3).
14. CRC REMAINDER CHANGED FROM 551E782C TO D981EFEA - LTP/FPAP LAT/LON UPDATED.



<u>AIRPORT</u> LAMAR MUNI	<u>AIRPORT ID</u> KLLU	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 35	<u>ORIGINAL/AMENDMENT</u> ORIG-B	<u>CITY</u> LAMAR	<u>STATE</u> MO
<u>COORDINATED WITH:</u>					
A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: MKC ARTCC, AMGR					
<u>FLIGHT CHECKED BY</u> SUSANNA ROBERTS		Digitally signed by DAVID TEFFETELLER Aug 10, 2018	<u>OFFICE</u> FICO	<u>DATE</u> 8/9/18	
<u>DEVELOPED BY</u> ANDREA CHANEY		Digitally signed by DAVID TEFFETELLER Jul 18, 2018	<u>OFFICE</u> AJV-5433	<u>DATE</u> 07/12/2018	
<u>APPROVED BY</u> PATRICK MULQUEEN		Digitally signed by DAVID TEFFETELLER Aug 10, 2018	<u>OFFICE</u> AJV-5430	<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	KLLU
RUNWAY	RW35
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W35A
LTP/FTP LATITUDE	372840.8265N
LTP/FTP LONGITUDE	0941840.0220W
LTP/FTP ELLIPSOIDAL HEIGHT	+02756
FPAP LATITUDE	373008.5165N
FPAP LONGITUDE	0941900.5790W
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	1528
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	D981EFEA
<u>ADDITIONAL PATH POINT RECORD INFORMATION</u>	
ICAO CODE	K3
LTP ORTHOMETRIC HEIGHT	+03018
FPAP ORTHOMETRIC HEIGHT	+03018



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> HOLLY SPRINGS-MARSHALL COUNTY	<u>AIRPORT ID</u> KM41	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 18	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>CITY</u> HOLLY SPRINGS	<u>STATE</u> MS
<u>AIRPORT ELEVATION</u> 551	<u>TDZE</u> 548	<u>SUPERSEDED</u> RNAV (GPS) RWY 18	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>DATED</u> 07/21/2016	<u>MAG VAR</u> 2W
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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. 091/30 CW 271/30	NOPT	WUSAP	IF/IAF	3000
2. 271/30 CW 091/30	PT	WUSAP	IF/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>
WUSAP	IF/IAF	CAVIK		TF	FB	1.00	181.07	8.00	2300
CAVIK	FAF	RW18	MAP	TF	FO	0.30	181.07	5.47	
RW18	MAP	1060 MSL		CA			181.07		1060
1060 MSL		WUSAP		DF	FO				3000

MISSED APPROACH

MAP:

LPV: DA
 LNAV/VNAV: DA
 LNAV: RW18

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 1060 THEN CLIMBING RIGHT TURN TO 3000 DIRECT WUSAP AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)
2. HOLD N WUSAP, RT, 181.07 INBOUND, 3000 FT. IN LIEU OF PT (IAF), MAX 6000.
3. FAC: 181.07FAF: CAVIKDIST FAF TO MAP: 5.47DIST FAF TO THLD: 5.47
4. MIN ALT: WUSAP 3000, CAVIK 2300
5. DIST TO THLD FROM OM:MM:IM:150 HAT:310 HAT: 0.95GS ANT:
6. MIN GP INCPT: 2300GP ALT AT FAF : CAVIK 2300OM:MM:IM:
7. GP ANGLE: 3.0034:1: IS NOT CLEAR20:1: IS CLEARTCH: 40.0
8. MSA FROM:

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: RWY 18 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART NOTE: BARO-VNAV NA.
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART NOTE: USE OLIVE BRANCH ALTIMETER SETTING; WHEN NOT RECEIVED, USE OXFORD ALTIMETER SETTING AND INCREASE LPV DA TO 870, AND ALL VISIBILITIES 1/8 SM; INCREASE LNAV/VNAV DA TO 957 AND ALL MDAS 20 FEET.

ADDITIONAL FLIGHT DATA:

CHART OLIVE BRANCH AWOS-3.
731 AAO 345349N/0893054W.
CHART CIRCLING ICON.
WAAS CHANNEL #58338
REFERENCE PATH ID: W18A
CHART FAS OBST: 704 TOWER 344856N/0893146W.
LTP HAE: 130 M

MINIMUMS:

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

ALTERNATE: NA

X

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	858	1 1/8	310	858	1 1/8	310	858	1 1/8	310		NA				
LNAV/VNAV DA	945	1 1/2	397	945	1 1/2	397	945	1 1/2	397		NA				
LNAV MDA	1020	1	472	1020	1	472	1020	1 3/8	472		NA				
CIRCLING	1080	1	529	1100	1	549	1160	1 3/4	609		NA				



AIRPORT	AIRPORT ID	PROCEDURE NAME	ORIGINAL/AMENDMENT	CITY	STATE
HOLLY SPRINGS-MARSHALL COUNTY	KM41	RNAV (GPS) RWY 18	ORIG-A	HOLLY SPRINGS	MS

CHANGES - REASONS

- 1. REMOVED CHART NOTE: "DME/DME RNP-0.3 NA," - PER 8260.19H, PARA 4-6-10E.
- 2. ADDED PBN REQUIREMENTS NOTE: "RNP APCH," - PER 8260.19H, PARA .8-6-8(B)1.
- 3. LINE 7: POPULATED 20:1 BLOCK - PER 8260.19H, PARA 8-6-7.G3.
- 4. MISSED APPROACH INSTRUCTION: CHANGED CLIMB TO ALTITUDE FROM 1000 TO 1060 - UPDATED EVALUATION DATA; OBSTACLES AND OEA UNCHANGED FROM ORIGINAL PROCEDURE.
- 5. UPDATED VISIBILITIES CHART NOTE FORMAT FROM: "USE OLIVE BRANCH ALTIMETER SETTING; WHEN NOT RECEIVED, USE OXFORD ALTIMETER SETTING AND INCREASE LPV DA TO 870, LNAV/VNAV DA TO 957 AND ALL MDA 20 FEET; INCREASE LPV ALL CATS VISIBILITY 1/8 MILE" TO "USE OLIVE BRANCH ALTIMETER SETTING; WHEN NOT RECEIVED, USE OXFORD ALTIMETER SETTING AND INCREASE LPV DA TO 870, AND ALL VISIBILITIES 1/8 SM; INCREASE LNAV/VNAV DA TO 957 AND ALL MDAS 20 FEET - PER 8260.19H, PARA 8-6-11 N (1))A).
- 6. UPDATED HELICOPTER CHART NOTE FROM: "HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED" TO "RWY 18 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED -PER 8260.19H, PARA 8-6-11 K (3).



COORDINATED WITH:

A4A ☐ **ALPA** ☒ **AOPA** ☒ **APA** ☐ **HAI** ☐ **NBAA** ☒ **OTHER:** ZME, MEM APP CON, AMGR

FLIGHT CHECKED BY

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, DEC 22, 2017.

DEVELOPED BY

DAVID A. DOWLING

APPROVED BY

JULIE MORGAN

Digitally signed by
DAVID A DOWLING
Jul 24, 2018

OFFICE

OFFICE
AJV-5422

OFFICE

AJV-5420

DATE

DATE
06/25/2018

DATE

Digitally signed by
ROBERT G HAMILTON
Aug 20, 2018

Digitally signed by
ROBERT G HAMILTON
Aug 20, 2018

TITLE

MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	M41
RUNWAY	RW18
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W18A
LTP/FTP LATITUDE	344831.4900N
LTP/FTP LONGITUDE	0893116.3185W
LTP/FTP ELLIPSOIDAL HEIGHT	+00130
FPAP LATITUDE	344702.2550N
FPAP LONGITUDE	0893114.5630W
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	1776
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	CC2C9713
<u>ADDITIONAL PATH POINT RECORD INFORMATION</u>	
ICAO CODE	K7
LTP ORTHOMETRIC HEIGHT	+01575
FPAP ORTHOMETRIC HEIGHT	+01575



**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
LOC BC STANDARD INSTRUMENT APPROACH PROCEDURE**

TITLE 14 CFR PART 97.25

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<u>AIRPORT</u> FAYETTEVILLE RGNL/GRANNIS FIELD	<u>AIRPORT ID</u> KFAY	<u>PROCEDURE NAME</u> LOC BC RWY 22	<u>ORIGINAL/AMENDMENT</u> 8B	<u>CITY</u> FAYETTEVILLE	<u>STATE</u> NC
<u>AIRPORT ELEVATION</u> 189	<u>TDZE</u> 180	<u>SUPERSEDED</u> LOC BC RWY 22	<u>ORIGINAL/AMENDMENT</u> 8A	<u>DATED</u> 12/11/2014	<u>MAG VAR</u> 7W
<u>FACILITY</u> I-GRA	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 1985

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>
FAY VOR/DME		MORGY/I-GRA 4.90 DME/RADAR					030.62	5.87	2100

MISSED APPROACH

MAP:

4.40 NM AFTER MORGY/I-GRA 4.90 DME/RADAR OR AT JONSI/I-GRA 0.50 DME FIX

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 900 THEN CLIMBING LEFT TURN TO 3000 ON HEADING 100 AND FAY VOR/DME R-131 TO GANDS INT/FAY 14.59 DME AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS (DO NOT CHART):

CLIMB TO 900 THEN CLIMBING RIGHT TURN TO 2100 DIRECT FGP NDB AND HOLD.

PROFILE:

1. PT R **SIDE OF COURSE** 038.19 **OUTBOUND** 2100 **FT WITHIN** 10 **MILES OF** MORGY (IAF)
- 2.
3. **FAC:** 218.11 **FAF:** MORGY/I-GRA 4.90 DME/RADAR **DIST FAF TO MAP:** 4.40 **DIST FAF TO THLD:** 4.99
4. **MIN ALT:** MORGY/I-GRA 4.90 DME/RADAR 1800
8. **MSA FROM:** FAY VOR/DME 2300

EQUIPMENT REQUIREMENTS NOTES:

DME OR RADAR REQUIRED.
DME OR RADAR REQUIRED FOR PROCEDURE ENTRY.
ADF REQUIRED FOR ALTERNATE MISSED APPROACH.

NOTES:

CHART PROFILE NOTE: DISREGARD GS INDICATIONS.

ADDITIONAL FLIGHT DATA:



MORGY TO RW22: 3.00/50.
CHART (CFBBS) AT 350931.10N/0784530.66W
CHART CIRCLING ICON.
CHART IN PLANVIEW: FGP NDB
CHART VDP AT 1.00 DME
DISTANCE VDP TO THLD 1.10 NM
FAS OBST: 309 AAO 350324N/0784927W.
CHART 260 TOWER 350416N/0784935W.
CHART IN PLANVIEW: ALTERNATE MA HOLDING, HOLD E FGP NDB, RT, 273.09 INBOUND.
HOLD SE, RT, 311.19 INBOUND

MINIMUMS:

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

ALTERNATE: NA ☐ LOC: 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
S-22	560	1	380	560	1	380	560	1	380	560	1	380			
CIRCLING	640	1	451	660	1	471	860	2	671	860	2 1/4	671			

CHANGES - REASONS

1. CIRCLING CAT B INCREASED FROM 640/HAA 451 TO 660/HAA 471 - APPLIED NEW CIRCLING CRITERIA.
2. CIRCLING CAT C INCREASED FROM 640/HAA 451 TO 860/HAA 671, VISIBILITY INCREASED FROM 1 1/2 TO 2 SM - APPLIED NEW CIRCLING CRITERIA.
3. CIRCLING CAT D INCREASED FROM 740/HAA 551TO 860/HAA 671, VISIBILITY INCREASED FROM 2 TO 2 1/4 SM - APPLIED NEW CIRCLING CRITERIA.
4. ADDED CIRCLING ICON - APPLIED NEW CIRCLING CRITERIA.

COORDINATED WITH:

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

FLIGHT CHECKED BY

KEVIN RIESE

DEVELOPED BY

LONNIE EVERHART (MARSHALL SCOTT)

APPROVED BY

LONNIE EVERHART

Digitally signed by

BEV L BORDY

Aug 20, 2018

OFFICE

FICO

DATE

7/5/18

Digitally signed by

BEV L BORDY

Aug 20, 2018

OFFICE

AJV-5400

DATE

02/28/2018

Digitally signed by

BEV L BORDY

Aug 20, 2018

OFFICE

AJV-5400

DATE

TITLE

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> FAYETTEVILLE RGNL/GRANNIS FIELD	<u>AIRPORT ID</u> KFAY	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 4	<u>ORIGINAL/AMENDMENT</u> 3C	<u>CITY</u> FAYETTEVILLE	<u>STATE</u> NC
<u>AIRPORT ELEVATION</u> 189	<u>TDZE</u> 189	<u>SUPERSEDED</u> RNAV (GPS) RWY 4	<u>ORIGINAL/AMENDMENT</u> 3B	<u>DATED</u> 08/17/2017	<u>MAG VAR</u> 7W
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 1985

TAA

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>ALTITUDE</u>
1. 308/30 CW 128/30	NOPT	ZODGI	IF/IAF	2300
2. 128/30 CW 308/30	PT	ZODGI	IF/IAF	2300

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>
ZODGI	IF/IAF	CINLO		TF	FB	1.00	038.11	7.00	1900
CINLO	FAF	YISBU/1.80 NM TO RW04		TF	FB	0.30	038.15	3.44	
YISBU/1.80 NM TO RW04		RW04	MAP	TF	FO	0.30	038.15	1.80	
RW04	MAP	389 MSL		CA			038.15		
389 MSL		UJORO		DF	FO	1.00			2300

MISSED APPROACH

MAP:

LPV: DA
 LNAV/VNAV: DA
 LNAV: RW04

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2300 DIRECT UJORO AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)
2. HOLD SW ZODGI, RT, 038.11 INBOUND, 2300 FT. IN LIEU OF PT (IAF), MAX 6000.
3. FAC: 038.15FAF: CINLODIST FAF TO MAP: 5.24DIST FAF TO THLD: 5.24
4. MIN ALT: ZODGI 2300, CINLO 1900, YISBU/1.80 NM TO RW04 800*
5. DIST TO THLD FROM OM:MM:IM:150 HAT:200 HAT: 0.48
6. MIN GP INCPT: 1900GP ALT AT FAF : CINLO 1900OM:MM:IM:
7. GP ANGLE: 3.0034:1: IS CLEAR20:1: IS CLEARTCH: 45.2
8. MSA FROM:

PBN EQUIPMENT REQUIREMENTS NOTES

RNP APCH

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -10C OR ABOVE 54C.
CHART NOTE: **RVR 1800 AUTHORIZED WITH USE OF FD OR AP OR HUD TO DA.

ADDITIONAL FLIGHT DATA:

CHART R-5311 A-B-C
CHART CIRCLING ICON.
CHART VDP AT 0.99 NM TO RW04*
*LNAV ONLY
WAAS CHANNEL #50111
REFERENCE PATH ID: W04A
CHART FAS OBST: 310 TRANSMISSION_LINE 345758N/0785331W.
HOLD NE, RT, 218.25 INBOUND
LTP HAE: 22.9 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**	389	2400	200	389	2400	200	389	2400	200	389	2400	200			
LNAV/VNAV DA	588	3500	399	588	3500	399	588	3500	399	588	3500	399			
LNAV MDA	560	2400	371	560	2400	371	560	2400	371	560	2400	371			
CIRCLING	640	1	451	660	1	471	860	2	671	860	2 1/4	671			



<u>AIRPORT</u>	<u>AIRPORT ID</u>	<u>PROCEDURE NAME</u>	<u>ORIGINAL/AMENDMENT</u>	<u>CITY</u>	<u>STATE</u>
FAYETTEVILLE RGNL/GRANNIS FIELD	KFAY	RNAV (GPS) RWY 4	3C	FAYETTEVILLE	NC

CHANGES - REASONS

- 1. LNAV/VNAV DA INCREASED FROM 470/ HAT 281 TO 588/ HAT 399, VISIBILITY INCREASED TO RVR 3500. - IDENTIFIED NEW CONTROLLING OBSTACLE.
- 2. CIRCLING CAT B INCREASED FROM 640/ HAA 451 TO 660/ HAA 471 - IDENTIFIED NEW CONTROLLING OBSTACLE.
- 3. PBN REQUIREMENT NOTE REQUIREMENT: RNP APCH - DELETED NOTE DME/DME RNP -0.3 NA.
- 4. FAS DATA: LTP COORDINATES CHANGED FROM 345908.70N/0785309.51 TO 345908.701N/0785309.514W.
- 5. FAS DATA: CRC REMAINDER CHANGED FROM EFABFA4B TO 1337826C.



COORDINATED WITH:

A4A ☐ **ALPA** ☒ **AOPA** ☒ **APA** ☐ **HAI** ☐ **NBAA** ☒ **OTHER:** ZDC, FAY APP CON, FAY ATCT, ATA

FLIGHT CHECKED BY

KEVIN RIESE

DEVELOPED BY

LONNIE EVERHART (MARSHALL SCOTT)

APPROVED BY

LONNIE EVERHART

Digitally signed by

BEV L BORDY

Aug 20, 2018

Digitally signed by

BEV L BORDY

Aug 20, 2018

Digitally signed by

BEV L BORDY

Aug 20, 2018

OFFICE

FICO

OFFICE

AJV-5400

OFFICE

AJV-5400

DATE

7/5/18

DATE

02/26/2018

DATE

TITLE

MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KFAY
RUNWAY	RW04
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W04A
LTP/FTP LATITUDE	345908.7010N
LTP/FTP LONGITUDE	0785309.5140W
LTP/FTP ELLIPSOIDAL HEIGHT	+00229
FPAP LATITUDE	350025.0500N
FPAP LONGITUDE	0785213.3500W
THRESHOLD CROSSING HEIGHT (TCH)	00045.2
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0584
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	35.0
CRC REMAINDER	1337826C

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K7
LTP ORTHOMETRIC HEIGHT	+00565
FPAP ORTHOMETRIC HEIGHT	+00565



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> FAYETTEVILLE RGNL/GRANNIS FIELD	<u>AIRPORT ID</u> KFAY	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 10	<u>ORIGINAL/AMENDMENT</u> ORIG-B	<u>CITY</u> FAYETTEVILLE	<u>STATE</u> NC
<u>AIRPORT ELEVATION</u> 189	<u>TDZE</u> 188	<u>SUPERSEDED</u> RNAV (GPS) RWY 10	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>DATED</u> 04/28/2016	<u>MAG VAR</u> 7W
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 1985

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>
ROWEL		WALEX		TF	FB	2.00	010.64	9.26	2600
WALEX	IAF	SUGAE	NOPT	TF	FB	1.00	010.65	5.00	2600
SUGAE	IF/IAF	ZITMO		TF	FB	1.00	080.16	8.00	2100
ZITMO	FAF	HEDUR	MAP	TF	FO	0.30	086.12	5.88	
HEDUR	MAP	589 MSL		CA			086.12		
589 MSL		JAGOB		DF	FO	1.00			2600

MISSED APPROACH

MAP:

LNAV: HEDUR

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2600 DIRECT JAGOB AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

- PT **SIDE OF COURSE** **OUTBOUND** **FT WITHIN** **MILES OF (IAF)**
- HOLD W SUGAE, RT, 080.16 INBOUND, 2600 FT. IN LIEU OF PT (IAF), MAX 14000.
- FAC:** 086.12 **FAF:** ZITMO **DIST FAF TO MAP:** 5.40 **DIST FAF TO THLD:** 5.88
- MIN ALT:** SUGAE 2600, ZITMO 2100
- DIST TO THLD FROM OM:** **MM:** **IM:** **150 HAT:** **HAT:**
- MIN GP INCPT:** **GP ALT AT FAF :** **OM:** **MM:** **IM:**
- GP ANGLE:** **34:1:** IS NOT CLEAR **20:1:** IS CLEAR **TCH:**
- MSA FROM:** HEDUR 2300



PBN EQUIPMENT REQUIREMENTS NOTES

RNP APCH

NOTES:

CHART NOTE: RWY 10 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.

ADDITIONAL FLIGHT DATA:

FINAL SEGMENT (TF)
CHART 376 TOWER 345856.00N/0790004.00W.
CHART VDP AT 1.35 NM TO RW10.
CHART PLANVIEW NOTE: FINAL APPROACH COURSE OFFSET 12.04 DEGREES.
CHART CIRCLING ICON.
ZITMO WP TO RW10: 3.00/45.
CHART R-5311
FAS OBST: 378 AAO 345900N/0785754W.
FAC CROSSES RWY C/L EXTENDED 3000 FT FROM THLD.
HOLD E, RT, 278.28 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
LNAV MDA	660	1	472	660	1	472	660	1 3/8	472	660	1 3/8	472			
CIRCLING	660	1	471	660	1	471	860	2	671	860	2 1/4	671			

CHANGES - REASONS

- CAT C CIRCLING INCREASED FROM 700/HAA 511 TO 860/ HAA 671 - APPLIED NEW CIRCLING CRITERIA.
- CAT D CIRCLING INCREASED FROM 700/HAA 511 TO 860/ HAA 671 - APPLIED NEW CIRCLING CRITERIA.
- CHART NOTE ADDED: RWY 10 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 NOT AUTHORIZED - 34:1 PENETRATIONS IDENTIFIED.
- ADDED CHART CIRCLING ICON - APPLIED NEW CIRCLING CRITERIA.
- PBN EQUIPMENT REQUIREMENT NOTE: RNP APRCH - CHANGED TO MATCH .19H FORMS.
- ADD VDP AT 1.35 NM TO RWY 10 - ALLOWED BY CRITERIA, 20:1 IS CLEAR.
- DELETE NOTE: DME/DME RNP -0.3NA - NO LONGER REQUIRED.
- UPDATED FINAL CONTROLLING OBSTACLE - AAO USED FOR FINAL ONSTACLE (NO FACTOR).



<u>AIRPORT</u> FAYETTEVILLE RGNL/GRANNIS FIELD	<u>AIRPORT ID</u> KFAY	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 10	<u>ORIGINAL/AMENDMENT</u> ORIG-B	<u>CITY</u> FAYETTEVILLE	<u>STATE</u> NC
<u>COORDINATED WITH:</u>					
A4A ☐ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: FAY APP CON, AMGR, ATA					
<u>FLIGHT CHECKED BY</u>		<i>Digitally signed by</i>	<u>OFFICE</u>	<u>DATE</u>	
KEVIN RIESE		BEV L BORDY	FICO	7/5/18	
		Aug 20, 2018			
<u>DEVELOPED BY</u>		<i>Digitally signed by</i>	<u>OFFICE</u>	<u>DATE</u>	
LONNIE EVERHART (MARSHALL SCOTT)		BEV L BORDY	AJV-5400	02/21/2018	
		Aug 20, 2018			
<u>APPROVED BY</u>		<i>Digitally signed by</i>	<u>OFFICE</u>	<u>DATE</u>	<u>TITLE</u>
LONNIE EVERHART		BEV L BORDY	AJV-5400		MANAGER
		Aug 20, 2018			



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> FAYETTEVILLE RGNL/GRANNIS FIELD	<u>AIRPORT ID</u> KFAY	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 22	<u>ORIGINAL/AMENDMENT</u> 6	<u>CITY</u> FAYETTEVILLE	<u>STATE</u> NC
<u>AIRPORT ELEVATION</u> 189	<u>TDZE</u> 180	<u>SUPERSEDED</u> RNAV (GPS) RWY 22	<u>ORIGINAL/AMENDMENT</u> 5A	<u>DATED</u> 12/11/2014	<u>MAG VAR</u> 7W
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 1985

TAA

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>ALTITUDE</u>
1. 128/30 CW 308/30	NOPT	128/20 CW 308/20		3400
2. 128/20 CW 308/20		UJORO	IF/IAF	2300
3. 308/30 CW 128/30		UJORO	IF/IAF	2300

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>
UJORO	IF/IAF	MORGY		TF	FB	1.00	218.25	6.99	1800
MORGY	FAF	RW22	MAP	TF	FO	0.30	218.21	5.00	
RW22	MAP	360 MSL		CA			218.21		
360 MSL		ZODGI		DF	FO	1.00			2300

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW22

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2300 DIRECT ZODGI AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)
2. HOLD NE UJORO, RT, 218.25 INBOUND, 2300 FT. IN LIEU OF PT (IAF), MAX 6000.
3. FAC: 218.21FAF: MORGYDIST FAF TO MAP: 5.00DIST FAF TO THLD: 5.00
4. MIN ALT: UJORO 2300, MORGY 1800
5. DIST TO THLD FROM OM:MM:IM:150 HAT:200 HAT: 0.47
6. MIN GP INCPT: 1800GP ALT AT FAF : MORGY 1800OM:MM:IM:
7. GP ANGLE: 3.0034:1: IS CLEAR20:1: IS CLEARTCH: 47.7
8. MSA FROM:

PBN EQUIPMENT REQUIREMENTS NOTES

RNP APCH

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -10C OR ABOVE 54C.

ADDITIONAL FLIGHT DATA:

CHART R-5311 A-B-C
CHART CIRCLING ICON.
CHART VDP AT 1.11 NM TO RW22*
*LNAV ONLY
WAAS CHANNEL #45511
REFERENCE PATH ID: W22A
FAS OBST: 309 AAO 352055N/0785011W.
HOLD SW, RT, 038.11 INBOUND
LTP HAE: 15.2 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	380	3/4	200	380	3/4	200	380	3/4	200	380	3/4	200			
LNAV/VNAV DA	437	3/4	257	437	3/4	257	437	3/4	257	437	3/4	257			
LNAV MDA	560	1	380	560	1	380	560	1	380	560	1	380			
CIRCLING	640	1	451	660	1	471	860	2	671	860	2 1/4	671			



CHANGES - REASONS

- 1. CIRCLING CAT B INCREASED FROM 640/ HAA 451 TO 660/ HAA 471 - NEW CONTROLLING OBSTACLE IDENTIFIED.
- 2. TAA STRAIGHT-IN OUTER AREA INCREASED FROM 3200 TO 3400 - NEW CONTROLLING OBSTACLE IDENTIFIED.
- 3. PBN EQUIPMENT NOTE: RNP APRCH - IAW 8260.19H 1-1-5 (14).
- 4. LNAV/VNAV DA/VISIBILITY /HAT LOWERED FROM 490/3/4/310 - CRITERIA CHANGE ALLOWING 161' OF ROC IN LEVEL SURFACE.
- 5. DME/DME RNP-.3 NA NOTE DELETED - NO LONGER REQUIRED.
- 6. FAS DATA: LTP COORDINATES CHANGED FROM 350006.3055N/0785227.1465W TO 350006.3055N/0785227.1460W - AIRNAV PULL OF ACTIVE DATA.
- 7. FAS DATA: CRC REMAINDER CHANGED FROM C5BB459E TO 2068D2C6 - AIRNAV PULL OF ACTIVE DATA.



COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: ZDC, FAY APP CON, FAY ATCT, AMGR, ATA

FLIGHT CHECKED BY

KEVIN RIESE

DEVELOPED BY

LONNIE EVERHART (MARSHALL SCOTT)

APPROVED BY

LONNIE EVERHART

Digitally signed by

BEV L BORDY

Aug 20, 2018

OFFICE

FICO

DATE

7/5/18

Digitally signed by

BEV L BORDY

Aug 20, 2018

OFFICE

AJV-5400

DATE

03/01/2018

Digitally signed by

BEV L BORDY

Aug 20, 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	KFAY
RUNWAY	RW22
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W22A
LTP/FTP LATITUDE	350006.3055N
LTP/FTP LONGITUDE	0785227.1460W
LTP/FTP ELLIPSOIDAL HEIGHT	+00152
FPAP LATITUDE	345849.9500N
FPAP LONGITUDE	0785323.2900W
THRESHOLD CROSSING HEIGHT (TCH)	00047.7
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0496
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	35.0
CRC REMAINDER	2068D2C6

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K7
LTP ORTHOMETRIC HEIGHT	+00488
FPAP ORTHOMETRIC HEIGHT	+00488



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> FAYETTEVILLE RGNL/GRANNIS FIELD	<u>AIRPORT ID</u> KFAY	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 28	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>CITY</u> FAYETTEVILLE	<u>STATE</u> NC
<u>AIRPORT ELEVATION</u> 189	<u>TDZE</u> 188	<u>SUPERSEDED</u> RNAV (GPS) RWY 28	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>DATED</u> 03/20/2003	<u>MAG VAR</u> 7W
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>	<u>EPOCH YEAR</u> 1985

TAA

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>ALTITUDE</u>
1. 188/30 CW 008/30		188/20 CW 008/20		3100
2. 188/20 CW 008/20	NOPT	JAGOB	IF/IAF	2600
3. 008/30 CW 098/30		NISIE	IAF	2600
4. 098/30 CW 188/30		098/20 CW 188/20		3200
5. 098/20 CW 188/20		CENKO	IAF	2600

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>
CENKO	IAF	JAGOB		TF	FB	1.00	188.28	5.00	2600
NISIE	IAF	JAGOB		TF	FB	1.00	008.28	5.00	2600
JAGOB	IF/IAF	FIKUL		TF	FB	1.00	278.28	5.00	1900
FIKUL	FAF	RW28	MAP	TF	FO	0.30	278.22	5.20	
RW28	MAP	500 MSL		CA			278.22		
500 MSL		FIDBO		DF	FB	1.00			
FIDBO		SUGAE		TF	FO	1.00	260.91	12.06	2600



MISSED APPROACH

MAP:
LNAV/VNAV: DA
LNAV: RW28

MISSED APPROACH INSTRUCTIONS:
CLIMB TO 2600 DIRECT FIDBO AND ON 260.91 TRACK TO SUGAE AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)
2. HOLD E JAGOB, RT, 278.28 INBOUND, 2600 FT. IN LIEU OF PT (IAF), MAX 14000.
3. FAC: 278.22

FAF: FIKUL

DIST FAF TO MAP: 5.20

DIST FAF TO THLD: 5.20
4. MIN ALT: JAGOB 2600, FIKUL 1900
5. DIST TO THLD FROM OM:

MM:

IM:

150 HAT:

GS ANT:
6. MIN GP INCPT: 1900

GP ALT AT FAF : FIKUL 1900

OM:

MM:

IM:
7. GP ANGLE: 3.00

34:1: IS CLEAR

20:1: IS CLEAR

TCH: 35.0
8. MSA FROM:

PBN REQUIREMENTS NOTE:

RNP APCH

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -10C OR ABOVE 54C.

ADDITIONAL FLIGHT DATA:

DISTANCE TO THLD FROM 312 HAT: 0.88 NM
CHART CIRCLING ICON.
CHART R-5311
CHART VDP AT 1.19 NM TO RW28*
*LNAV ONLY
FAS OBST: 350 AAO 345948N/0784706W.
HOLD W, RT, 080.16 INBOUND

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
LNAV/VNAV DA	500	1 1/4	312	500	1 1/4	312	500	1 1/4	312	500	1 1/4	312			
LNAV MDA	600	1	412	600	1	412	600	1 1/4	412	600	1 1/4	412			
CIRCLING	640	1 1/4	451	660	1 1/4	471	860	2	671	860	2 1/4	671			

QUALITY
4
CHECKED

CHANGES - REASONS

- 1. LNAV FINAL CAT A/B FROM 560 /HAT 372 TO 600 /HAT 412- APPLICATION OF AAO IN FINAL SEGMENT.
- 2. LNAV FINAL CAT C FROM 560 /HAT 372 TO 600 /HAT 412, VISIBILITY 1 1/4 SM-APPLICATION OF AAO IN FINAL SEGMENT.
- 3. LNAV FINAL CAT D FROM 560 /HAT 372 TO 600 /HAT 412-APPLICATION OF AAO IN FINAL SEGMENT.
- 4. CIRCLING CAT B FROM 640/ HAA 451 TO 660/ HAA 471-APPLIED NEW CIRCLING CRITERIA
- 5. CIRCLING CAT C FROM 640/ HAA 451 TO 860/ HAA 671, VISIBILITY 2 SM-APPLIED NEW CIRCLING CRITERIA
- 6. CIRCLING CAT D FROM 740/ HAA 551 TO 860/ HAA 671, VISIBILITY 2 1/4 SM-APPLIED NEW CIRCLING CRITERIA
- 7. MISSED APPROCHED VERBAGE CHANGED FROM CLIMB TO 2600 ON 278 COURSE TO FIDBO THEN ON 260 COURSE TO SUGAE AND HOLD TO CLIMB TO 2600 DIRECT FIDBO THEN ON 260.91 TRACK TO SUGAE AND HOLD - 82060.19H PARA (8-6-6).D.2.
- 8. CHART CIRCLING ICON-APPLIED NEW CIRCLING CRITERIA
- 9. PBN EQUIPMENT REQUIREMENT NOTE: RNP APPROACH-UPDATED PBN EQUIREMENT REQUIREMENTS.
- 10. DELETE NOTE GPS OR RNP-0.3 REQUIRED-CRITERIA CHANGE.
- 11. CHANGED BAROVNAV NOTE FROM NA BELOW -15C TO NA BELOW -10C OR ABOVE 54C-RECALCULATED BARONAV TEMP FOR NA TEMP.

06/19/18: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 04/17/18.

1. MISSED APPROACH SEGMENT FIDPO TO SUGAE DISTANCE CHANGED FROM 13.82 TO 12.06.



COORDINATED WITH:

A4A ☐ **ALPA** ☒ **AOPA** ☒ **APA** ☒ **HAI** ☐ **NBAA** ☒ **OTHER:** FAY APP CON, AIRPORT MANAGER, ATA

FLIGHT CHECKED BY

JAMES HERRINGTON

DEVELOPED BY

LONNIE EVERHART (MARSHALL SCOTT)

APPROVED BY

LONNIE EVERHART

Digitally signed by

BEV L BORDY

Aug 20, 2018

Digitally signed by

BEV L BORDY

Aug 20, 2018

Digitally signed by

BEV L BORDY

Aug 20, 2018

OFFICE

FICO

OFFICE

AJV-5400

OFFICE

AJV-5400

DATE

8/16/18

DATE

04/17/2018

DATE

TITLE

MANAGER



**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
VOR STANDARD INSTRUMENT APPROACH PROCEDURE**

TITLE 14 CFR PART 97.23

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<u>AIRPORT</u> FAYETTEVILLE RGNL/GRANNIS FIELD	<u>AIRPORT ID</u> KFAY	<u>PROCEDURE NAME</u> VOR RWY 4	<u>ORIGINAL/AMENDMENT</u> 16B	<u>CITY</u> FAYETTEVILLE	<u>STATE</u> NC
<u>AIRPORT ELEVATION</u> 189	<u>TDZE</u> 189	<u>SUPERSEDED</u> VOR RWY 4	<u>ORIGINAL/AMENDMENT</u> 16A	<u>DATED</u> 06/02/2011	<u>MAG VAR</u> 7W
<u>FACILITY</u> FAY	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 1985

MISSED APPROACH

MAP:

FAY VOR/DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 1100 THEN CLIMBING RIGHT TURN TO 3000 ON FAY R-131 TO GANDS INT/FAY 14.59 DME AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT R SIDE OF COURSE 237.43 OUTBOUND 2100 FT WITHIN 10 MILES OF FAY (IAF)
2.
3. FAC: 057.43 FAF: DIST FAF TO MAP: DIST FAF TO THLD:
4. MIN ALT:
8. MSA FROM: FAY VOR/DME 2300

EQUIPMENT REQUIREMENTS NOTES:

NOTES:

FOR INOPERATIVE ALS, INCREASE S-4 CAT A/B VISIBILITY TO RVR 5500 AND CAT C/D TO 1 3/8SM.

ADDITIONAL FLIGHT DATA:

CHART MAXIMUM 4700 AT FAY VOR/DME.
CHART CIRCLING ICON.
CHART VDP AT 1.64 DME
DISTANCE VDP TO THLD 1.24 NM
CHART FAS OBST: 340 TOWER 345641N/0785739W.
FAC CROSSES RWY C/L EXTENDED 5200 FT FROM THLD.
HOLD SE, RT, 311.19 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-04	640	4000	451	640	4000	451	640	4500	451	640	5000	451			
CIRCLING	640	1	451	660	1	471	860	2	671	860	2 1/4	671			

CHANGES - REASONS

1. CIRCLING CAT B FROM 640/HAA 451 TO 660/ HAA 471. - APPLIED NEW CIRCLING CRITERIA.
2. CIRCLING CAT C FROM 640/HAA 451 TO 860/ HAA 671, VISIBILITY FROM 1 1/2 TO 2 SM. - APPLIED NEW CIRCLING CRITERIA.
3. CIRCLING CAT D FROM 740/HAA 551 TO 860/ HAA 671, VISIBILITY FROM 2 TO 2 1/4 SM. - APPLIED NEW CIRCLING CRITERIA.
4. ADDED CIRCLING ICON - APPLIED NEW CIRCLING CRITERIA.
5. INCREASED S-4 CAT C VISIBILITY FROM RVR 4000 TO RVR 4500. - TABLE 3-3-1.
6. FAS OBSTACLE CHANGE FROM 337 POLE TO 340 TOWER. - TERPS EVALUATION.
7. MISSED APPROACH WORDING FROM VIA TO ON. - CRITERIA CHANGE.
8. CHANGED INOP NOTE INCREASE FOR CAT A/B FROM 1 MILE TO RVR 5500 AND ADDED CAT C/D INCREASE TO 1 3/8SM. - CHART CORRECTION.
9. DELETED HELICOPTER ALTITUDE 4700 AT FAY VOR/DME. - APPLICATION OF TERPS TABLE 12-2-1.
10. ADDED MAX ALTITUDE 4700 AT FAY VOR/DME. - APPLICATION OF TERPS TABLE 12-2-1.

COORDINATED WITH:

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

OTHER: FAY APP CON,AMGR

Digitally signed by

BEV L BORDY

Aug 20, 2018

OFFICE

FICO

DATE

7/5/18

Digitally signed by

BEV L BORDY

Aug 20, 2018

OFFICE

AJV-5400

DATE

02/26/2018

Digitally signed by

BEV L BORDY

Aug 20, 2018

OFFICE

AJV-5400

DATE

TITLE

MANAGER

FLIGHT CHECKED BY

KEVIN RIESE

DEVELOPED BY

LONNIE EVERHART (MARSHALL SCOTT)

APPROVED BY

LONNIE EVERHART



**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
VOR STANDARD INSTRUMENT APPROACH PROCEDURE**

TITLE 14 CFR PART 97.23

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<u>AIRPORT</u> FAYETTEVILLE RGNL/GRANNIS FIELD	<u>AIRPORT ID</u> KFAY	<u>PROCEDURE NAME</u> VOR RWY 22	<u>ORIGINAL/AMENDMENT</u> 7B	<u>CITY</u> FAYETTEVILLE	<u>STATE</u> NC
<u>AIRPORT ELEVATION</u> 189	<u>TDZE</u> 180	<u>SUPERSEDED</u> VOR RWY 22	<u>ORIGINAL/AMENDMENT</u> 7A	<u>DATED</u> 04/28/2016	<u>MAG VAR</u> 7W
<u>FACILITY</u> FAY	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 1985

MISSED APPROACH

MAP:

FAY VOR/DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 1300 THEN CLIMBING LEFT TURN TO 3000 ON HEADING 100 AND FAY VOR/DME R-131 TO GANDS INT/FAY 14.59 DME AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT R SIDE OF COURSE 018.00 OUTBOUND 2100 FT WITHIN 10 MILES OF FAY (IAF)
2.
3. FAC: 198.00 FAF: DIST FAF TO MAP: DIST FAF TO THLD:
4. MIN ALT:
8. MSA FROM: FAY VOR/DME 2300

EQUIPMENT REQUIREMENTS NOTES:

NOTES:

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
CHART VDP AT 3.10 DME
DISTANCE VDP TO THLD 2.20 NM
CHART FAS OBST: 549 TOWER 350423N/0785326W.
FAC CROSSES RWY C/L EXTENDED 3984 FT FROM THLD.
HOLD SE, RT, 311.19 INBOUND

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
S-22	900	1	720	900	1	720	900	2	720	900	2	720			
CIRCLING	900	1	711	900	1	711	900	2	711	900	2 1/4	711			

CHANGES - REASONS

1. CHART NOTE: CHART CIRCLING ICON - NEW CIRCLING CRITERIA APPLIED.
2. DELETED BACKUP ALTIMETER SETTING NOTE - NOT REQUIRED, REDUNDANT WEATHER AVAILABLE.
3. CHANGED MISSED APPROACH VERAGE FROM VIA TO ON - CRITERIA CHANGE.
4. KFAY TDZE CHANGE FROM 182 TO 180, DUE TO 9/16/15 SURVEY.

COORDINATED WITH:

A4A

☐

ALPA

☒

AOPA

☒

APA

☒

HAI

☐

NBAA

☒

OTHER:

FAY APP CON, FAY ATCT, AMGR, ATA

FLIGHT CHECKED BY

KEVIN RIESE

DEVELOPED BY

LONNIE EVERHART (MARSHALL SCOTT)

APPROVED BY

LONNIE EVERHART

BEV L BORDY

OFFICE

DATE

Aug 20, 2018

FICO

7/5/18

Digitally signed by

BEV L BORDY

OFFICE

DATE

Aug 20, 2018

AJV-5400

02/21/2018

Digitally signed by

BEV L BORDY

OFFICE

DATE

Aug 20, 2018

AJV-5400

TITLE

MANAGER



**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
VOR STANDARD INSTRUMENT APPROACH PROCEDURE**

TITLE 14 CFR PART 97.23

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<u>AIRPORT</u> FAYETTEVILLE RGNL/GRANNIS FIELD	<u>AIRPORT ID</u> KFAY	<u>PROCEDURE NAME</u> VOR RWY 28	<u>ORIGINAL/AMENDMENT</u> 8B	<u>CITY</u> FAYETTEVILLE	<u>STATE</u> NC
<u>AIRPORT ELEVATION</u> 189	<u>TDZE</u> 188	<u>SUPERSEDED</u> VOR RWY 28	<u>ORIGINAL/AMENDMENT</u> 8A	<u>DATED</u> 04/28/2016	<u>MAG VAR</u> 7W
<u>FACILITY</u> FAY	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 1985

MISSED APPROACH

MAP:

FAY VOR/DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 1100 THEN CLIMBING LEFT TURN TO 3000 ON FAY R-131 TO GANDS INT/FAY 14.59 DME AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT R SIDE OF COURSE 084.20 OUTBOUND 2000 FT WITHIN 10 MILES OF FAY (IAF)
2.
3. FAC: 264.20 FAF: DIST FAF TO MAP: DIST FAF TO THLD:
4. MIN ALT:
8. MSA FROM: FAY VOR/DME 2300

EQUIPMENT REQUIREMENTS NOTES:

NOTES:

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
CHART VDP AT 1.66 DME
DISTANCE VDP TO THLD 1.50 NM
CHART FAS OBST: 381 TOWER 350323N/0784208W.
FAC CROSSES RWY C/L EXTENDED 3001 FROM THLD.
HOLD SE, RT, 311.19 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-28	700	1	512	700	1	512	700	1 3/8	512	700	1 3/8	512			
CIRCLING	700	1	511	700	1	511	860	2	671	860	2 1/4	671			

CHANGES - REASONS

1. CIRCLING CAT C FROM 700/HAA 511 TO 860 /HAA 571, VISIBILITY 1 1/2 TO 2 SM - IDENTIFIED NEW CONTROLLING OBSTACLE.
2. CIRCLING CAT D FROM 740/HAA 551 TO 860 /HAA 571, VISIBILITY 2 TO 2 1/4 SM - IDENTIFIED NEW CONTROLLING OBSTACLE.
3. ADDED CHART CIRCLING ICON - APPLIED NEW CIRCLING CRITERIA.
4. VDP INCREASED FROM 1.61 DME TO 1.66 DME - MDA INCREASE FROM PNOTAM DTD 12/21/15.
5. MISSED APPROACH VERBAGE CHANGED FROM VIA TO ON - CRITERIA CHANGE.

COORDINATED WITH:

A4A ☐ ALPA ☐ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: FAY APP CON, AMGR

FLIGHT CHECKED BY

KEVIN RIESE

DEVELOPED BY

LONNIE EVERHART (MARSHALL SCOTT)

APPROVED BY

LONNIE EVERHART

Digitally signed by

BEV L BORDY

Aug 20, 2018

Digitally signed by

BEV L BORDY

Aug 20, 2018

Digitally signed by

BEV L BORDY

Aug 20, 2018

OFFICE

FICO

OFFICE

AJV-5400

OFFICE

AJV-5400

DATE

7/5/18

DATE

02/23/2018

DATE

TITLE

MANAGER



**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
VOR STANDARD INSTRUMENT APPROACH PROCEDURE
TITLE 14 CFR PART 97.23**

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<u>AIRPORT</u> TRIANGLE NORTH EXECUTIVE	<u>AIRPORT ID</u> KLHZ	<u>PROCEDURE NAME</u> VOR-A	<u>ORIGINAL/AMENDMENT</u> 2D	<u>CITY</u> LOUISBURG	<u>STATE</u> NC	
<u>AIRPORT ELEVATION</u> 368	<u>TDZE</u>	<u>SUPERSEDED</u> VOR-A	<u>ORIGINAL/AMENDMENT</u> 2C	<u>DATED</u> 05/24/2018	<u>MAG VAR</u> 9W	<u>EPOCH YEAR</u> 2020
<u>FACILITY</u> RDU	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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>
RDU VORTAC	IAF	MOBFO/RDU 12.50 DME					077.06	12.50	2600
MOBFO/RDU 12.50 DME	IF	OGOSH/RDU 18.50 DME					077.06	6.00 (RDU R-077)	2100

MISSED APPROACH

MAP:

4.96 NM AFTER OGOSH/RDU 18.50 DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 1200 THEN CLIMBING RIGHT TURN TO 2600 ON HEADING 280 AND ON RDU VORTAC R-077 TO OGOSH/RDU 18.50 DME AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT **SIDE OF COURSE** **OUTBOUND** **FT WITHIN** **MILES OF (IAF)**
2. PROFILE STARTS AT MOBFO
3. **FAC:** 077.06 **FAF:** OGOSH/RDU 18.50 DME **DIST FAF TO MAP:** 4.96 **DIST FAF TO THLD:**
4. **MIN ALT:** MOBFO 2600, OGOSH 2100
8. **MSA FROM:** RDU VORTAC 3400

EQUIPMENT REQUIREMENTS NOTES:

DME REQUIRED

NOTES:

CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON RDU VORTAC AIRWAY RADIALS 025 CW 125.

CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE RALEIGH-DURHAM ALTIMETER SETTING AND INCREASE ALL MDA 80 FT AND CATS C/D VISIBILITY 1/4 SM.

ADDITIONAL FLIGHT DATA:



FAC CROSSES 496 FT NORTH OF RW05
CHART IN PLANVIEW: CFDWJ AT 360104.81N/0782010.50W
CHART FAS OBST: 694 TOWER 355828N/0782235W.
HOLD W, RT, 077.06 INBOUND

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
CIRCLING	1060	1	692	1060	1 1/4	692	1060	2	692	1060	2 1/4	692			

CHANGES - REASONS

1. REMOVED MAP GOYEC/RDU 23.5 DME FIX AND REPLACE WITH CNF FIX CFDWJ TO ALLOW FOR CODING AND ADDED TIME TABLE - PER FLIGHT CHECK, PREVIOUS AMENDMENT WAS COMPLETED ON 5/24/18, IT WAS SAT WITH CHANGES, THE PROCEDURES DME UNLOCKS PRIOR TO MAP.
2. ADDED "CHART IN PLANVIEW: CFDWJ AT 360104.71N/0782010.50W IN ADDITIONAL FLIGHT DATA - TO ALLOW PROCEDURE TO BE CODED.

COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: RDU APP CON, KLHZ AIRPORT MANAGER

FLIGHT CHECKED BY

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, DEC 22, 2017.

DEVELOPED BY *Digitally signed by*
BRYAN BLUE **JOHNNIE BAKER**
Aug 09, 2018

APPROVED BY *Digitally signed by*
MARLON ROBINSON **JOHNNIE BAKER**
Aug 09, 2018

OFFICE	DATE
<i>Digitally signed by</i> JOHNNIE BAKER Aug 09, 2018	
OFFICE	DATE
AJV-5442	06/01/2018
OFFICE	DATE
AJV-5440	



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

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CITY, STATE	AIRPORT	EFFECTIVE DATE	AMDT NO
MOUNT AIRY, NC	MOUNT AIRY/SURRY COUNTY	8 NOVEMBER 2018	4

TAKEOFF MINIMUMS:

RWY 18, STANDARD.

RWY 36, STANDARD WITH MINIMUM CLIMB OF 250 FT PER NM TO 3900, OR 1600-3 FOR CLIMB IN VISUAL CONDITIONS.

TEXTUAL DEPARTURE PROCEDURES:

RWY 18 - CLIMB HEADING 180.27 TO 2900 BEFORE TURNING LEFT.

RWY 36 - CLIMB HEADING 000.26 TO 2200 BEFORE PROCEEDING ON COURSE.

VISUAL CLIMB OVER AIRPORT:

RWY 36 - OBTAIN ATC APPROVAL FOR VCOA WHEN REQUESTING IFR CLEARANCE. CLIMB IN VISUAL CONDITIONS TO CROSS MOUNT AIRY/SURRY COUNTY AIRPORT AT OR ABOVE 2700 MSL BEFORE PROCEEDING ON COURSE.

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 18, VEHICLES ON ROAD BEGINNING 50 FT FROM DER, 378 FT RIGHT OF CENTERLINE, UP TO 1222 FT MSL. TREES BEGINNING 72 FT FROM DER, 365 FT LEFT OF CENTERLINE, UP TO 1254 FT MSL. TREE 189 FT FROM DER, 498 FT RIGHT OF CENTERLINE, 1231 FT MSL. TREE 219 FT FROM DER, 528 FT RIGHT OF CENTERLINE, 1249 FT MSL. TREES BEGINNING 318 FT FROM DER, 328 FT RIGHT OF CENTERLINE, UP TO 1252 FT MSL. TREES BEGINNING 495 FT FROM DER, 354 FT LEFT OF CENTERLINE, UP TO 1259 FT MSL. TREES BEGINNING 593 FT FROM DER, 170 FT RIGHT OF CENTERLINE, UP TO 1253 FT MSL. TREES BEGINNING 1365 FT FROM DER, 329 FT RIGHT OF CENTERLINE, UP TO 1263 FT MSL. BUILDING, TREE BEGINNING 1841 FT FROM DER, 96 FT LEFT OF CENTERLINE, UP TO 47 FT AGL/1260 FT MSL. TREES BEGINNING 2091 FT FROM DER, 151 FT LEFT OF CENTERLINE, UP TO 73 FT AGL/1270 FT MSL. TREES BEGINNING 2110 FT FROM DER, 166 FT LEFT OF CENTERLINE, UP TO 77 FT AGL/1271 FT MSL. TREES BEGINNING 2134 FT FROM DER, 95 FT LEFT OF CENTERLINE, UP TO 81 FT AGL/1272 FT MSL. TREE 2668 FT FROM DER, 367 FT LEFT OF CENTERLINE, 56 FT AGL/1276 FT MSL. TREE 2680 FT FROM DER, 140 FT LEFT OF CENTERLINE, 71 FT AGL/1278 FT MSL. TREE 2683 FT FROM DER, 306 FT LEFT OF CENTERLINE, 61 FT AGL/1280 FT MSL. TREES BEGINNING 2684 FT FROM DER, 120 FT LEFT OF CENTERLINE, UP TO 1290 FT MSL. TREES BEGINNING 2716 FT FROM DER, 265 FT LEFT OF CENTERLINE, UP TO 1304 FT MSL. TREES BEGINNING 2849 FT FROM DER, 53 FT LEFT OF CENTERLINE, UP TO 89 FT AGL/1316 FT MSL. TREE 3196 FT FROM DER, 40 FT RIGHT OF CENTERLINE, 98 FT AGL/1289 FT MSL.

NOTE: RWY 36, TERRAIN 34 FT FROM DER, 428 FT LEFT OF CENTERLINE, 1279 FT MSL. TERRAIN 35 FT FROM DER, 325 FT RIGHT OF CENTERLINE, 1277 FT MSL. TERRAIN BEGINNING 94 FT FROM DER, 312 FT RIGHT OF CENTERLINE, UP TO 1285 FT MSL. TERRAIN BEGINNING 116 FT FROM DER, 390 FT LEFT OF CENTERLINE, UP TO 1287 FT MSL. FENCE BEGINNING 170 FT FROM DER, 465 FT RIGHT OF CENTERLINE, UP TO 4 FT AGL/1289 FT MSL. VEHICLES ON ROAD, POLE, TREE BEGINNING 537 FT FROM DER, 451 FT LEFT OF CENTERLINE, UP TO 1332 FT MSL. TREE 820 FT FROM DER, 580 FT LEFT OF CENTERLINE, 1344 FT MSL. BUILDING 941 FT FROM DER, 520 FT RIGHT OF CENTERLINE, 1321 FT MSL. TREES BEGINNING 987 FT FROM DER, 455 FT LEFT OF CENTERLINE, UP TO 1345 FT MSL. TREE 1151 FT FROM DER, 724 FT RIGHT OF CENTERLINE, 1327 FT MSL. TREES BEGINNING 1157 FT FROM DER, 51 FT LEFT OF CENTERLINE, UP TO 1348 FT MSL. TREES BEGINNING 1193 FT FROM DER, 14 FT RIGHT OF CENTERLINE, UP TO 1339 FT MSL. TREES, POLE BEGINNING 2211 FT FROM DER, 69 FT RIGHT OF CENTERLINE, UP TO 69 FT AGL/1340 FT MSL. TREE 2251 FT FROM DER, 201 FT RIGHT OF CENTERLINE, 74 FT AGL/1345 FT MSL.

CONTROLLING OBSTACLES:

RWY 36 - 3235 FT MSL AAO 363843.07N/0803144.48W (CLIMB GRADIENT TERMINIATION ALTITUDE), 2166 AAO 363225.15N/0803120.16W (CLIMB GRADIENT)

RWY 36 - (VCOA): 1984 FT MSL TOWER (37-003309) 363034.00N/0803029.30W (VCA), 3809 FT MSL TOWER (37-001286) 363334.00N/0804924.00W (VCOA DIVERSE)

OBSTACLE MANDATING ODP ROUTE DEVELOPMENT: RWY 18 - 2621 FT MSL AAO 362025.13N/0802826.71W, **RWY 36 -** 2166 MSL AAO 363225.15N/0803120.16W

REMARKS:



**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.

<u>CITY, STATE</u>	<u>AIRPORT</u>	<u>EFFECTIVE DATE</u>	<u>AMDT NO</u>
MOUNT AIRY, NC	MOUNT AIRY/SURRY COUNTY	8 NOVEMBER 2018	4

<u>FLIGHT INSPECTED BY:</u>	<i>Digitally signed by</i> BEV L BORDY Aug 17, 2018	<u>OFFICE SYMBOL:</u>	<u>DATE:</u>
JAMES HERRINGTON		FICO	8/14/18

<u>DEVELOPED BY:</u>	<i>Digitally signed by</i> BEV L BORDY Aug 17, 2018	<u>OFFICE SYMBOL:</u>	<u>DATE:</u>
LONNIE EVERHART (KELLIE BARNES)		AJV-5400	06/13/2018

<u>APPROVED BY:</u>	<i>Digitally signed by</i> BEV L BORDY Aug 17, 2018	<u>OFFICE SYMBOL:</u>	<u>DATE:</u>
LONNIE EVERHART		AJV-5400	

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:

CHANGES - REASONS:

1. UPDATED RWY 18, 36 TAKEOFF OBSTACLE NOTES - NEW OBSTACLE DATA REVIEW.
2. CONTROLLING OBSTACLE FOR RWY 36 VCOA CHANGED FROM 1939 FT MSL AAO 363108.55N/0803202.68W TO 984 FT MSL TOWER (37-003309) 363034.00N/0803029.30W (VCA), 3809 FT MSL TOWER (37-001286) 363334.00N/0804924.00W (VCOA DIVERSE)- NEW OBSTACLE DATA REVIEW.
3. RWY 36 CONTROLLING OBSTACLE CHANGED FROM 3235 FT MSL AAO TO 3235 FT MSL AAO 363843.07N/0803144.48W (CLIMB GRADIENT TERMINATION ALTITUDE), 2166 AAO 363225.15N/0803120.16W (CLIMB GRADIENT) - NEW SURVEY
4. CHANGED RWY 36 OBSTACLE MANDATING ODP DEVELOPMENT FROM 3235 FT MSL AAO TO 2166 FT MSL AAO - NEW OBSTACLE DUE TO CHANGE IN RWY 36 TEXTUAL DEPARTURE
5. UPDATED TEXTUAL DP RWY 18 FROM CLIMB HEADING 180.26 TO 3000 BEFORE TURNING LEFT TO CLIMB HEADING 180.26 TO 2900 BEFORE TURNING LEFT - 2900 CLEARS ALL CURRENT OBSTACLES
6. UPDATED TEXTUAL DP RWY 36 FROM CLIMB HEADING 000.26 TO INTERCEPT PSK R-173 TO PSK VORTAC BEFORE PROCEEDING ON COURSE TO CLIMB HEADING 000.26 TO 2200 BEFORE PROCEEDING ON COURSE - ROUTE NOT NEEDED ANY LONGER.
7. CHANGED RWY 36 TAKEOFF MINIMUMS FROM STANDARD WITH MINIMUM CLIMB OF 250 FT PER NM TO 3900, OR 2300-3 FOR CLIMB IN VISUAL CONDITIONS TO STANDARD WITH MINIMUM CLIMB OF 250 FT PER NM TO 3900, OR 1600-3 FOR CLIMB IN VISUAL CONDITIONS - NEW CONTROLLING OBSTACLES FOR VCOA
8. CHANGED VCOA FROM RWY 36 - OBTAIN ATC APPROVAL FOR VCOA WHEN REQUESTING IFR CLEARANCE. CLIMB IN VISUAL CONDITIONS TO CROSS MOUNT AIRY/ SURRY COUNTY AIRPORT AT OR ABOVE 3400 MSL BEFORE PROCEEDING ON COURSE TO RWY 36 - OBTAIN ATC APPROVAL FOR VCOA WHEN REQUESTING IFR CLEARANCE. CLIMB IN VISUAL CONDITIONS TO CROSS MOUNT AIRY/SURRY COUNTY AIRPORT AT OR ABOVE 2700 MSL BEFORE PROCEEDING ON COURSE - 2700 IS NOW REQUIRED TO CLEAR ALL OBSTACLES BASED ON CURRENT SURVEY DATA.

QUALITY
24
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> RALEIGH-DURHAM INTL	<u>AIRPORT ID</u> KRDU	<u>PROCEDURE NAME</u> RNAV (GPS) Y RWY 5R	<u>ORIGINAL/AMENDMENT</u> 3A	<u>CITY</u> RALEIGH/DURHAM	<u>STATE</u> NC
<u>AIRPORT ELEVATION</u> 435	<u>TDZE</u> 420	<u>SUPERSEDED</u> RNAV (GPS) Y RWY 5R	<u>ORIGINAL/AMENDMENT</u> 3	<u>DATED</u> 05/24/2018	<u>MAG VAR</u> 9W
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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. 324/30 CW 144/30	NOPT	PECIT	IF/IAF	3400
2. 144/30 CW 234/30		FOGAP	IAF	3400
3. 234/30 CW 324/30		MUTSE	IAF	3400

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>
MUTSE	IAF	PECIT	NOPT	TF	FB	1.00	324.12	10.00	3400
FOGAP	IAF	PECIT	NOPT	TF	FB	1.00	143.96	10.58	3400
PECIT	IF/IAF	PURME		TF	FB	1.00	054.04	5.97	2400
PURME	FAF	AMORT/1.40 NM TO RW05R		TF	FB	0.30	054.09	4.71	
AMORT/1.40 NM TO RW05R		RW05R	MAP	TF	FO	0.30	054.09	1.40	
RW05R	MAP	620 MSL		CA		1.00	054.09		
620 MSL		POBIC		DF	FB	1.00			
POBIC		ZEBUL		TF	FO	1.00	099.48	17.12	2600



MISSED APPROACH

MAP:
LPV: DA
LNAV/VNAV: DA
LNAV: RW05R

MISSED APPROACH INSTRUCTIONS:
CLIMB TO 2600 DIRECT POBIC AND ON TRACK 099.48 TO ZEBUL AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT	SIDE OF COURSE	OUTBOUND	FT WITHIN	MILES OF	(IAF)				
2.	HOLD SW PECIT, RT, 054.04 INBOUND, 3400 FT. IN LIEU OF PT (IAF), MAX 6000.								
3. FAC:	054.09	FAF: PURME	DIST FAF TO MAP: 6.11	DIST FAF TO THLD: 6.11					
4. MIN ALT:	PECIT 3400, PURME 2400, AMORT/1.40 NM TO RW05R 900*								
5. DIST TO THLD FROM OM:	MM:	IM:	150 HAT:	200 HAT: 0.52	GS ANT:				
6. MIN GP INCPT: 2400	GP ALT AT FAF : PURME 2400		OM:	MM:	IM:				
7. GP ANGLE: 3.00	34:1: IS CLEAR	20:1: IS CLEAR	TCH: 56.3						
8. MSA FROM:									

PBN REQUIREMENTS NOTES:

RNP APCH.

NOTES:

CHART NOTE: SIMULTANEOUS APPROACH AUTHORIZED.
CHART NOTE: LNAV PROCEDURE NA DURING SIMULTANEOUS OPERATIONS.
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -10C (14F) OR ABOVE 54C (130F).
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
*LNAV ONLY
CHART NOTE: USE OF FD OR AP REQUIRED DURING SIMULTANEOUS OPERATIONS.
CHART NOTE: FOR INOPERATIVE ALS, INCREASE LNAV/VNAV ALL CATS VISIBILITY TO RVR 4500 AND LNAV CATS C/D VISIBILITY TO RVR 5500.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
WAAS CHANNEL #90213
REFERENCE PATH ID: W05B
CHART FAS OBST: 527 TREE 355144N/0784731W.
HOLD E, RT, 271.06 INBOUND
LTP HAE: 89.1 M

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD - CAT D 800-2 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
LPV DA	620	2400	200	620	2400	200	620	2400	200	620	2400	200			
LNAV/VNAV DA	710	2400	290	710	2400	290	710	2400	290	710	2400	290			
LNAV MDA	780	2400	360	780	2400	360	780	3000	360	780	3000	360			
CIRCLING	960	1	525	960	1	525	1040	1 3/4	605	1180	2 1/2	745			

CHANGES - REASONS

1. CHANGED HEADING FROM POBIC TO ZEBUL FROM 97.48 TO 99.48 IN MISSED APPROACH INSTRUCTIONS. - HEADING CHANGE MISSED ON LAST AMENDMENT FOR UPDATED AIRPORT MAGNETIC VARIATION.



COORDINATED WITH:

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

OTHER: AIRPORT MANAGER, ZDC, RDU ATC, ATA

FLIGHT CHECKED BY

DONALD H LANIER

OFFICE

DATE

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

DEVELOPED BY

LIAM DONAHUE

LIAM DONAHUE

OFFICE

DATE

05/29/2018

APPROVED BY

PATRICK MULQUEEN

MANAGER

OFFICE

DATE

TITLE



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KRDU
RUNWAY	RW05R
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	Y
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W05B
LTP/FTP LATITUDE	355152.6680N
LTP/FTP LONGITUDE	0784750.4170W
LTP/FTP ELLIPSOIDAL HEIGHT	+00891
FPAP LATITUDE	355255.6040N
FPAP LONGITUDE	0784632.6980W
THRESHOLD CROSSING HEIGHT (TCH)	00056.3
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0464
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	35.0
CRC REMAINDER	610CC6FE
<u>ADDITIONAL PATH POINT RECORD INFORMATION</u>	
ICAO CODE	K7
LTP ORTHOMETRIC HEIGHT	+01212
FPAP ORTHOMETRIC HEIGHT	+01212



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> CASSELTON ROBERT MILLER RGNL	<u>AIRPORT ID</u> K5N8	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 13	<u>ORIGINAL/AMENDMENT</u> 1A	<u>CITY</u> CASSELTON	<u>STATE</u> ND	
<u>AIRPORT ELEVATION</u> 933	<u>TDZE</u> 933	<u>SUPERSEDED</u> RNAV (GPS) RWY 13	<u>ORIGINAL/AMENDMENT</u> 1	<u>DATED</u> 07/31/2008	<u>MAG VAR</u> 6E	<u>EPOCH YEAR</u> 1985
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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. 038/30 CW 218/30	NOPT	038/15 CW 218/15		4200
2. 038/15 CW 218/15		WUSCO	IF/IAF	3000
3. 218/30 CW 308/30		YOTSU	IAF	3200
4. 308/30 CW 038/30		ZUNBI	IAF	3100

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>
YOTSU	IAF	WUSCO	NOPT	TF	FB	1.00	218.31	5.00	3000
ZUNBI	IAF	WUSCO	NOPT	TF	FB	1.00	038.19	5.00	3000
WUSCO	IF/IAF	VAYUN		TF	FB	1.00	128.25	6.10	2800
VAYUN	FAF	RW13	MAP	TF	FO	0.30	128.33	5.65	
RW13	MAP	1333 MSL		CA			128.33		
1333 MSL		JINPU		DF	FO	1.00			3000

MISSED APPROACH

MAP:

LNAV: RW13

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3000 DIRECT JINPU AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. HOLD NW WUSCO, RT, 128.25 INBOUND, 3000 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 128.33FAF: VAYUNDIST FAF TO MAP: 5.65DIST FAF TO THLD: 5.65

4. MIN ALT: WUSCO 3000, VAYUN 2800

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 NOT CLEAR20:1: IS CLEARTCH:

8. MSA FROM:

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: RWY 13 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART NOTE: USE FARGO ALTIMETER SETTING; WHEN NOT RECEIVED USE MOREHEAD ALTIMETER SETTING AND INCREASE ALL MDA 20 FEET.

ADDITIONAL FLIGHT DATA:

CHART FARGO ASOS.
VAYUN TO RW13: 3.05/40.
CHART FAS OBST: 1325 ANTENNA 465323N/0971631W.
HOLD SE, RT, 308.56 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
LNAV MDA	1620	1	687	1620	1	687	1620	2	687		NA				
CIRCLING	1620	1	687	1620	1	687	1620	2	687		NA				

CHANGES - REASONS

1. ADDED 20:1 IS CLEAR - IN ACCORDANCE WITH FAAO 8260.19H, PARA 8-6-7G(3).
2. AMENDED 34:1 IS CLEAR TO READ 34:1 IS NOT CLEAR - STRAIGHT-IN 34:1 VISUAL SURFACE IS PENETRATED.
3. ADDED NOTE: RWY 13 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED - IN ACCORDANCE WITH FAAO 8260.19H, PARA 8-6-11O(3)(D).
4. DELETED CHART FAS OBST: 1313 TOWER 465324N/0971630W IN ADDITIONAL FLIGHT DATA - REPLACED BY UPDATED FAS OBSTACLE.
5. ADDED CHART FAS OBST: 1325 ANTENNA 465323N/0971631W IN ADDITIONAL FLIGHT DATA - NEW CONTROLLING OBSTACLE IDENTIFIED. NO CHANGE TO PUBLISHED LNAV MDA REQUIRED.
6. DELETED NOTE: DME/DME RNP-0.3 NA - REPLACED BY EQUIPMENT REQUIREMENT NOTE.
7. ADDED PBN REQUIREMENTS NOTE: RNP APCH - IN ACCORDANCE WITH FAAO 8260.19H, PARA 8-6-8.
8. ADDED A CA LEG TO MISSED APPROACH SEGMENT - IN ACCORDANCE WITH CURRENT DOCUMENTATION POLICY.



COORDINATED WITH:

A4A

☐

ALPA

☒

AOPA

☒

APA

☐

HAI

☐

NBAA

☒

OTHER:

ZMP, AMGR, FAR APP CON

FLIGHT CHECKED BY

SUSANNA ROBERTS

Digitally signed by

ROBERT G HAMILTON

Aug 08, 2018

OFFICE

FICO

DATE

08/07/2018

DEVELOPED BY

PETER R. GUIMOND

Digitally signed by

PETER R GUIMOND

Jun 18, 2018

OFFICE

AJV-5422

DATE

06/18/2018

APPROVED BY

JULIE MORGAN

Digitally signed by

ROBERT G HAMILTON

Aug 08, 2018

OFFICE

AJV-5420

DATE

TITLE

MANAGER



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

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CITY, STATE	AIRPORT	EFFECTIVE DATE	AMDT NO
HETTINGER, ND	HETTINGER MUNI	8 NOVEMBER 2018	3

TAKEOFF MINIMUMS:

RWY 17, 35: NA - ENVIRONMENTAL

RWY 30: STANDARD.

RWY 12: 300-1 1/4 OR STANDARD WITH MINIMUM CLIMB OF 301 FT PER NM TO 3000.

TEXTUAL DEPARTURE PROCEDURES:

RWY 30: CLIMB HEADING 307.60 TO 3200 BEFORE TURNING RIGHT.

VISUAL CLIMB OVER AIRPORT:

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 12: FENCE 26 FT FROM DER, 435 FT RIGHT OF CENTERLINE, 2703 FT MSL.

TREE 1655 FT FROM DER, 857 FT LEFT OF CENTERLINE, 2743 FT MSL.

TREE 1763 FT FROM DER, 733 FT LEFT OF CENTERLINE, 2754 FT MSL.

TREE 2443 FT FROM DER, 1095 FT LEFT OF CENTERLINE, 2764 FT MSL.

TREE 3135 FT FROM DER, 628 FT LEFT OF CENTERLINE, 2779 FT MSL.

TREE 3137 FT FROM DER, 1028 FT LEFT OF CENTERLINE, 2780 FT MSL.

TREE 3403 FT FROM DER, 1276 FT LEFT OF CENTERLINE, 2786 FT MSL.

TREE 3513 FT FROM DER, 1427 FT LEFT OF CENTERLINE, 2792 FT MSL.

TREE 3527 FT FROM DER, 1216 FT LEFT OF CENTERLINE, 2809 FT MSL.

TREE 3589 FT FROM DER, 1354 FT LEFT OF CENTERLINE, 2816 FT MSL.

TREES BEGINNING 3613 FT FROM DER, 1137 FT LEFT OF CENTERLINE, UP TO 2826 FT MSL.

TREE 4520 FT FROM DER, 1293 FT LEFT OF CENTERLINE, 2838 FT MSL.

TREES BEGINNING 4569 FT FROM DER, 1262 FT LEFT OF CENTERLINE, UP TO 60 FT AGL/2849 FT MSL.

TREE 5487 FT FROM DER, 1936 FT LEFT OF CENTERLINE, 60 FT AGL/2869 FT MSL.

TOWER, TREES BEGINNING 5516 FT FROM DER, 1129 FT LEFT OF CENTERLINE, UP TO 100 FT AGL/2906 FT MSL.

TREES BEGINNING 5926 FT FROM DER, 1917 FT LEFT OF CENTERLINE, UP TO 60 FT AGL/2859 FT MSL.

NOTE: RWY 30: FENCE 26 FT FROM DER, 401 FT LEFT OF CENTERLINE, 2706 FT MSL.

TERRAIN 93 FT FROM DER, 252 FT RIGHT OF CENTERLINE, 2709 FT MSL.

FENCE 199 FT FROM DER, 349 FT RIGHT OF CENTERLINE, 2713 FT MSL.

TERRAIN 290 FT FROM DER, 569 FT RIGHT OF CENTERLINE, 2714 FT MSL.

TERRAIN 888 FT FROM DER, 703 FT RIGHT OF CENTERLINE, 2732 FT MSL.

FENCE 1134 FT FROM DER, 670 FT RIGHT OF CENTERLINE, 2743 FT MSL.

CONTROLLING OBSTACLES:

RWY 12: 2906 FT MSL TOWER 460008.99N/1023751.06W (CLIMB GRADIENT, CLIMB-TO ALTITUDE, CEILING); 2859 FT MSL TREE 460011.54N/1023739.01W (VISIBILITY).

OBSTACLE MANDATING ODP ROUTE DEVELOPMENT: RWY 30: 3393 FT MSL WINDMILL 460419.43N/1023813.06W.

REMARKS:

FLIGHT INSPECTED BY:	<i>Digitally signed by</i> ROBERT G HAMILTON Aug 06, 2018	OFFICE SYMBOL:	DATE:
BRANDON VANDERSCHAAF		FICO	7/31/18
DEVELOPED BY:	<i>Digitally signed by</i> JEFFREY ROBINSON Jun 08, 2018	OFFICE SYMBOL:	DATE:
JEFFREY ROBINSON		AJV-5421	05/11/2018
APPROVED BY:	<i>Digitally signed by</i> ROBERT G HAMILTON Aug 06, 2018	OFFICE SYMBOL:	DATE:
JULIE MORGAN		AJV-5420	

REQUIRED EFFECTIVE DATE:

ROUTINE

QUALITY
3
CHECKED

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

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CITY, STATE
HETTINGER, ND

AIRPORT
HETTINGER MUNI

EFFECTIVE DATE **AMDT NO**
8 NOVEMBER 2018 3

COORDINATED WITH:

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

OTHER:
ZMP, APT MGR

CHANGES - REASONS:

1. TAKEOFF MINIMUMS, RWY 12, CHANGED CEILING-VIS FROM 300-1 TO 300-1 1/4 - TO ACCOMMODATE 60-FT ADVERSE VEGETATION INSIDE THE ICA AND OUTSIDE THE SURVEY AREA.
2. TAKEOFF MINIMUMS, RWY 12, CHANGED MINIMUM CLIMB GRADIENT FROM 324 TO 301 - RECALCULATED BASED ON CURRENT OBSTACLE SURVEY DATA.
3. ADDED TEXTUAL DEPARTURE PROCEDURE, RWY 30: CLIMB HEADING 307.60 TO 3200 BEFORE TURNING RIGHT - TO MITIGATE NEW SURVEY OBSTACLES LOCATED IN THE DIVERSE A AREA, 3-3.5 NM NE OF THE AIRPORT.
4. UPDATED TAKEOFF OBSTACLE NOTES - TO REFLECT NEW OBSTACLE SURVEY DATA.
5. UPDATED CONTROLLING OBSTACLE DATA - PER CURRENT OBSTACLE DATA AND DOCUMENTATION CRITERIA.



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> STANLEY MUNI	<u>AIRPORT ID</u> K08D	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 27	<u>ORIGINAL/AMENDMENT</u> 1	<u>CITY</u> STANLEY	<u>STATE</u> ND
<u>AIRPORT ELEVATION</u> 2245	<u>TDZE</u> 2244	<u>SUPERSEDED</u> RNAV (GPS) RWY 27	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>DATED</u> 07/05/2007	<u>MAG VAR</u> 10E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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. 188/30 CW 008/30	NOPT	EXIHO	IF/IAF	4300
2. 008/30 CW 098/30		ULMUW	IAF	4300
3. 098/30 CW 188/30		ISROQ	IAF	4300

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>
ISROQ	IAF	EXIHO	NOPT	TF	FB	1.00	188.37	5.00	4300
ULMUW	IAF	EXIHO	NOPT	TF	FB	1.00	008.31	5.00	4300
EXIHO	IF/IAF	OZRAJ		TF	FB	1.00	278.34	5.00	3900
OZRAJ	FAF	ZEKAV/2.10 NM TO RW27		TF	FB	0.30	278.25	2.99	
ZEKAV/2.10 NM TO RW27		RW27	MAP	TF	FO	0.30	278.25	2.10	
RW27	MAP	2620 MSL		CA			278.25		
2620 MSL		EWXUR		DF	FO	1.00			5000

MISSED APPROACH

MAP:

LNAV: RW27

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 5000 DIRECT EWXUR AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)
2. HOLD E EXIHO, RT, 278.34 INBOUND, 4300 FT. IN LIEU OF PT (IAF), MAX 6000.
3. FAC: 278.25FAF: OZRAJDIST FAF TO MAP: 5.09DIST FAF TO THLD: 5.09
4. MIN ALT: EXIHO 4300, OZRAJ 3900, ZEKAV/2.10 NM TO RW27 2940
5. DIST TO THLD FROM OM:MM:IM:150 HAT:GS ANT:MM:IM:
6. MIN GP INCPT:GP ALT AT FAF :OM:
7. GP ANGLE:34:1: IS NOT CLEAR20:1: IS NOT CLEARTCH:
8. MSA FROM:

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: PROCEDURE NA AT NIGHT.
CHART NOTE: RWY 27 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED.
CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).

ADDITIONAL FLIGHT DATA:

2517 AAO 481554N/1021645W
CHART CIRCLING ICON.
OZRAJ TO RW27: 3.00/40.
CHART FAS OBST: 2308 ELEVATOR 481802N/1022303W.
HOLD W, RT, 097.97 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
LNAV MDA	2620	1	376	2620	1	376		NA			NA				
CIRCLING	2720	1	475	2940	1	695		NA			NA				



CHANGES - REASONS

- 1. LOWERED LNAV MDA/HAT FROM 2740/496 TO 2620/376 - RECALCULATED MDA WITHOUT REMOTE ALTIMETER ADJUSTMENT/LOCAL WX NOW AVAIL.
- 2. UPDATED CIRCLING MDA/HAA/VIS CAT A/B FROM 2900/655/1 TO CAT A 2720/475/1 CAT B 2940/695/1 - OBSTACLE EVALUATION WITH NEW CIRCLING RADII AND CALCULATED CMDA WITHOUT REMOTE ALTIMETER ADJUSTMENT/LOCAL WX NOW AVAIL/VIS CK.
- 3. UPDATED UNNAMED SDF AT 1.80NM TO RW27/2800 TO ZEKAV/2.10 NM TO RW27/2940 - ALL NAV FIXES MUST BE NAMED IAW 8260.19H/RECALCULATED OPTIMUM ALTITUDE AND LOCATION WITH RA ADJUSTMENT.
- 4. UPDATED CHART PROFILE NOTE FROM VGSI AND DESCENT ANGLES NOT COINCIDENT TO VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}) -NOTE FORMAT IAW 8260.19H
- 5. ADDED PBN REQUIREMENTS NOTE: RNP APCH. - IAW 8260.19H
- 6. REMOVED CHART NOTES: GPS OR RNP-0.3 REQUIRED AND DME/DME RNP-0.3 NA - NO LONGER REQUIRED.
- 7. ADDED CHART CIRCLING ICON - NEW RADIUS APPLIED.
- 8. UPDATED FAS OBSTACLE - OBSTACLE EVALUATION.
- 9. UPDATED HIL; ADDED MAX ALT 6000 - IAW 8260.19H
- 10. UPDATED ALTERNATE FROM NA TO STANDARD - LOCAL ALTIMETER SOURCE AWOS-3
- 11. ADDED NOTE: PROCEDURE NA AT NIGHT - NO SURVEY DATA; UNABLE TO VERIFY VISUAL SURFACE CLEAR.
- 12. CHANGED 34:1 IS CLEAR TO 34:1 IS NOT CLEAR AND ADDED 20:1 IS NOT CLEAR - NO SURVEY DATA; UNABLE TO VERIFY VISUAL SURFACE CLEAR.
- 13. ADDED RWY 27 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED - NO SURVEY DATA; UNABLE TO VERIFY VISUAL SURFACE CLEAR.



COORDINATED WITH:

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

FLIGHT CHECKED BY

BRANDON VANDERSCHAAF

Digitally signed by
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DATE

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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> SLOULIN FLD INTL	<u>AIRPORT ID</u> KISN	<u>PROCEDURE NAME</u> ILS OR LOC RWY 29	<u>ORIGINAL/AMENDMENT</u> 4B	<u>CITY</u> WILLISTON	<u>STATE</u> ND	
<u>AIRPORT ELEVATION</u> 1982	<u>TDZE</u> 1930	<u>SUPERSEDED</u> ILS OR LOC RWY 29	<u>ORIGINAL/AMENDMENT</u> 4A	<u>DATED</u> 12/07/2017	<u>MAG VAR</u> 9E	<u>EPOCH YEAR</u> 2010
<u>FACILITY</u> I-SFW	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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>
ISN VOR/DME		YURCU/ISN 12.57 DME					117.96	12.57	4000
OFEgy/ISN 20.00 DME CCW	IAF	KULJI/ISN 20.00 DME	NOPT				20.00 DME ARC (ISN LR-122)		4100
UNCUP/ISN 20.00 DME CW	IAF	KULJI/ISN 20.00 DME	NOPT				20.00 DME ARC (ISN LR-110)		4100
KULJI/ISN 20.00 DME	IF	YURCU/ISN 12.57 DME					295.21	7.46 (I-SFW)	3900

MISSED APPROACH

MAP:

ILS: DA
LOC: 5.88 NM AFTER YURCU OR AT ISN 6.74 DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2500 THEN CLIMBING RIGHT TURN TO 4000 DIRECT ISN VOR/DME AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT L **SIDE OF COURSE** 115.21 **OUTBOUND** 4000 **FT WITHIN** 10 **MILES OF** YURCU/ISN 12.57 DME (IAF)

2.

3. **FAC:** 295.21 **FAF:** YURCU/ISN 12.57 DME **DIST FAF TO MAP:** 5.88 **DIST FAF TO THLD:** 5.88

4. **MIN ALT:** YURCU/ISN 12.57 DME 3900

5. **DIST TO THLD FROM OM:** **MM:** **IM:** **150 HAT:** **GS ANT:** 800

6. **MIN GS INCPT:** 3900 **GS ALT AT FAF :** YURCU/ISN 12.57 DME **OM:** 3850 **MM:** **IM:**

7. **GP ANGLE:** 3.00 **34:1:** **20:1:** **TCH:** 51.8

8. **MSA FROM:** ISN VOR/DME 4300

EQUIPMENT REQUIREMENTS NOTES:



DME REQUIRED FOR PROCEDURE ENTRY.
DME REQUIRED.

NOTES:

CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE SIDNEY ALTIMETER SETTING: INCREASE DA TO 2215 FEET; INCREASE ALL MDA'S 100 FEET AND VISIBILITY CATS C AND D 1/4 SM.
CHART NOTE: FOR INOPERATIVE ALS, INCREASE S-LOC 29 CATS C AND D VISIBILITY TO 1 3/8.
CHART NOTE: FOR INOPERATIVE ALS WHEN USING SIDNEY ALTIMETER SETTING, INCREASE S-ILS 29 ALL CATS VISIBILITY TO 7/8.
CHART NOTE: DME FROM ISN VOR/DME. SIMULTANEOUS RECEPTION OF I-SFW AND ISN DME REQUIRED.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON ISN VOR/DME AIRWAY RADIALS 077 CW 142.

ADDITIONAL FLIGHT DATA:

CHART ISN R-251 AT OFEGY.
CHART ISN R-077 AT UNCUP.
HOLD NW, RT, 125.00 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 29	2130	1/2	200	2130	1/2	200	2130	1/2	200	2130	1/2	200			
S-LOC 29	2420	1/2	490	2420	1/2	490	2420	1	490	2420	1	490			
CIRCLING	2560	1	578	2580	1	598	2600	1 3/4	618	2620	2	638			

CHANGES - REASONS

- 1. REMOVED CHART NOTE "OM IN HALF-TONE" - YUCON OM DECOMMISSIONED.
- 2. MOVED "DME REQUIRED" FROM CHART NOTES TO EQUIPMENT REQUIREMENT NOTES - IAW 8260.19H, CHAPTER 8.
- 3. ADDED DME REQUIRED FOR PROCEDURE ENTRY TO EQUIPMENT NOTES - REPLACES PLANVIEW NOTE.



COORDINATED WITH:

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

FLIGHT CHECKED BY

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

DEVELOPED BY

LONNIE EVERHART (DALE SICKELS)

Digitally signed by
ROBERT G HAMILTON
Aug 21, 2018

APPROVED BY

LONNIE EVERHART

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Aug 21, 2018

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OFFICE

AJV-5400

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AJV-5400

DATE

DATE

07/11/2018

DATE

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Aug 21, 2018

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> WESTERN NEBRASKA RGNL/WILLIAM B HEILIG FIELD	<u>AIRPORT ID</u> KBFF	<u>PROCEDURE NAME</u> ILS OR LOC RWY 30	<u>ORIGINAL/AMENDMENT</u> 11	<u>CITY</u> SCOTTSBLUFF	<u>STATE</u> NE
<u>AIRPORT ELEVATION</u> 3967	<u>TDZE</u> 3952	<u>SUPERSEDED</u> ILS OR LOC RWY 30	<u>ORIGINAL/AMENDMENT</u> 10A	<u>DATED</u> 02/05/2015	<u>MAG VAR</u> 10E
<u>FACILITY</u> I-BFF	<u>COORDINATES OF FACILITIES</u> 415303.36N / 1033627.18W	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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>
BFF VORTAC		CREVE INT/I-BFF 7.19 DME					172.99	5.76	6200
JUNUM/BFF 13.67 DME CW	IAF	MEILE INT/I-BFF 16.44 DME	NOPT				13.67 DME ARC		6500
ZIKRU/BFF VORTAC 13.67 DME CCW	IAF	MEILE INT/I-BFF 16.44 DME	NOPT				13.67 DME ARC (BFF LR-151)		6500
MEILE INT/I-BFF 16.44 DME	IF/IAF	CREVE INT/I-BFF 7.19 DME					305.60	9.25 (I-BFF)	5800

MISSED APPROACH

MAP:

ILS: DA

LOC: 5.36 NM AFTER CREVE INT/I-BFF 7.19 DME OR AT CESUB/ILS 1.83 DME FIX

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 5800 THEN CLIMBING RIGHT TURN TO 6200 DIRECT BFF VORTAC AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

- PT R SIDE OF COURSE 125.60 OUTBOUND 6200 FT WITHIN 10 MILES OF CREVE (IAF)
-
- FAC: 305.60 FAF: CREVE INT/I-BFF 7.19 DME DIST FAF TO MAP: 5.36 DIST FAF TO THLD: 5.66
- MIN ALT: CREVE INT/I-BFF 7.19 DME 5800
- DIST TO THLD FROM OM: MM: IM: 150 HAT: GS ANT: 973
- MIN GS INCPT: 5800 GS ALT AT FAF : CREVE INT/I-BFF 7.19 DME 5800 OM: 5737 MM: IM:
- GP ANGLE: 3.00 34:1: 20:1: TCH: 53.1
- MSA FROM: BFF VORTAC 360-270 6800, 270-360 6300

EQUIPMENT REQUIREMENTS NOTES:



NOTES:

CHART NOTE: FOR INOPERATIVE ALS, INCREASE S-LOC 30 CATS C AND D VISIBILITY TO 1 SM.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
CHART BFF R-059 AT JUNUM.
CHART BFF R-256 AT ZIKRU.
CHART VDP AT 2.48 DME*
DISTANCE VDP TO THLD 0.95 NM
* LOC ONLY
FAS OBST: 4039 AAO 414923N/1033210W.
HOLD NE, RT, 245.00 INBOUND

MINIMUMS:

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

ALTERNATE: NA ☐ ILS: STANDARD - NA WHEN LOCAL WEATHER NOT AVAILABLE.; LOC: 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
S-ILS 30	4152	1/2	200	4152	1/2	200	4152	1/2	200	4152	1/2	200			
S-LOC 30	4300	1/2	348	4300	1/2	348	4300	5/8	348	4300	5/8	348			
CIRCLING	4500	1	533	4500	1	533	4560	1 1/2	593	4740	2 1/2	773			

CHANGES - REASONS

1. CHANGED FAF IN ALL SEGMENTS FROM CREVE LOM TO FIX CREVE INT/I-BFF 7.19 DME - CREVE LOM TO BE DECOMMISSIONED.
2. CHANGED BFF FEEDER COURSE/DIST FROM 174.81/5.54 TO 172.99/5.76 - MOVED CREVE TO PFAF/GS INTERCEPT LOCATION.
3. CHANGED INTERMEDIATE COURSE/DIST FROM 305.60/9.53 TO 305.60/9.25 - FAF RELOCATION.
4. CHANGED MAP DESCRIPTION FROM "5.08 MILES AFTER CREVE LOM/INT/I-BFF 6.91 DME" TO "5.36 NM AFTER CREVE INT/I-BFF 7.19 DME" - RELOCATION OF FAF.
5. REMOVED CNF FIX WIMAX FROM FINAL - FAF FOR PT NOT REQUIRED WHEN THERE IS AN INTERMEDIATE FIX.
6. IN ADDITIONAL FLIGHT DATA, CHANGED VDP DME FROM 2.43 TO 2.48 AND DIST VDP TO THLD FROM 0.90 TO 0.95 - IAPA RESULTS.
7. ADDED CHART CIRCLING ICON NOTE TO ADDITIONAL FLIGHT DATA - USED NEW CIRCLING CRITERIA PER 8260.3C.
8. CHANGED CIRCLING CAT C MDA/HAA FROM 4500/533 TO 4560/593 - NEW CIRCLING CRITERIA LARGER RADIUS.
9. CHANGED CIRCLING CAT D MDA/HAA FROM 4500/533 TO 4740/773 AND VIS FROM 2 TO 2 1/2 - NEW CIRCLING CRITERIA LARGER RADIUS AND VISIBILITY PER VIS CHECK CALCULATOR.
10. CHANGED INOP NOTE FROM "FOR INOPERATIVE MALSR, INCREASE S-LOC CATS C AND D VISIBILITY TO 1 MILE" TO "FOR INOPERATIVE ALS, INCREASE S-LOC 30 CATS C AND D VISIBILITY TO 1 SM".
11. CHANGED ALTERNATE MINS FROM #700-2 TO @800-2 - INCREASE IN CIRCLING CAT D MDA.
12. LINE 5, REMOVED DISTANCE TO THLD FROM OM AND GS ALT FROM OM ON LINE 7 - DECOMMISSIONED OUTER MARKER.
13. MOVED BACKUP ALTIMETER SETTING SOURCE NOTES FROM THE -3 TO REMARKS ON THE -9 - CURRENT CRITERIA FOR PRIMARY SOURCE ON SERVICE A.
14. CHANGED MSA FACILITY FROM CREVE LOM TO BFF VORTAC - CREVE LOM DECOMMISSIONED.
15. DELETED ALTERNATE MISSED APPROACH - WITH DECOMMISSIONING OF THE CREVE LOM NO ALTERNATE AVAILABLE, PER FPT.



COORDINATED WITH:

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

FLIGHT CHECKED BY

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DONALD H LANIER

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TITLE

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> CENTRAL JERSEY RGNL	<u>AIRPORT ID</u> K47N	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 25	<u>ORIGINAL/AMENDMENT</u> 2	<u>CITY</u> MANVILLE	<u>STATE</u> NJ
<u>AIRPORT ELEVATION</u> 86	<u>TDZE</u> 85	<u>SUPERSEDED</u> RNAV (GPS) RWY 25	<u>ORIGINAL/AMENDMENT</u> 1D	<u>DATED</u> 06/22/2017	<u>MAG VAR</u> 13W
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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>
SBJ VOR/DME		JOKMI		TF	FB	2.00	038.73	13.02	2500
JOKMI		ATUCA		TF	FB	2.00	119.02	9.08	2500
ATUCA	IAF	YODUR		TF	FB	1.00	179.23	6.60	2000
YODUR	IF	ZOMIM		TF	FB	1.00	249.27	6.55	1700
ZOMIM	FAF	DUYAB/1.46 NM TO RW25		TF	FB	0.30	249.14	3.08	
DUYAB/1.46 NM TO RW25		RW25	MAP	TF	FO	0.30	249.14	1.46	
RW25	MAP	600 MSL		CA			249.14		600
600 MSL		METRO		DF	FO	1.00			2000

MISSED APPROACH

MAP:

LP: RW25
 LNAV: RW25

MISSED APPROACH INSTRUCTIONS:

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

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. PROFILE STARTS AT YODUR

3. FAC:

249.14

FAF: ZOMIM

DIST FAF TO MAP: 4.55

DIST FAF TO THLD: 4.55

4. MIN ALT: YODUR 2000, ZOMIM 1700, DUYAB/1.46 NM TO RW25 620

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 NOT CLEAR

20:1: IS NOT CLEAR

TCH:

8. MSA FROM: RW25 2900

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: PROCEDURE NA AT NIGHT.
CHART NOTE: RWY 25 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON SBJ VOR/DME AIRWAY RADIALS 309 CW 117.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT JOKMI ON V252 NORTHBOUND.
CHART NOTE: USE TRENTON MERCER ALTIMETER SETTING.

ADDITIONAL FLIGHT DATA:

CHART TRENTON ASOS.
CHART CIRCLING ICON.
ZOMIM TO RW25: 3.30/40.3.
WAAS CHANNEL #53424
REFERENCE PATH ID: W25A
CHART FAS OBST: 157 TREE 403149N/0743512W.
FAS OBST: 209 TREE 403205N/0743352W.
HOLD E, RT, 281.68 INBOUND
LTP HAE: -12.9 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
LP MDA	480	1	395	480	1	395	480	1 1/8	395		NA				
LNAV MDA	520	1	435	520	1	435	520	1 1/4	435		NA				
CIRCLING	620	1	534	660	1	574	660	1 1/2	574		NA				



CHANGES - REASONS

ZOMIM TO RW25: ANGLE/TCH CHANGED FROM 3.00/40 TO 3.30/40.3 - PROCEDURE REDESIGN TO MATCH VGSI 3.30 ANGLE/TCH 40.3.
STEPDOWN FIX DISTANCE CHANGED FROM DUYAB/1.70 NM TO DUYAB/1.46 - PROCEDURE REDESIGN TO MATCH VGSI 3.30 ANGLE/TCH 40.3.
FAC CHANGED FROM 249.18 TO 249.14 - FAF MOVED 2811 FT SW.
DIST FAF TO MAP/THLD CHANGED FROM 5.01 TO 4.55 - FAF MOVED 2811 FT SW
YODUR TO ZOMIM COURSE/DISTANCE CHANGED FROM 249.25 / 6.09 TO 249.27 / 6.55 - ZOMIM (FAF) MOVED 2811 FT SW.
ZOMIM TO DUYAB/1.46 NM TO RW25 COURSE/DISTANCE CHANGED FROM 249.18 / 3.31 TO 249.14 / 3.08 - PROCEDURE REDESIGN TO MATCH VGSI 3.30 ANGLE/TCH 40.3.
DUYAB/1.46 NM TO RW25 TO RW25 COURSE/DISTANCE CHANGED FROM 249.18/1.70 TO 249.14 / 1.46 - PROCEDURE REDESIGN TO MATCH VGSI 3.30 ANGLE/TCH 40.3.
MAP TO CA CHANGED FROM RW25 TO 480 MSL, COURSE 249.18 TO RW25 CHANGED TO 600 MSL, COURSE 249.14, AND ALTITUDE 600 - NEW MISSED APPROACH INSTRUCTIONS AND PROCEDURE REDESIGN TO MATCH VGSI 3.30 ANGLE/TCH 40.3.
ADDED 600 MSL TO METRO, ALTITUDE 2000 - NEW MISSED APPROACH INSTRUCTIONS.
DELETED 480 MSL TO CASUB - NEW MISSED APPROACH INSTRUCTIONS.
DELETED CASUB TO METRO, COURSE 200.45/4.32, AND ALTITUDE 2000 - NEW MISSED APPROACH INSTRUCTIONS.
MISSED APPROACH INSTRUCTIONS CHANGED FROM CLIMB TO 2000 DIRECT CASUB AND ON TRACK 200.45 TO METRO AND HOLD "TO" CLIMB TO 600 THEN CLIMBING LEFT TURN TO 2000
DIRECT METRO AND HOLD - FIRST LEG CASUB IS TOO SHORT FOR CURRENT CRITERIA.
DELETED ALL BACK UP ALTIMETER NOTES - CONTINGENCY ALTIMETER INFORMATION LISTED ON THE BACK OF THE 8260-9. KTTN AND KEWR WEATHER SOURCE TRANSMITTED TO WMSCR.
ADDED CHART CIRCLING ICON - NEW CIRCLING RADII.
HELICOPTER NOTE REMOVED RWY 7 - NOTE IS FOR THE RWY THAT THE FAC IS ALIGNED TO.
DELETED CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}) - PROCEDURE REDESIGN TO MATCH VGSI 3.30 ANGLE/TCH 40.3
FAS OBST CHANGED FROM 154 TREE 403149N/0743512W TO FAS OBST: 157 TREE 403149N/0743512W - NEW SURVEY.
MSA CHANGED FROM 2700 TO 2900 - NEW SURVEY.
DELETED CHART NOTE: DME/DME RNP-0.3 NA - REPLACED WITH PBN REQUIREMENT NOTE: RNP APCH.
ADDED PBN REQUIREMENT NOTE: RNP APCH - EQUIPMENT NAVSPEC REQUIREMENTS.
LP HAT ALL CATS CHANGED FROM 398 TO 395 - TDZE CHANGED FROM 82 TO 85.
LNAV HAT ALL CATS CHANGED FROM 438 TO 435 - TDZE CHANGED FROM 82 TO 85.
LNAV CAT C VISIBILITY CHANGED FROM 1 3/8 TO 1 1/4 - AJV VALIDATED VISCHECK (NEW INOP TABLE) CALCULATOR.
CIRCLING CAT A MDA/HAA CHANGED FROM 580/494 TO 620/534 - NEW SURVEY AND NEW CIRCLING RADII.
CIRCLING CAT B/C MDA/HAA CHANGED FROM 700/614 TO 660/574 - NEW CONTROLLING OBSTACLE AND NO ACCURACY CODE ADJUSTMENT.
CIRCLING CAT C VISIBILITY CHANGED FROM 1 3/4 TO 1 1/2 - HAT CHANGED FROM 614 TO 574.

FAS DATA CHANGES AND REASONS:
LTP/FTP LATITUDE CHANGED FROM 403136.2000N TO 403136.1985N - CURRENT AIRNAV.
LTP/FTP LONGITUDE CHANGED FROM 0743537.8300W TO 0743537.8325W - CURRENT AIRNAV.
LTP/FTP ELLIPSOIDAL HEIGHT CHANGED FROM -00131 TO -00129 - CURRENT AIRNAV.
FPAP LATITUDE CHANGED FROM 403046.4900N TO 403046.4420N - FAF MOVED 2811 FT SW.
FPAP LONGITUDE CHANGED FROM 0743714.8200W TO 0743714.7810W - FAF MOVED 2811 FT SW.
THRESHOLD CROSSING HEIGHT (TCH) CHANGED FROM 00040.0 TO 00040.3 - PROCEDURE REDESIGN TO MATCH VGSI 3.30 ANGLE/TCH 40.3.
GLIDEPATH ANGLE (GPA) CHANGED FROM 03.00 TO 03.30 - PROCEDURE REDESIGN TO MATCH VGSI 3.30 ANGLE/TCH 40.3.
LENGTH OFFSET CHANGED FROM 1760 TO 1768 - CURRENT AIRNAV.
CRC REMAINDER CHANGED FROM 9324F087 TO 7E059988 - RESULT OF FAS DATA BLOCK INFORMATION CHANGES.
LTP ORTHOMETRIC HEIGHT CHANGED FROM +00198 TO +00204 - RESULT OF FAS DATA BLOCK INFORMATION CHANGES.
FPAP ORTHOMETRIC HEIGHT CHANGED FROM +00198 TO +00204 - RESULT OF FAS DATA BLOCK INFORMATION CHANGES.

PREVIOUS P-NOTAM CHANGES AND REASONS INCORPORATED IN THIS AMENDMENT.



<u>AIRPORT</u> CENTRAL JERSEY RGNL	<u>AIRPORT ID</u> K47N	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 25	<u>ORIGINAL/AMENDMENT</u> 2	<u>CITY</u> MANVILLE	<u>STATE</u> NJ
<u>COORDINATED WITH:</u>					
A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ <u>OTHER:</u> NY TRACON, AIRPORT MANAGER.					
<u>FLIGHT CHECKED BY</u> STEPHEN BAUER		<i>Digitally signed by</i> DEZ SILAGYI Aug 21, 2018	<u>OFFICE</u> FICO	<u>DATE</u> 8/16/18	
<u>DEVELOPED BY</u> DEANNA M. FIELDS		<i>Digitally signed by</i> DEANNA M FIELDS Jul 10, 2018	<u>OFFICE</u> AJV-5421	<u>DATE</u> 06/26/2018	
<u>APPROVED BY</u> JULIE MORGAN		<i>Digitally signed by</i> DEZ SILAGYI Aug 21, 2018	<u>OFFICE</u> AJV-5420	<u>DATE</u>	<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> BATTLE MOUNTAIN	<u>AIRPORT ID</u> KBAM	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 4	<u>ORIGINAL/AMENDMENT</u> 1	<u>CITY</u> BATTLE MOUNTAIN	<u>STATE</u> NV
<u>AIRPORT ELEVATION</u> 4536	<u>TDZE</u> 4536	<u>SUPERSEDED</u> RNAV (GPS) RWY 3	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>DATED</u> 04/15/2004	<u>MAG VAR</u> 13E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<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>
BAM VORTAC		DIYLA		TF	FO	2.00	210.11	10.86	8900
RAJKO	IAF	DIYLA	NOPT	TF	FB	1.00	087.94	10.25	8900
DIYLA	IF/IAF	EBREQ		TF	FB	1.00	026.96	7.22	6600
EBREQ	FAF	ZOLPI/1.70 NM TO SIHEJ		TF	FB	0.30	036.02	3.53	
ZOLPI/1.70 NM TO SIHEJ		SIHEJ	MAP	TF	FO	0.30	036.02	1.70	
SIHEJ	MAP	5500 MSL		CA			036.02		5500
5500 MSL		DIYLA		DF	FO	1.00			8900

MISSED APPROACH

MAP:

LP: SIHEJ
 LNAV: SIHEJ

MISSED APPROACH INSTRUCTIONS:

(DO NOT EXCEED 175 KIAS UNTIL DIYLA) CLIMB TO 5500 THEN CLIMBING LEFT TURN TO 8900 DIRECT DIYLA
 AND HOLD, DO NOT EXCEED 230 KIAS WHEN CONTINUING CLIMB-IN-HOLD TO 8900.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. HOLD SW DIYLA, LT, 049.00 INBOUND, 8900 FT. IN LIEU OF PT (IAF), MAX 14000.

3. FAC:

036.02

FAF: EBREQ

DIST FAF TO MAP: 5.23

DIST FAF TO THLD: 5.93

4. MIN ALT: DIYLA 8900, EBREQ 6600, ZOLPI/1.70 NM TO SIHEJ 5400

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 CLEAR

20:1: IS CLEAR

TCH:

8. MSA FROM: SIHEJ 10900

PBN REQUIREMENTS NOTES:

RNP APCH

NOTES:

CHART PROFILE NOTE: VGSJ AND DESCENT ANGLES NOT COINCIDENT (VGSJ ANGLE {ANGLE}/TCH {FEET}).
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT BAM VORTAC ON V32 EASTBOUND.

ADDITIONAL FLIGHT DATA:

CHART FALLON NORTH MOAS.
CHART PLANVIEW NOTE: 175 KIAS (MISSED APPROACH ONLY) ICON.
CHART CIRCLING ICON.
EBREQ TO RW04: 3.2/50.
WAAS CHANNEL #90143
REFERENCE PATH ID: W04A
CHART FAS OBST: 4605 TREE 403506N/1165335W.
4661 WINDMILL 403451N/1165322W.
LTP HAE: 1361.8 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
LP MDA	4860	1	324	4860	1	324		NA			NA				
LNAV MDA	5020	1	484	5020	1	484		NA			NA				
CIRCLING	5020	1	484	5020	1	484		NA			NA				



AIRPORT	AIRPORT ID	PROCEDURE NAME	ORIGINAL/AMENDMENT	CITY	STATE
BATTLE MOUNTAIN	KBAM	RNAV (GPS) RWY 4	1	BATTLE MOUNTAIN	NV

CHANGES - REASONS

1. CHANGED FAC FROM 27.03 TO 36.02 - AIRPORT MAG VAR CHANGED AND ALIGN WITH RUNWAY.
2. MOVED IF FIX DIYLA 3789.91 FT. SW, FAF FIX EBREQ 3821.75 FT. E, AND MAP FIX SIHEJ 1254.08 FT. NE - TERRAIN AND NEW FAC.
3. CHANGED FEEDER FROM BAM VORTAC CRS/DIST FROM 206.11/10.24 TO 210.11/10.86 - NEW IF LOCATION AND MAG VAR CHANGE.
4. CHANGED INITIAL FROM FIX RAJKO CRS/DIST FROM 081.05/10.59 TO 087.94/10.25 - NEW IF LOCATION AND MAG VAR CHANGE.
5. CHANGED INTERMEDIATE CRS/DIST FROM 026.83/7.00 TO 026.96/7.22 - NEW FIX LOCATIONS AND MAGVAR CHANGE.
6. ADDED FINAL STEP DOWN AT FIX ZOLPI - ACHIEVE LOWER MINIMUMS.
7. ADDED LP MINIMUMS- ATC REQUEST.
8. CHANGED FEEDER ALTITUDE FROM 9000 TO 8900AND INITIAL ALTITUDE FROM 8200 TO 8900 AND INTERMEDIATE ALTITUDE FROM 6500 TO 6600 - ATC REQUEST.
9. CHANGED MISSED APPROACH HOLDING AND HOLD-IN-LIEU INBOUND FROM 041.55 TO 049.00 AND ALTITUDE FROM 8200 TO 8900 - NEW FIX LOCATIONS AND HIGH TERRAIN.
10. RAISED MISSED APPROACH ALTITUDE FROM 8200 TO 8900 - MATCH HOLDING PATTERN ALTITUDE.
11. CHANGED DIST FAF TO THLD FROM 5.49 TO 5.93 - NEW FIX LOCATIONS AND FAC.
12. CHANGED FAS OBSTACLE FROM 4654 TREE 403218N/1165730W TO 4605 TREE 403506N/1165335W - NEW LP FINAL AND NEW SURVEY.
13. CHANGED DESCENT ANGLE FROM 3.29 TO 3.20- ATC REQUEST.
14. EXPANDED CIRCLING AREA AND ADDED CHART CIRCLING ICON TO ADDITIONAL FLIGHT DATA - FAAO 8260.3C CHAPTER 2 NEW CIRCLING CRITERIA.
15. DELETED CHART VDP - VDP TOO CLOSE TO MAP.
16. ADDED WAAS CHANNEL # 90143 TO ADDITIONAL FLIGHT DATA - LP MINIMUMS ADDED.
17. LOWERED LNAV MDA FROM 5040 TO 5020 - NEW SURVEY, STEPDOWN AND NEW FAAO 8260.3C CHAPTER 3 VISI CALCULATIONS.
18. LOWERED A/B CIRCLING MDA/HAA FROM 5040/508 TO 4980/444 AND 5020/484 - LOWER SI MDA AND NEW CONTROLLING OBSTACLE.
19. CHANGED PROCEDURE NAME FROM RNAV (GPS) RWY 3 TO RNAV (GPS) RWY 4 - AIRPORT MAGVAR CHANGE FROM 17E TO 13E AND RWY RENUMBERING.
20. UPDATED NOT COINCIDENT NOTE TO CURRENT FORMAT - FAAO 8260.19H PARAGRAPH 8-6-9 M.
21. ADDED PBN EQUIPMENT REQUIREMENTS NOTE - FAAO 8260.19H PARAGRAPH 8-6-8 B (1).
22. ELIMINATED CATEGORY C MINIMUMS. - HIGH TERRAIN REQUIRES REDUCED SPEED MISSED APPROACH THAT PRECLUDES CATS C/D (FAAO 8260.3C PARAGRAPH 17-2-3B(1).)
23. CHANGED ARRIVAL PLANVIEW NOTES FROM: PROCEDURE NA FOR ARRIVAL VIA V32 NONRTHEAST BOUND AND PROCEDURE NA FOR ARRIVAL AT RAJKO VIA V6 SOUTHWEST BOUND TO: PROCEDURE NA FOR ARRIVALS AT BAM VORTAC ON V32 EASTBOUND. - FAAO 8260.19H PARAGRAPH 8-2-5 E AND G.

PDF EDITS:

1. DELETE MISSED PENETRATOR FOR THE LP MISSED ON THE 8260-9.



COORDINATED WITH:

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

FLIGHT CHECKED BY

EDWARD W MESA
Digitally signed by
DONALD H LANIER
Jul 18, 2018

DEVELOPED BY

LIAM DONAHUE
Digitally signed by
LIAM DONAHUE
Jun 11, 2018

APPROVED BY

PATRICK MULQUEEN
Digitally signed by
DONALD H LANIER
Jul 18, 2018

OFFICE

FICO

OFFICE

AJV-5431

OFFICE

AJV-5430

DATE

07/17/2018

DATE

03/05/2018

DATE

TITLE

MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KBAM
RUNWAY	RW04
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W04A
LTP/FTP LATITUDE	403537.8115N
LTP/FTP LONGITUDE	1165305.9075W
LTP/FTP ELLIPSOIDAL HEIGHT	+13618
FPAP LATITUDE	403636.2015N
FPAP LONGITUDE	1165137.5065W
THRESHOLD CROSSING HEIGHT (TCH)	00050.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.20
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0528
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	0.0
CRC REMAINDER	31DD2F96
<u>ADDITIONAL PATH POINT RECORD INFORMATION</u>	
ICAO CODE	K2
LTP ORTHOMETRIC HEIGHT	+13825
FPAP ORTHOMETRIC HEIGHT	+13825



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> BATTLE MOUNTAIN	<u>AIRPORT ID</u> KBAM	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 22	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>CITY</u> BATTLE MOUNTAIN	<u>STATE</u> NV
<u>AIRPORT ELEVATION</u> 4536	<u>TDZE</u> 4533	<u>SUPERSEDED</u>	<u>ORIGINAL/AMENDMENT</u>	<u>DATED</u>	<u>MAG VAR</u> 13E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<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>
BAM VORTAC		HEPOR		TF	FO	2.00	038.13	16.61	8500
UHYUV	IAF	HEPOR	NOPT	TF	FB	1.00	224.80	9.43	8500
JOKNA	IAF	HEPOR	NOPT	TF	FB	1.00	276.13	14.18	8500
HEPOR	IF/IAF	WOGID		TF	FB	1.00	222.15	5.89	6900
WOGID	FAF	ZOWIE/2.60 NM TO RW22		TF	FB	0.30	216.17	4.68	
ZOWIE/2.60 NM TO RW22		RW22	MAP	TF	FO	0.30	216.17	2.60	
RW22	MAP	4753 MSL		CA			216.17		
4753 MSL		OQSUL		DF	FB	1.00			
OQSUL		RAJKO		TF	FO	1.00	251.13	12.09	11900

MISSED APPROACH

MAP:

LPV: DA
 LNAV/VNAV: DA
 LNAV: RW22

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 11900 DIRECT OQSUL AND TRACK 251.13 TO RAJKO AND HOLD, CONTINUE CLIMB-IN-HOLD TO 11900.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)
2. HOLD NE HEPOR, RT, 222.15 INBOUND, 8500 FT. IN LIEU OF PT (IAF), MAX 10500.
3. FAC: 216.17FAF: WOGIDDIST FAF TO MAP: 7.28DIST FAF TO THLD: 7.28
4. MIN ALT: HEPOR 8500, WOGID 6900, ZOWIE/2.60 NM TO RW22 5400*
5. DIST TO THLD FROM OM:MM:IM:150 HAT:220 HAT: 0.54GS ANT:
6. MIN GP INCPT: 6900GP ALT AT FAF : WOGID 6900OM:MM:IM:
7. GP ANGLE: 3.0034:1: IS CLEAR20:1: IS CLEARTCH: 51.0
8. MSA FROM: RW22 10900

PBN REQUIREMENTS NOTES:

RNP APCH

NOTES:

CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON BAM VORTAC AIRWAY RADIALS 040 CW 059.
CHART NOTE: BARO-VNAV NA.

ADDITIONAL FLIGHT DATA:

CHART FALLON NORTH MOAS.
CHART CIRCLING ICON.
CHART VDP AT 0.83 NM TO RW22*
*LNAV ONLY
WAAS CHANNEL #82741
REFERENCE PATH ID: W22A
CHART FAS OBST: 4583 POLE 403627N/1165224W.
4960 AAO 404227N/1164525W.
HOLD E, RT, 255.00 INBOUND
LTP HAE: 1360.6 M

MINIMUMS:

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

ALTERNATE: NA

☐

STANDARD - CAT D 1000-3

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
LPV DA	4753	1	220	4753	1	220	4753	1	220	4753	1	220			
LNAV/VNAV DA	4808	1	275	4808	1	275	4808	1	275	4808	1	275			
LNAV MDA	4980	1	447	4980	1	447	4980	1 3/8	447	4980	1 3/8	447			
CIRCLING	4980	1	444	5000	1	464	5000	1 1/2	464	5460	3	924			

CHANGES - REASONS

NEW PROCEDURE.

PDF EDITS:
1. DELETE OBSTACLE 12 AS OCS PENETRATOR FROM LPV AND LNAV/VNAV MISSED ON THE -9.



COORDINATED WITH:

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

FLIGHT CHECKED BY

DANIEL C FAVORTIE
Digitally signed by
DONALD H LANIER
Jul 18, 2018

OFFICE

FICO

DATE

7/5/18

DEVELOPED BY

LIAM DONAHUE
Digitally signed by
LIAM DONAHUE

OFFICE

AJV-5431

DATE

03/09/2018

APPROVED BY

PATRICK MULQUEEN
Digitally signed by
DONALD H LANIER
Jun 08, 2018
Jul 18, 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	KBAM
RUNWAY	RW22
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W22A
LTP/FTP LATITUDE	403625.0435N
LTP/FTP LONGITUDE	1165154.4060W
LTP/FTP ELLIPSOIDAL HEIGHT	+13606
FPAP LATITUDE	403526.6505N
FPAP LONGITUDE	1165322.7985W
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	0528
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	35.0
CRC REMAINDER	4CDEB342
<u>ADDITIONAL PATH POINT RECORD INFORMATION</u>	
ICAO CODE	K2
LTP ORTHOMETRIC HEIGHT	+13811
FPAP ORTHOMETRIC HEIGHT	+13811



**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
BATTLE MOUNTAIN, NV	BATTLE MOUNTAIN	8 NOVEMBER 2018	4

TAKEOFF MINIMUMS:

RWY 4, STANDARD WITH MINIMUM CLIMB OF 335 FEET PER NM TO 6300 OR 4800-3 FOR VCOA.
RWY 13, STANDARD WITH MINIMUM CLIMB OF 350 FEET PER NM TO 6500 OR 4800-3 FOR VCOA.
RWY 22, 31, STANDARD.

TEXTUAL DEPARTURE PROCEDURES:

RWY 4 CLIMB HEADING 036.08 TO 8200 BEFORE PROCEEDING ON COURSE.
RWY 13 CLIMBING RIGHT TURN HEADING 240 AND BAM R-205 OUTBOUND TO 10000 BEFORE PROCEEDING ON COURSE.
RWY 22 CLIMB DIRECT BAM VORTAC AND PROCEED ON BAM R-205 OUTBOUND TO 10100 BEFORE PROCEEDING ON COURSE.
RWY 31 CLIMB HEADING 306.10 AND BAM R-324 OUTBOUND TO 9100 BEFORE PROCEEDING ON COURSE.

VISUAL CLIMB OVER AIRPORT:

RWY 4, 13: OBTAIN ATC APPROVAL FOR VCOA WHEN REQUESTING IFR CLEARANCE. CLIMB IN VISUAL CONDITIONS TO CROSS BATTLE MOUNTAIN AIRPORT AT OR ABOVE 9200 BEFORE PROCEEDING ON COURSE.

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 04, TREES BEGINNING 129 FT FROM DER, 18 FT RIGHT OF CENTERLINE, UP TO 45 FT AGL/4570 FT MSL.
TREES BEGINNING 153 FT FROM DER, 55 FT LEFT OF CENTERLINE, UP TO 45 FT AGL/4570 FT MSL.
NOTE: RWY 13, VEHICLE ON ROAD 15 FT FROM DER, 171 FT RIGHT OF CENTERLINE, 4558 FT MSL.
SIGN 19 FT FROM DER, 250 FT LEFT OF CENTERLINE, 4 FT AGL/4537 FT MSL.
TREE, VEHICLE ON ROAD BEGINNING 42 FT FROM DER, 23 FT RIGHT OF CENTERLINE, UP TO 55 FT AGL/4566 FT MSL.
TREES BEGINNING 116 FT FROM DER, 151 FT LEFT OF CENTERLINE, UP TO 45 FT AGL/4566 FT MSL.
TREES BEGINNING 120 FT FROM DER, 47 FT RIGHT OF CENTERLINE, UP TO 45 FT AGL/4570 FT MSL.
TREES BEGINNING 497 FT FROM DER, 127 FT LEFT OF CENTERLINE, UP TO 45 FT AGL/4570 FT MSL.
TREES BEGINNING 731 FT FROM DER, 71 FT RIGHT OF CENTERLINE, UP TO 45 FT AGL/4573 FT MSL.
TREES BEGINNING 956 FT FROM DER, 79 FT LEFT OF CENTERLINE, UP TO 45 FT AGL/4573 FT MSL.
TREES 1493 FT FROM DER, 667 FT RIGHT OF CENTERLINE, 45 FT AGL/4576 FT MSL.
NOTE: RWY 22, TREE, NAVAID, WIND INDICATOR BEGINNING 101 FT FROM DER, 13 FT RIGHT OF CENTERLINE, UP TO 45 FT AGL/4570 FT MSL.
TREES BEGINNING 125 FT FROM DER, 133 FT LEFT OF CENTERLINE, UP TO 45 FT AGL/4570 FT MSL.
TREES BEGINNING 499 FT FROM DER, 60 FT LEFT OF CENTERLINE, UP TO 45 FT AGL/4573 FT MSL.
TREES BEGINNING 1270 FT FROM DER, 215 FT LEFT OF CENTERLINE, UP TO 45 FT AGL/4576 FT MSL.
NOTE: RWY 31, VEGETATION 33 FT FROM DER, 487 FT LEFT OF CENTERLINE, 4540 FT MSL.
TREES BEGINNING 50 FT FROM DER, 80 FT RIGHT OF CENTERLINE, UP TO 45 FT AGL/4573 FT MSL.
TREES BEGINNING 124 FT FROM DER, 46 FT LEFT OF CENTERLINE, UP TO 45 FT AGL/4573 FT MSL.

CONTROLLING OBSTACLES:

RWY 4, 13, 22, 31: OBSTACLE MANDATING ODP ROUTE DEVELOPMENT 9816 FT MSL AAO 402415.00N/1165142.00W
RWY 4: 5748 FT MSL AAO 403845.00NN/1164527.00W
RWY 13: 5762 FT MSL AAO 402903.21N/1165057.91W

RWY 4, 13: (VCOA-DIVERSE AREA) 9830 FT MSL AAO, 402412.00N/1165200.00W (VCA) 5053 FT MSL AAO, 403615.00N/1165830.00W.

REMARKS:

FLIGHT INSPECTED BY:	<i>Digitally signed by</i> DONALD H LANIER	OFFICE SYMBOL:	DATE:
DANIEL C FAVORITE	Jul 18, 2018	FICO	7/5/18
DEVELOPED BY:	<i>Digitally signed by</i> LIAM DONAHUE	OFFICE SYMBOL:	DATE:
LIAM DONAHUE	May 24, 2018	AJV-5431	05/24/2018
APPROVED BY:	<i>Digitally signed by</i> DONALD H LANIER	OFFICE SYMBOL:	DATE:
PATRICK MULQUEEN	Jul 18, 2018	AJV-5430	

QUALITY
3
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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CITY, STATE	AIRPORT	EFFECTIVE DATE	AMDT NO
BATTLE MOUNTAIN, NV	BATTLE MOUNTAIN	8 NOVEMBER 2018	4

REQUIRED EFFECTIVE DATE:
ROUTINE

COORDINATED WITH:

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

OTHER:
AMGR, ZLC, RNO FSS

CHANGES - REASONS:

1. RWYS 3, 12, 21, AND 30 RENUMBERED TO 4, 13, 22, AND 31 - AIRPORT MAGNETIC VARIATION UPDATED FROM 17E /1980 TO 13E/2020.
2. RWY 4 MINIMUMS CHANGED FROM MINIMUM CLIMB OF 282 FEET PER NAUTICAL MILE TO 7300 TO 335 PER NAUTICAL MILE TO 6300 - NEW CONTROLLING OBSTACLE FROM NEW MAP STUDY.
3. RWY 4 DEPARTURE PROCEDURE CLIMB HEADING CHANGED FROM 032.08 TO 036.08 - NEW AIRPORT MAGNETIC VARIATION.
4. RWY 13 MINIMUMS CHANGED FROM MINIMUM CLIMB OF 386 FEET PER NAUTICAL MILE TO 7600 TO 350 FEET PER NAUTICAL MILE TO 6500 - NEW DEPARTURE ROUTE WITH NEW CONTROLLING OBSTACLE.
5. CHANGED RWY 13 DEPARTURE PROCEDURE FROM CLIMB HEADING 122.08 AND BAM R-076 TO 10,000 BEFORE PROCEEDING ON COURSE TO CLIMBING RIGHT TURN HEADING 240 AND BAM R-205 OUTBOUND TO 10,000 BEFORE PROCEEDING ON COURSE - ALLOWS FOR BETTER TERRAIN CLEARANCE AND LOWER TAKEOFF MINIMUMS.
6. RWY 22 DEPARTURE PROCEDURE, ADDED THE WORD OUTBOUND AFTER THE BAM R-205 - ADD CLARITY TO INSTRUCTIONS.
7. RWY 31 DEPARTURE PROCEDURE, CHANGED INITIAL HEADING FROM 302.10 TO 306.10 AND ADDED THE WORD OUTBOUND AFTER THE BAM R-324 - NEW AIRPORT MAGNETIC VARIATION AND ADD CLARITY TO INSTRUCTIONS.
8. ADDED TAKEOFF OBSTACLE NOTES - FAAO 8260.46F, APPENDIX D, PARAGRAPH 9.
9. UPDATED CONTROLLING OBSTACLES - NEW TARGETS DATA AND MAP STUDY.



**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
VOR STANDARD INSTRUMENT APPROACH PROCEDURE**

TITLE 14 CFR PART 97.23

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<u>AIRPORT</u> BATTLE MOUNTAIN	<u>AIRPORT ID</u> KBAM	<u>PROCEDURE NAME</u> VOR RWY 4	<u>ORIGINAL/AMENDMENT</u> 7	<u>CITY</u> BATTLE MOUNTAIN	<u>STATE</u> NV
<u>AIRPORT ELEVATION</u> 4536	<u>TDZE</u> 4536	<u>SUPERSEDED</u> VOR/DME RWY 3	<u>ORIGINAL/AMENDMENT</u> 6	<u>DATED</u> 05/07/2009	<u>MAG VAR</u> 18E
<u>FACILITY</u> BAM	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 1965

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>
WIKLO/12.00 DME CCW	IAF	GRAIG/12.00 DME					12.00 DME ARC		8300
GRAIG/12.00 DME	IF	ZEPAT/4.00 DME					020.02	8.00 (BAM R-200)	6300
ZEPAT/4.00 DME		BAM VORTAC					020.02	4.00	5400

MISSED APPROACH

MAP:

HUGVU/BAM 1.55 DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 10000 ON BAM VORTAC R-031 TO RITYO/BAM VORTAC 4.65 DME AND LEFT TURN DIRECT BAM VORTAC AND ON BAM VORTAC R-205 TO FESUD/BAM 15.00 DME AND RIGHT TURN DIRECT BAM VORTAC AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)
2. PROFILE STARTS AT GRAIG
3. FAC: 030.93 FAF: BAM VORTAC DIST FAF TO MAP: DIST FAF TO THLD: 2.26
4. MIN ALT: GRAIG/12.00 DME 8300, ZEPAT/4.00 DME 6300, BAM VORTAC 5400
8. MSA FROM: BAM VORTAC 350-080 8700, 080-260 10900, 260-350 10100

EQUIPMENT REQUIREMENTS NOTES:

DME REQUIRED.

NOTES:

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

ADDITIONAL FLIGHT DATA:



CHART FALLON NORTH MOAS.
CHART CIRCLING ICON.
BAM VORTAC TO RW04: 3.37/55.
CHART BAM R-246 AT WIKLO.
CHART FAS OBST: 4661 WINDMILL 403451N/1165322W.
HOLD S, LT, 020.00 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-04	4920	1	384	4920	1	384		NA			NA				
CIRCLING	4980	1	444	5000	1	464		NA			NA				

CHANGES - REASONS

1. CHANGED NAME FROM VOR/DME RWY 3 TO VOR RWY 4 - AIRPORT RUNWAYS RENUMBERED AND VOR/DME NO LONGER USED IN PROCEDURE NAMES.
2. MOVED MISSED APPROACH FIRST FIX RITYO 0.4 NM NORTHEAST - PROVIDE LONGER CLIMB AND ELIMINATE MISSED PENETRATION/ADJUSTMENT.
3. REPLACE "VIA" WITH "ON" IN MISSED APPROACH INSTRUCTIONS - VIA NO LONGER USED.
4. CHANGED FAS OBST FROM 4639 TREE 403427N/1165321W TO 4661 WINDMILL 403451N/1165322W - NEW SURVEY.
5. EXPANDED CIRCLING AREA AND ADDED CHART CIRCLING ICON - FAAO 8260.3C NEW CIRCLING CRITERIA.
6. CHANGED BAM VORTAC TO RW03: 3.41/50 TO BAM VORTAC TO RW04: 3.37/55 - NEW RWY NUMBERING AND IAPA CALCULATIONS.
7. CHANGED FAC FROM 031.04 TO 030.93 - NEW IAPA CALCULATIONS.
8. LOWERED STRAIGHT-IN MDA FROM 4960 TO 4920 - 60 FT. MISSED APPROACH ADJUSTMENT NO LONGER NEEDED. (SEE CHANGE 2.)
9. RAISED CIRCLING CAT A MDA FROM 4960 TO 4980 - NEW CONTROLLING OBSTACLE.
10. ADDED CHART EQUIPMENT REQUIREMENTS NOTE: DME REQUIRED - FAAO 8260.19H PARAGRAPH 8-6-8.
11. UPDATED VGSI NOT COINCIDENT NOT TO CURRENT FORMAT - FAAO 8260.19H PARAGRAPH 8-6-9 M (2).
12. ADDED CHART FALLON NORTH MOAS TO ADDITIONAL FLIGHT DATA.

COORDINATED WITH:

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

FLIGHT CHECKED BY		OFFICE	DATE	
DANIEL C FAVORTIE		FICO	7/5/18	
DEVELOPED BY		OFFICE	DATE	
LIAM DONAHUE		AJV-5431	03/01/2018	
APPROVED BY		OFFICE	DATE	TITLE
PATRICK MULQUEEN		AJV-5430		MANAGER



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

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CITY, STATE	AIRPORT	EFFECTIVE DATE	AMDT NO
PENN YAN, NY	PENN YAN	8 NOVEMBER 2018	5

TAKEOFF MINIMUMS:

RWY 1, 10: STANDARD

RWY 19: STANDARD WITH MINIMUM CLIMB 275 FT PER NM TO 2000, OR 1100-2 1/2 FOR CLIMB IN VISUAL CONDITIONS.

RWY 28: STANDARD WITH MINIMUM CLIMB 440 FT PER NM TO 1600, OR 1100-2 1/2 FOR CLIMB IN VISUAL CONDITIONS.

TEXTUAL DEPARTURE PROCEDURES:

RWY 1: CLIMB ON HEADING 008.91 TO 1500 BEFORE TURNING LEFT.

VISUAL CLIMB OVER AIRPORT:

RWY 19: OBTAIN ATC APPROVAL FOR VCOA WHEN REQUESTING IFR CLEARANCE. CLIMB IN VISUAL CONDITIONS TO CROSS PENN YAN AIRPORT AT OR ABOVE 1900 BEFORE PROCEEDING ON COURSE.

RWY 28: OBTAIN ATC APPROVAL FOR VCOA WHEN REQUESTING IFR CLEARANCE. CLIMB IN VISUAL CONDITIONS TO CROSS PENN YAN AIRPORT AT OR ABOVE 1900 BEFORE PROCEEDING ON COURSE.

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 1, AIRCRAFT ON TAXIWAY 35 FT FROM DER, 300 FT LEFT OF CENTERLINE, UP TO 23 FT AGL/942 FT MSL. TREE 1051 FT FROM DER, 760 FT RIGHT OF CENTERLINE, 943 FT MSL.

NOTE: RWY 10, TREES 18 FT FROM DER, 245 FT RIGHT OF CENTERLINE, 100 FT AGL/979 FT MSL. FENCE 25 FT FROM DER, ON CENTERLINE, 8 FT AGL/907 FT MSL. BERM 28 FT FROM DER, ON CENTERLINE, 10 FT AGL/929 FT MSL. TREES 43 FT FROM DER, 78 FT LEFT OF CENTERLINE, 100 FT AGL/999 FT MSL. VEHICLES ON ROAD 156 FT FROM DER, 6 FT LEFT OF CENTERLINE, 15 FT AGL/914 FT MSL. VEHICLES ON ROAD 183 FT FROM DER, 33 FT RIGHT OF CENTERLINE, 15 FT AGL/914 FT MSL. BLDGS BEGINNING 248 FT FROM DER, 48 FT LEFT OF CENTERLINE, UP TO 30 FT AGL/949 FT MSL. LIGHT POLES BEGINNING 308 FT FROM DER, 25 FT RIGHT OF CENTERLINE, 16 FT AGL/927 FT MSL. TREE 543 FT FROM DER, 170 FT LEFT OF CENTERLINE, 100 FT AGL/1019 FT MSL. BLDGS BEGINNING 565 FT FROM DER, 94 FT LEFT OF CENTERLINE, 30 FT AGL/949 FT MSL. TREES 573 FT FROM DER, 187 FT LEFT OF CENTERLINE, 100 FT AGL/1019 FT MSL. POWER LINES 1200 FT FROM DER, CROSSING CENTERLINE, 40 FT AGL/959 FT MSL.

NOTE: RWY 19, AIRCRAFT ON TAXIWAY 24 FT FROM DER, 261 FT RIGHT OF CENTERLINE, UP TO 23 FT AGL/1022 FT MSL. GRD BEGINNING 124 FT FROM DER, 479 FT RIGHT OF CENTERLINE, UP TO 996 FT MSL. FENCE 348 FT FROM DER, 398 FT RIGHT OF CENTERLINE, 2 FT AGL/1001 FT MSL. GRD 460 FT FROM DER, 590 FT RIGHT OF CENTERLINE, 1008 FT MSL. FENCE 483 FT FROM DER, 398 FT RIGHT OF CENTERLINE, 3 FT AGL/1006 FT MSL. FENCE 606 FT FROM DER, 398 FT RIGHT OF CENTERLINE, 7 FT AGL/1010 FT MSL. GRD BEGINNING 631 FT FROM DER, 459 FT RIGHT OF CENTERLINE, UP TO 1027 FT MSL. TREES BEGINNING 1439 FT FROM DER, 673 FT RIGHT OF CENTERLINE, UP TO 1087 FT MSL. TREES BEGINNING 1886 FT FROM DER, ON CENTERLINE, UP TO 95 FT AGL/1110 FT MSL. TREE 2238 FT FROM DER, 655 FT LEFT OF CENTERLINE, 1045 FT MSL. TREES BEGINNING 2242 FT FROM DER, 540 FT LEFT OF CENTERLINE, UP TO 1107 FT MSL. TREE 2422 FT FROM DER, 116 FT LEFT OF CENTERLINE, UP TO 1111 FT MSL. TOWER 5844 FT FROM DER, 335 FT RIGHT OF CENTERLINE, 122 FT AGL/1136 FT MSL. TREES BEGINNING 1.6 NM FROM DER, 3037 FT LEFT OF CENTERLINE, 100 FT AGL/1242 FT MSL. TREES 1.7 NM FROM DER, 2781 FT LEFT OF CENTERLINE, UP TO 100 FT AGL/1265 FT MSL. TREES BEGINNING 1.8 NM FROM DER, 2748 FT LEFT OF CENTERLINE, UP TO 100 FT AGL/1291 FT MSL. TREES, TRANSMISSION LINES BEGINNING 1.9 NM FROM DER, 2939 FT LEFT OF CENTERLINE, UP TO 100 FT AGL/1350 FT MSL. TREES, TRANSMISSION LINES BEGINNING 2 NM FROM DER, 2907 FT LEFT OF CENTERLINE, UP TO 100 FT AGL/1396 FT MSL. TREES, TRANSMISSION LINES BEGINNING 2.1 NM FROM DER, 3098 FT LEFT OF CENTERLINE, UP TO 100 FT AGL/1419 FT MSL. TREES, TRANSMISSION LINES, BUILDING BEGINNING 2.2 NM FROM DER, 3065 FT LEFT OF CENTERLINE, UP TO 100 FT AGL/1452 FT MSL. TREES BEGINNING 2.5 NM FROM DER, 71 FT LEFT OF CENTERLINE, UP TO 100 FT AGL/1465 FT MSL.

NOTE: RWY 28, TREES 111 FT FROM DER, 15 FT RIGHT OF CENTERLINE, UP TO 100 FT AGL/939 FT MSL. TREES 192 FT FROM DER, 59 FT LEFT OF CENTERLINE, UP TO 100 FT AGL/959 FT MSL. FENCE 16 FT FROM DER, ON CENTERLINE, UP TO 8 FT AGL/867 FT MSL. VEHICLES ON RAMP 20 FT FROM DER, ON CENTERLINE, UP TO 15 FT AGL/874 FT MSL. HANGARS AND BUILDINGS 76 FT FROM DER, 63 FT RIGHT OF CENTERLINE, UP TO 30 FT AGL/869 FT MSL.

CONTROLLING OBSTACLES:

RWY 19: 1679 FT MSL AAO 423415.00N/0770236.00W (CG), 1699 FT MSL AAO 423409.00N/0770231.00W (CGTA)

RWY 28: 1419 FT MSL TREE 423833 33N/0770630.30W (CG/CGTA).

RWY 19, 28: 1769 FT MSL AAO 423929.00N/0770230.00W, 1539 FT MSL TREE 423736.03N/0770735.94W (VCOA)

OBSTACLE MANDATING ODP ROUTE DEVELOPMENT: 1471 FT MSL TOWER 424005.00N/0770526.00N

REMARKS:

RWY 1: RETAINED TAKE-OFF OBSTACLE NOTES FROM PUBLISHED DEPARTURE "AIRCRAFT ON TAXIWAY 35 FT FROM DER, 300 FT LEFT OF CENTERLINE, UP TO 23 FT AGL/942 FT MSL" - NOT IN OBSTACLE DATABASE BUT CORRELATED LOCATIONS WITH QUADRANGLE MAP AND UNOFFICIAL IMAGERY.

RWY 19: RETAINED TAKE-OFF OBSTACLE NOTES FROM PUBLISHED DEPARTURE "AIRCRAFT ON TAXIWAY 24 FT FROM DER, 261 FT RIGHT OF CENTERLINE, UP TO 23 FT AGL/1022 FT MSL" - NOT IN OBSTACLE DATABASE BUT CORRELATED LOCATIONS WITH QUADRANGLE MAP AND UNOFFICIAL IMAGERY.

RWY 10: RETAINED TAKE-OFF OBSTACLE NOTES FROM PUBLISHED DEPARTURE "FENCE 28 FT FROM DER, ON CENTERLINE, UP TO 8 FT AGL/907 FT MSL. BERM 25 FT FROM DER, ON CENTERLINE, UP TO 10 FT AGL/909 FT MSL. VEHICLES ON ROAD 33 FT FROM DER, 183 FT ON RIGHT CENTERLINE, UP TO 15 FT AGL/914 FT MSL. VEHICLES ON ROAD 156 FT FROM DER, 6 FT LEFT OF CENTERLINE, UP TO 15 FT AGL/914 FT MSL" - NOT IN OBSTACLE DATABASE BUT CORRELATED LOCATIONS WITH QUADRANGLE MAP AND UNOFFICIAL IMAGERY. ADDED "LIGHT POLES AT AUTO DEALERSHIP ON CENTERLINE, UP TO 16 FT AGL/935 MSL" - THIS APPEARS TO BE OBSTACLE 1999-AEA-4057-OE HOWEVER, LAT/LONG OF FRIENDLY CHRYSLER DODGE JEEP APPEARS INCORRECT IN OEAAA DATA BASE - ADDED 16 FT AGL LIGHT POLES FROM OEAAA DATA BASE TO

QUALITY
18
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>
PENN YAN, NY	PENN YAN	8 NOVEMBER 2018	5

LOCATION AFTER QUADRANGLE MAP TERRAIN CORRELATION WITH UNOFFICIAL IMAGERY. UPDATED 100 FT TREES LISTED IN TAKEOFF OBSTACLE NOTES UTILIZING QUADRANGLE MAP AND UNOFFICIAL IMAGERY.

RWY 28: RETAINED TAKE-OFF OBSTACLE NOTES FROM PUBLISHED DEPARTURE "FENCE 16 FT FROM DER, ON CENTERLINE, UP TO 8 FT AGL/867 FT MSL. VEHICLES ON RAMP 20 FT FROM DER, ON CENTERLINE, UP TO 15 FT AGL/874 FT MSL. HANGAR 76 FT FROM DER, 63 FT RIGHT OF CENTERLINE, UP TO 30 FT AGL/869 FT MSL" - NOT IN OBSTACLE DATABASE BUT CORRELATED LOCATIONS WITH UNOFFICIAL IMAGERY AND QUADRANGLE MAP. UPDATED 100 FT TREES LISTED IN TAKEOFF OBSTACLE NOTES AND ADDED HANGARS AND BUILDINGS UTILIZING QUADRANGLE MAP AND UNOFFICIAL IMAGERY.

<u>FLIGHT INSPECTED BY:</u>	<i>Digitally signed by</i>	<u>OFFICE SYMBOL:</u>	<u>DATE:</u>
RUSSELL P ELLIOTT	ROBERT G HAMILTON	FICO	08/09/2018
	Aug 15, 2018		

<u>DEVELOPED BY:</u>	<i>Digitally signed by</i>	<u>OFFICE SYMBOL:</u>	<u>DATE:</u>
WILLIAM HANBY	WILLIAM HANBY	AJV-5422	06/21/2018
	Jun 28, 2018		

<u>APPROVED BY:</u>	<i>Digitally signed by</i>	<u>OFFICE SYMBOL:</u>	<u>DATE:</u>
JULIE MORGAN	ROBERT G HAMILTON	AJV-5420	
	Aug 15, 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:
ZNY, ZOB, ELM APP CON, ARPT MGR.

CHANGES - REASONS:

1. CHANGED RWY 19 TAKEOFF MINIMUMS FROM "STANDARD WITH MINIMUM CLIMB OF 275 FT PER NM TO 1900 OR 1100-2 1/2 FOR CLIMB IN VISUAL CONDITIONS" TO "STANDARD WITH MINIMUM CLIMB 275 FT PER NM TO 2000 OR 1100-2 1/2 FOR CLIMB IN VISUAL CONDITIONS" - 1699 FT AAO 423409.00N/0770231.00W.
2. CHANGED RWY 28 TAKEOFF MINIMUMS FROM "STANDARD WITH MINIMUM CLIMB OF 360 FT PER NM TO 1800 OR 1100-2 1/2 FOR CLIMB IN VISUAL CONDITIONS" TO "STANDARD WITH MINIMUM CLIMB 440 FT PER NM TO 1600 OR 1100-2 1/2 FOR CLIMB IN VISUAL CONDITIONS" - NEW CONTROLLING OBSTACLE 1419 FT TREE FROM UPDATED OBSTACLE DATABASE.
3. CHANGED RWY 1 TEXTUAL DEPARTURE PROCEDURES FROM "CLIMB HEADING 008.88 TO 1500 BEFORE TURNING LEFT" TO "CLIMB ON HEADING 008.91 TO 1500 BEFORE TURNING LEFT" - NEW AIRPORT SURVEY, RWY BEARING CHANGED FROM 356.88T TO 356.91T.
4. MOVED RWY 19 VCOA INSTRUCTIONS FROM TEXTUAL DEPARTURE PROCEDURES TO VISUAL CLIMB OVER AIRPORT AND CHANGED FROM "FOR CLIMB IN VISUAL CONDITIONS CROSS PENN YAN AIRPORT AT OR ABOVE 1900 BEFORE PROCEEDING ON COURSE WHEN EXECUTING VCOA, NOTIFY ATC PRIOR TO DEPARTURE" TO "OBTAIN ATC APPROVAL FOR VCOA WHEN REQUESTING IFR CLEARANCE. CLIMB IN VISUAL CONDITIONS TO CROSS PENN YAN AIRPORT AT OR ABOVE 1900 BEFORE PROCEEDING ON COURSE" - FORMATTED IAW FAO 8260.46F.
5. MOVED RWY 28 VCOA INSTRUCTIONS FROM TEXTUAL DEPARTURE PROCEDURES TO VISUAL CLIMB OVER AIRPORT AND CHANGED FROM "FOR CLIMB IN VISUAL CONDITIONS CROSS PENN YAN AIRPORT AT OR ABOVE 1900 BEFORE PROCEEDING ON COURSE WHEN EXECUTING VCOA, NOTIFY ATC PRIOR TO DEPARTURE" TO "OBTAIN ATC APPROVAL FOR VCOA WHEN REQUESTING IFR CLEARANCE. CLIMB IN VISUAL CONDITIONS TO CROSS PENN YAN AIRPORT AT OR ABOVE 1900 BEFORE PROCEEDING ON COURSE" - FORMATTED IAW FAO 8260.46F.
6. UPDATED TAKEOFF OBSTACLE NOTES RWY 1 - REMOVED 100 FT UNSURVEYED TREES DUE TO OIS SURVEY.
7. UPDATED OBSTACLE MANDATING ODP ROUTE DEVELOPMENT 1471 FT MSL TOWER LOCATION FROM 424005.00N/0770526.00N TO 424004.76N/0770526.18N - UPDATED OBSTACLE DATA BASE.
8. UPDATED OBSTACLE TAKE-OFF NOTES TO INCLUDE NEW HANGARS, NEW BLDGS, AND A CAR DEALERSHIP OBSERVED WITH UNOFFICIAL IMAGERY IN ICAS FOR RWY 10/28.

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AMDT NO
ORIG

QUALITY
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CHECKED

U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION STANDARD INSTRUMENT APPROACH PROCEDURE _____ FLIGHT STANDARDS SERVICE - TITLE 14 CFR PART 97.								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	MAP: 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: _____			
MINIMUMS															
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT								ALTERNATE: N A							
CATEGORY >>>>>	A			B			C			D			E		
	MDA	VIS	HAT/HAA	MDA	VIS	HAT/ HAA	MDA	VIS	HAT/ HAA	MDA	VIS	HAT/ HAA	MDA	VIS	HAT/ HAA
NOTES: PROCEDURE CANCELED EFFECTIVE <u>8 NOVEMBER 2018</u>															
CITY AND STATE STORMVILLE, NY				ELEVATION: 358 TDZE: AIRPORT NAME: STORMVILLE		FACILITY IDENTIFIER: IGN		PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE: VOR OR GPS -A, AMDT 4A, 06/30/1997				SUP			
												AMDT 4			
												DATE 03/13/1986			

QUALITY
 4
 CHECKED

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 8 NOVEMBER 2018																			
CITY AND STATE DAYTON, OH		ELEVATION: 949 AIRPORT NAME: GREENE COUNTY-LEWIS A. JACKSON RGNL		TDZE: 936		FACILITY IDENTIFIER: SGH		PROCEDURE NO./AMD'T NO./EFFECTIVE DATE: VOR RWY 7, ORIG-A, 03/05/2015						SUP AMD'T DATE					
														ORIG 09/20/2012					



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)										MAG VAR: EPOCH YEAR:										
2. _____																				
3. FAC ____ FAF ____ DIST FAF TO MAP ____ THLD ____																				
4. MIN. ALT ____																				
8. MSA FROM: _____																				
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT										ALTERNATE: N A										
CATEGORY =====>																				
		MDA	VIS			MDA	VIS			MDA	VIS			MDA	VIS					
NOTES:										QUALITY 22 CHECKED										
PROCEDURE CANCELED EFFECTIVE 8 NOVEMBER 2018																				
CITY AND STATE DAYTON, OH			ELEVATION: 949 AIRPORT NAME: GREENE COUNTY-LEWIS A. JACKSON RGNL			TDZE: 946			FACILITY IDENTIFIER: SGH			PROCEDURE NO./AMDT NO./EFFECTIVE DATE: VOR RWY 25, ORIG-A, 08/21/2014					SUP AMDT DATE		ORIG 09/20/2012	

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> BOISE CITY	<u>AIRPORT ID</u> K17K	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 4	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>CITY</u> BOISE CITY	<u>STATE</u> OK
<u>AIRPORT ELEVATION</u> 4174	<u>TDZE</u> 4174	<u>SUPERSEDED</u> RNAV (GPS) RWY 4	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>DATED</u> 11/01/2001	<u>MAG VAR</u> 9E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>	<u>EPOCH YEAR</u> 1995

TAA

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>ALTITUDE</u>
1. 310/30 CW 130/30		310/15 CW 130/15		7500
2. 310/15 CW 130/15	NOPT	XASWO	IF/IAF	6500
3. 220/30 CW 310/30		ZUZXE	IAF	6500
4. 130/30 CW 220/30		YAXDE	IAF	7000

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>
YAXDE	IAF	XASWO	NOPT	TF	FB	1.00	130.34	5.00	6500
ZUZXE	IAF	XASWO	NOPT	TF	FB	1.00	310.42	5.00	6500
XASWO	IF/IAF	GIKDY		TF	FB	1.00	040.38	5.77	5900
GIKDY	FAF	RW04	MAP	TF	FO	0.30	040.43	5.23	
RW04	MAP	4574 MSL		CA			040.43		
4574 MSL		VUSQU		DF	FO				6000

MISSED APPROACH

MAP:

LNAV: RW04

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 6000 DIRECT VUSQU AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. HOLD SW XASWO, RT, 040.43 INBOUND, 6500 FT. IN LIEU OF PT (IAF), MAX 14000.

3. FAC: 040.43

FAF: GIKDY

DIST FAF TO MAP: 5.23

DIST FAF TO THLD: 5.23

4. MIN ALT: XASWO 6500, GIKDY 5900

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 NOT CLEAR

20:1: IS NOT CLEAR

TCH:

8. MSA FROM:

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: RWY 4 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED.
CHART NOTE: STRAIGHT-IN RWY 4 NA AT NIGHT, CIRCLING RWY 4 NA AT NIGHT.
CHART NOTE: USE DALHART, TX ALTIMETER SETTING; WHEN NOT RECEIVED, PROCEDURE NOT AUTHORIZED.

ADDITIONAL FLIGHT DATA:

CHART: DALHART ASOS
CHART CIRCLING ICON.
CHART PROFILE NOTE: VISUAL SEGMENT - OBSTACLES.
FAS OBST: 4469 AAO 364327N/1023504W.
HOLD NE, RT, 220.57 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
LNAV MDA	4860	1	686	4860	1	686	4860	2	686		NA				
CIRCLING	4860	1	686	4860	1	686	5040	2 1/2	866		NA				

CHANGES - REASONS

1. CHANGED XASWO TO GIKDY IF/IAF RNP VALUE FROM "0.50" TO "1.00". - IAW 8260.54A.
2. DELETED CHART NOTE: "DME/DME RNP-0.3 NA" AND "GPS OR RNP-0.3 REQUIRED" - NOTES NO LONGER APPLICABLE IAW 8260.19H.
3. ADDED CHART NOTE: "PBN EQUIPMENT REQUIREMENTS NOTE: RNP APCH. - PBN EQUIPMENT REQUIREMENTS NOTES NOW REQUIRED PER 8260.19H AND MEMO 257.
4. ADDED "RWY 13 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED." - IAW 8260.19H.
5. REMOVED VDA AND TCH, ADDED "VISUAL SEGMENT - OBSTACLES". - IAW 8260.19H - VISUAL SEGMENT PENETRATIONS.
6. ADDED CHART NOTE: RWY 4 STRAIGHT-IN AND CIRCLING NA AT NIGHT. - UNLIT 20:1 PENETRATIONS, T-NOTAM 8/1603 RESOLUTION TO UPDATE VISIBILITY AND PROCEDURE RESTRICTIONS.
7. ADDED CA LEG TO MISSED APPROACH. - IAW WITH CODING REQUIREMENTS FOR AN RNAV (GPS) MISSED APPROACH PROCEDURE.
8. INCREASED STRAIGHT IN MDA/HAT FROM 4740/562 TO 4860/686 ALL CATS - NEW PLACEMENT OF AAO IN FINAL IAW 8260.19H.
9. INCREASED CIRCLING CAT A/B MDA/HAA FROM 4740/562 TO 4860/686 - NEW PLACEMENT OF AAO IN FINAL DRIVING STRAIGHT IN MINIMA.
10. ADDED CIRCLING ICON. - NEW CIRCLING AREA CRITERIA APPLIED.
11. INCREASED CIRCLING CAT C MDA/HAA FROM 4740/562 TO 5040/866. - NEW CIRLCING CRITERIA APPLIED.
12. INCREASED CAT C STRAIGHT-IN VISIBILITY FROM "1 1/2" TO "2". - NEW CALCULATION IAW 8260.3C.
13. INCREASED CAT C CIRCLING VISIBILITY FROM "1 1/2" TO "2 1/2". - NEW CALCULATION IAW 8260.3C.
14. AIRPORT ELEVATION AND TDZE CHANGED FROM "4178" TO "4174". - UPDATED AIRNAV DATABASE.



COORDINATED WITH:

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

FLIGHT CHECKED BY

JOHN E PHILLABAUM

Digitally signed by

ROBERT G HAMILTON

Aug 08, 2018

OFFICE

FICO

DATE

8/6/18

DEVELOPED BY

ROBERT G HAMILTON (AUSTIN GOTCHER)

Digitally signed by

ROBERT G HAMILTON

Aug 08, 2018

OFFICE

AJV-5422

DATE

05/15/2018

APPROVED BY

JULIE MORGAN

Digitally signed by

ROBERT G HAMILTON

Aug 08, 2018

OFFICE

AJV-5420

DATE

TITLE

MANAGER



**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>
HOBART, OK	HOBART RGNL	8 NOVEMBER 2018	1A

TAKEOFF MINIMUMS:

RWY 3, 21: NA - ENVIRONMENTAL
RWY 17, 35: STANDARD

TEXTUAL DEPARTURE PROCEDURES:

VISUAL CLIMB OVER AIRPORT:

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 35: TERRAIN BEGINNING 107 FT FROM DER, 185 FT LEFT OF CENTERLINE, 0 FT AGL/1549 FT MSL. TERRAIN BEGINNING 109 FT FROM DER, 63 FT RIGHT OF CENTERLINE, 0 FT AGL/1549 FT MSL.

CONTROLLING OBSTACLES:

REMARKS:

Digitally signed by
ROBERT G HAMILTON

FLIGHT INSPECTED BY:

Jul 27, 2018

OFFICE SYMBOL:

DATE:

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, DEC 22, 2017.

DEVELOPED BY:

Digitally signed by
ROBERT G HAMILTON

OFFICE SYMBOL:

DATE:
06/19/2018

ROBERT HAMILTON (AUSTIN GOTCHER)

Jul 27, 2018

APPROVED BY:

Digitally signed by
ROBERT G HAMILTON

OFFICE SYMBOL:

DATE:

JULIE MORGAN

Jul 27, 2018

AJV-5420

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:

CHANGES - REASONS:

1. REMOVED RWY 12 AND 30 FROM TAKEOFF MINIMUMS. - RWYS CLOSED INDEFINITELY.



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> BARNWELL RGNL	<u>AIRPORT ID</u> KBNL	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 17	<u>ORIGINAL/AMENDMENT</u> 2A	<u>CITY</u> BARNWELL	<u>STATE</u> SC
<u>AIRPORT ELEVATION</u> 246	<u>TDZE</u> 246	<u>SUPERSEDED</u> RNAV (GPS) RWY 17	<u>ORIGINAL/AMENDMENT</u> 2	<u>DATED</u> 07/29/2010	<u>MAG VAR</u> 5W
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>	<u>EPOCH YEAR</u> 1990

TAA

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>ALTITUDE</u>
1. 075/30 CW 138/30	NOPT	075/16 CW 138/16		3000
2. 075/16 CW 138/16		FATSU	IF/IAF	2200
2. 138/30 CW 255/30	NOPT	FATSU	IF/IAF	2200
3. 255/30 CW 345/30		CATAV	IAF	2200
4. 345/30 CW 075/30		ENANE	IAF	2200

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>
CATAV	IAF	FATSU	NOPT	TF	FB	1.00	255.43	5.00	2200
ENANE	IAF	FATSU	NOPT	TF	FB	1.00	075.33	5.00	2200
FATSU	IF/IAF	HIKEL		TF	FB	1.00	165.38	6.51	1900
HIKEL	FAF	LODSE/2.60 NM TO RW17		TF	FB	0.30	165.40	2.39	
LODSE/2.60 NM TO RW17		RW17	MAP	TF	FO	0.30	165.40	2.60	
RW17	MAP	496 MSL		CA			165.40		
496 MSL		CULPA		DF	FO	1.00			2100



MISSED APPROACH

MAP:
LPV: DA
LNAV/VNAV: DA
LNAV: RW17

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2100 DIRECT CULPA AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT	SIDE OF COURSE	OUTBOUND	FT WITHIN	MILES OF (IAF)				
2.	HOLD N FATSU, RT, 165.38 INBOUND, 2200 FT. IN LIEU OF PT (IAF), MAX 6000.							
3. FAC:	165.40	FAF: HIKEL	DIST FAF TO MAP: 4.99	DIST FAF TO THLD: 4.99				
4. MIN ALT:	FATSU 2200, HIKEL 1900, LODSE/2.60 NM TO RW17 1100*							
5. DIST TO THLD FROM OM:	MM:	IM:	150 HAT:	250 HAT: 0.62	GS ANT:			
6. MIN GP INCPT: 1900	GP ALT AT FAF : HIKEL 1900		OM:	MM:	IM:			
7. GP ANGLE: 3.00	34:1: IS CLEAR	20:1: IS CLEAR	TCH: 52.0					
8. MSA FROM:								

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: CIRCLING RWY 5, 23 NA AT NIGHT.
CHART NOTE: INOPERATIVE TABLE DOES NOT APPLY TO LPV, LNAV/VNAV ALL CATS, AND LNAV CAT C.
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -15C OR ABOVE 54C.

ADDITIONAL FLIGHT DATA:

CHART VDP AT 1.29 NM TO RW17*
*LNAV ONLY
WAAS CHANNEL #90418
REFERENCE PATH ID: W17A
CHART FAS OBST: 409 TREE 331824N/0812455W.
HOLD S, RT, 345.46 INBOUND
LTP HAE: 41.3 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	496	3/4	250	496	3/4	250	496	3/4	250	496	3/4	250			
LNAV/VNAV DA	604	1 1/4	358	604	1 1/4	358	604	1 1/4	358	604	1 1/4	358			
LNAV MDA	700	3/4	454	700	3/4	454	700	1 1/4	454	700	1 1/2	454			
CIRCLING	700	1	454	700	1	454	700	1 1/2	454	900	2	654			

CHANGES - REASONS

1. CHANGED INTERMEDIATE RNP VALUE FROM 0.5 TO 1.0 - IAW 8260.58A CHANGE 1 (TABLE 1-2-1).
2. ADDED 20:1 SURFACE AREA CLEAR NOTE - IAW 8260.19H 8-6-7(G(2)).
3. CHANGED CHART FOR INOPERATIVE TABLE DOES NOT APPLY BY ADDING LPV MINIMUMS - IAW 8260.19H 8-6-11 (O(3A)).
4. DELETED CHART NOTE: DME/DME -0.3 RNP NA - IAW 8260.19H 8-6-8 (A(6C)).
5. ADDED PBN REQUIREMENTS NOTE: RNP APCH - IAW 8260.19H 8-6-8 (B(1)).
6. CHANGED LPV MINIMUMS FOR HAT/DA FROM 476/230 TO 496/250 - IAW 8260.58A 3-4-5.
7. CHANGED DISTANCE TO THLD FROM HAT FROM 230 HAT: 0.59 NM TO 250 HAT: 0.62 NM. - RESULT FROM RAISING THE LPV HAT/DA.
8. CHANGED HIGH TEMPS FOR THE UNCOMPENSATED BARO-VNAV SYSTEMS NOTE FROM ABOVE 48C (118F) TO 54C (130F). - 8260.19H 8-6-9(S).



AIRPORT	AIRPORT ID	PROCEDURE NAME	ORIGINAL/AMENDMENT	CITY	STATE
BARNWELL RGNL	KBNL	RNAV (GPS) RWY 17	2A	BARNWELL	SC
COORDINATED WITH:					
A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZJX, AMGR.					
Digitally signed by					
DAVID TEFFETELLER					
OFFICE					
DATE					
06/02/2010					
FLIGHT CHECKED BY					
PROCESSED IAW FLIGHT INSPECTION GROUP (AJW-33) MEMO, DECEMBER 22,2017					
Aug 06, 2018					
FIOG					
SUBJECT: FLIGHT INSPECTION REVIEW NOT REQUIRED					
DEVELOPED BY					
SCOTT BAGENSIE					
Digitally signed by					
SCOTT BAGENSIE					
OFFICE					
AJV-5433					
DATE					
06/05/2018					
APPROVED BY					
PATRICK MULQUEEN					
Digitally signed by					
DAVID TEFFETELLER					
OFFICE					
AJV-5430					
DATE					
Aug 06, 2018					
TITLE					
MANAGER					



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KBNL
RUNWAY	RW17
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W17A
LTP/FTP LATITUDE	331552.3935N
LTP/FTP LONGITUDE	0812313.8080W
LTP/FTP ELLIPSOIDAL HEIGHT	+00413
FPAP LATITUDE	331428.2800N
FPAP LONGITUDE	0812238.2100W
THRESHOLD CROSSING HEIGHT (TCH)	00052.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1192
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	1092A23F
<u>ADDITIONAL PATH POINT RECORD INFORMATION</u>	
ICAO CODE	K7
LTP ORTHOMETRIC HEIGHT	+00721
FPAP ORTHOMETRIC HEIGHT	+00721



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> SUMMERVILLE	<u>AIRPORT ID</u> KDYB	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 6	<u>ORIGINAL/AMENDMENT</u> 1A	<u>CITY</u> SUMMERVILLE	<u>STATE</u> SC
<u>AIRPORT ELEVATION</u> 56	<u>TDZE</u> 53	<u>SUPERSEDED</u> RNAV (GPS) RWY 6	<u>ORIGINAL/AMENDMENT</u> 1	<u>DATED</u> 02/01/2018	<u>MAG VAR</u> 7W
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>	<u>EPOCH YEAR</u> 2010

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>
HERMN		INARE		TF	FO	2.00	246.59	28.24	2600
SACKS	IAF	INARE	NOPT	TF	FB	1.00	145.07	14.31	2600
INARE	IF/IAF	OMOLY		TF	FB	1.00	055.96	5.00	1700
OMOLY	FAF	RW06	MAP	TF	FO	0.30	056.01	5.09	
RW06	MAP	253 MSL		CA			056.01		
253 MSL		PROSO		DF	FO	1.00			2600

MISSED APPROACH

MAP:

LPV: DA
 LNAV/VNAV: DA
 LNAV: RW06

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2600 DIRECT PROSO AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. HOLD SW INARE, LT, 055.96 INBOUND, 2600 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 056.01 FAF: OMOLY DIST FAF TO MAP: 5.09 DIST FAF TO THLD: 5.09

4. MIN ALT: INARE 2600, OMOLY 1700

5. DIST TO THLD FROM OM: MM: IM: 150 HAT: 200 HAT: 0.55 GS ANT: MM: IM:

6. MIN GP INCPT: 1700 GP ALT AT FAF : OMOLY 1700 OM: MM: IM:

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

8. MSA FROM: RW06 2400

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: CIRCLING RWY 24 NA AT NIGHT.
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -15C OR ABOVE 54C.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
CHART VDP AT 1.44 NM TO RW06*
*LNAV ONLY
WAAS CHANNEL #49018
REFERENCE PATH ID: W06A
CHART FAS OBST: 162 TREE 330156N/0801911W.
265 AAO 330055N/0802230W.
HOLD NE, RT, 236.15 INBOUND
LTP HAE: -20.5 M

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD - CAT A, B 900-2, CAT C 900-2 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	253	3/4	200	253	3/4	200	253	3/4	200		NA				
LNAV/VNAV DA	477	1 1/4	424	477	1 1/4	424	477	1 1/4	424		NA				
LNAV MDA	540	1	487	540	1	487	540	1 3/8	487		NA				
CIRCLING	860	1	804	860	1	804	860	2 1/4	804		NA				



CHANGES - REASONS

- 1. LINE 7, ADDED "20:1 IS CLEAR" - CURRENT DOCUMENTATION POLICY.
- 2. REPLACED DME/DME NOTE WITH PBN REQUIREMENTS NOTE - CURRENT DOCUMENTATION POLICY.
- 3. REMOVED FAHRENHEIT VALUES FROM BARO-VNAV NOTE - CURRENT DOCUMENTATION POLICY.
- 4. DELETED NOTE: BARO-VNAV AND VDP NA WHEN USING CHARLESTON AFB/INTL ALTIMETER SETTING - MOVED TO FORM 8260-9.
- 5. ALTERNATE MINIMUMS, REMOVED "NA WHEN LOCAL WEATHER NOT AVAILABLE" - NO BACKUP ALTIMETER PUBLISHED.

PDF EDIT: PAGE 1, ENTERED TDZE = 53



COORDINATED WITH:

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

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FLIGHT CHECKED BY

DEZ SILAGYI OFFICE

DATE

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, DEC 22, 2017. Jul 23, 2018

DEVELOPED BY

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OFFICE

DATE

RUSS ROSLEWSKI RUSSELL ROSLEWSKI

AJV-5421

07/03/2018

Jul 20, 2018

APPROVED BY

Digitally signed by

OFFICE

DATE

TITLE

JULIE MORGAN DEZ SILAGYI Jul 23, 2018

AJV-5420

MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KDYB
RUNWAY	RW06
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W06A
LTP/FTP LATITUDE	330327.9475N
LTP/FTP LONGITUDE	0801713.5255W
LTP/FTP ELLIPSOIDAL HEIGHT	-00205
FPAP LATITUDE	330434.8700N
FPAP LONGITUDE	0801541.9000W
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	1624
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	35.0

CRC REMAINDER	99EE9BB1

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K7
LTP ORTHOMETRIC HEIGHT	+00117
FPAP ORTHOMETRIC HEIGHT	+00117

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> CLEVELAND RGNL JETPORT	<u>AIRPORT ID</u> KRZR	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 3	<u>ORIGINAL/AMENDMENT</u> 2	<u>CITY</u> CLEVELAND	<u>STATE</u> TN
<u>AIRPORT ELEVATION</u> 860	<u>TDZE</u> 834	<u>SUPERSEDED</u> RNAV (GPS) RWY 3	<u>ORIGINAL/AMENDMENT</u> 1A	<u>DATED</u> 06/25/2015	<u>MAG VAR</u> 5W
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 2018	<u>REQUIRED EFFECTIVE DATE</u> 11/08/2018	<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. 334/30 CW 094/30	NOPT	334/5 CW 094/5		5100
2. 334/5 CW 094/5		MMARS	IF/IAF	4100
3. 094/30 CW 214/30		YODUL	IAF	4600
4. 214/30 CW 334/30		ZUBEB	IAF	6400

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>
ZUBEB	IAF	MMARS	NOPT	TF	FB	1.00	334.19	8.00	4100
YODUL	IAF	MMARS	NOPT	TF	FB	1.00	094.05	8.00	4100
MMARS	IF/IAF	AMZON		TF	FB	1.00	034.14	7.09	2700
AMZON	FAF	CULBO/2.50 NM TO RW03		TF	FB	0.30	034.19	2.54	
CULBO/2.50 NM TO RW03		RW03	MAP	TF	FO	0.30	034.19	2.50	
RW03	MAP	1800 MSL		CA			034.19		1800
1800 MSL		MMARS		DF	FO	1.00			4100



MISSED APPROACH

MAP:
LPV: DA
LNAV/VNAV: DA
LNAV: RW03

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 1800 THEN CLIMBING LEFT TURN TO 4100 DIRECT MMARS AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT	SIDE OF COURSE	OUTBOUND	FT WITHIN	MILES OF (IAF)				
2.	HOLD SW MMARS, RT, 034.14 INBOUND, 4100 FT. IN LIEU OF PT (IAF), MAX 6000.							
3. FAC:	034.19	FAF: AMZON	DIST FAF TO MAP: 5.04	DIST FAF TO THLD: 5.04				
4. MIN ALT:	MMARS 4100, AMZON 2700, CULBO/2.50 NM TO RW03 1780*							
5. DIST TO THLD FROM OM:		MM:	IM:	150 HAT:	200 HAT: 0.43			
6. MIN GP INCPT:	2700	GP ALT AT FAF : AMZON 2700			OM:	MM:	IM:	
7. GP ANGLE:	3.40	34:1: IS NOT CLEAR	20:1: IS CLEAR	TCH: 55.0				
8. MSA FROM:								

PBN REQUIREMENTS NOTE

RNP APCH.

NOTES:

CHART NOTE: RWY 3 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -16C OR ABOVE 20C.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON
CHART VDP AT 1.67 NM TO RW03*
*LNAV ONLY
WAAS CHANNEL #99632
REFERENCE PATH ID: W03A
CHART FAS OBST: 1192 TREE 351055N/0845006W.
LTP HAE: 221.4 M

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD - CAT D 1000-3



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
LPV DA	1034	3/4	200	1034	3/4	200	1104	7/8	270	1104	7/8	270			
LNAV/VNAV DA	1437	1 3/4	603	1437	1 3/4	603	1437	1 3/4	603	1437	1 3/4	603			
LNAV MDA	1400	1	566	1400	1	566	1400	1 5/8	566	1400	1 5/8	566			
CIRCLING	1460	1	600	1460	1	600	1580	2	720	1780	3	920			

CHANGES - REASONS

- 1. ALTERNATE MINIMUMS ADDED - KRZR WEATHER SERVICE IS ON SERVICE A.
- 2. MMARS TO AMZON DISTANCE CHANGED FROM 6.37 TO 7.09 - GLIDEPATH ANGLE (GPA)/TCH CHANGED FROM 3.00/40.1 TO 3.40/55.0.
- 3. AMZON TO CULBO/2.50 NM TO RW03 COURSE/DISTANCE CHANGED FROM 034.18 / 3.26 TO 034.19 / 2.54 - GPA/TCH CHANGED FROM 3.00/40.1 TO 3.40/55.0.
- 4. CULBO/2.50 NM TO RW03 COURSE CHANGED FROM 034.18 TO 034.19 - GPA/TCH CHANGED FROM 3.00/40.1 TO 3.40/55.0.
- 5. (CA) ALTITUDE CHANGED FROM 2100 TO 1800-PER IFF CHECKLIST, NEW MISSED APPROACH INSTRUCTIONS.
- 6. FAC: CHANGED FROM 034.18 TO 034.19- GPA/TCH CHANGED FROM 3.00/40.1 TO 3.40/55.0.
- 7. GLIDE PATH ALTITUDE CHANGED FROM 1660* TO 1780*-STABILIZED DESCENT ANGLE.
- 8. DIST FAF TO MAP/THLD CHANGED FROM 5.76 TO 5.04 - GPA/TCH CHANGED FROM 3.00/40.1 TO 3.40/55.0.
- 9. GPA ANGLE/TCH CHANGED FROM 3.00/40.1 TO 3.40/55.0-PER IFF CHECKLIST/FIM TO MITIGATE OBSTACLES AND ACHIEVE LOWER LPV DA/HAT.
- 10. MISSED APPROACH INSTRUCTIONS CHANGED FROM CLIMB TO 2100 THEN CLIMBING RIGHT TURN TO 4100 DIRECT MMARS AND HOLD "TO" CLIMB TO 1800 THEN CLIMBING LEFT TURN TO 4100 DIRECT MMARS AND HOLD - PER IFF CHECKLIST/FIM.
- 11. DISTANCE TO THLD FROM 453 HAT: 1.30 NM CHANGED TO DISTANCE TO THLD FROM 200 HAT: 0.43 NM - GPA/TCH CHANGED FROM 3.00/40.1 TO 3.40/55.0.
- 12. LPV CATS A/B DA/HAT CHANGED FROM 1349/515 TO 1034/200- GPA/TCH CHANGED FROM 3.00/40.1 TO 3.40/55.0.
- 13. LPV CATS A/B VISIBILITY CHANGED FROM 1 3/4 TO 3/4 - LOWER DA/HAT.
- 14. LPV CATS C/D DA/HAT CHANGED FROM 1349/515 TO 1104/270-GPA/TCH CHANGED FROM 3.00/40.1 TO 3.40/55.0.
- 15. LPV CATS C/D VISIBILITY CHANGED FROM 1 3/4 TO 7/8- LOWER DA/HAT.
- 16. UPDATED BARO LOW TEMP FROM -16C (4F) TO -16C - FAHRENHEIT NO LONGER REQUIRED.
- 17. UPDATED BARO HIGH TEMP FROM 54C (130F) TO 20C - GPA/TCH CHANGED FROM 3.00/40.1 TO 3.40/55.0 AND FAHRENHEIT NO LONGER REQUIRED.
- 18. ADDED PBN REQUIREMENT NOTE: RNP APCH - EQUIPMENT NAVSPEC REQUIREMENTS.
- 19. DELETED CHART NOTE: DME/DME RNP-0.3 NA - REPLACED WITH PBN REQUIREMENT NOTE: RNP APCH.
- 20. DELETED ALL BACK UP ALTIMETER NOTES - CONTINGENCY ALTIMETER INFORMATION LISTED ON THE BACK OF THE 8260-9. KRZR AND KCHA WEATHER SOURCE TRANSMITTED TO WMSCR.
- 21. ADDED 20:1 IS CLEAR - NO 20:1 OBSTACLES.
- 22. LOWERED MIN ALTITUDE OF TAA SEGMENT 214/30 CW 334/30 FROM 6500 TO 6400. NEW AAO EVALUATION.

FAS DATA CHANGES AND REASONS:

- 23. FPAP LATITUDE CHANGED FROM 351335.5415N TO 351335.5370N- GPA/TCH CHANGED FROM 3.00/40.1 TO 3.40/55.0.
- 24. FPAP LONGITUDE CHANGED FROM 0844722.2785W TO 0844722.2685W- GPA ANGLE/TCH CHANGED FROM 3.00/40.1 TO 3.40/55.0.
- 25. TCH CHANGED FROM 00040.1 TO 00055.0 - PER IFF CHECKLIST/FIM TO ACHIEVE LOWER LPV DA/HAT.
- 26. GLIDEPATH ANGLE (GPA) CHANGED FROM 03.00 TO 03.40- PER IFF CHECKLIST/FIM TO ACHIEVE LOWER LPV DA/HAT.
- 27. VERTICAL ALERT LIMIT (VAL) CHANGED FROM 50.0 TO 35.0 - LPV CATS A/B HAT CHANGED FROM 515 TO 200.
- 28. LENGTH OFFSET CHANGED FROM 1072 TO 864 - NEW RUNWAY LENGTH.
- 29. CRC REMAINDER CHANGED FROM C931533A TO 166217E5 - RESULT OF FAS DATA BLOCK INFORMATION CHANGES.

PREVIOUS P-NOTAM CHANGES AND REASONS INCORPORATED IN THIS AMENDMENT.

06/19/2018: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 04/16/2018.
REQUIRED EFFECTIVE DATE CHANGED FROM ROUTINE TO HARD DATE 11/08/2018.

PDF EDIT:
-3, LPV CATS C/D DA/HAT FROM 1034/200 TO 1104/270.
-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 DEVIATION REMARK FROM 13C TO -30C.
-9, CHANGED "MAP" TO "ARP" IN AIRSPACE.



COORDINATED WITH:

A4A

☐

ALPA

☒

AOPA

☒

APA

☐

HAI

☐

NBAA

☒

OTHER:

ZTL, ARPT MGR, CHA APP CON

FLIGHT CHECKED BY

PENDING

Digitally signed by

DEZ SILAGYI

Jun 20, 2018

OFFICE

DATE

DEVELOPED BY

DEANNA M. FIELDS

Digitally signed by

DEANNA M FIELDS

May 10, 2018

OFFICE

AJV-5421

DATE

04/16/2018

APPROVED BY

JULIE MORGAN

Digitally signed by

DEZ SILAGYI

Jun 20, 2018

OFFICE

AJV-5420

DATE

TITLE



FAS DATA BLOCK INFORMATION

DATA FIELD	DATA
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KRZR
RUNWAY	RW03
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W03A
LTP/FTP LATITUDE	351217.6520N
LTP/FTP LONGITUDE	0844815.3525W
LTP/FTP ELLIPSOIDAL HEIGHT	+02214
FPAP LATITUDE	351335.5370N
FPAP LONGITUDE	0844722.2685W
THRESHOLD CROSSING HEIGHT (TCH)	00055.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.40
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0864
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	35.0
CRC REMAINDER	166217E5
ADDITIONAL PATH POINT RECORD INFORMATION	
ICAO CODE	K7
LTP ORTHOMETRIC HEIGHT	+02515
FPAP ORTHOMETRIC HEIGHT	+02515



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> CLEVELAND RGNL JETPORT	<u>AIRPORT ID</u> KRZR	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 21	<u>ORIGINAL/AMENDMENT</u> 2	<u>CITY</u> CLEVELAND	<u>STATE</u> TN
<u>AIRPORT ELEVATION</u> 860	<u>TDZE</u> 866	<u>SUPERSEDED</u> RNAV (GPS) RWY 21	<u>ORIGINAL/AMENDMENT</u> 1A	<u>DATED</u> 06/25/2015	<u>MAG VAR</u> 5W
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 2018	<u>REQUIRED EFFECTIVE DATE</u> 11/08/2018	<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. 154/30 CW 274/30	NOPT	154/8 CW 274/8		7100
2. 154/8 CW 274/8		KAYAC	IF/IAF	3700
3. 274/30 CW 034/30		274/10 CW 034/10		7800
4. 274/10 CW 034/10		HUVPO	IAF	5100
5. 034/30 CW 154/30		WITIV	IAF	5300

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>
HUVPO	IAF	KAYAC	NOPT	TF	FB	1.00	274.38	8.00	3700
WITIV	IAF	KAYAC	NOPT	TF	FB	1.00	154.24	8.00	3700
KAYAC	IF/IAF	HWSEE		TF	FB	1.00	214.29	6.63	2600
HWSEE	FAF	RW21	MAP	TF	FO	0.30	214.25	5.29	
RW21	MAP	1066 MSL		CA			214.25		
1066 MSL		MMARS		DF	FO	1.00			4100



MISSED APPROACH

MAP:
LPV: DA
LNAV/VNAV: DA
LNAV: RW21

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 4100 DIRECT MMARS AND HOLD, CONTINUE CLIMB-IN-HOLD TO 4100.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT	SIDE OF COURSE	OUTBOUND	FT WITHIN	MILES OF (IAF)				
2.	HOLD NE KAYAC, RT, 214.29 INBOUND, 3700 FT. IN LIEU OF PT (IAF), MAX 6000.							
3. FAC:	214.25	FAF: HWSEE	DIST FAF TO MAP: 5.29	DIST FAF TO THLD: 5.29				
4. MIN ALT:	KAYAC 3700, HWSEE 2600							
5. DIST TO THLD FROM OM:		MM:	IM:	150 HAT:	200 HAT: 0.47			
6. MIN GP INCPT:	2600	GP ALT AT FAF : HWSEE 2600			OM:	MM:	IM:	
7. GP ANGLE:	3.00	34:1: IS CLEAR	20:1: IS CLEAR	TCH: 50.0				
8. MSA FROM:								

PBN REQUIREMENTS NOTE

RNP APCH

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -16C OR ABOVE 54C.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON
CHART VDP AT 1.39 NM TO RW21*
*LNAV ONLY
WAAS CHANNEL #45731
REFERENCE PATH ID: W21A
CHART FAS OBST: 1094 TREE 351342N/0844807W.
CHART: 1252 TOWER 351804N/0844425W.
HOLD SW, RT, 034.14 INBOUND
LTP HAE: 233.7 M

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD - CAT D 1000-3



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
LPV DA	1066	3/4	200	1066	3/4	200	1066	3/4	200	1066	3/4	200			
LNAV/VNAV DA	1276	1 1/8	410	1276	1 1/8	410	1276	1 1/8	410	1276	1 1/8	410			
LNAV MDA	1360	1	494	1360	1	494	1360	1 3/8	494	1360	1 3/8	494			
CIRCLING	1460	1	600	1460	1	600	1580	2	720	1780	3	920			

CHANGES - REASONS

1. (CA) ALTITUDE CHANGED FROM 1260 TO 1066 - LPV DA 1066 IS THE LOWEST ALTITUDE.
2. TCH CHANGED FROM 40 TO 50 - IFP FIM.
3. FAF DISTANCE CHANGED FROM 5.34 TO 5.29 - TCH CHANGED FROM 40 TO 50.
4. DIST FAF TO MAP/THLD CHANGED FROM 5.34 TO 5.29 - TCH CHANGED FROM 40 TO 50.
5. FAS OBST CHANGED FROM 1100 AAO 351657N/0844421W TO 1094 TREE 351342N/0844807W - SURVEY
6. DISTANCE TO THLD FROM 200 HAT: 0.50 NM CHANGED TO DISTANCE TO THLD FROM 200 HAT: 0.47 NM - TCH CHANGED FROM 40 TO 50.
7. VDP DISTANCE CHANGED FROM 1.44 NM TO 1.39 NM - TCH CHANGED FROM 40 TO 50.
8. LPV DA CHANGED FROM 1060 TO 1066 ALL CATS - TDZE CHANGED FROM 860 TO 866.
9. LNAV/VNAV DA/HAT CHANGED FROM 1255/395 TO 1276/410 ALL CATS - QUAD MAP STUDY DONE PLACING 100 FT VEGETATION.
10. LNAV/VNAV VISIBILITY CHANGED FROM 1 3/8 TO 1 1/8 ALL CATS - AJV VALIDATED VISCHECK (NEW INOP TABLE) CALCULATOR.
11. LNAV HAT CHANGED FROM 500 TO 494 ALL CATS - TDZE CHANGED FROM 860 TO 866.
12. ALTERNATE MINIMUMS ADDED - KRZR WEATHER SERVICE IS ON SERVICE A.
13. UPDATED BARO LOW TEMP FROM -16C (4F) TO -16C - FAHRENHEIT NO LONGER REQUIRED.
14. UPDATED BARO HIGH TEMP FROM 54C (130F) TO 54C - FAHRENHEIT NO LONGER REQUIRED.
15. ADDED PBN REQUIREMENT NOTE: RNP APCH - EQUIPMENT NAVSPEC REQUIREMENTS.
16. DELETED CHART NOTE: DME/DME RNP-0.3 NA - REPLACED WITH PBN REQUIREMENT NOTE: RNP APCH.
17. DELETED ALL BACK UP ALTIMETER NOTES - CONTINGENCY ALTIMETER INFORMATION LISTED ON THE BACK OF THE 8260-9.
18. KRZR AND KCHA WEATHER SOURCE TRANSMITTED TO WMSCR.
19. ADDED 20:1 IS CLEAR - NO 20:1 OBSTACLES.
20. ADDED 7:1 OBSTACLE 1252 TOWER 351804N/0844425W - SURVEY

FAS DATA CHANGES AND REASONS:

21. LTP/FTP LATITUDE CHANGED FROM 351305.1270N TO 351311.1700N - AIRNAV DATA.
22. LTP/FTP LONGITUDE CHANGED FROM 0844742.9960W TO 0844738.8800W - AIRNAV DATA.
23. LTP/FTP ELLIPSOIDAL HEIGHT CHANGED FROM +02320 TO +02337 - AIRNAV DATA.
24. FPAP LATITUDE CHANGED FROM 351147.2390N TO 351153.2835N - TCH CHANGED FROM 40 TO 50.
25. FPAP LONGITUDE CHANGED FROM 0844836.0675W TO 0844831.9560W - TCH CHANGED FROM 40 TO 50.
26. THRESHOLD CROSSING HEIGHT (TCH) CHANGED FROM 00040.0 TO 00050.0 - IFP FIM
27. LENGTH OFFSET CHANGED FROM 1072 TO 864 - NEW RUNWAY LENGTH.
28. CRC REMAINDER CHANGED FROM 8338D88F TO 635F1011 - RESULT OF FAS DATA BLOCK INFORMATION CHANGES.

PREVIOUS P-NOTAM CHANGES AND REASONS INCORPORATED IN THIS AMENDMENT.

06/19/2018: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 04/18/2018.
REQUIRED EFFECTIVE DATE CHANGED FROM ROUTINE TO HARD DATE 11/08/2018

PDF EDIT:

- 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 DEVIATION REMARK FROM 12C TO -30C.
- 9, CHANGED "MAP" TO "ARP" IN AIRSPACE.



COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZTL, APRT MGR, CHA APP CON

FLIGHT CHECKED BY

PENDING

Digitally signed by

DEZ SILAGYI

Jun 20, 2018

OFFICE

DATE

DEVELOPED BY

DEANNA M. FIELDS

Digitally signed by

DEANNA M FIELDS

May 10, 2018

OFFICE

AJV-5421

DATE

04/18/2018

APPROVED BY

JULIE MORGAN

Digitally signed by

DEZ SILAGYI

Jun 20, 2018

OFFICE

AJV-5420

DATE

TITLE

MANAGER



FAS DATA BLOCK INFORMATION

DATA FIELD	DATA
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KRZR
RUNWAY	RW21
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W21A
LTP/FTP LATITUDE	351311.1700N
LTP/FTP LONGITUDE	0844738.8800W
LTP/FTP ELLIPSOIDAL HEIGHT	+02337
FPAP LATITUDE	351153.2835N
FPAP LONGITUDE	0844831.9560W
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	0864
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	35.0
CRC REMAINDER	635F1011
ADDITIONAL PATH POINT RECORD INFORMATION	
ICAO CODE	K7
LTP ORTHOMETRIC HEIGHT	+02638
FPAP ORTHOMETRIC HEIGHT	+02638



**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>
CLEVELAND, TN	CLEVELAND RGNL JETPORT	11/08/2018	2

TAKEOFF MINIMUMS:

RWY 3: STANDARD

RWY 21: 300-1 3/4 OR STANDARD WITH MINIMUM CLIMB OF 260 FT PER NM TO 1200.

TEXTUAL DEPARTURE PROCEDURES:

RWY 3: CLIMB HEADING 034.22 TO 2200 BEFORE TURNING RIGHT.

RWY 21: CLIMB HEADING 214. 22 TO 2400 BEFORE PROCEEDING ON COURSE.

VISUAL CLIMB OVER AIRPORT:

TAKEOFF OBSTACLE NOTES:

RWY 21: NOTE: RWY 21, TREE 3009 FT FROM DER, 676 FT LEFT OF CENTERLINE, 920 FT MSL.

TREE 1.1 NM FROM DER, 2087 FT LEFT OF CENTERLINE, 1011 FT MSL.

TREE 1.1 NM FROM DER, 2321 FT LEFT OF CENTERLINE, 1021 FT MSL.

TOWER 1.1 NM FROM DER, 65 FT LEFT OF CENTERLINE, 196 FT AGL/1054 FT MSL.

TOWER 1.4 NM FROM DER, 880 FT RIGHT OF CENTERLINE, 225 FT AGL/1075 FT MSL.

CONTROLLING OBSTACLES:

RWY 21: 1054 FT MSL TOWER, 351116.23N/0844856.29W (CLIMB GRADIENT/CLIMB TO ALTITUDE). 1075 FT MSL TOWER, 351105.00N/0844917.00W (CEILING/VISIBILITY).

OBSTACLE MANDATING ODP ROUTE DEVELOPMENT:

RWY 3: 3283 FT MSL TOWER, 351135.00N/0843333.00W.

RWY21: 4400 FT MSL AAO, 350000.00N/0843145.00W.

REMARKS:

FLIGHT INSPECTED BY:

Digitally signed by

DEZ SILAGYI

Jun 20, 2018

OFFICE SYMBOL:

FICO

DATE:

6/12/18

DEVELOPED BY:

Digitally signed by

DEANNA M FIELDS

May 10, 2018

OFFICE SYMBOL:

AJV-5421

DATE:

04/25/2018

APPROVED BY:

Digitally signed by

DEZ SILAGYI

Jun 20, 2018

OFFICE SYMBOL:

AJV-5420

DATE:

REQUIRED EFFECTIVE DATE:

11/08/2018

COORDINATED WITH:

A4A

ALPA

AOPA

APA

HAI

NBAA



OTHER:

ZTL, CHA APP CON, ARPT MGR

CHANGES - REASONS:

1. RWY 3 TEXTUAL DEPARTURE PROCEDURE: HEADING CHANGED FROM 034.21 TO 034.22 - CURRENT AIRNAV.
2. UPDATED TAKEOFF OBSTACLE NOTES - GROUPED AND FORMATTED IN ACCORDANCE WITH THE DEPARTURE OBSTACLE GROUPER SOP (1.0).
3. RWY 21 CONTROLLING OBSTACLE: 1054 FT MSL TOWER, 351116.23N/0844856.29W ADDED (CLIMB GRADIENT/CLIMB TO ALTITUDE) - CRITERIA, WHEN THERE IS MORE THAN ONE CONTROLLING OBSTACLE TO BE DOCUMENTED, FOLLOWING THE COORDINATES, INCLUDE WHAT ENTITY IT APPLIES TOO.
5. RWY 21 CONTROLLING OBSTACLE: ADDED 1075 FT MSL TOWER, 351105.00N/0844917.00W (CEILING/VISIBILITY) - CURRENT AIRNAV.

**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.

<u>CITY, STATE</u>	<u>AIRPORT</u>	<u>EFFECTIVE DATE</u>	<u>AMDT NO</u>
CLEVELAND, TN	CLEVELAND RGNL JETPORT	11/08/2018	2

6. OBSTACLE MANDATING ODP ROUTE DEVELOPMENT: DELETED RWY 3 OBSTACLE 3187 FT MSL TOWER 351131.00N/0843331.00W - NOT A FACTOR WITH NEW THE EVALUATION IN TARGETS.

06/19/2018: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 04/25/2018.
REQUIRED EFFECTIVE DATE CHANGED FROM ROUTINE TO HARD DATE 11/08/2018.

**FEDERAL AVIATION ADMINISTRATION
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.

<u>AIRPORT</u> WINCHESTER MUNI	<u>AIRPORT ID</u> KBGF	<u>PROCEDURE NAME</u> NDB RWY 18	<u>ORIGINAL/AMENDMENT</u> 6B	<u>CITY</u> WINCHESTER	<u>STATE</u> TN	
<u>AIRPORT ELEVATION</u> 979	<u>TDZE</u> 971	<u>SUPERSEDED</u> NDB RWY 18	<u>ORIGINAL/AMENDMENT</u> 6A	<u>DATED</u> 04/30/2015	<u>MAG VAR</u>	<u>EPOCH YEAR</u>
<u>FACILITY</u>	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u>	<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 11/08/2018

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:

QUALITY
22
CHECKED

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: ZME, AMGR.

FLIGHT CHECKED BY

DEVELOPED BY

JOSHUA LEETE

Digitally signed by

ROBERT G HAMILTON

Jul 10, 2018

APPROVED BY

JULIE A. MORGAN

Digitally signed by

ROBERT G HAMILTON

Jul 10, 2018

OFFICE

DATE

OFFICE

DATE

OFFICE

DATE

OFFICE

DATE

TITLE

MANAGER



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: 5.78 NM AFTER FIVIS/I-RRA 7.32 DME/RADAR OR AT I-RRA 1.55 DME								
TULOY/20.59 DME/RADAR (IAF)		GACHO/16.59 DME/RADAR		311.28 / 4.00 (I-RRA)		5000		CLIMB TO 1100 THEN CLIMBING RIGHT TURN TO 3000 ON HEADING 125 AND TTT VOR/DME R-084 TO SOLDO/TTT 35.79 DME AND HOLD. ALTERNATE MA (DO NOT CHART): CLIMB TO 1100 THEN CLIMBING RIGHT TURN TO 3000 DIRECT CVE VOR/DME AND ON R-087 TO SOLDO/CVE 28.92 DME AND HOLD. (DME REQUIRED). ADDITIONAL FLIGHT DATA: HOLD W, RT, 084.18 INBOUND. CHART IN PLANVIEW: ALTERNATE MA HOLDING, HOLD W SOLDO/CVE 28.92 DME, RT, 086.82 INBOUND. CHART FAS OBST: 613 POLE 325249N/0965920W. CHART 860 TOWER 324954N/0965445W. CHART VDP AT 2.49 DME* DISTANCE VDP TO THLD 0.95 NM. *LOC ONLY. CHART COWBOY (CVE) VOR/DME								
GACHO/16.59 DME/RADAR (IF)		VANDE/9.32 DME/RADAR		311.28 / 7.27 (I-RRA)		3000										
VANDE/9.32 DME/RADAR		FIVIS/7.32 DME/RADAR		311.28 / 2.00 (I-RRA)		2400										
1. PT _____ SIDE OF COURSE _____ OUTBOUND _____ FT WITHIN _____ MILES OF _____ (IAF) 2. PROFILE STARTS AT TULOY 3. FAC: 311.28 FAF: FIVIS/7.32 DME/RADAR DIST FAF TO MAP: 5.78 THLD: 5.78 4. MIN. ALT: TULOY 5000, GACHO 5000, VANDE 3000, FIVIS 2400, GUKSE/I-RRA 3.13 DME 1060* 5. DIST TO THLD FROM OM: - MM: - IM: - 150 HAT: 2139 100 HAT: 1185 GS ANT: 1000 6. MIN GS INCPT: 2400 GS ALT AT: FIVIS 2400 OM: - MM: - IM: - 7. GS ANGLE: 3.00 TCH: 52.8 8. MSA FROM: TTT VOR/DME 090-270 3600, 270-090 2700										MAG VAR: 4E		EPOCH YEAR: 2010				
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 31R		723	1800	200	723	1800	200	723	1800	200	723	1800	200			
S-LOC 31R		1060	2400	537	1060	2400	537	1060	5500	537	1060	5500	537			
GUKSE FIX MINIMUMS																
S-LOC 31R		880	2400	357	880	2400	357	880	3000	357	880	3000	357			
NOTES: SA CAT I ILS - SPECIAL AIRCREW AND AIRCRAFT CERTIFICATION REQUIRED; S-ILS 31R: CAT A, B, C, D, RA 176, RVR 1400, HAT 150, DA 673 MSL. SA CAT II ILS - SPECIAL AIRCREW AND AIRCRAFT CERTIFICATION REQUIRED; S-ILS 31R: CAT A, B, C, D, RA 121, RVR 1200, HAT 100, DA 623 MSL. (CONTINUED ON PAGE 2)																
CITY AND STATE DALLAS-FORT WORTH, TX		ELEVATION: 607 TDZE: 523 AIRPORT NAME: DALLAS-FORT WORTH INTL		FACILITY IDENTIFIER: I-RRA		PROCEDURE NO./AMDT NO./EFFECTIVE DATE: ILS OR LOC RWY 31R, AMDT 15; ILS RWY 31R (SA CAT I), ILS RWY 31R (SA CAT II) 8 NOVEMBER 2018						SUP: AMDT: 14B DATED 09/18/2014				



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.	
NOTES, (CONT.): CHART NOTE: SIMULTANEOUS APPROACH AUTHORIZED. CHART NOTE: DME REQUIRED. CHART PLANVIEW NOTE: RADAR REQUIRED CHART PROFILE NOTE: VGSI AND ILS GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}). *LOC ONLY CHART NOTE: FOR INOPERATIVE ALS INCREASE S-LOC 31R GUKSE FIX MINIMUMS CAT C/D VISIBILITY TO RVR 5500. SA CAT I CHART NOTE: REQUIRES SPECIFIC OPSPEC, MSPEC, OR LOA APPROVAL AND USE OF HUD TO DH. SA CAT II CHART NOTE: REDUCED LIGHTING: REQUIRES SPECIFIC OPSPEC, MSPEC, OR LOA APPROVAL AND USE OF AUTOLAND OR HUD TO TOUCHDOWN.				
QUALITY 4 CHECKED				
CITY AND STATE DALLAS-FORT WORTH, TX	ELEVATION: 607 AIRPORT NAME: DALLAS-FORT WORTH INTL	TDZE: 523	FACILITY IDENTIFIER: I-RRRA	PROCEDURE NO./ AMDT NO./EFFECTIVE DATE: ILS OR LOC RWY 31R, AMDT 15; ILS RWY 31R (SA CAT I) , ILS RWY 31R (SA CAT II) 8 NOVEMBER 2018
SUP:				
AMDT: 14B				
DATED: 09/18/2014				

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> DALLAS-FORT WORTH INTL	<u>AIRPORT ID</u> KDFW	<u>PROCEDURE NAME</u> RNAV (GPS) Y RWY 31R	<u>ORIGINAL/AMENDMENT</u> 3	<u>CITY</u> DALLAS-FORT WORTH	<u>STATE</u> TX
<u>AIRPORT ELEVATION</u> 607	<u>TDZE</u> 523	<u>SUPERSEDED</u> RNAV (GPS) Y RWY 31R	<u>ORIGINAL/AMENDMENT</u> 2A	<u>DATED</u> 09/18/2014	<u>MAG VAR</u> 4E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 2015

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>
TULOY	IAF	GACHO		TF	FB	1.00	311.42	4.00	5000
GACHO	IF	VANDE		TF	FB	1.00	311.39	7.27	3000
VANDE		FIVIS		TF	FB	1.00	311.33	2.00	2400
FIVIS	FAF	GUKSE/1.00 NM TO CEMOL		TF	FB	0.30	311.32	4.20	
GUKSE/1.00 NM TO CEMOL		CEMOL	MAP	TF	FO	0.30	311.32	1.00	
CEMOL	MAP	1000 MSL		CA			311.32		1000
1000 MSL		SOLDO		DF	FO	1.00			3000

MISSED APPROACH

MAP:

LP: DA
 LNAV: CEMOL

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 1000 THEN CLIMBING RIGHT TURN TO 3000 DIRECT SOLDO AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. PROFILE STARTS AT TULOY

3. FAC: 311.32 FAF: FIVIS DIST FAF TO MAP: 5.20 DIST FAF TO THLD: 5.78

4. MIN ALT: TULOY 5000, GACHO 5000, VANDE 3000, FIVIS 2400, GUKSE/1.00 NM TO CEMOL 1060

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 CLEAR 20:1: IS CLEAR TCH:

8. MSA FROM: CEMOL 3600

PBN REQUIREMENTS NOTES:

RNP APCH.

NOTES:

CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
FOR INOPERATIVE ALS, INCREASE LP CAT C/D VISIBILITY TO RVR 5500 AND LNAV CAT C/D VISIBILITY TO RVR 6000.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
FIVIS TO RW31R: 3.00/53.
WAAS CHANNEL #90342
REFERENCE PATH ID: W31A
CHART FAS OBST: 613 POLE 325249N/0965920W, 635 POLE 325235N/0965932W.
CHART: 860 TOWER 324954N/0965445W.
HOLD W, RT, 084.00 INBOUND
LTP HAE: 128 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	880	2400	357	880	2400	357	880	3000	357	880	3000	357			
LNAV MDA	940	2400	417	940	2400	417	940	4000	417	940	4000	417			

CHANGES - REASONS

1. ADDED LP LINE OF MINIMA AND ASSOCIATED NOTES - PER FPT REQUEST.
2. CHANGED CHART NOTE FROM "CHART NOTE: DME/DME RNP 0.3 NA" TO "PBN REQUIREMENTS NOTE RNP APCH" - PER MEMO #257.
3. ADDED ADDITIONAL FLIGHT DATA CHART FAS OBST: 613 POLE - LP FAS OBSTACLE.
4. CA LEG ALTITUDE CHANGED FROM 940 TO 1000 - CLIMB TO ALTITUDE ADDED.
5. CHANGED MISSED APPROACH FROM "CLIMBING RIGHT TURN TO 3000 DIRECT SOLD0 AND HOLD" TO "CLIMB TO 1000, THEN CLIMBING RIGHT TURN TO 3000 DIRECT SOLD0 AND HOLD" - PER 8260.19H PARA 8-6-6D(7).
6. CHANGED NOTE: "VGSI AND DESCENT ANGLES NOT COINCIDENT" TO "VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET})" - UPDATED CHART NOTE.
7. DELETED "CHART PLANVIEW NOTE: RADAR REQUIRED" - NO LONGER REQUIRED.
8. ADDED "CHART CIRCLING ICON" IN ADDITIONAL FLIGHT DATA - NEW 8260.3 CIRCLING CRITERIA APPLIED.



<u>AIRPORT</u> DALLAS-FORT WORTH INTL	<u>AIRPORT ID</u> KDFW	<u>PROCEDURE NAME</u> RNAV (GPS) Y RWY 31R	<u>ORIGINAL/AMENDMENT</u> 3	<u>CITY</u> DALLAS-FORT WORTH	<u>STATE</u> TX
<u>COORDINATED WITH:</u>					
A4A ☐ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ <u>OTHER:</u> ZFW, REGIONAL APP CON, DFW ATCT, AMGR, ATA					
		<i>Digitally signed by</i>			
<u>FLIGHT CHECKED BY</u>	DONALD H LANIER		<u>OFFICE</u>	<u>DATE</u>	
ZACK SMYER	Aug 10, 2018		FICO	8/8/18	
		<i>Digitally signed by</i>			
<u>DEVELOPED BY</u>	WARDELL HENNING		<u>OFFICE</u>	<u>DATE</u>	
WARDELL HENNING	May 14, 2018		AJV-5433	05/03/2018	
		<i>Digitally signed by</i>			
<u>APPROVED BY</u>	DONALD H LANIER		<u>OFFICE</u>	<u>DATE</u>	<u>TITLE</u>
PATRICK MULQUEEN	Aug 10, 2018		AJV-5430		MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KDFW
RUNWAY	RW31R
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	Y
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W31A
LTP/FTP LATITUDE	325341.9330N
LTP/FTP LONGITUDE	0970003.0390W
LTP/FTP ELLIPSOIDAL HEIGHT	+00128
FPAP LATITUDE	325445.3600N
FPAP LONGITUDE	0970117.5100W
THRESHOLD CROSSING HEIGHT (TCH)	00052.8
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0008
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	0.0
CRC REMAINDER	B058D981

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K4
LTP ORTHOMETRIC HEIGHT	+01549
FPAP ORTHOMETRIC HEIGHT	+01549



**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.

<u>CITY, STATE</u>	<u>AIRPORT</u>	<u>EFFECTIVE DATE</u>	<u>AMDT NO</u>
DALLAS, TX	DALLAS EXECUTIVE	11/08/2018	8

TAKEOFF MINIMUMS:

RWY 13, 31, 35: STANDARD.

RWY 17: 400-2 3/4 OR STANDARD WITH MINIMUM CLIMB OF 220 FT PER NM TO 1200.

TEXTUAL DEPARTURE PROCEDURES:

RWY 13: CLIMB HEADING 129.08 TO 1800 BEFORE TURNING WESTBOUND.

RWY 17: CLIMB HEADING 174.13 TO 2600 BEFORE TURNING WESTBOUND.

RWY 31: CLIMB HEADING 309.09 TO 1500 BEFORE TURNING SOUTHBOUND.

RWY 35: CLIMB HEADING 354.13 TO 1400 BEFORE TURNING SOUTHBOUND.

VISUAL CLIMB OVER AIRPORT:

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 13, LIGHTING 19 FT FROM DER, 116 FT LEFT OF CENTERLINE, 7 FT AGL/653 FT MSL. LIGHTING 20 FT FROM DER, 115 FT RIGHT OF CENTERLINE, 6 FT AGL/651 FT MSL. FENCE 108 FT FROM DER, 347 FT LEFT OF CENTERLINE, 10 FT AGL/658 FT MSL.

NOTE: RWY 17, LIGHTING 39 FT FROM DER, 116 FT RIGHT OF CENTERLINE, 663 FT MSL. LIGHTING 40 FT FROM DER, 160 FT LEFT OF CENTERLINE, 5 FT AGL/664 FT MSL. TREE 62 FT FROM DER, 436 FT LEFT OF CENTERLINE, 688 FT MSL. TREES BEGINNING 119 FT FROM DER, 301 FT RIGHT OF CENTERLINE, UP TO 684 FT MSL. TREES BEGINNING 122 FT FROM DER, 404 FT LEFT OF CENTERLINE, UP TO 41 FT AGL/692 FT MSL. TREES BEGINNING 365 FT FROM DER, 340 FT LEFT OF CENTERLINE, UP TO 702 FT MSL. TOWER 2.2 NM FROM DER, 598 FT LEFT OF CENTERLINE, 310 FT AGL/1024 FT MSL. ANTENNA 2.2 NM FROM DER, 583 FT LEFT OF CENTERLINE, 312 FT AGL/1026 FT MSL.

NOTE: RWY 31, TREE 46 FT FROM DER, 256 FT LEFT OF CENTERLINE, 681 FT MSL. TREES BEGINNING 81 FT FROM DER, 267 FT LEFT OF CENTERLINE, UP TO 683 FT MSL. TREE 159 FT FROM DER, 296 FT RIGHT OF CENTERLINE, 672 FT MSL. TREES BEGINNING 186 FT FROM DER, 304 FT LEFT OF CENTERLINE, UP TO 33 FT AGL/699 FT MSL. TREES BEGINNING 347 FT FROM DER, 297 FT LEFT OF CENTERLINE, UP TO 700 FT MSL. TREES BEGINNING 583 FT FROM DER, 72 FT RIGHT OF CENTERLINE, UP TO 703 FT MSL. TREE 1818 FT FROM DER, 745 FT LEFT OF CENTERLINE, 722 FT MSL. TREE 2326 FT FROM DER, 802 FT LEFT OF CENTERLINE, 738 FT MSL. TREE 2535 FT FROM DER, 829 FT LEFT OF CENTERLINE, 740 FT MSL.

NOTE: RWY 35, TERRAIN 4 FT FROM DER, 10 FT RIGHT OF CENTERLINE, 651 FT MSL. TREES, LIGHTING BEGINNING 9 FT FROM DER, 118 FT LEFT OF CENTERLINE, UP TO 37 FT AGL/675 FT MSL. LIGHTING 41 FT FROM DER, 159 FT RIGHT OF CENTERLINE, 656 FT MSL. BUILDING, TREES BEGINNING 82 FT FROM DER, 309 FT RIGHT OF CENTERLINE, UP TO 671 FT MSL. TREES BEGINNING 231 FT FROM DER, 521 FT LEFT OF CENTERLINE, UP TO 679 FT MSL. TREES BEGINNING 402 FT FROM DER, 370 FT LEFT OF CENTERLINE, UP TO 680 FT MSL. TREES BEGINNING 980 FT FROM DER, 284 FT RIGHT OF CENTERLINE, UP TO 682 FT MSL. TREE 1288 FT FROM DER, 779 FT RIGHT OF CENTERLINE, 685 FT MSL. TREES BEGINNING 1386 FT FROM DER, 704 FT RIGHT OF CENTERLINE, UP TO 691 FT MSL.

CONTROLLING OBSTACLES:

RWY 17: 1024 FT MSL TOWER 323818.55N/0965153.91W (CG), 1026 FT MSL ANTENNA 323817.76N/0965154.08W (CGTA/CEIL/VIS).

OBSTACLES MANDATING ODP ROUTE DEVELOPMENT: RWY 13, 17, 31, 35 - 2549 FT MSL TOWER 32352.67N/0965748.75W.

REMARKS:

RWY 17 CLIMB GRADIENT ROUNDED UP TO NEXT HIGHEST 5 FOOT INCREMENT.

FLIGHT INSPECTED BY:

PENDING

Digitally signed by

DEZ SILAGYI

Aug 22, 2018

OFFICE SYMBOL:

DATE:

DEVELOPED BY:

LONNIE EVERHART (CASEY HILL)

Digitally signed by

DEZ SILAGYI

Aug 22, 2018

OFFICE SYMBOL:

AJV-5400

DATE:

5/31/2018

APPROVED BY:

LONNIE EVERHART

Digitally signed by

DEZ SILAGYI

Aug 22, 2018

OFFICE SYMBOL:

AJV-5400

DATE:

REQUIRED EFFECTIVE DATE:

11/08/2018 - HARD DATE PUBLICATION FOR RUNWAY CONSTRUCTION.

QUALITY
3
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.

<u>CITY, STATE</u>	<u>AIRPORT</u>	<u>EFFECTIVE DATE</u>	<u>AMDT NO</u>
DALLAS, TX	DALLAS EXECUTIVE	11/08/2018	8

COORDINATED WITH:

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

☐☒☒☐☐☒

OTHER:

ZFW, REGIONAL APP CON, RBD TOWER, AMGR

CHANGES - REASONS:

UPDATED TAKEOFF OBSTACLE NOTES FOR ALL RUNWAYS - NEW SURVEY DATA, RUNWAY CONSTRUCTION.

CHANGED RWY 17 CONTROLLING OBSTACLE - NEW CONTROLLING OBSTACLE.

CHANGED RWY 31 OBSTACLE MANDATING ODP ROUTE DEVELOPMENT - NEW SURVEY DATA.



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> NUECES COUNTY	<u>AIRPORT ID</u> KRBO	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 13	<u>ORIGINAL/AMENDMENT</u> 1A	<u>CITY</u> ROBSTOWN	<u>STATE</u> TX	
<u>AIRPORT ELEVATION</u> 80	<u>TDZE</u> 80	<u>SUPERSEDED</u> RNAV (GPS) RWY 13	<u>ORIGINAL/AMENDMENT</u> 1	<u>DATED</u> 06/22/2017	<u>MAG VAR</u> 6E	<u>EPOCH YEAR</u> 2000
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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>
CRP VORTAC		ELELY		TF	FO	2.00	263.47	20.35	2000
ATHIS	IAF	ELELY	NOPT	TF	FB	1.00	170.75	10.39	2000
ELELY	IF/IAF	INBEW		TF	FB	1.00	128.89	5.07	1700
INBEW	FAF	MATSS/1.90 NM TO RW13		TF	FB	0.30	128.89	3.06	
MATSS/1.90 NM TO RW13		RW13	MAP	TF	FO	0.30	128.89	1.90	
RW13	MAP	540 MSL		CA			128.89		540
540 MSL		ELELY		DF	FO	1.00			2000

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW13

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 540 THEN CLIMBING RIGHT TURN TO 2000 DIRECT ELELY AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT	SIDE OF COURSE	OUTBOUND	FT WITHIN	MILES OF (IAF)	
2.	HOLD NW ELEY, LT, 128.89 INBOUND, 2000 FT. IN LIEU OF PT (IAF), MAX 4000.				
3. FAC:	128.89	FAF: INBEW	DIST FAF TO MAP: 4.96	DIST FAF TO THLD: 4.96	
4. MIN ALT:	ELEY 2000, INBEW 1700, MATSS/1.90 NM TO RW13 720*				
5. DIST TO THLD FROM OM:	MM:	IM:	150 HAT:	250 HAT: 0.66	GS ANT:
6. MIN GP INCPT: 1700	GP ALT AT FAF : INBEW 1700			OM:	MM: IM:
7. GP ANGLE: 3.00	34:1: IS CLEAR	20:1: IS CLEAR	TCH: 40.0		
8. MSA FROM:	RW13 2200				

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: CIRCLING NA NE OF RWY 13-31.
CHART NOTE: PROCEDURE NA AT NIGHT.
CHART NOTE: BARO-VNAV AND VDP NA WHEN USING CORPUS CHRISTI INTL ALTIMETER SETTING.
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -15C OR ABOVE 54C.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON CRP VORTAC AIRWAY RADIALS 184 CW 305.
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE CORPUS CHRISTI INTL ALTIMETER SETTING AND INCREASE LPV DA TO 358 FEET, LNAV/VNAV DA TO 400 FEET AND ALL MDA 40 FEET.

ADDITIONAL FLIGHT DATA:

CHART: A-632C
CHART CIRCLING ICON.
CHART VDP AT 1.13 NM TO RW13*
*LNAV ONLY
WAAS CHANNEL #97430
REFERENCE PATH ID: W13A
CHART FAS OBST: 230 TOWER 274731N/0974125W.
LTP HAE: -2.3 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
LPV DA	330	1	250	330	1	250		NA			NA				
LNAV/VNAV DA	372	1	292	372	1	292		NA			NA				
LNAV MDA	480	1	400	480	1	400		NA			NA				
CIRCLING	540	1	460	640	1	560		NA			NA				



CHANGES - REASONS

- 1. CHANGED CIRCLING CAT B MDA FROM 540 TO 640 - NEW OBSTACLE EVALUATION.
- 2. CHANGED CIRCLING CAT B HAA FROM 460 TO 560 - NEW OBSTACLE EVALUATION.
- 3. CHANGED MISSED APPROACH INSTRUCTIONS FROM "CLIMB TO 500 THEN CLIMBING RIGHT TURN TO 2000 DIRECT ELEY AND HOLD." TO "CLIMB TO 540 THEN CLIMBING RIGHT TURN TO 2000 DIRECT ELEY AND HOLD." - AUTOMATION INDICATES THAT A CLIMB TO AT LEAST 530 IS REQUIRED.



<u>AIRPORT</u> NUECES COUNTY	<u>AIRPORT ID</u> KRBO	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 13	<u>ORIGINAL/AMENDMENT</u> 1A	<u>CITY</u> ROBSTOWN	<u>STATE</u> TX
<u>COORDINATED WITH:</u>					
A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZHU, CRP APP/CON, NQI APP/CON, AMGR					
<u>FLIGHT CHECKED BY</u> JOHN E PHILLABAUM		Digitally signed by DAVID TEFFETELLER Aug 20, 2018		<u>OFFICE</u> FICO	<u>DATE</u> 08/14/2018
<u>DEVELOPED BY</u> FRANK MOORE		Digitally signed by FRANK MOORE Jul 26, 2018		<u>OFFICE</u> AJV-5433	<u>DATE</u> 07/13/2018
<u>APPROVED BY</u> PATRICK MULQUEEN		Digitally signed by DAVID TEFFETELLER Aug 20, 2018		<u>OFFICE</u> AJV-5430	<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	KRBO
RUNWAY	RW13
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W13A
LTP/FTP LATITUDE	274654.2570N
LTP/FTP LONGITUDE	0974138.9660W
LTP/FTP ELLIPSOIDAL HEIGHT	-00023
FPAP LATITUDE	274551.1635N
FPAP LONGITUDE	0974027.8470W
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	1624
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	3878FC3A

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K4
LTP ORTHOMETRIC HEIGHT	+00243
FPAP ORTHOMETRIC HEIGHT	+00243



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> MANTI-EPHRAIM	<u>AIRPORT ID</u> K41U	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 3	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>CITY</u> MANTI	<u>STATE</u> UT
<u>AIRPORT ELEVATION</u> 5516	<u>TDZE</u>	<u>SUPERSEDED</u> RNAV (GPS) RWY 3	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>DATED</u> 06/22/2017	<u>MAG VAR</u> 11E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<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>
PUC VOR/DME		WKARA		TF	FO	2.00	230.04	62.39	13200
DTA VORTAC	IAF	WKARA	NOPT	TF	FB	1.00	103.53	29.95	11800
WKARA	IF/IAF	RPEEN		TF	FB	1.00	034.24	6.03	9900
RPEEN		OOLIT		TF	FB	1.00	034.30	7.00	7700
OOLIT	FAF	TMPLE/5.00 NM TO RW03		TF	FB	0.30	034.36	1.86	
TMPLE/5.00 NM TO RW03		BRIGM/3.00 NM TO RW03		TF	FB	0.30	034.36	2.00	
BRIGM/3.00 NM TO RW03		RW03	MAP	TF	FO	0.30	034.36	3.00	
RW03	MAP	5960 MSL		CA			034.36		5960
5960 MSL		SANPT		DF	FB	1.00			
SANPT		YMONT		TF	FO	1.00	353.52	23.98	13000

MISSED APPROACH

MAP:

LPV: DA
 LNAV/VNAV: DA
 LNAV: RW03

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 5960 THEN CLIMBING LEFT TURN TO 13000 DIRECT SANPT AND ON TRACK 353.52 DIRECT YMONT AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT	SIDE OF COURSE	OUTBOUND	FT WITHIN	MILES OF	(IAF)
2.	HOLD SW WKARA, RT, 034.24 INBOUND, 11800 FT. IN LIEU OF PT (IAF), MAX 14000.				
3. FAC:	034.36	FAF: OOLIT	DIST FAF TO MAP: 6.86	DIST FAF TO THLD: 6.86	
4. MIN ALT:	WKARA 11800, RPEEN 9900, OOLIT 7700, TMPLE/5.00 NM TO RW03 7100*, BRIGM/3.00 NM TO RW03 6460*				
5. DIST TO THLD FROM OM:	MM:	IM:	150 HAT:	278 HAT: 0.84	GS ANT:
6. MIN GP INCPT: 7700	GP ALT AT FAF : OOLIT 7700			OM:	MM: IM:
7. GP ANGLE: 3.00	34:1	IS NOT CLEAR	20:1	IS NOT CLEAR	TCH: 40.0
8. MSA FROM:	RW03 12500				

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: CIRCLING NA SE OF RWY 3-21.
CHART NOTE: PROCEDURE NA AT NIGHT.
CHART NOTE: RWY 3 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED.
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -25C OR ABOVE 54C.
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, PROCEDURE NA.
*LNAV ONLY
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON PUC VOR/DME AIRWAY RADIALS 164 CW 293.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT DTA VORTAC ON V257 NORTHBOUND.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
WAAS CHANNEL #65839
REFERENCE PATH ID: W03A
CHART FAS OBST: 5809 TOWER 391739N/1113820W.
5679 AAO 391654N/1113936W.
HOLD SE, RT, 295.70 INBOUND
LTP HAE: 1650.8 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	5781	1	278	5781	1	278	5781	1	278	5781	1	278			
LNAV/VNAV DA	5823	1 1/8	320	5823	1 1/8	320	5823	1 1/8	320		NA				
LNAV MDA	6000	1	497	6000	1	497	6180	1 7/8	677	6180	1 7/8	677			
CIRCLING	6000	1	484	6000	1	484	6280	2 1/4	764	7620	3	2104			



<u>AIRPORT</u>	<u>AIRPORT ID</u>	<u>PROCEDURE NAME</u>	<u>ORIGINAL/AMENDMENT</u>	<u>CITY</u>	<u>STATE</u>
MANTI-EPHRAIM	K41U	RNAV (GPS) RWY 3	ORIG-A	MANTI	UT

CHANGES - REASONS

- 1. CA LEG ALTITUDE CHANGED FROM 5950 TO 5960 - 5950 ALTITUDE TO LOW FOR LPV MISSED APPROACH SECTION 2.
- 2. MISSED APPROACH; CLIMB TO 5950 CHANGED TO 5960 - 5950 ALTITUDE TO LOW FOR LPV MISSED APPROACH SECTION 2.
- 3. DELETED CHART NOTE: DME/DME RNP-0.3 NA - REPLACED WITH PBN REQUIREMENT NOTE: RNP APCH.
- 4. ADDED PBN REQUIREMENT NOTE: RNP APCH - EQUIPMENT NAVSPEC REQUIREMENTS.
- 5. ADDED 20:1 IS NOT CLEAR -20:1 PENETRATION.
- 6. DELETED BARO LOW/HIGH TEMP FAHRENHEIT NUMBERS - FAHRENHEIT NO LONGER REQUIRED.



COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: WFPT, ZLC, AMGR, UTAH DIVISION OF AERONAUTICS

FLIGHT CHECKED BY

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, DEC 22, 2017.

DEVELOPED BY

DEANNA M. FIELDS
Digitally signed by
DEANNA M FIELDS

APPROVED BY

JULIE MORGAN
Jul 10, 2018

OFFICE

OFFICE

AJV-5421

OFFICE

AJV-5420

DATE

DATE

06/04/2018

DATE

Digitally signed by
ROBERT G HAMILTON
Jul 12, 2018

Digitally signed by
ROBERT G HAMILTON
Jul 12, 2018

TITLE

MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	41U
RUNWAY	RW03
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W03A
LTP/FTP LATITUDE	391935.7445N
LTP/FTP LONGITUDE	1113708.1005W
LTP/FTP ELLIPSOIDAL HEIGHT	+16508
FPAP LATITUDE	392038.3205N
FPAP LONGITUDE	1113546.2820W
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	1216
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	5EE6D7F1

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K2
LTP ORTHOMETRIC HEIGHT	+16684
FPAP ORTHOMETRIC HEIGHT	+16684



FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
ILS STANDARD INSTRUMENT APPROACH PROCEDURE

TITLE 14 CFR PART 97.29

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<u>AIRPORT</u> SALT LAKE CITY INTL	<u>AIRPORT ID</u> KSLC	<u>PROCEDURE NAME</u> ILS OR LOC RWY 16R ILS RWY 16R SA CAT I, ILS RWY 16R CAT II, ILS RWY 16R CAT III	<u>ORIGINAL/AMENDMENT</u> 3E	<u>CITY</u> SALT LAKE CITY	<u>STATE</u> UT
<u>AIRPORT ELEVATION</u> 4227	<u>TDZE</u> 4223	<u>SUPERSEDED</u> ILS OR LOC RWY 16R ILS RWY 16R SA CAT I, ILS RWY 16R CAT II, ILS RWY 16R CAT III	<u>ORIGINAL/AMENDMENT</u> 3D	<u>DATED</u> 10/12/2017	<u>MAG VAR</u> 11E
<u>FACILITY</u> I-UAT	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<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>
FANDS/I-UAT 30.00 DME/RADAR	IAF	RRUFF/I-UAT 22.40 DME/RADAR					163.95	7.60 (I-UAT)	9000
OGD VORTAC	IAF	RRUFF/I-UAT 22.40 DME/RADAR					136.55	5.50	9000
RRUFF/I-UAT 22.40 DME/RADAR	IF	UFEMY/I-UAT 16.27 DME/RADAR					163.95	6.13 (I-UAT)	8000
UFEMY/I-UAT 16.27 DME/RADAR		BHIVE/I-UAT 12.60 DME/RADAR					163.95	3.67 (I-UAT)	7500
BHIVE/I-UAT 12.60 DME/RADAR		BNKER/I-UAT 7.49 DME/RADAR					163.95	5.11 (I-UAT)	6000

MISSED APPROACH

MAP:

ILS: DA
 LOC: 5.34 NM AFTER BNKER/I-UAT 7.49 DME/RADAR OR AT I-UAT 2.14 DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 4800 THEN CLIMBING RIGHT TURN TO 8100 ON HEADING 300 AND ON TCH VORTAC R-249 TO STACO INT/TCH 20.00 DME AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS (DO NOT CHART):

CLIMB TO 4800 THEN CLIMBING RIGHT TURN TO 10000 ON HEADING 280. EXPECT RADAR VECTORS. (RADAR REQUIRED).



8. MSA FROM: TCH VORTAC 050-230 12700, 230-320 8600, 320-050 11000

DME OR RADAR REQUIRED.

CHART NOTE: FOR INOPERATIVE ALS, INCREASE S-LOC 16R CAT C AND D VISIBILITIES TO RVR 5500.

HOLD W, LT, 069.32 INBOUND

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

ALTERNATE: NA ☐ ILS: STANDARD; LOC: 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 16R	4423	1800	200	4423	1800	200	4423	1800	200	4423	1800	200			
S-LOC 16R	4580	2400	357	4580	2400	357	4580	3000	357	4580	4000	357			

1. DELETED DIST TO THLD FROM IM AND IM ELEVATION FROM LINE 6 - INNER MARKER DECOM.
2. MOVED "DME OR RADAR REQUIRED" FROM NOTES SECTION TO EQUIPMENT REQUIREMENTS NOTES AND - IAW 8-6-8.A.
3. INCREASED S-LOC 16R CAT C VISIBILITY FROM RVR 2400 TO RVR 3000 - APPLICATION OF 8260.3C, TABLE 3-3-1.
4. ADDED INOPERATIVE NOTE FOR S-LOC 16R CAT C AND D - CRITERIA CHANGE, INCREASE DOES NOT EQUAL INOP TABLE.



<u>AIRPORT</u>	<u>AIRPORT ID</u>	<u>PROCEDURE NAME</u>	<u>ORIGINAL/AMENDMENT</u>	<u>CITY</u>	<u>STATE</u>
SALT LAKE CITY INTL	KSLC	ILS OR LOC RWY 16R ILS RWY 16R SA CAT I, ILS RWY 16R CAT II, ILS RWY 16R CAT III	3E	SALT LAKE CITY	UT

COORDINATED WITH:

A4A ☒ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: ZLC, SLC ATCT, UT AERO, AMGR

FLIGHT CHECKED BY

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS
GROUP (AJW-33) MEMO, DEC 22, 2017.

DEVELOPED BY

DONALD H. LANIER (JACOB MAXFIELD)

Digitally signed by
DONALD H LANIER
Jul 27, 2018

DONALD H LANIER

Jul 27, 2018

OFFICE

AJV-5431

DATE

06/19/2018

APPROVED BY

PATRICK MULQUEEN

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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> SALT LAKE CITY INTL	<u>AIRPORT ID</u> KSLC	<u>PROCEDURE NAME</u> ILS OR LOC RWY 34L ILS RWY 34L SA CAT I, ILS RWY 34L CAT II, ILS RWY 34L CAT III	<u>ORIGINAL/AMENDMENT</u> 3D	<u>CITY</u> SALT LAKE CITY	<u>STATE</u> UT	
<u>AIRPORT ELEVATION</u> 4227	<u>TDZE</u> 4226	<u>SUPERSEDED</u> ILS OR LOC RWY 34L ILS RWY 34L SA CAT I, ILS RWY 34L CAT II, ILS RWY 34L CAT III	<u>ORIGINAL/AMENDMENT</u> 3C	<u>DATED</u> 10/12/2017	<u>MAG VAR</u> 11E	<u>EPOCH YEAR</u> 2020
<u>FACILITY</u> I-UUH	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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>
FFU VORTAC	IAF	PUTER/I-UUH 20.28 DME/RADAR					339.74	9.64	10000
PUTER/I-UUH 20.28 DME/RADAR	IAF	CAMRI/I-UUH 17.91 DME/RADAR					343.95	2.37 (I-UUH)	9000
CAMRI/I-UUH 17.91 DME/RADAR	IF	DUNLP/I-UUH 14.75 DME/RADAR					343.95	3.16 (I-UUH)	8000
DUNLP/I-UUH 14.75 DME/RADAR		FLLAG/I-UUH 5.54 DME/RADAR					343.95	9.21 (I-UUH)	6100

MISSED APPROACH

MAP:

ILS: DA
 LOC: 5.26 NM AFTER FLLAG/I-UUH 5.54 DME/RADAR OR AT FALEM/0.29 DME FIX

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 4800 THEN CLIMBING LEFT TURN TO 8100 ON TCH VORTAC R-249 TO STACO INT/TCH 20.00 DME AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS (DO NOT CHART):

CLIMB TO 4800 THEN CLIMBING LEFT TURN TO 10000 ON HEADING 260, EXPECT RADAR VECTORS. (RADAR REQUIRED).



AIRPORT

SALT LAKE CITY INTL

AIRPORT ID

KSLC

PROCEDURE NAME

ILS OR LOC RWY 34L
ILS RWY 34L SA CAT I,
ILS RWY 34L CAT II,
ILS RWY 34L CAT III

ORIGINAL/AMENDMENT

3D

CITY

SALT LAKE CITY

STATE

UT

PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. PROFILE STARTS AT PUTER

3. FAC:

343.95

FAF: FLLAG/I-UUH 5.54
DME/RADAR

DIST FAF TO MAP: 5.26

DIST FAF TO THLD: 5.71

4. MIN ALT:

PUTER/I-UUH 20.28 DME/RADAR 10000, CAMRI/I-UUH 17.91 DME/RADAR 9000, DUNLP/I-UUH 14.75 DME/RADAR 8000, FLLAG/I-UUH 5.54 DME/RADAR 6100, JUGOX/I-UUH 1.43 DME/RADAR 4780*

5. DIST TO THLD FROM OM:

MM:

IM:

100 HAT: 866

150 HAT: 1820.00

GS ANT: 1051

6. MIN GS INCPT:

6100

GS ALT AT FAF : FLLAG/I-UUH 5.54 DME/RADAR 6100

OM:

MM:

IM:

7. GP ANGLE:

3.00

34:1:

20:1:

TCH: 54.6

8. MSA FROM: TCH VORTAC 050-230 12700, 230-320 8600, 320-050 11000

EQUIPMENT REQUIREMENTS NOTES:

RADAR REQUIRED FOR ARRIVALS AT PUTER.
DME OR RADAR REQUIRED.

NOTES:

SA CAT I ILS - SPECIAL AIRCREW AND AIRCRAFT CERTIFICATION REQUIRED; S-ILS 34L: CAT A, B, C, D RA 158, RVR 1400, HAT 150, DA 4376 MSL.
CAT II ILS - SPECIAL AIRCREW AND AIRCRAFT CERTIFICATION REQUIRED; S-ILS 34L: CAT A, B, C, D RA 102, RVR 1200, HAT 100, DA 4326 MSL.
CAT III ILS - SPECIAL AIRCREW AND AIRCRAFT CERTIFICATION REQUIRED; S-ILS 34L: CAT III CAT A, B, C, D RVR 700, CAT IIIB CAT A, B, C, D RVR 300. CAT IIIC NA.
CHART NOTE: SIMULTANEOUS APPROACH AUTHORIZED.
SA CAT I CHART NOTE: REQUIRES SPECIFIC OPSPEC, MSPEC, OR LOA APPROVAL AND USE OF HUD TO DH.
CAT II RVR 1000 CHART NOTE: RVR 1000 AUTHORIZED WITH SPECIFIC OPSPEC, MSPEC, OR LOA APPROVAL AND USE OF AUTOLAND OR HUD TO TOUCHDOWN.
CHART PROFILE NOTE: VGSI AND ILS GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
*LOC ONLY

ADDITIONAL FLIGHT DATA:

4660 AAO 404016N/1120000W.
CHART R-6412 A/B/C/D
CHART FAS OBST: 4279 TREE 404542N/1115954W.
HOLD W, LT, 069.32 INBOUND

MINIMUMS:

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

ALTERNATE: NAILS: STANDARD; 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-ILS 34L	4426	1800	200	4426	1800	200	4426	1800	200	4426	1800	200			
S-LOC 34L	4560	2400	334	4560	2400	334	4560	2600	334	4560	2600	334			

- CHANGES - REASONS
1. DELETED DIST TO THLD FROM IM AND IM ELEVATION FROM LINE 6 - INNER MARKER DECOM.

2. MOVED "DME OR RADAR REQUIRED" AND "RADAR REQUIRED FOR ARRIVALS AT PUTER" FROM NOTES SECTION TO EQUIPMENT REQUIREMENTS NOTES - IAW 8260-19H 8-6-8.A.



<u>AIRPORT</u>	<u>AIRPORT ID</u>	<u>PROCEDURE NAME</u>	<u>ORIGINAL/AMENDMENT</u>	<u>CITY</u>	<u>STATE</u>
SALT LAKE CITY INTL	KSLC	ILS OR LOC RWY 34L ILS RWY 34L SA CAT I, ILS RWY 34L CAT II, ILS RWY 34L CAT III	3D	SALT LAKE CITY	UT

COORDINATED WITH:

A4A ☒ **ALPA** ☒ **AOPA** ☒ **APA** ☒ **HAI** ☐ **NBAA** ☒ **OTHER:** ZLC, SLC ATCT, UT AERO, AMGR, ATA

FLIGHT CHECKED BY

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, DEC 22, 2017.

DEVELOPED BY

DONALD H. LANIER (JACOB MAXFIELD)

APPROVED BY

PATRICK MULQUEEN

Digitally signed by
DONALD H LANIER
Jul 30, 2018

OFFICE
AJV-5431

DATE
06/19/2018

Digitally signed by
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Jul 30, 2018

OFFICE
AJV-5430

DATE
06/19/2018

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DONALD H LANIER
Jul 30, 2018

OFFICE
AJV-5430

DATE
06/19/2018

TITLE
MANAGER



**FEDERAL AVIATION ADMINISTRATION
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.

<u>AIRPORT</u> BELOIT	<u>AIRPORT ID</u> K44C	<u>PROCEDURE NAME</u> VOR-A	<u>ORIGINAL/AMENDMENT</u> 5C	<u>CITY</u> BELOIT	<u>STATE</u> WI
<u>AIRPORT ELEVATION</u> 817	<u>TDZE</u>	<u>SUPERSEDED</u> VOR OR GPS-A	<u>ORIGINAL/AMENDMENT</u> 5B	<u>DATED</u> 12/26/2002	<u>MAG VAR</u> 3E
<u>FACILITY</u> JVL	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>	<u>EPOCH YEAR</u> 1965

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>

MISSED APPROACH

MAP:

7.00 NM AFTER JVL VOR/DME OR AT MADMY/7.00 DME FIX

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2700 THEN RIGHT TURN DIRECT JVL VOR/DME AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT L **SIDE OF COURSE** 297.75 **OUTBOUND** 2700 **FT WITHIN** 10 **MILES OF** JVL (IAF)

2.

3. **FAC:** 117.75 **FAF:** JVL VOR/DME **DIST FAF TO MAP:** 7.00 **DIST FAF TO THLD:**

4. **MIN ALT:** JVL VOR/DME 2700

8. **MSA FROM:** JVL VOR/DME 3100

EQUIPMENT REQUIREMENTS NOTES:

NOTES:

CHART NOTE: USE JANESVILLE ALTIMETER SETTING, WHEN NOT RECEIVED, USE CHICAGO/ROCKFORD INTL ALTIMETER SETTING.

ADDITIONAL FLIGHT DATA:

FAC CROSSES MIDPOINT OF RWY 7-25.
CHART FAS OBST: 1070 TANK 423107N/0885736W.
HOLD NW, RT, 117.50 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
CIRCLING	1440	1	623	1440	1	623		NA			NA				
CHICAGO/ROCKFORD INTL ALTIMETER SETTING MINIMUMS															
CIRCLING	1480	1	663	1480	1	663		NA			NA				

CHANGES - REASONS

1. CHANGED PROCEDURE NAME FROM VOR OR GPS-A TO VOR-A - AFS-400 MEMORANDUM.
2. RAISED CAT A/B CIRCLING MDA 1380/HAA 563 TO MDA 1440/HAA 623 - OBSTACLE.
3. RAISED CHICAGO/ROCKFORD INTL ALTIMETER SETTING MINIMUMS FOR CAT A/B CIRCLING FROM MDA 1420/HAA 603 TO MDA 1480/HAA 663 - OBSTACLE.
4. KRFD AIRPORT NAME CHANGED FROM ROCKFORD TO CHICAGO/ROCKFORD INTL - AIRPORT NAME CHANGED.
5. CHANGED MADMY FIX TYPE FROM CNF TO DME - POLICY GUIDANCE.
6. CHANGED ALL INSTANCES OF NM AND DME DISTANCE FRO JVL TO MADMY FROM 6.97 TO 7.00 - DISTANCE RECALCULATED.
7. ADDED NOTE IN ADDITIONAL FLIGHT DATA: FAC CROSSES MIDPOINT OF RWY 7 -25 - CRITERIA REQUIREMENT.
8. ADDITIONAL FLIGHT DATA: UPDATED FAS OBSTACLE FROM 1039 FT TREES TO 1070 FT TANK - NEW EVALUATION.

COORDINATED WITH:A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: RFD ATCT, CEN FPT, ZAU ARTCC, WI AERO, AMGR.**FLIGHT CHECKED BY**

Digitally signed by

GLEN B FREEMAN

ROBERT G HAMILTON

Aug 06, 2018

DEVELOPED BY

DAVID A. DOWLING

Digitally signed by

DAVID A DOWLING

Jul 12, 2018

APPROVED BY

JULIE MORGAN

Digitally signed by

ROBERT G HAMILTON

Aug 06, 2018

OFFICE

FICO

DATE

8/3/18

OFFICE

AJV-5422

DATE

05/21/2018

OFFICE

AJV-5420

DATE**TITLE**

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> EAGLE RIVER UNION	<u>AIRPORT ID</u> KEGV	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 22	<u>ORIGINAL/AMENDMENT</u> ORIG-B	<u>CITY</u> EAGLE RIVER	<u>STATE</u> WI
<u>AIRPORT ELEVATION</u> 1642	<u>TDZE</u> 1642	<u>SUPERSEDED</u> RNAV (GPS) RWY 22	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>DATED</u> 03/02/2017	<u>MAG VAR</u> 2W
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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>
IWD VOR/DME		DINER		TF	FB	2.00	118.39	44.00	5000
IMT VOR/DME		CINOP		TF	FB	2.00	299.84	35.52	5000
DINER	IAF	KAVPE		TF	FB	1.00	148.89	9.14	3500
CINOP	IAF	KAVPE		TF	FB	1.00	265.80	8.24	3500
KAVPE	IF	NOLYI		TF	FB	1.00	227.52	6.20	3500
NOLYI	FAF	RW22	MAP	TF	FO	0.30	227.44	5.63	
RW22	MAP	2012 MSL		CA			227.44		
2012 MSL		ZODOM		DF	FB	1.00			
ZODOM		RHI VOR/DME		TF	FO	1.00	201.31	16.28	3500

MISSED APPROACH

MAP:

LPV: DA
 LNAV/VNAV: DA
 LNAV: RW22

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3500 DIRECT ZODOM AND VIA TRACK 201.31 TO RHI VOR/DME AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)
2. PROFILE STARTS AT KAVPE
3. FAC: 227.44

FAF: NOLYI

DIST FAF TO MAP: 5.63

DIST FAF TO THLD: 5.63
4. MIN ALT: KAVPE 3500, NOLYI 3500
5. DIST TO THLD FROM OM:

MM:

IM:

150 HAT:

370 HAT: 1.05

GS ANT:
6. MIN GP INCPT: 3500

GP ALT AT FAF : NOLYI 3500

OM:

MM:

IM:
7. GP ANGLE: 3.00

34:1: IS NOT CLEAR

20:1: IS CLEAR

TCH: 40.0
8. MSA FROM: RW22 4400

PBN REQUIREMENTS NOTE:

RNP APPROACH

NOTES:

CHART NOTE: BARO-VNAV AND VDP NA WHEN USING MINOCQUA-WOODRUFF ALTIMETER SETTING.
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -18C OR ABOVE 45C.
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE MINOCQUA-WOODRUFF ALTIMETER SETTING AND INCREASE ALL DAS 47 FEET AND ALL MDAS 60 FEET, INCREASE LNAV CAT C VISIBILITY 1/4 SM, CAT D 1/8 SM.
CHART NOTE: RWY 22 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART PLANVIEW NOTES: PROCEDURE NA FOR ARRIVALS ON IWD VOR/DME AIRWAY RADIALS 059 CW 151. PROCEDURE NA FOR ARRIVALS ON IMT VOR/DME AIRWAY RADIALS 262 CW 351.

ADDITIONAL FLIGHT DATA:

CHART: 1862 TREE 460045N/0891051W
CHART: VDP AT 1.15 NM TO RW 22*
*LNAV ONLY
WAAS CHANNEL #99304
REFERENCE PATH ID: W22A
CHART FAS OBST: 1751 TREE 455636N/0891501W.
HOLD SW, RT, 025.29 INBOUND
LTP HAE: 467.4 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
LPV DA	2012	1 1/4	370	2012	1 1/4	370	2012	1 1/4	370	2012	1 1/4	370			
LNAV/VNAV DA	2038	1 1/2	396	2038	1 1/2	396	2038	1 1/2	396	2038	1 1/2	396			
LNAV MDA	2040	1	398	2040	1	398	2040	1 1/8	398	2040	1 1/4	398			
CIRCLING	2120	1	478	2120	1	478	2120	1 1/2	478	2200	2	558			



CHANGES - REASONS

- 1. ALL REFERENCES TO IWD VORTAC CHANGED TO IWD VOR/DME - TACR PROJECT
- 2. CHANGED "CHART NOTE: VISIBILITY REDUCTION BY HELICOPTERS NA" TO "CHART NOTE: RWY 22 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED" - CURRENT VERSION PER 8260.19 H CHAPTER 8.
- 3. ADDED RNP APPROACH TO PBN REQUIREMENTS NOTE- 8260.19H CHAPTER 8.
- 4. ADDED CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE MINOCQUA-WOODRUFF ALTIMETER SETTING AND INCREASE ALL DAS 47 FEET AND ALL MDAS 60 FEET, INCREASE LNAV CAT C VISIBILITY 1/4 SM, CAT D 1/8 SM. - 8260.19H CHAPTER 8.
- 5. ADDED CHART VDP AT 1.15 NM TO RW 22* *LNAV ONLY - 8260.19H CHAPTER 8.
- 6. UPDATED LNAV CART C VISIBILITY FROM 1 TO 1 1/8 - APPLIED NEW VISIBILITY CRITERIA

PDF EDIT: CORRECTED MISSED SEGMENT, REMOVED PENETRATION FROM LPV AND VNAV SEGMENTS - KNOWN SIAP ISSUE PER QC.

8/21/2018: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 7/11/2018.

- 1. CHANGED THRE TO TDZE.



COORDINATED WITH:

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

FLIGHT CHECKED BY

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, DEC 22, 2017.

DEVELOPED BY

LONNIE EVERHART (LORRI DOWNEY)

APPROVED BY

LONNIE EVERHART

OFFICE

OFFICE

OFFICE

AJV-5400

AJV-5400

DATE

DATE

DATE

07/11/2018

Digitally signed by

ROBERT G HAMILTON

Aug 16, 2018

Digitally signed by

ROBERT G HAMILTON

Aug 16, 2018

Digitally signed by

ROBERT G HAMILTON

Aug 16, 2018

TITLE

MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KEGV
RUNWAY	RW22
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W22A
LTP/FTP LATITUDE	455611.8200N
LTP/FTP LONGITUDE	0891543.4470W
LTP/FTP ELLIPSOIDAL HEIGHT	+04674
FPAP LATITUDE	455509.2300N
FPAP LONGITUDE	0891714.2800W
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	1224
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	C63BB8C3

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K5
LTP ORTHOMETRIC HEIGHT	+04991
FPAP ORTHOMETRIC HEIGHT	+04991



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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> FORT ATKINSON MUNI	<u>AIRPORT ID</u> K61C	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 3	<u>ORIGINAL/AMENDMENT</u> 1	<u>CITY</u> FORT ATKINSON	<u>STATE</u> WI
<u>AIRPORT ELEVATION</u> 800	<u>TDZE</u> 800	<u>SUPERSEDED</u> RNAV (GPS) RWY 3	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>DATED</u> 05/30/2013	<u>MAG VAR</u> 2W
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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. 300/30 CW 120/30	NOPT	300/11 CW 120/11		3600
2. 300/11 CW 120/11		CIPOM	IF/IAF	3000
3. 120/30 CW 210/30		120/15 CW 210/15	IAF	3600
4. 120/15 CW 210/15		JUDIL	IAF	3000
5. 210/30 CW 300/30		EYIRO	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>
JUDIL	IAF	CIPOM	NOPT	TF	FB	1.00	120.00	6.40	3000
EYIRO	IAF	CIPOM	NOPT	TF	FB	1.00	300.17	6.40	3000
CIPOM	IF/IAF	HEMUL		TF	FB	1.00	030.09	6.00	2500
HEMUL	FAF	JAREB/3.02 NM TO RW03		TF	FB	0.30	030.13	2.20	
JAREB/3.02 NM TO RW03		RW03	MAP	TF	FO	0.30	030.13	3.02	
RW03	MAP	1200 MSL		CA			030.13		
1200 MSL		GESJY		DF	FO	1.00			3200



MISSED APPROACH

MAP:

LP: RW03
LNAV: RW03

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3200 DIRECT GESJY AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT	SIDE OF COURSE	OUTBOUND	FT WITHIN	MILES OF (IAF)				
2.	HOLD SW CIPOM, RT, 030.09 INBOUND, 3000 FT. IN LIEU OF PT (IAF), MAX 6000.							
3. FAC:	030.13	FAF: HEMUL	DIST FAF TO MAP: 5.22	DIST FAF TO THLD: 5.22				
4. MIN ALT:	CIPOM 3000, HEMUL 2500, JAREB/3.02 NM TO RW03 1800							
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 NOT CLEAR	20:1: IS NOT CLEAR	TCH:					
8. MSA FROM:								

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: PROCEDURE NA AT NIGHT.
CHART NOTE: RWY 03 HELICOPTER VISIBILITY REDUCTION BELOW 1SM NOT AUTHORIZED.
CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART NOTE: USE WATERTOWN ALTIMETER SETTING; WHEN NOT RECEIVED USE SOUTHERN WISCONSIN RGNL ATIMETER SETTING AND INCREASE ALL MDA 20 FT, INCREASE CIRCLING CAT C VISIBILITY 1/4 SM.

ADDITIONAL FLIGHT DATA:

CHART WATERTOWN AWOS-3.
CHART CIRCLING ICON.
HEMUL TO RW03: 3.00/40.
WAAS CHANNEL #40342
REFERENCE PATH ID: W03A
CHART FAS OBST: 902 TREE 425601N/0885031W, 1008 TREE 425726N/0885008W.
HOLD NE, RT, 210.25 INBOUND
LTP HAE: 209.1 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	1200	1	400	1200	1	400	1200	1 1/8	400		NA				
LNAV MDA	1300	1	500	1300	1	500	1300	1 3/8	500		NA				
CIRCLING	1360	1	560	1420	1	620	1460	1 3/4	660		NA				

CHANGES - REASONS

1. UPDATED STRAIGHT-IN AND LEFT BASE AREAS MIN. ALT. FROM 3500 TO 3600 - OBSTRUCTION ALTITUDES ARE NO LONGER ROUNDED DOWN.
2. ADDED STRAIGHT-IN STEPDOWN AREA AT 11 NM AND LEFT BASE STEPDOWN AREA AT 15 NM - ENSURES CONSISTENCY WITH TAA SECTOR ALTITUDES.
3. UPDATED RIGHT BASE AREA MIN. ALT. FROM 3500 TO 3000 - ENSURES CONSISTENCY WITH TAA SECTOR ALTITUDES.
4. ADDED MISSED APPROACH CA LEG AND UPDATED MISSED INSTRUCTIONS FROM CLIMB TO 3200 DIRECT GISPE WP AND HOLD TO CLIMB TO 3200 DIRECT GESJY AND HOLD - CHANGED WP NAME DUE TO MOVE IN EXCESS OF 1 NM.
5. REMOVED ALL REFERENCES TO WP AFTER FIX NAMES - NO LONGER REQUIRED.
6. UPDATED HOLD-IN-LIEU WP FROM CEBTU TO CIPOM AND COURSE FROM 030.11 TO 030.09 - WP MOVED IN EXCESS OF 1 NM AND NEW AND OR UPDATED DATA.
7. UPDATED FAC FROM 030.14 TO 030.13 - NEW AND OR UPDATED DATA.
8. UPDATED DIST FAF TO MAP TO THLD FROM 5.14 TO 5.22; RELOCATED SDF SW - FAF MOVED 463 FT S/RELOCATED SDF 280 FT SW TO ACCOMODATE A 3 DEGREE GLIDE PATH.
9. DELETED CHART NOTE: DME/DME RNP-0.3 NA AND ADDED PBN REQUIREMENTS NOTE: RNP APCH - PER 8260.19H NAVSPEC REQUIREMENT.
10. UPDATED CHART NOTE: USE WATERTOWN ALTIMETER SETTING TO USE WATERTOWN ALTIMETER SETTING; WHEN NOT RECEIVED USE SOUTHERN WISCONSIN RGNL ATIMETER SETTING AND INCREASE ALL MDA 20 FT, INCREASE CIRCLING CAT C VISIBILITY 1/4 SM - ADDED BACK-UP REMOTE ALTIMETER SETTING TO THE PROCEDURE.
11. UPDATED CHART NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 1SM NOT AUTHORIZED TO RWY 03 HELICOPTER VISIBILITY REDUCTION BELOW 1SM NOT AUTHORIZED - PER THE 8260.19H PARA 8-6-11K(3).
12. MOVED CHART WATERTOWN AWOS-3 FROM NOTES SECTION TO ADDITIONAL FLIGHT DATA - 8260.19H 8-6-10.
13. ADDED LP LINE OF MINIMA FOR CATS A-C; UPDATED LNAV LINE OF MINIMA MDA/HAT FROM 1340/540 CATS A-C AND VISIBILITY FROM 1 1/2 SM CAT C TO MDA/HAT 1300/500 CATS A-C AND VISIBILITY 1 3/8 SM CAT C - PER FPT REQUEST/NEW AND OR UPDATED DATA BASE.
14. UPDATED CIRCLING MDA/HAA FROM 1400/600 CATS A-C AND VISIBILITY FROM 1 1/2 SM CAT C TO CAT A 1360/560, CATS B 1420/620, CAT C 1460/660 AND VISIBILITY 1 3/4 SM CAT C ; ADDED CHART CIRCLING ICON - NEW AND OR UPDATED DATA BASE/PER FPT REQUEST.
15. UPDATED 8260-3 LINE 7 FROM 34:1 IS CLEAR TO 34:1 IS NOT CLEAR AND ADDED 20:1 IS NOT CLEAR - VISUAL SURFACE PENETRATIONS EXIST AND DOCUMENTED ON THE 8260-9.
16. INTERMEDIATE (IF/IAF CEBTU) MOVED SW 1.1 NM AND RENAMED CIPOM; INITIALS (DESGE AND ESOG) MOVE 1.9 NM AND RENAMED (JUDIL AND EYRIO) RESPECTIVELY - SEGMENT LEG LENGTH NEEDED TO EXTENDED BASED ON CURRENT CRITERIA.



COORDINATED WITH:

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

FLIGHT CHECKED BY

PAUL R ARMSTRONG

Digitally signed by

DONALD H LANIER

Aug 08, 2018

OFFICE

FICO

DATE

8/6/18

DEVELOPED BY

SYLVAN DRAKES

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SYLVAN DRAKES

Jun 13, 2018

OFFICE

AJV-5433

DATE

06/13/2018

APPROVED BY

PATRICK MULQUEEN

Digitally signed by

DONALD H LANIER

Aug 08, 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	61C
RUNWAY	RW03
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W03A
LTP/FTP LATITUDE	425731.0010N
LTP/FTP LONGITUDE	0884915.5175W
LTP/FTP ELLIPSOIDAL HEIGHT	+02091
FPAP LATITUDE	425849.5640N
FPAP LONGITUDE	0884818.2165W
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	1600
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	0.0
CRC REMAINDER	12774F72

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K5
LTP ORTHOMETRIC HEIGHT	+02433
FPAP ORTHOMETRIC HEIGHT	+02433



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> FORT ATKINSON MUNI	<u>AIRPORT ID</u> K61C	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 21	<u>ORIGINAL/AMENDMENT</u> 1	<u>CITY</u> FORT ATKINSON	<u>STATE</u> WI
<u>AIRPORT ELEVATION</u> 800	<u>TDZE</u> 800	<u>SUPERSEDED</u> RNAV (GPS) RWY 21	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>DATED</u> 05/30/2013	<u>MAG VAR</u> 2W
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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. 120/30 CW 300/30	NOPT	GESJY	IF/IAF	3200
2. 300/30 CW 030/30		HEVGU	IAF	3200
3. 030/30 CW 120/30		030/15 CW 120/15	IAF	3400
4. 030/15 CW 120/15		FOGOD	IAF	3200

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>
FOGOD	IAF	GESJY	NOPT	TF	FB	1.00	120.17	6.40	3200
HEVGU	IAF	GESJY	NOPT	TF	FB	1.00	300.34	6.40	3200
GESJY	IF/IAF	HENIS		TF	FB	1.00	210.25	6.00	2500
HENIS	FAF	AVUME/2.32 NM TO RW21		TF	FB	0.30	210.21	2.89	
AVUME/2.32 NM TO RW21		RW21	MAP	TF	FO	0.30	210.21	2.32	
RW21	MAP	1200 MSL		CA			210.21		
1200 MSL		CIPOM		DF	FO	1.00			3000

MISSED APPROACH

MAP:

LP: RW21
LNAV: RW21

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3000 DIRECT CIPOM AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. HOLD NE GESJY, RT, 210.25 INBOUND, 3200 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 210.21FAF: HENISDIST FAF TO MAP: 5.21DIST FAF TO THLD: 5.21

4. MIN ALT: GESJY 3200, HENIS 2500, AVUME/2.32 NM TO RW21 1580

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 NOT CLEAR20:1: IS CLEARTCH:

8. MSA FROM:

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: CIRCLING RWY 03 NA AT NIGHT.
CHART NOTE: RWY 21 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART NOTE: USE WATERTOWN ALTIMETER SETTING; WHEN NOT RECEIVED USE SOUTHERN WISCONSIN RGNL ATIMETER SETTING AND INCREASE ALL MDA 20 FT, INCREASE LP CAT C VISIBILITY 1/8 SM AND CIRCLING CAT C 1/4 SM.

ADDITIONAL FLIGHT DATA:

CHART WATERTOWN AWOS-3.
CHART CIRCLING ICON.
HENIS TO RW21: 3.00/45.
WAAS CHANNEL #45842
REFERENCE PATH ID: W21A
CHART FAS OBST: 949 TREE 425858N/0884751W, 994 TANK 425910N/0884837W.
HOLD SW, RT, 030.09 INBOUND
LTP HAE: 208.2 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	1240	1	440	1240	1	440	1240	1 1/4	440		NA				
LNAV MDA	1280	1	480	1280	1	480	1280	1 3/8	480		NA				
CIRCLING	1360	1	560	1420	1	620	1460	1 3/4	660		NA				



AIRPORT	AIRPORT ID	PROCEDURE NAME	ORIGINAL/AMENDMENT	CITY	STATE
FORT ATKINSON MUNI	K61C	RNAV (GPS) RWY 21	1	FORT ATKINSON	WI

CHANGES - REASONS

- ADDED STRAIGHT-IN STEPDOWN AREA AT 11 NM AND LEFT BASE STEPDOWN AREA AT 15 NM - ENSURES CONSISTENCY WITH TAA SECTOR ALTITUDES.
- UPDATED RIGHT BASE OUTER SECTOR MIN. ALT. FROM 3200 TO 3400; ADDED RIGHT BASE STEPDOWN AREA AT 15 NM AND UPDATED AREA MIN. ALT. FROM 3200 TO 3000 - NEW CONTROLLING OBSTACLE AND ENSURES CONSISTENCY WITH TAA SECTOR ALTITUDES.
- ADDED MISSED APPROACH CA LEG AND UPDATED MISSED INSTRUCTIONS FROM CLIMB TO 3200 DIRECT CEBTU WP AND HOLD TO CLIMB TO 3000 DIRECT CIPOM AND HOLD - CHANGED WP NAME DUE TO MOVE IN EXCESS OF 1 NM.
- REMOVED ALL REFERENCES TO WP AFTER FIX NAMES - NO LONGER REQUIRED.
- UPDATED HOLD-IN-LIEU WP FROM GISPE TO GESJY AND COURSE FROM 210.23 TO 210.25 - WP MOVED IN EXCESS OF 1 NM AND NEW AND OR UPDATED DATA.
- UPDATED FAC FROM 210.23 TO 210.21 - NEW AND OR UPDATED DATA.
- UPDATED DIST FAF TO MAP TO THLD FROM 5.15 TO 5.21; RELOCATED SDF NE - FAF MOVED 375 FT NE/RELOCATED SDF 140 FT NE FOR A 3 DEGREE GLIDE PATH BUILD.
- DELETED CHART NOTE: DME/DME RNP-0.3 NA AND ADDED PBN REQUIREMENTS NOTE: RNP APCH - PER 8260.19H NAVSPEC REQUIREMENT.
- UPDETED CHART NOTE: USE WATERTOWN ALTIMETER SETTING TO USE WATERTOWN ALTIMETER SETTING; WHEN NOT RECEIVED USE SOUTHERN WISCONSIN RGNL ATIMETER SETTING AND INCREASE ALL MDA 20 FT, INCREASE LP CAT C VISIBILITY 1/8 SM AND CIRCLING CAT C 1/4 SM - ADDED BACK-UP REMOTE ALTIMETER SETTING TO THE PROCEDURE.
- UPDATED CHART NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 1SM NOT AUTHORIZED TO RWY 21 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED - PER THE 8260.19H PARA 8-6-11K(3).
- MOVED CHART WATERTOWN AWOS-3 FROM NOTES SECTION TO ADDITIONAL FLIGHT DATA - 8260.19H 8-6-10.
- ADDED LP LINE OF MINIMA FOR CATS A-C; UPDATED LNAV LINE OF MINIMA MDA/HAT FROM 1300/500 CATS A-C AND VISIBILITY FROM 1 1/4 SM CAT C TO MDA/HAT 1280/480 CATS A-C AND VISIBILITY 1 1/8 SM CAT C - PER FPT REQUEST/NEW AND OR UPDATED DATA BASE.
- UPDATED CIRCLING MDA/HAA FROM 1400/600 CATS A-C AND VISIBILITY FROM 1 1/2 SM CAT C TO CAT A 1360/560, CATS B 1420/620, CAT C 1460/660 AND VISIBILITY 1 3/4 SM CAT C ; ADDED CHART CIRCLING ICON - NEW AND OR UPDATED DATA BASE/PER FPT REQUEST.
- UPDATED 8260-3 LINE 7 TO SHOW 20:1 IS CLEAR - 34:1 VISUAL SURFACE PENETRATIONS EXIST AND DOCUMENTED ON THE 8260-9.
- INTERMEDIATE (IF/IAF GISPE) MOVED NE 1.1 NM AND RENAMED GESJY; INITIALS (FAPUP AND HADPA) MOVED 1.8 NM AND RENAMED (FOGOD AND HEVGU) RESPECTIVELY - SEGMENT LEG LENGTH NEEDED TO EXTENDED BASED ON CURRENT CRITERIA.



COORDINATED WITH:

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

FLIGHT CHECKED BY

PAUL R ARMSTRONG

Digitally signed by
DONALD H LANIER
Aug 08, 2018

OFFICE

FICO

DATE

8/6/18

DEVELOPED BY

SYLVAN DRAKES

Digitally signed by
SYLVAN DRAKES
Jun 14, 2018

OFFICE

AJV-5433

DATE

06/14/2018

APPROVED BY

PATRICK MULQUEEN

Digitally signed by
DONALD H LANIER
Aug 08, 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	61C
RUNWAY	RW21
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W21A
LTP/FTP LATITUDE	425804.0865N
LTP/FTP LONGITUDE	0884851.3925W
LTP/FTP ELLIPSOIDAL HEIGHT	+02082
FPAP LATITUDE	425645.5180N
FPAP LONGITUDE	0884948.6660W
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	1600
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	0.0
CRC REMAINDER	FDEBFCD1
<u>ADDITIONAL PATH POINT RECORD INFORMATION</u>	
ICAO CODE	K5
LTP ORTHOMETRIC HEIGHT	+02424
FPAP ORTHOMETRIC HEIGHT	+02424



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> MAJOR GILBERT FIELD	<u>AIRPORT ID</u> K4R5	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 4	<u>ORIGINAL/AMENDMENT</u> ORIG-B	<u>CITY</u> LA POINTE	<u>STATE</u> WI	
<u>AIRPORT ELEVATION</u> 649	<u>TDZE</u> 649	<u>SUPERSEDED</u> RNAV (GPS) RWY 4	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>DATED</u> 10/15/2015	<u>MAG VAR</u> 0E	<u>EPOCH YEAR</u> 1985
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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>
NOYIC		FIMBU		TF	FB	2.00	091.98	9.30	3000
IWD VOR/DME		HENUP		TF	FB	2.00	274.96	30.60	3300
FIMBU	IAF	DAGAC	NOPT	TF	FB	1.00	129.80	5.00	2900
HENUP	IAF	DAGAC	NOPT	TF	FB	1.00	309.94	5.00	2900
DAGAC	IF/IAF	CEKLO		TF	FB	1.00	039.87	6.10	2700
CEKLO	FAF	RW04	MAP	TF	FO	0.30	039.94	6.28	
RW04	MAP	1049 MSL		CA			039.94		
1049 MSL		JEBTO		DF	FO	1.00			4000

MISSED APPROACH

MAP:

LNAV: RW04

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 4000 DIRECT JEBTO AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)
2. HOLD SW DAGAC, RT, 039.87 INBOUND, 2900 FT. IN LIEU OF PT (IAF), MAX 6000.
3. FAC: 039.94

FAF: CEKLO

DIST FAF TO MAP: 6.28

DIST FAF TO THLD: 6.28
4. MIN ALT: DAGAC 2900, CEKLO 2700
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 NOT CLEAR

20:1: IS NOT CLEAR

TCH:
8. MSA FROM: RW04 3100

PBN REQUIREMENTS NOTE:

RNP APCH

NOTES:

CHART NOTE: RWY 4 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED.
CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS ON IWD VOR/DME AIRWAY RADIALS 210 CW 240.
CHART NOTE: PROCEDURE NA AT NIGHT.

ADDITIONAL FLIGHT DATA:

1059 AAO 464251N/0905312W
FAS OBST: 899 AAO 464534N/0904631W
CEKLO TO RW04: 3.05/40.
HOLD NE, RT, 220.17 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
LNAV MDA	1240	1	591	1240	1	591	1240	1 3/4	591		NA				
CIRCLING	1240	1	591	1240	1	591	1280	1 3/4	631		NA				

CHANGES - REASONS

1. REMOVED ALL REFERENCES TO IWD VORTAC AND REPLACED WITH IWD VOR/DME - IWD TACAN BEING DECOMMISSIONED.
2. CHANGED MA HOLDING ALTITUDE FROM 2900 FEET TO 4000 FEET - CLEARS NOTAM 8/7040 REQUESTED BY CONTROLLERS DUE TO UNSATISFACTORY PILOT/CONTROLLER COMMS BELOW 4000 FEET.
3. REMOVED "DME/DME RNP-0.3 NA" - 8260.19H.
4. ADDED PBN EQUIPMENT NOTE "RNP APCH" - 8260.19H.
5. REPLACED CHART NOTE "HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NA "WITH "RWY 4 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED" - 8260.19H.
6. REMOVED CHART NOTE "USE ASHLAND ALTIMETER SETTING; WHEN NOT RECEIVED USE SUPERIOR ALTIMETER SETTING AND INCREASE ALL MDAS 80 FEET AND LNAV CAT C VISIBILITY 1/2 MILE, CIRCLING CAT C VISIBILITY 1/4 MILE" - FULL TIME AWOS 3PT (WMSCR) LOCATED ON FIELD.
7. LNAV CAT C VISIBILITY CHANGED FROM 1 1/2 SM TO 1 3/4 SM - VISCHECK CALCULATIONS.
8. CHANGED IF RNP FROM 0.50 TO 1.00 - CURRENT RNAV CRITERIA.
9. CHANGED PROCEDURE ENTRY RESTRICTION NOTE FROM "ARRIVALS AT IWD VORTAC VIA V148 NORTHEAST BOUND" TO ARRIVALS ON IWD VOR/DME AIRWAY RADIALS 210 CW 240-TURNS EXCEED 90 DEGREES.
10. ADDED ALTERNATE MINIMUMS-LOCAL ALTIMETER SOURCE ON WMSCR.



COORDINATED WITH:

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

FLIGHT CHECKED BY

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, DEC 22, 2017.

DEZ SILAGYI
Aug 21, 2018

Digitally signed by

OFFICE

DATE

DEVELOPED BY

LONNIE EVERHART (BRANDON MAULDIN)

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Aug 21, 2018

Digitally signed by

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DATE

AJV-5400

06/06/2018

APPROVED BY

LONNIE EVERHART

DEZ SILAGYI
Aug 21, 2018

Digitally signed by

OFFICE

DATE

TITLE

AJV-5400

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> MAJOR GILBERT FIELD	<u>AIRPORT ID</u> K4R5	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 22	<u>ORIGINAL/AMENDMENT</u> ORIG-C	<u>CITY</u> LA POINTE	<u>STATE</u> WI	
<u>AIRPORT ELEVATION</u> 649	<u>TDZE</u> 649	<u>SUPERSEDED</u> RNAV (GPS) RWY 22	<u>ORIGINAL/AMENDMENT</u> ORIG-B	<u>DATED</u> 10/15/2015	<u>MAG VAR</u> 0E	<u>EPOCH YEAR</u> 1985
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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>
NOYIC		MEKME		TF	FB	2.00	052.80	32.31	4000
IWD VOR/DME		KULME		TF	FB	2.00	328.30	26.16	4000
MEKME	IAF	JEBTO	NOPT	TF	FB	1.00	130.10	5.00	4000
KULME	IAF	JEBTO	NOPT	TF	FB	1.00	310.24	5.00	4000
JEBTO	IF/IAF	IYASU		TF	FB	1.00	220.17	6.10	2900
IYASU	FAF	RW22	MAP	TF	FO	0.30	220.10	6.81	
RW22	MAP	1049 MSL		CA			220.10		
1049 MSL		DAGAC		DF	FO	1.00			2900

MISSED APPROACH

MAP:

LNAV: RW22

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2900 DIRECT DAGAC AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)
2. HOLD NE JEBTO, RT, 220.17 INBOUND, 4000 FT. IN LIEU OF PT (IAF), MAX 6000.
3. FAC: 220.10 FAF: IYASU DIST FAF TO MAP: 6.81 DIST FAF TO THLD: 6.81
4. MIN ALT: JEBTO 4000, IYASU 2900
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 NOT CLEAR 20:1: IS NOT CLEAR TCH:
8. MSA FROM: RW22 3100

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: RWY 22 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED.
CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART NOTE: PROCEDURE NA AT NIGHT.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL AT IWD VOR/DME ON V148 NORTHEAST BOUND.

ADDITIONAL FLIGHT DATA:

IYASU TO RW22: 3.06/40.
FAS OBST: 929 AAO 464856N/0904243W.
HOLD SW, RT, 039.87 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
LNAV MDA	1300	1	651	1300	1	651	1300	1 7/8	651		NA				
CIRCLING	1300	1	651	1300	1	651	1300	1 7/8	651		NA				

CHANGES - REASONS

1. REMOVED ALL REFERENCES TO IWD VORTAC AND REPLACED WITH IWD VOR/DME - IWD TACAN BEING DECOMMISSIONED.
2. CHANGED MINIMUM ALTITUDE FOR FEEDERS FROM 3100 FEET TO 4000 FEET AND MINIMUM ALTITUDE FOR INITIALS AND HOLD IN LIEU FROM 2900 FEET TO 4000 FEET - FIX JEBTO MINIMUM ALTITUDE CHANGED FROM 2900 FEET TO 4000 DUE TO CONTROLLER REQUEST BECAUSE OF UNSATISFACTORY PILOT/CONTROLLER COMMUNICATIONS ON RWY 4 MA BELOW 2900 FEET. CLEARS NOTAM 8/7040.
3. REMOVED "DME/DME RNP-0.3 NA" - 8260.19H.
4. ADDED PBN EQUIPMENT NOTE "RNP APCH" - 8260.19H.
5. REPLACED CHART NOTE "HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NA "WITH "RWY 22 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED" - 8260.19H.
6. REMOVED CHART NOTE "USE ASHLAND ALTIMETER SETTING; WHEN NOT RECEIVED USE SUPERIOR ALTIMETER SETTING AND INCREASE ALL MDAS 80 FEET AND LNAV CAT C VISIBILITY 1/2 MILE, CIRCLING CAT C VISIBILITY 1/4 MILE" - FULL TIME AWOS 3PT (ON WMSCR) LOCATED ON FIELD.
7. LNAV CAT C AND CIRCLING CAT C VISIBILITIES CHANGED FROM 1 3/4 SM TO 1 7/8 SM - VISCHECK CALCULATIONS.
8. CHANGED IF RNP FROM 0.50 TO 1.00 - CURRENT RNAV CRITERIA.
9. ADDED "CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL AT IWD VOR/DME ON V148 NORTHEAST BOUND-TURN EXCEEDS 90 DEGREES.
10. ADDED ALTERNATE MINIMUMS-LOCAL ALTIMETER SOURCE ON WMSCR



COORDINATED WITH:

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

FLIGHT CHECKED BY

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, DEC 22, 2017.

DEVELOPED BY

LONNIE EVERHART (BRANDON MAULDIN)

APPROVED BY

LONNIE EVERHART

Digitally signed by
DEZ SILAGYI
Aug 21, 2018

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Aug 21, 2018

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Aug 21, 2018

OFFICE
AJV-5400

AJV-5400

DATE

DATE
06/14/2018

DATE

TITLE
MANAGER



**FEDERAL AVIATION ADMINISTRATION
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.
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<u>AIRPORT</u> LAKELAND/NOBLE F. LEE MEMORIAL FIELD	<u>AIRPORT ID</u> KARV	<u>PROCEDURE NAME</u> LOC RWY 36	<u>ORIGINAL/AMENDMENT</u> 1A	<u>CITY</u> MINOCQUA-WOODRUFF	<u>STATE</u> WI	
<u>AIRPORT ELEVATION</u> 1630	<u>TDZE</u> 1627	<u>SUPERSEDED</u> LOC RWY 36	<u>ORIGINAL/AMENDMENT</u> 1	<u>DATED</u> 12/17/2009	<u>MAG VAR</u>	<u>EPOCH YEAR</u>
<u>FACILITY</u>	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u>	<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 11/08/2018

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:



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

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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> SOUTHWEST WYOMING RGNL	<u>AIRPORT ID</u> KRKS	<u>PROCEDURE NAME</u> ILS OR LOC RWY 27	<u>ORIGINAL/AMENDMENT</u> 2A	<u>CITY</u> ROCK SPRINGS	<u>STATE</u> WY	
<u>AIRPORT ELEVATION</u> 6765	<u>TDZE</u> 6765	<u>SUPERSEDED</u> ILS OR LOC RWY 27	<u>ORIGINAL/AMENDMENT</u> 2	<u>DATED</u> 01/05/2017	<u>MAG VAR</u> 13E	<u>EPOCH YEAR</u> 1995
<u>FACILITY</u> I-RKS	<u>COORDINATES OF FACILITIES</u> 413553.99N / 1090509.43W	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 2018	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>		

TERMINAL ROUTES

FROM	FIX TYPE	TO	FIX TYPE	LEG TYPE	FO/FB	RNP	COURSE	DISTANCE	ALTITUDE
OCS VOR/DME		DIGNE/I-RKS 13.67 DME					091.63	10.45	10000
DIGNE/I-RKS 13.67 DME	IF/IAF	EPULE/I-RKS 11.66 DME					270.22	2.01 (I-RKS)	9300
EPULE/I-RKS 11.66 DME		HEBUM/I-RKS 7.73 DME					270.22	3.93 (I-RKS)	8700

MISSED APPROACH

MAP:

ILS: DA
LOC: I-RKS 1.83 DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 7600 THEN CLIMBING RIGHT TURN TO 9300 DIRECT OCS VOR/DME AND HOLD, CONTINUE CLIMB-IN-HOLD TO 9300.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

- PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)
- HOLD E DIGNE, RT, 270.22 INBOUND, 9300 FT. IN LIEU OF PT (IAF), MAX 11200.
- FAC:** 270.22 **FAF:** HEBUM/I-RKS 7.73 DME **DIST FAF TO MAP:** **DIST FAF TO THLD:** 5.90
- MIN ALT:** DIGNE/I-RKS 13.67 DME 9300, EPULE/I-RKS 11.66 DME 9300, HEBUM/I-RKS 7.73 DME 8700, WATUM/I-RKS 4.93 DME 7800*
- DIST TO THLD FROM OM:** **MM:** **IM:** **150 HAT:** **GS ANT:** 1131
- MIN GS INCPT:** 8700 **GS ALT AT FAF:** HEBUM/I-RKS 7.73 DME 8700 **OM:** **MM:** **IM:**
- GP ANGLE:** 3.00 **34:1:** **20:1:** **TCH:** 54.9
- MSA FROM:** OCS VORTAC 010-100 9300, 100-010 10000

EQUIPMENT REQUIREMENTS NOTES:

DME REQUIRED

NOTES:



*LOC ONLY
CHART PROFILE NOTE: USE I-RKS DME WHEN ON THE LOCALIZER COURSE.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
CHART VDP AT 2.71 DME*
DISTANCE VDP TO THLD 0.88 NM
* LOC ONLY
CHART FAS OBST: 6824 NAVAID 413525N/1090055W.
HOLD E, RT, 270.00 INBOUND

MINIMUMS:

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

ALTERNATE: NA ☐ ILS: STANDARD; LOC: STANDARD - CAT D 800-2 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-ILS 27	6965	1/2	200	6965	1/2	200	6965	1/2	200	6965	1/2	200			
S-LOC 27	7100	1/2	335	7100	1/2	335	7100	1/2	335	7100	1/2	335			
CIRCLING	7140	1	375	7220	1	455	7220	1 1/2	455	7540	2 1/2	775			

CHANGES - REASONS

1. AIRPORT NAME CHANGED FROM ROCK SPRINGS-SWEETWATER COUNTY TO SOUTHWEST WYOMING RGNL - NFDD ACTION.
2. RELOCATED "DME REQUIRED" CHART NOTE FROM GENERAL NOTES SECTION TO EQUIPMENT REQUIREMENTS NOTES SECTION - 8260-19H DOCUMENTATION REQUIREMENT.
3. CHANGED ILS CAT D ALTERNATE MINIMUMS FROM # CAT D 800-2 1/2 TO STANDARD - QUALIFYING ALTERNATE AIRPORT MINIMA.



COORDINATED WITH:

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

FLIGHT CHECKED BY

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, DEC 22, 2017.

DEVELOPED BY

DAVID A. DOWLING

APPROVED BY

JULIE MORGAN

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Aug 08, 2018

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AJV-5422

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AJV-5420

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Aug 17, 2018

DATE

06/28/2018

DATE

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ROBERT G HAMILTON
Aug 17, 2018

TITLE
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> SOUTHWEST WYOMING RGNL	<u>AIRPORT ID</u> KRKS	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 9	<u>ORIGINAL/AMENDMENT</u> ORIG-B	<u>CITY</u> ROCK SPRINGS	<u>STATE</u> WY
<u>AIRPORT ELEVATION</u> 6765	<u>TDZE</u> 6741	<u>SUPERSEDED</u> RNAV (GPS) RWY 9	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>DATED</u> 02/01/2018	<u>MAG VAR</u> 13E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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>
OCS VOR/DME		REGVE		TF	FO	2.00	269.28	15.04	9800
GRIPS	IAF	REGVE	NOPT	TF	FB	1.00	091.74	34.98	9800
FBR VOR/DME	IAF	REGVE	NOPT	TF	FB	1.00	058.62	51.30	9800
REGVE	IF/IAF	ZEREX		TF	FB	1.00	090.03	6.07	8700
ZEREX	FAF	SIRNE/2.10 NM TO RW09		TF	FB	0.30	090.11	3.83	
SIRNE/2.10 NM TO RW09		RW09	MAP	TF	FO	0.30	090.11	2.10	
RW09	MAP	6941 MSL		CA			090.11		
6941 MSL		DIGNE		DF	FO	1.00			9600

MISSED APPROACH

MAP:

LPV: DA
 LNAV/VNAV: DA
 LNAV: RW09

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 9600 DIRECT DIGNE AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)
2. HOLD W REGVE, RT, 090.03 INBOUND, 9800 FT. IN LIEU OF PT (IAF), MAX 14000.
3. FAC: 090.11FAF: ZEREXDIST FAF TO MAP: 5.93DIST FAF TO THLD: 5.93
4. MIN ALT: REGVE 9800, ZEREX 8700, SIRNE/2.10 NM TO RW09 7440*
5. DIST TO THLD FROM OM:MM:IM:150 HAT:200 HAT: 0.50GS ANT:
6. MIN GP INCPT: 8700GP ALT AT FAF : ZEREX 8700OM:MM:IM:
7. GP ANGLE: 3.0034:1: IS CLEAR20:1: IS CLEARTCH: 50.0
8. MSA FROM: RW09 10000

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -28C OR ABOVE 45C.
*LNAV ONLY
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT OCS VOR/DME ON V328 SOUTHEAST BOUND, V391 NORTHBOUND, AND T298 NORTHEAST BOUND.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
CHART VDP AT 0.81 NM TO RW09*
*LNAV ONLY
WAAS CHANNEL #66016
REFERENCE PATH ID: W09A
CHART FAS OBST: 6764 TREE 413556N/1090535W.
HOLD E, RT, 270.39 INBOUND
LTP HAE: 2037.7 M

MINIMUMS:

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

ALTERNATE: NA

☐

STANDARD - CAT D 800-2 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
LPV DA	6941	3/4	200	6941	3/4	200	6941	3/4	200	6941	3/4	200			
LNAV/VNAV DA	7034	3/4	293	7034	3/4	293	7034	3/4	293	7034	3/4	293			
LNAV MDA	7040	3/4	299	7040	3/4	299	7040	3/4	299	7040	1	299			
CIRCLING	7140	1	375	7220	1	455	7220	1 1/2	455	7540	2 1/2	775			

CHANGES - REASONS

1. AIRPORT NAME CHANGED FROM ROCK SPRINGS-SWEETWATER COUNTY TO SOUTHWEST WYOMING RGNL - NFDD ACTION.

2. LINE 7: ADDED 20:1 IS CLEAR - IAW 8260.19H, PARA 8G.(3).

3. REMOVED EQUIPMENT NOTE: "DME/DME RNP-0.3 NA" - IAW 8260.19H, PARA 4-6-10E.

4. ADDED PBN REQUIREMENTS NOTE: "RNP APCH" - IAW 8260.19H, PARA 8-6-8.B.

5. CHART NOTE: UPDATED UNCOMPENSATED BARO-VNAV SYSTEMS NOTE FROM LNAV/VNAV NA BELOW -28C (-18F) OR ABOVE 35C (95F) TO NA BELOW -28C OR ABOVE 45C - FAHRENHEIT REMOVED IAW 8260.19H.



COORDINATED WITH:

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

FLIGHT CHECKED BY

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, DEC 22, 2017.

DEVELOPED BY

DAVID A. DOWLING

APPROVED BY

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Aug 09, 2018

OFFICE

OFFICE

AJV-5422

OFFICE

AJV-5420

DATE

DATE

06/27/2018

DATE

Digitally signed by
ROBERT G HAMILTON
Aug 17, 2018

Digitally signed by
ROBERT G HAMILTON
Aug 17, 2018

TITLE
MANAGER



FAS DATA BLOCK INFORMATION

DATA FIELD	DATA
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KRKS
RUNWAY	RW09
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W09A
LTP/FTP LATITUDE	413551.6290N
LTP/FTP LONGITUDE	1090456.0135W
LTP/FTP ELLIPSOIDAL HEIGHT	+20377
FPAP LATITUDE	413529.0560N
FPAP LONGITUDE	1090247.9285W
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	0000
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	35.0
CRC REMAINDER	FACBE14C
ADDITIONAL PATH POINT RECORD INFORMATION	
ICAO CODE	K1
LTP ORTHOMETRIC HEIGHT	+20518
FPAP ORTHOMETRIC HEIGHT	+20518



FEDERAL AVIATION ADMINISTRATION
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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> SOUTHWEST WYOMING RGNL	<u>AIRPORT ID</u> KRKS	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 27	<u>ORIGINAL/AMENDMENT</u> 1C	<u>CITY</u> ROCK SPRINGS	<u>STATE</u> WY
<u>AIRPORT ELEVATION</u> 6765	<u>TDZE</u> 6765	<u>SUPERSEDED</u> RNAV (GPS) RWY 27	<u>ORIGINAL/AMENDMENT</u> 1B	<u>DATED</u> 02/01/2018	<u>MAG VAR</u> 13E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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>
OCS VOR/DME		DIGNE		TF	FO	2.00	091.63	10.45	10000
ARUTE	IAF	DIGNE	NOPT	TF	FB	1.00	210.13	6.89	9300
CEBAL	IAF	DIGNE	NOPT	TF	FB	1.00	334.41	6.97	9300
DIGNE	IF/IAF	EPULE		TF	FB	1.00	270.39	2.01	9300
EPULE		HEBUM		TF	FB	1.00	270.36	3.93	8700
HEBUM	FAF	WATUM/3.10 NM TO RW27		TF	FB	0.30	270.30	2.80	
WATUM/3.10 NM TO RW27		RW27	MAP	TF	FO	0.30	270.30	3.10	
RW27	MAP	6965 MSL		CA			270.30		
6965 MSL		REGVE		DF	FO	1.00			9800

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW27

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 9800 DIRECT REGVE AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. HOLD E DIGNE, RT, 270.39 INBOUND, 9300 FT. IN LIEU OF PT (IAF), MAX 14000.

3. FAC: 270.30FAF: HEBUMDIST FAF TO MAP: 5.90DIST FAF TO THLD: 5.90

4. MIN ALT: DIGNE 9300, EPULE 9300, HEBUM 8700, WATUM/3.10 NM TO RW27 7800*

5. DIST TO THLD FROM OM:MM:IM:150 HAT:200 HAT: 0.46GS ANT:

6. MIN GP INCPT: 8700GP ALT AT FAF : HEBUM 8700OM:MM:IM:

7. GP ANGLE: 3.0034:1: IS CLEAR20:1: IS CLEARTCH: 54.9

8. MSA FROM: RW27 10000

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -27C OR ABOVE 44C.
CHART NOTE: FOR INOPERATIVE ALS INCREASE LNAV/VNAV ALL CATS VISIBILITY TO 7/8 SM.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT OCS VOR/DME ON V235 SOUTHWEST BOUND, V187 NORTH AND SOUTHBOUND AND T298 SOUTHWEST BOUND.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
CHART VDP AT 0.88 NM TO RW27*
*LNAV ONLY
WAAS CHANNEL #49216
REFERENCE PATH ID: W27A
CHART FAS OBST: 6824 NAVAID 413525N/1090055W.
HOLD W, RT, 090.03 INBOUND
LTP HAE: 2047.8 M

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD - CAT D 800-2 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
LPV DA	6965	1/2	200	6965	1/2	200	6965	1/2	200	6965	1/2	200			
LNAV/VNAV DA	7036	1/2	271	7036	1/2	271	7036	1/2	271	7036	1/2	271			
LNAV MDA	7100	1/2	335	7100	1/2	335	7100	1/2	335	7100	1/2	335			
CIRCLING	7140	1	375	7220	1	455	7220	1 1/2	455	7540	2 1/2	775			



AIRPORT	AIRPORT ID	PROCEDURE NAME	ORIGINAL/AMENDMENT	CITY	STATE
SOUTHWEST WYOMING RGNL	KRKS	RNAV (GPS) RWY 27	1C	ROCK SPRINGS	WY

CHANGES - REASONS

- 1. AIRPORT NAME CHANGED FROM ROCK SPRINGS-SWEETWATER COUNTY TO SOUTHWEST WYOMING RGNL - NFDD ACTION.
- 2. LINE 7: ADDED "20:1 IS CLEAR" - 8260.19H DOCUMENTATION REQUIREMENT.
- 3. REMOVED EQUIPMENT NOTE: "DME/DME RNP-0.3 NA" - 8260.19H DOCUMENTATION REQUIREMENT.
- 4. ADDED PBN REQUIREMENTS NOTE: "RNP APCH" - 8260.19H DOCUMENTATION REQUIREMENT.
- 5. CHART NOTE: UPDATED UNCOMPENSATED BARO-VNAV SYSTEMS NOTE FROM LNAV/VNAV NA BELOW -27C (-16F) OR ABOVE +44C (+111F) TO NA BELOW -27C OR ABOVE 44C - FAHRENHEIT REMOVED IAW 8260.19H.



COORDINATED WITH:

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

FLIGHT CHECKED BY

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, DEC 22, 2017.

DEVELOPED BY

DAVID A. DOWLING

APPROVED BY

JULIE MORGAN

Digitally signed by
DAVID A DOWLING
Aug 10, 2018

OFFICE

OFFICE

AJV-5422

OFFICE

AJV-5420

DATE

DATE

06/28/2018

DATE

Digitally signed by
ROBERT G HAMILTON
Aug 17, 2018

Digitally signed by
ROBERT G HAMILTON
Aug 17, 2018

TITLE

MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KRKS
RUNWAY	RW27
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W27A
LTP/FTP LATITUDE	413529.0560N
LTP/FTP LONGITUDE	1090247.9285W
LTP/FTP ELLIPSOIDAL HEIGHT	+20478
FPAP LATITUDE	413551.6290N
FPAP LONGITUDE	1090456.0135W
THRESHOLD CROSSING HEIGHT (TCH)	00054.9
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)	35.0
CRC REMAINDER	5001018D

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K1
LTP ORTHOMETRIC HEIGHT	+20618
FPAP ORTHOMETRIC HEIGHT	+20618



**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>
ROCK SPRINGS, WY	SOUTHWEST WYOMING RGNL	8 NOVEMBER 2018	6A

TAKEOFF MINIMUMS:

RWY 3, 9, 21, 27: STANDARD

TEXTUAL DEPARTURE PROCEDURES:

RWY 3: CLIMB HEADING 032.20 TO 8000 THEN CLIMBING LEFT TURN DIRECT OCS VOR/DME, CONTINUE CLIMB IN OCS VOR/DME HOLDING PATTERN (HOLD E, RT, 260.00 INBOUND) TO CROSS OCS VOR/DME AT OR ABOVE MEA FOR ROUTE OF FLIGHT.

RWY 9: CLIMB HEADING 090.20 TO 8200 THEN CLIMBING LEFT TURN DIRECT OCS VOR/DME, CONTINUE CLIMB IN OCS VOR/DME HOLDING PATTERN (HOLD E, RT, 260.00 INBOUND) TO CROSS OCS VOR/DME AT OR ABOVE MEA FOR ROUTE OF FLIGHT.

RWY 21: CLIMB HEADING 212.21 TO 8400 THEN CLIMBING RIGHT TURN DIRECT OCS VOR/DME, CONTINUE CLIMB IN OCS VOR/DME HOLDING PATTERN (HOLD E, RT, 260.00 INBOUND) TO CROSS OCS VOR/DME AT OR ABOVE MEA FOR ROUTE OF FLIGHT.

RWY 27: CLIMB HEADING 270.22 TO 7900 THEN CLIMBING RIGHT TURN ON OCS R-291 TO OCS VOR/DME, CONTINUE CLIMB IN OCS VOR/DME HOLDING PATTERN (HOLD E, RT, 260.00 INBOUND) TO CROSS OCS VOR/DME AT OR ABOVE MEA FOR ROUTE OF FLIGHT.

VISUAL CLIMB OVER AIRPORT:

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 3: VEHICLES ON ROAD BEGINNING 22 FT FROM DER, 120 LEFT OF CENTERLINE, UP TO 20 FT AGL/6760 FT MSL. BUSHES BEGINNING 178 FT FROM DER, 517 FT RIGHT OF CENTERLINE, UP TO 15 FT AGL/6755 FT MSL.

NOTE: RWY 21: BUSH 53 FT FROM DER, 221 FT LEFT OF CENTERLINE, 15 FT AGL/6737 FT MSL.

CONTROLLING OBSTACLES:

OBSTACLE MANDATING ODP ROUTE DEVELOPMENT: RWY 3, 9, 21, 27: 8760 MSL AAO 412727.00N/1090518.00W.

REMARKS:

Digitally signed by
ROBERT G HAMILTON

FLIGHT INSPECTED BY:

Aug 17, 2018

OFFICE SYMBOL:

DATE:

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

DEVELOPED BY:

DAVID DOWLING

Digitally signed by
DAVID A DOWLING
Jun 26, 2018

OFFICE SYMBOL:

AJV-5422

DATE:

06/26/2018

APPROVED BY:

JULIE MORGAN

Digitally signed by
ROBERT G HAMILTON

Aug 17, 2018

OFFICE SYMBOL:

AJV-5420

DATE:

REQUIRED EFFECTIVE DATE:

CONCURRENT WITH KRKS ILS OR LOC RWY 27, AMDT 2A; RNAV (GPS) RWY 9, ORIG-B; RNAV (GPS) RWY 27, AMDT 1C; VOR RWY 9, AMDT 3A; VOR RWY 27, AMDT 2A.

COORDINATED WITH:

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

OTHER:

AMGR, ZLC ARTCC

CHANGES - REASONS:

1. DEPARTURE PROCEDURES, RWY 27: CHANGED "VIA" TO "ON" - CURRENT VERBIAGE.
2. CONTROLLING OBSTACLES: ADDED TEXT OBSTACLE MANDATING ODP ROUTE DEVELOPMENT - 8260.46F, APPENDIX D, PARA 10.C.
3. REQUIRED EFFECTIVE DATE: ENTERED APPLICABLE PROCEDURE DATA - 8260.46F, APPENDIX D, PARA 18.B.
4. AIRPORT NAME: CHANGED FROM ROCK SPRINGS-SWEETWATER COUNTY TO SOUTHWEST WYOMING RGNL - NFDD ACTION.

QUALITY
20
CHECKED

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
VOR/DME 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.
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<u>AIRPORT</u> SOUTHWEST WYOMING RGNL	<u>AIRPORT ID</u> KRKS	<u>PROCEDURE NAME</u> VOR RWY 9	<u>ORIGINAL/AMENDMENT</u> 3A	<u>CITY</u> ROCK SPRINGS	<u>STATE</u> WY	
<u>AIRPORT ELEVATION</u> 6765	<u>TDZE</u> 6741	<u>SUPERSEDED</u> VOR/DME RWY 9	<u>ORIGINAL/AMENDMENT</u> 3	<u>DATED</u> 04/08/2010	<u>MAG VAR</u> 13E	<u>EPOCH YEAR</u> 1995
<u>FACILITY</u> OCS	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 8 NOVEMBER 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>
OCS VOR/DME		INUXY/OCS 9.00 DME					265.47	9.00	9600
FBR VOR/DME		SOPTE/OCS 20.00 DME					056.03	46.38	9600
SOPTE/OCS 20.00 DME	IAF	TOFBO/OCS 15.00 DME	NOPT				085.47	5.00 (OCS R-265)	9600
FETLI/OCS 15.00 DME CCW	IAF	TOFBO/OCS 15.00 DME	NOPT				15.00 DME ARC (OCS LR-274)		9600
PUDVY/OCS 15.00 DME CW	IAF	TOFBO/OCS 15.00 DME	NOPT				15.00 DME ARC (OCS LR-257)		9600
TOFBO/OCS 15.00 DME	IF	INUXY/OCS 9.00 DME					085.47	6.00 (OCS R-265)	8900

MISSED APPROACH

MAP:

OCS 3.04 DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 9300 DIRECT OCS VOR/DME AND HOLD, CONTINUE CLIMB-IN-HOLD TO 9300.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT R **SIDE OF COURSE** 265.47 **OUTBOUND** 9600 **FT WITHIN** 10 **MILES OF** INUXY (IAF)
- 2.
3. **FAC:** 085.47 **FAF:** INUXY/OCS 9.00 DME **DIST FAF TO MAP:** **DIST FAF TO THLD:** 5.96
4. **MIN ALT:** INUXY/OCS 9.00 DME 8900, JORAK/OCS 6.00 DME 7800
8. **MSA FROM:** OCS VORTAC 010-100 9300, 100-010 10000

EQUIPMENT REQUIREMENTS NOTES:

DME REQUIRED.



NOTES:

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

ADDITIONAL FLIGHT DATA:

INUXY TO RW09: 3.35/50.
CHART OCS R-308 AT FETLI.
CHART OCS R-246 AT PUDVY.
CHART VDP AT 3.79 DME
DISTANCE VDP TO THLD 0.75 NM
CHART FAS OBST: 6764 TREE 413556N/1090535W.
HOLD E, RT, 260.00 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-09	7020	3/4	279	7020	3/4	279	7020	3/4	279	7020	1	279			
CIRCLING	7140	1	376	7220	1	456	7220	1 1/2	456	7320	2	556			

CHANGES - REASONS

- AIRPORT NAME CHANGED FROM ROCK SPRINGS-SWEETWATER COUNTY TO SOUTHWEST WYOMING RGNL - NFDD ACTION.
- CHANGED PROCEDURE NAME FROM VOR/DME RWY 9 TO VOR RWY 9 - IAP NAMING CONVENTION.
- ADDED "DME REQUIRED" EQUIPMENT CHART NOTE - PROCEDURE NAME CHANGED FROM VOR/DME RWY 9 TO VOR RWY 9.
- CHANGED PROFILE NOTE: " VGSI AND DESCENT ANGLES NOT COINCIDENT" TO "VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET})" - REVISED FORMAT.

COORDINATED WITH:

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

FLIGHT CHECKED BY

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, DEC 22, 2017.

DEVELOPED BY

DAVID A. DOWLING

APPROVED BY

JULIE MORGAN

OFFICE

OFFICE

AJV-5422

OFFICE

AJV-5420

DATE

DATE

07/03/2018

DATE

Digitally signed by
ROBERT G HAMILTON
Aug 17, 2018

Digitally signed by
ROBERT G HAMILTON
Aug 17, 2018
TITLE
MANAGER



[4910-13]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 97

[Docket No. [31212](#); Amdt. No. [3816](#)

**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 **AUGUST 24, 2018**.



Rick Domingo
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
11-Oct-18	MI	Battle Creek	W K Kellogg	8/0768	8/9/18	RNAV (GPS) RWY 5L, Amdt 1A
11-Oct-18	MI	Battle Creek	W K Kellogg	8/0772	8/9/18	NDB RWY 23R, Amdt 19
11-Oct-18	MD	Clinton	Washington Executive/Hyde Field	8/1332	8/14/18	RNAV (GPS) RWY 5, Orig-A
11-Oct-18	NC	Albemarle	Stanly County	8/1617	8/14/18	ILS OR LOC RWY 22L, Amdt 1A
11-Oct-18	OR	Aurora	Aurora State	8/1823	8/21/18	LOC RWY 17, Amdt 2
11-Oct-18	OR	Aurora	Aurora State	8/1827	8/21/18	RNAV (GPS) RWY 17, Amdt 1
11-Oct-18	OR	Aurora	Aurora State	8/1829	8/21/18	RNAV (GPS) RWY 35, Amdt 1
11-Oct-18	ND	Devils Lake	Devils Lake Rgnl	8/2249	8/21/18	VOR RWY 3, Orig-B
11-Oct-18	MI	Ionia	Ionia County	8/2253	8/10/18	RNAV (GPS) RWY 27, Orig-A
11-Oct-18	GA	Greensboro	Greene County Rgnl	8/2255	8/21/18	LOC RWY 25, Amdt 3D
11-Oct-18	GA	Greensboro	Greene County Rgnl	8/2268	8/21/18	VOR-B, Amdt 3
11-Oct-18	GA	Greensboro	Greene County Rgnl	8/2298	8/21/18	RNAV (GPS) RWY 7, Amdt 1C
11-Oct-18	GA	Greensboro	Greene County Rgnl	8/2303	8/21/18	RNAV (GPS) RWY 25, Amdt 2
11-Oct-18	GA	Athens	Athens/Ben Epps	8/2375	8/21/18	ILS OR LOC/DME RWY 27, Amdt 2B
11-Oct-18	IA	Ottumwa	Ottumwa Rgnl	8/2417	8/21/18	VOR/DME RWY 13, Amdt 7A
11-Oct-18	IA	Ames	Ames Muni	8/2524	8/14/18	VOR RWY 31, Amdt 10
11-Oct-18	GA	Calhoun	Tom B David Fld	8/2699	8/21/18	RNAV (GPS) RWY 35, Amdt 1B
11-Oct-18	GA	Calhoun	Tom B David Fld	8/2705	8/21/18	RNAV (GPS) RWY 17, Amdt 1A
11-Oct-18	NJ	Wildwood	Cape May County	8/3697	8/9/18	RNAV (GPS) RWY 28, Orig
11-Oct-18	NJ	Wildwood	Cape May County	8/3701	8/9/18	VOR-A, Amdt 4
11-Oct-18	NJ	Wildwood	Cape May County	8/3705	8/9/18	LOC RWY 19, Amdt 7
11-Oct-18	NJ	Wildwood	Cape May County	8/3710	8/9/18	RNAV (GPS) RWY 1, Orig
11-Oct-18	NJ	Wildwood	Cape May County	8/3712	8/9/18	RNAV (GPS) RWY 10, Amdt 1
11-Oct-18	NJ	Wildwood	Cape May County	8/3714	8/9/18	RNAV (GPS) RWY 19, Amdt 1
11-Oct-18	NE	Seward	Seward Muni	8/5512	8/21/18	RNAV (GPS) RWY 34, Orig
11-Oct-18	MO	Harrisonville	Lawrence Smith Memorial	8/5711	8/9/18	RNAV (GPS) RWY 17, Orig

11-Oct-18	MO	Harrisonville	Lawrence Smith Memorial	8/5713	8/9/18	RNAV (GPS) RWY 35, Orig
11-Oct-18	KS	Colby	Shalz Field	8/6393	8/21/18	RNAV (GPS) RWY 35, Amdt 1A
11-Oct-18	KS	Colby	Shalz Field	8/6398	8/21/18	NDB RWY 17, Amdt 1
11-Oct-18	IL	Chicago	Chicago O'Hare Intl	8/6806	8/9/18	ILS OR LOC RWY 9R, Amdt 12
11-Oct-18	IL	Litchfield	Litchfield Muni	8/6811	8/14/18	RNAV (GPS) RWY 36, Orig-A
11-Oct-18	IL	Litchfield	Litchfield Muni	8/6817	8/14/18	RNAV (GPS) RWY 27, Orig
11-Oct-18	IL	Litchfield	Litchfield Muni	8/6818	8/14/18	RNAV (GPS) RWY 18, Orig-A
11-Oct-18	CA	Avalon	Catalina	8/6873	8/13/18	VOR OR GPS-A, Amdt 4B
11-Oct-18	WI	Fond Du Lac	Fond Du Lac County	8/7025	8/14/18	VOR/DME RWY 36, Amdt 6B
11-Oct-18	OR	Redmond	Roberts Field	8/7158	8/21/18	RNAV (GPS) Y RWY 29, Amdt 2A
11-Oct-18	AZ	Fort Huachuca Sierra Vista	Sierra Vista Muni-Libby AAF	8/7288	8/9/18	RADAR 1, Orig
11-Oct-18	WI	Hayward	Sawyer County	8/7642	8/13/18	RNAV (GPS) RWY 21, Amdt 1B
11-Oct-18	WI	Hayward	Sawyer County	8/7644	8/13/18	RNAV (GPS) RWY 3, Orig-D
11-Oct-18	FL	Sebastian	Sebastian Muni	8/7670	8/14/18	Takeoff Minimums and Obstacle DP, Orig-A
11-Oct-18	WI	Superior	Richard I Bong	8/7688	8/10/18	RNAV (GPS) RWY 4, Orig-A
11-Oct-18	WI	Superior	Richard I Bong	8/7689	8/10/18	RNAV (GPS) RWY 14, Orig-A
11-Oct-18	WI	Superior	Richard I Bong	8/7692	8/10/18	RNAV (GPS) RWY 22, Orig-A
11-Oct-18	WI	Superior	Richard I Bong	8/7694	8/10/18	RNAV (GPS) RWY 32, Orig-A
11-Oct-18	NC	Mocksville	Twin Lakes	8/7696	8/9/18	RNAV (GPS) RWY 9, Amdt 1A
11-Oct-18	ME	Augusta	Augusta State	8/7787	8/9/18	ILS OR LOC RWY 17, Amdt 3A
11-Oct-18	OK	Madill	Madill Muni	8/7792	8/10/18	RNAV (GPS) RWY 18, Orig
11-Oct-18	OK	Madill	Madill Muni	8/7800	8/10/18	VOR/DME-A, Amdt 3
11-Oct-18	OH	Wilmington	Wilmington Air Park	8/7987	8/10/18	ILS OR LOC RWY 4L, Amdt 4B
11-Oct-18	OK	Guymon	Guymon Muni	8/8036	8/21/18	NDB RWY 18, Amdt 5B
11-Oct-18	OH	Kent	Kent State Univ	8/8791	8/10/18	NDB RWY 1, Amdt 13B
11-Oct-18	OH	Kent	Kent State Univ	8/8804	8/10/18	RNAV (GPS) RWY 19, Amdt 1A
11-Oct-18	TX	Palacios	Palacios Muni	8/8814	8/21/18	RNAV (GPS) RWY 13, Orig-A

11-Oct-18	MI	Grayling	Grayling AAF	8/9448	8/9/18	RNAV (GPS) RWY 14, Orig-B
11-Oct-18	MI	Grayling	Grayling AAF	8/9452	8/9/18	NDB RWY 14, Amdt 8B
11-Oct-18	MI	Grayling	Grayling AAF	8/9453	8/9/18	VOR RWY 14, Amdt 2B
11-Oct-18	TX	Port Isabel	Port Isabel-Cameron County	8/9676	8/14/18	RNAV (GPS) RWY 13, Amdt 1
11-Oct-18	TX	Port Isabel	Port Isabel-Cameron County	8/9677	8/14/18	VOR-A, Amdt 6A
11-Oct-18	WI	New Richmond	New Richmond Rgnl	8/9813	8/14/18	RNAV (GPS) RWY 14, Amdt 2C
11-Oct-18	KS	Salina	Salina Rgnl	8/9851	8/21/18	NDB RWY 35, Amdt 17A
11-Oct-18	KS	Harper	Harper Muni	8/9939	8/10/18	VOR OR GPS-B, Amdt 1A
11-Oct-18	ME	Bar Harbor	Hancock County-Bar Harbor	8/9951	8/10/18	ILS OR LOC RWY 22, Amdt 6B

AIRAC Date: 11 OCTOBER 2018

FDC **8/0768** BTL IAP W K KELLOGG, Battle Creek, MI. RNAV (GPS) RWY 5L, AMDT 1A... CHART NOTE: CIRCLING RWY 31 NA AT NIGHT. DELETE NOTE: WHEN VGSI INOPERATIVE, CIRCLING RWYS 13/31 NA AT NIGHT. CHART NOTE: RWY 5L HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. DELETE NOTE: VISIBILITY REDUCTION BY HELICOPTERS NA. CHART NOTE: CIRCLING NA TO RWYS 5R AND 23L. ADD PBN REQUIREMENTS NOTE: RNP APCH. DELETE NOTE: DME/DME RNP-0.3 NA. CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -16C OR ABOVE 37C. DELETE NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -16C (4F) OR ABOVE 37C (98F). THIS IS RNAV (GPS) RWY 5L, AMDT 1B. 1808032243-PERM

FDC **8/0772** BTL IAP W K KELLOGG, Battle Creek, MI. NDB RWY 23R, AMDT 19... CHART NOTE: CIRCLING RWY 31 NA AT NIGHT. DELETE NOTE: CIRCLING TO RWY 5R/23L/31 NA AT NIGHT. CHART NOTE: CIRCLING NA TO RWY 5R AND 23L. THIS IS NDB RWY 23R, AMDT 19A. 1808032243-PERM

FDC **8/1332** W32 IAP WASHINGTON EXECUTIVE/HYDE FIELD, Clinton, MD. RNAV (GPS) RWY 5, ORIG-A... CIRCLING CAT B MDA 860/HAA 611. DELETE NOTE: DME/DME RNP-0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. THIS IS RNAV (GPS) RWY 5, ORIG-B. 1806251753-PERM

FDC **8/1617** VUJ IAP STANLY COUNTY, Albemarle, NC. ILS OR LOC RWY 22L, AMDT 1A... S-ILS 22L DA 900/HAT 316, VIS 7/8 ALL CATS. S-LOC 22L MDA 1100/HAT 516, VIS CATS C AND D 1 3/8. DELETE NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE ASHEBORO ALTIMETER SETTING AND INCREASE ALL DA TO 837 AND ALL MDAS 60 FEET; INCREASE S-ILS 22L ALL CATS, S-LOC 22L CATS C AND D, AND CIRCLING CATS C AND D VISIBILITY 1/4 MILE. DELETE NOTE: CIRCLING TO RWY 4L/22R NA AT NIGHT. CHART NOTE: CIRCLING RWY 4L, 22R NA AT NIGHT. DELETE CHART NOTE: ADF REQUIRED. DELETE PLANVIEW NOTE: ADF REQUIRED. EQUIPMENT REQUIREMENTS NOTE: ADF REQUIRED. CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE ASHEBORO ALTIMETER SETTING: INCREASE DA TO 953 AND ALL VISIBILITIES 1/8 SM; INCREASE ALL MDAS 60 FEET AND VISIBILITY CATS C AND D 1/4 SM. THIS IS ILS OR LOC RWY 22L, AMDT 1B. 1806252255-PERM

FDC **8/1823** UAO IAP AURORA STATE, Aurora, OR. LOC RWY 17, AMDT 2... FIDOV FIX MINIMUMS: CIRCLING MDA CAT A/B/C 700/HAA 500. THIS IS LOC RWY 17, AMDT 2A. 1807231511-PERM

FDC **8/1827** UAO IAP AURORA STATE, Aurora, OR. RNAV (GPS) RWY 17, AMDT 1... LNAV/VNAV DA 642/HAT 442 ALL CATS, VISIBILITY 1 1/8 ALL CATS. LNAV MDA 660/HAT 460 ALL CATS, VISIBILITY CAT A/B 1, C/D 1 1/8. CIRCLING CAT A/B/C MDA 700/HAA 500. DELETE NOTE: INOP TABLE DOES NOT APPLY TO LNAV CATS C/D. DELETE NOTE: FOR INOP ALS, INCREASE LPV ALL CATS VISIBILITY TO 1 SM AND INCREASE LNAV/VNAV ALL CATS VISIBILITY TO 7/8 SM. CHART NOTE: INOPERATIVE TABLE DOES NOT APPLY TO LPV ALL CATS. CHART NOTE: FOR INOPERATIVE ALS, INCREASE LNAV/VNAV AND LNAV CAT C/D VISIBILITY TO 1 3/8 SM. CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -6C OR ABOVE 54C. DELETE NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -6C (22F) OR ABOVE 54C (130F). DELETE NOTE: DME/DME RNP-0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. THIS IS RNAV (GPS) RWY 17, AMDT 1A. 1807231516-PERM

FDC **8/1829** UAO IAP AURORA STATE, Aurora, OR. RNAV (GPS) RWY 35, AMDT 1... LPV DA 453/HAT 254 ALL CATS. LNAV/VNAV DA 515/HAT 316 ALL CATS. LNAV MDA 620/HAT 421 ALL CATS, VISIBILITY CAT C/D 1 1/4. CIRCLING CAT A/B/C MDA 700/HAA 500. DELETE NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -6C (22F) OR ABOVE 54C (130F). CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -6C OR ABOVE 54C. DELETE NOTE: DME/DME RNP-0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. THIS IS RNAV (GPS) RWY 35, AMDT 1A. 1807231520-PERM

FDC **8/2249** DVL IAP DEVILS LAKE RGNL, Devils Lake, ND. VOR RWY 3, ORIG-B... CHANGE ALTIMETER SETTING NOTE TO READ: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE CANDO ALTIMETER SETTING AND INCREASE ALL MDA 80 FEET, INCREASE S-3 CAT A AND CIRCLING CATS C/D VISIBILITY 1/4 SM, CAMPG FIX MINIMUMS S-3 CATS C/D VISIBILITY 3/8 SM AND CIRCLING CATS C/D VISIBILITY 1/4 SM. THIS IS VOR RWY 3, ORIG-C. 1808201053-PERM

FDC **8/2253** Y70 IAP IONIA COUNTY, Ionia, MI. RNAV (GPS) RWY 27, ORIG-A... LNAV HAT 447 ALL CATS, VISIBILITY CAT C 1 3/8 SM. CIRCLING HAA 562 ALL CATS. CHART TDZE 813, DELETE TDZE 812. DELETE NOTE: USE LANSING ALTIMETER SETTING. DELETE NOTE: DME/DME RNP-0.3 NA. DELETE NOTE: GPS OR RNP 0.3 REQUIRED. PBN REQUIREMENTS NOTE: RNP APCH. CHART NOTE: RWY 27 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {3.00}/TCH {22}). CHART NOTE: CIRCLING NA TO RWYS 18 AND 36. THIS IS RNAV (GPS) RWY 27, ORIG-B. 1808071347-PERM

FDC **8/2255** 3J7 IAP GREENE COUNTY RGNL, Greensboro, GA. LOC RWY 25, AMDT 3D... CIRCLING CAT C MDA 1320/HAA 631, CAT D MDA 1480/HAA 791, VIS CAT C 1 3/4, CAT D 2 1/2. CHART CIRCLING ICON. DELETE NOTE: CIRCLING RWY 7 NA AT NIGHT. DELETE NOTE: RWY 7 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. CHART NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI {3.50}/TCH {26}). DELETE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT. EQUIPMENT REQUIREMENTS NOTE: ADF OR DME REQUIRED FOR PROCEDURE ENTRY. EQUIPMENT REQUIREMENTS NOTE: ADF OR DME REQUIRED. DELETE PLANVIEW NOTE. ADF REQUIRED. ALTERNATE MINIMUMS: NA. THIS IS LOC RWY 25, AMDT 3E. 1808201119-PERM

FDC **8/2268** 3J7 IAP GREENE COUNTY RGNL, Greensboro, GA. VOR-B, AMDT 3... DELETE NOTE: CIRCLING RWY 7 NA AT NIGHT. DELETE NOTE: DME REQUIRED. EQUIPMENT REQUIREMENTS NOTE: DME REQUIRED. THIS IS VOR-B, AMDT 3A. 1808201128-PERM

FDC **8/2298** 3J7 IAP GREENE COUNTY RGNL, Greensboro, GA. RNAV (GPS) RWY 7, AMDT 1C... LNAV CAT C VIS 1 3/8, CIRCLING CAT C MDA 1320/HAA 631, CAT D MDA 1480/HAA 791, VIS CAT C 1 3/4, CAT D 2 1/2. CHART CIRCLING ICON. CHART NOTE: RWY 7 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. DELETE NOTE: DME/DME RNP-0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. 34:1 IS NOT CLEAR. ALTERNATE MINIMUMS: STANDARD EXCEPT CAT D 800-2 1/2. CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {3.25}/TCH {37}). THIS IS RNAV (GPS) RWY 7, AMDT 1D. 1808201136-PERM

FDC **8/2303** 3J7 IAP GREENE COUNTY RGNL, Greensboro, GA. RNAV (GPS) RWY 25, AMDT 2... CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {3.50}/TCH {26}). DELETE NOTE: CIRCLING RWY 7 NA AT NIGHT. DELETE NOTE: DME/DME RNP-0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. THIS IS RNAV (GPS) RWY 25, AMDT 2A. 1808201141-PERM

FDC **8/2375** AHN IAP ATHENS/BEN EPPS, Athens, GA. ILS OR LOC/DME RWY 27, AMDT 2B... S-LOC 27 MDA 1160/HAT 347 ALL CATS. CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE WINDER ALTIMETER SETTING: INCREASE DA TO 1071 FEET; INCREASE ALL MDA 60 FEET AND S-LOC 27 VISIBILITY CATS C AND D TO 1 SM AND CIRCLING CAT D VISIBILITY TO 2 1/4 SM. CHART NOTE: INOPERATIVE TABLE DOES NOT APPLY TO S-ILS 27. DELETE NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE WINDER ALTIMETER SETTING: INCREASE DA TO 1071 FEET; INCREASE ALL MDA 60 FEET AND S-LOC 27 VISIBILITY CATS C AND D TO 7/8 MILE, AND CIRCLING CAT D VISIBILITY TO 2 1/4 MILE. THIS IS ILS OR LOC/DME RWY 27, AMDT 2C. 1807111432-PERM

FDC **8/2417** OTM IAP OTTUMWA RGNL, Ottumwa, IA. VOR/DME RWY 13, AMDT 7A... S-13 VISIBILITY CATS A/B 1 SM, CAT C 7/8 SM. THIS IS VOR/DME RWY 13, AMDT 7B. 1808201403-PERM

FDC **8/2524** AMW IAP AMES MUNI, Ames, IA. VOR RWY 31, AMDT 10... S-31 MDA 1580/HAT 650 ALL CATS, VIS CATS A/B 1, CAT C 1 7/8. CIRCLING MDA 1580/HAA 625 ALL CATS, VIS CATS A/B 1, CAT C 1 7/8. CHART NOTE: RWY 31 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. CHART NOTE: STRAIGHT-IN AND CIRCLING RWY 31 NA AT NIGHT. THIS IS VOR RWY 31, AMDT 10A. 1808071811-PERM

FDC **8/2699** CZL IAP TOM B DAVID FLD, Calhoun, GA. RNAV (GPS) RWY 35, AMDT 1B... DELETE NOTE: DME/DME RNP-0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. DELETE NOTE: PROCEDURE NA AT NIGHT. DELETE NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. CHART NOTE: RWY 35 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. THIS IS RNAV (GPS) RWY 35, AMDT 1C. 1808201827-PERM

FDC **8/2705** CZL IAP TOM B DAVID FLD, Calhoun, GA. RNAV (GPS) RWY 17, AMDT 1A... DELETE NOTE: DME/DME RNP-0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. DELETE NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. CHART NOTE: RWY 17 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. CHART NOTE: BARO-VNAV AND VDP NA WHEN USING ROME ALTIMETER SETTING. DELETE NOTE: BARO-VNAV NA WHEN USING ROME ALTIMETER SETTING. DELETE NOTE: PROCEDURE NA AT NIGHT. CHART VDP AT 1.29 NM TO RW17* *LNAV ONLY. THIS IS RNAV (GPS) RWY 17, AMDT 1B. 1808201829-PERM

FDC **8/3697** WWD IAP CAPE MAY COUNTY, Wildwood, NJ. RNAV (GPS) RWY 28, ORIG... CHART NOTE: CIRCLING RWY 1 NA AT NIGHT. DELETE NOTE: CIRCLING RWY 1, 19 NA AT NIGHT. DELETE NOTE: DME/DME RNP-0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. DELETE NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -15C (5F) OR ABOVE 54C (130F). CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -15C OR ABOVE 54C. THIS IS RNAV (GPS) RWY 28, ORIG-A. 1807251856-PERM

FDC **8/3701** WWD IAP CAPE MAY COUNTY, Wildwood, NJ. VOR-A, AMDT 4... CHART NOTE: CIRCLING RWY 1 NA AT NIGHT. DELETE NOTE: CIRCLING RWY 1, 19 NA AT NIGHT. DELETE NOTE: RWY 1, 19 HELICOPTER VISIBILITY REDUCTION 1 SM NA. DELETE NOTE: RWY 10, 28 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NA. THIS IS VOR-A, AMDT 4A. 1807251859-PERM

FDC **8/3705** WWD IAP CAPE MAY COUNTY, Wildwood, NJ. LOC RWY 19, AMDT 7... CHART NOTE: CIRCLING RWY 1 NA AT NIGHT. DELETE NOTE: STRAIGHT-IN RWY 19 NA AT NIGHT, CIRCLING RWY 19 NA AT NIGHT, CIRCLING RWY 1 NA AT NIGHT. THIS IS LOC RWY 19, AMDT 7A. 1807251902-PERM

FDC **8/3710** WWD IAP CAPE MAY COUNTY, Wildwood, NJ. RNAV (GPS) RWY 1, ORIG... CHART NOTE: STRAIGHT-IN RWY 1 NA AT NIGHT, CIRCLING RWY 1 NA AT NIGHT. DELETE NOTE: STRAIGHT-IN RWY 1 NA AT NIGHT, CIRCLING RWY 1 NA AT NIGHT, CIRCLING RWY 19 NA AT NIGHT. DELETE NOTE: DME/DME RNP-0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. THIS IS RNAV (GPS) RWY 1, ORIG-A. 1807251905-PERM

FDC **8/3712** WWD IAP CAPE MAY COUNTY, Wildwood, NJ. RNAV (GPS) RWY 10, AMDT 1... CHART NOTE: CIRCLING RWY 1 NA AT NIGHT. DELETE NOTE: CIRCLING RWY 1-19 NA AT NIGHT. DELETE NOTE: DME/DME RNP-0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. DELETE NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -15C (5F) OR ABOVE 54C (130F). CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -15C OR ABOVE 54C. THIS IS RNAV (GPS) RWY 10, AMDT 1A. 1807251907-PERM

FDC **8/3714** WWD IAP CAPE MAY COUNTY, Wildwood, NJ. RNAV (GPS) RWY 19, AMDT 1... CHART NOTE: CIRCLING RWY 1 NA AT NIGHT. DELETE NOTE: STRAIGHT-IN RWY 19 NA AT NIGHT, CIRCLING RWY 19 NA AT NIGHT, CIRCLING RWY 11 NA AT NIGHT. DELETE NOTE: DME/DME RNP-0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. DELETE NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -8C (8F) OR ABOVE 54C (130F). CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -8C OR ABOVE 54C. THIS IS RNAV (GPS) RWY 19, AMDT 1A. 1807251910-PERM

FDC **8/5512** SWT IAP SEWARD MUNI, Seward, NE. RNAV (GPS) RWY 34, ORIG... PBN REQUIREMENTS NOTE: RNP APCH. DELETE NOTE: DME/DME RNP -0.3 NA. DELETE NOTE: VISIBILITY REDUCTION BY HELICOPTERS NOT AUTHORIZED. CHART NOTE: CIRCLING NA TO RWYS 4 AND 22. CHART NOTE: RWY 34 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. THIS IS RNAV (GPS) RWY 34, ORIG A. 1808091750-PERM

FDC **8/5711** LRY IAP LAWRENCE SMITH MEMORIAL, Harrisonville, MO. RNAV (GPS) RWY 17, ORIG... PBN REQUIREMENTS NOTE: RNP APCH. DELETE NOTE: VISIBILITY REDUCTION BY HELICOPTERS NA. DELETE NOTE: DME/DME RNP-0.3 NA. DELETE NOTE: WHEN VGSI INOPERATIVE, PROCEDURE NA AT NIGHT. CHART NOTE: PROCEDURE NA AT NIGHT. CHART NOTE: RWY 17 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. THIS IS RNAV (GPS) RWY 17, ORIG-A. 1807271311-PERM

FDC **8/5713** LRY IAP LAWRENCE SMITH MEMORIAL, Harrisonville, MO. RNAV (GPS) RWY 35, ORIG... CHART NOTE: PROCEDURE NA AT NIGHT. CHART NOTE: RWY 35 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. PBN REQUIREMENTS NOTE: RNP APCH. CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -16C OR ABOVE 54C. DELETE NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -16C (4F) OR ABOVE 54C (130F). DELETE NOTE: DME/DME RNP-0.3 NA. DELETE NOTE: VISIBILITY REDUCTION BY HELICOPTERS NA. THIS IS RNAV (GPS) RWY 35, ORIG-A. 1807271311-PERM

FDC **8/6393** CBK IAP SHALZ FIELD, Colby, KS. RNAV (GPS) RWY 35, AMDT 1A... CHART NOTE: CIRCLING RWY 17 NA AT NIGHT. CHART NOTE: CIRCLING RWY 4, 12, 22, 30 NA. DELETE NOTE: DME/DME RNP -0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. THIS IS RNAV (GPS) RWY 35, AMDT 1B. 1807021713-PERM

FDC **8/6398** CBK IAP SHALZ FIELD, Colby, KS. NDB RWY 17, AMDT 1... S-17 HAT 453 ALL CATS. S-17 VISIBILITY CAT C 1 3/8. CIRCLING HAA 453 ALL CATS. CHART: TDZE 3187. DELETE: TDZE 3186. CHART: APT ELEV 3187. DELETE: APT ELEV: 3186. CHART NOTE: STRAIGHT-IN AND CIRCLING RWY 17 NA AT NIGHT. CHART NOTE: CIRCLING RWY 4, 12, 22, 30 NA. CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE GOODLAND ALTIMETER SETTING AND INCREASE ALL MDA 140 FEET AND INCREASE S-17 CAT C VISIBILITY 3/8 SM AND CIRCLING CAT C VISIBILITY 1/4 SM. CHART NOTE: RWY 17 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. MSA FROM JDM NDB 180 TO 360 MINIMUM ALTITUDE 5700. THIS IS NDB RWY 17, AMDT 1A. 1807021717-PERM

FDC **8/6806** ORD IAP CHICAGO O'HARE INTL, Chicago, IL. ILS OR LOC RWY 9R, AMDT 12... S-LOC 9R VISIBILITY CATS C/D RVR 5000. CHART NOTE: FOR INOPERATIVE ALS, INCREASE S-LOC 9R CAT C/D VISIBILITY TO 1 3/8 SM. DELETE PLANVIEW NOTE: RNAV 1-GPS OR RADAR REQUIRED. DELETE NOTE: DME OR RADAR REQUIRED. EQUIPMENT REQUIREMENTS NOTE: RNAV 1-GPS OR RADAR REQUIRED FOR PROCEDURE ENTRY. EQUIPMENT REQUIREMENTS NOTE: DME OR RADAR REQUIRED. THIS IS ILS OR LOC RWY 9R, AMDT 12A. 1807301429-PERM

FDC **8/6811** 3LF IAP LITCHFIELD MUNI, Litchfield, IL. RNAV (GPS) RWY 36, ORIG-A... DELETE NOTE: DME/DME RNP-0.3 NA. DELETE NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -16C (4F) OR ABOVE 54C (130F). DELETE NOTE: IF LOCAL ALTIMETER SETTING NOT RECEIVED, USE TAYLORVILLE ALTIMETER SETTING AND INCREASE ALL DAS 73 FEET AND ALL MDAS 80 FEET. CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -16C OR ABOVE 54C. CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE TAYLORVILLE ALTIMETER SETTING AND INCREASE ALL DA 73 FEET AND ALL MDA 80 FEET. INCREASE LNAV AND CIRCLING CAT C VISIBILITY TO 1 7/8 SM. PBN REQUIREMENTS NOTE: RNP APCH. LNAV CAT C VISIBILITY 1 5/8. CIRCLING CAT C VISIBILITY 1 5/8. 20:1 IS CLEAR. 34:1 IS CLEAR. THIS IS RNAV (GPS) RWY 36, ORIG-B. 1807171635-PERM

FDC **8/6817** 3LF IAP LITCHFIELD MUNI, Litchfield, IL. RNAV (GPS) RWY 27, ORIG... DELETE NOTE: IF LOCAL ALTIMETER SETTING NOT RECEIVED, USE TAYLORVILLE ALTIMETER SETTING AND INCREASE ALL MDA'S 80 FEET. DELETE NOTE: DME/DME RNP-0.3 NA. CHART NOTE: RWY 27 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE TAYLORVILLE ALTIMETER SETTING AND INCREASE ALL MDA 80 FEET AND LNAV CAT C VISIBILITY TO 1 3/8 SM. PBN REQUIREMENTS NOTE: RNP APCH. ALTERNATE MINIMUMS STANDARD EXCEPT NA WHEN LOCAL WEATHER NOT AVAILABLE. LNAV CAT A/B/C MDA 1120/HAT 430. VDP 1.3 NM TO RWY 27. 20:1 IS CLEAR. 34:1 IS NOT CLEAR. THIS IS RNAV (GPS) RWY 27, ORIG-A. 1807171640-PERM

FDC **8/6818** 3LF IAP LITCHFIELD MUNI, Litchfield, IL. RNAV (GPS) RWY 18, ORIG-A... DELETE NOTE: IF LOCAL ALTIMETER SETTING NOT RECEIVED, USE TAYLORVILLE ALTIMETER SETTING AND INCREASE ALL DA'S 73 FEET AND ALL MDA'S 80 FEET. DELETE NOTE: DME/DME RNP-0.3 NA. DELETE NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -16C (4F) OR ABOVE 54C (130F). CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -16C OR ABOVE 54C. CHART NOTE: RWY 18 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE TAYLORVILLE ALTIMETER SETTING AND INCREASE ALL DA 73 FEET AND ALL MDA 80 FEET. INCREASE LPV ALL CATS VISIBILITY TO 1 1/8 SM AND LNAV CAT C VISIBILITY TO 1 3/8 SM. PBN REQUIREMENTS NOTE: RNP APCH. LNAV CAT A/B/C MDA 1120/HAT 435. VDP 1.3 NM TO RWY 18. 20:1 IS CLEAR. 34:1 IS NOT CLEAR. THIS IS RNAV (GPS) RWY 18, ORIG-B. 1807171640-PERM

FDC **8/6873** AVX IAP CATALINA, Avalon, CA. VOR OR GPS-A, AMDT 4B... CIRCLING CATS A/B MDA 2580/HAA 978. THIS IS VOR OR GPS-A, AMDT 4C. 1806181147-PERM

FDC **8/7025** FLD IAP FOND DU LAC COUNTY, Fond Du Lac, WI. VOR/DME RWY 36, AMDT 6B... S-36 CAT A/B VISIBILITY 3/4. CHART NOTE: RWY 36 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. CHART NOTE: CIRCLING RWY 9, 27 NA AT NIGHT. CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {3.00}/TCH {35.0}). THIS IS VOR/DME RWY 36, AMDT 6C. 1808131250-PERM

FDC **8/7158** RDM IAP ROBERTS FIELD, Redmond, OR. RNAV (GPS) Y RWY 29, AMDT 2A... CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {3.0}/TCH {51.3}). DELETE NOTE: DME/DME RNP-0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. THIS IS RNAV (GPS) Y RWY 29, AMDT 2B. 1808131657-PERM

FDC **8/7288** FHU IAP SIERRA VISTA MUNI-LIBBY AAF, Fort Huachuca Sierra Vista, AZ. RADAR 1, ORIG ... DELETE NOTE: CIRCLING RWYS 12-21 NA AT NIGHT. THIS IS RADAR 1, ORIG-A 1807031440-PERM

FDC **8/7642** HYR IAP SAWYER COUNTY, Hayward, WI. RNAV (GPS) RWY 21, AMDT 1B... CIRCLING CAT A MDA1860/HAA 644, CAT B MDA 2060/HAA 844, CAT C/D MDA 2120/HAA 904, VISIBILITY CAT B 1 1/4 SM, CAT C 2 3/4 SM, CAT D 3 SM. DELETE NOTE: DME/DME RNP-0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. DELETE NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE ASHLAND ALTIMETER SETTING AND INCREASE ALL DA 143 FEET AND ALL MDA 160 FEET AND INCREASE LPV ALL CATS VISIBILITY 3/8 MILE, LNAV/VNAV ALL CATS AND LNAV CAT C AND D AND CIRCLING CAT C VISIBILITY 1/2 MILE, AND CIRCLING CATS B AND D VISIBILITY 1/4 MILE. DELETE NOTE: FOR INOP MALSR WHEN USING ASHLAND ALTIMETER SETTING, INCREASE LPV ALL CATS VISIBILITY TO 1 1/2 MILE, LNAV/VNAV ALL CATS VISIBILITY TO 1 5/8 MILE, AND LNAV CAT A AND B VISIBILITY TO 1 MILE. DELETE NOTE: BARO-VNAV VDP NA WHEN USING ASHLAND ALTIMETER SETTING. DELETE NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NA. CHART NOTE: RWY 21 HELICOPTER VISIBILITY BELOW 3/4 SM NA. THIS IS RNAV (GPS) RWY 21, AMDT 1C. 1807311141-PERM

FDC **8/7644** HYR IAP SAWYER COUNTY, Hayward, WI. RNAV (GPS) RWY 3, ORIG-D... CIRCLING CAT A MDA1860/HAA 644, CAT B MDA 2060/HAA 844, CAT C/D MDA 2120/HAA 904, VISIBILITY CAT B 1 1/4 SM, CAT C 2 3/4 SM, CAT D 3 SM. DELETE NOTE: BARO-VNAV AND VDP NA WHEN USING ASHLAND ALTIMETER SETTING. DELETE NOTE: DME/DME RNP-0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. DELETE NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NA. CHART NOTE: RWY 3 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NA. DELETE NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE ASHLAND ALTIMETER SETTING AND INCREASE ALL DA 143 FEET AND ALL VISIBILITY 1/2 MILE, INCREASE ALL MDA 160 FEET, INCREASE LNAV CAT C/D VISIBILITY 3/8 MILE, CIRCLING CAT C VISIBILITY 1/2 MILE, AND CIRCLING CAT D VISIBILITY 1/4 MILE. THIS IS RNAV (GPS) RWY 3, ORIG-E. 1807311149-PERM

FDC **8/7670** X26 ODP SEBASTIAN MUNI, Sebastian, FL. TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES ORIG-A... TAKEOFF MINIMUMS: RWY 10, 300-1 1/8 OR STANDARD WITH MINIMUM CLIMB OF 293 FEET PER NM TO 300. NOTE: RWY 10, TREES BEGINNING 42 FT FROM DER, 418 FT LEFT OF CENTERLINE, UP TO 57 FT AGL/70 FT MSL. ALL OTHER DATA REMAINS AS PUBLISHED. THIS IS TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES, ORIG-B. 1807181514-PERM

FDC **8/7688** SUW IAP RICHARD I BONG, Superior, WI. RNAV (GPS) RWY 4, ORIG-A... DELETE NOTE: CIRCLING TO RWY 22 NA AT NIGHT. DELETE NOTE: WHEN VGSI INOP, CIRCLING RWY 32 NA AT NIGHT. DELETE NOTE: DME/DME RNP-0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. DELETE NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NA. CHART NOTE: RWY 4 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. DELETE NOTE: VDP NA WITH SKY HARBOR ALTIMETER SETTING. THIS IS RNAV (GPS) RWY 4, ORIG-B. 1807181534-PERM

FDC **8/7689** SUW IAP RICHARD I BONG, Superior, WI. RNAV (GPS) RWY 14, ORIG-A... DELETE NOTE: CIRCLING TO RWY 22 NA AT NIGHT. DELETE NOTE: WHEN VGSI INOP, CIRCLING RWY 32 NA AT NIGHT. DELETE NOTE: VISIBILITY REDUCTION BY HELICOPTERS NA. DELETE NOTE: DME/DME RNP-0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. CHART NOTE: RWY 14 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. DELETE NOTE: VDP NA WITH SKY HARBOR ALTIMETER SETTING. THIS IS RNAV (GPS) RWY 14, ORIG-B. 1807181536-PERM

FDC **8/7692** SUW IAP RICHARD I BONG, Superior, WI. RNAV (GPS) RWY 22, ORIG-A... DELETE NOTE: STRAIGHT-IN/CIRCLING RWY 22 PROCEDURE NA AT NIGHT. DELETE NOTE: WHEN VGSI INOP, CIRCLING RWY 32 NA AT NIGHT. DELETE NOTE: VISIBILITY REDUCTION BY HELICOPTERS NA. DELETE NOTE: DME/DME RNP-0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. CHART NOTE: RWY 22 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. CHART VDP AT 1.08 NM TO RW22. THIS IS RNAV (GPS) RWY 22, ORIG-B. 1807181538-PERM

FDC **8/7694** SUW IAP RICHARD I BONG, Superior, WI. RNAV (GPS) RWY 32, ORIG-A... DELETE NOTE: CIRCLING TO RWY 22 NA AT NIGHT. DELETE NOTE: WHEN VGSI INOP, STRAIGHT-IN/CIRCLING RWY 32 NA AT NIGHT. DELETE NOTE: DME/DME RNP-0.3 NA. DELETE NOTE: VISIBILITY REDUCTION BY HELICOPTERS NA. PBN REQUIREMENTS NOTE: RNP APCH. CHART NOTE: RWY 32 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. CHART VDP AT 0.88 NM TO RW32. THIS IS RNAV (GPS) RWY 32, ORIG-B. 1807181540-PERM

FDC **8/7696** 8A7 IAP TWIN LAKES, Mocksville, NC. RNAV (GPS) RWY 9, AMDT 1A... LNAV MDA 1320/HAT 502. CHART TDZE: 818. CHART NOTE: PROCEDURE NA AT NIGHT. DELETE NOTE: DME/DME RNP-0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. CHART NOTE: RWY 9 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. THIS IS RNAV (GPS) RWY 9, AMDT 1B. 1807181543-PERM

FDC **8/7787** AUG IAP AUGUSTA STATE, Augusta, ME. ILS OR LOC RWY 17, AMDT 3A... CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE WATERVILLE ALTIMETER SETTING: INCREASE S-ILS 17 DA TO 583; INCREASE ALL MDAS 40 FEET AND S-LOC 17 CAT C/D VISIBILITY 1/8 MILE; SHAWE FIX MINIMUMS INCREASE S-LOC 17 CAT C/D VISIBILITY 1/8 MILE. DELETE NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE WATERVILLE ALTIMETER SETTING: INCREASE S-ILS 17 DA TO 546; INCREASE ALL MDAS 40 FEET AND S-LOC 17 CAT C/D VISIBILITY 1/8 MILE; SHAWE FIX MINIMUMS INCREASE CAT C/D VISIBILITY 1/8 MILE. DELETE NOTE: WHEN VGSI INOP, CIRCLING RWY 8 AND RWY 26 NA AT NIGHT. CHART NOTE: WHEN CIRCLING TO RWY 8, 26 AT NIGHT OPERATIONAL VGSI REQUIRED REMAIN ON OR ABOVE VGSI GLIDEPATH UNTIL THRESHOLD. DELETE NOTE: RWY 8, 26 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NA. THIS IS ILS OR LOC RWY 17, AMDT 3B. 1807181716-PERM

FDC **8/7792** 1F4 IAP MADILL MUNI, Madill, OK. RNAV (GPS) RWY 18, ORIG... DELETE NOTE: GPS OR RNP-0.3 REQUIRED. DELETE NOTE: DME/DME RNP-0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. CHART NOTE: PROCEDURE NA AT NIGHT. NOTE: 34:1 IS NOT CLEAR. CHART NOTE: RWY 18, HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. THIS IS RNAV (GPS) RWY 18, ORIG-A. 1807181724-PERM

FDC **8/7800** 1F4 IAP MADILL MUNI, Madill, OK. VOR/DME-A, AMDT 3... CHART NOTE: PROCEDURE NA AT NIGHT. THIS IS VOR/DME-A, AMDT 3A. 1807181727-PERM

FDC **8/7987** ILN IAP WILMINGTON AIR PARK, Wilmington, OH. ILS OR LOC RWY 4L, AMDT 4B... DELETE NOTE: #RVR 1800 AUTHORIZED WITH USE OF FD OR AP OR HUD TO DA. CHANGE S-ILS 4L DA FROM #1257 TO 1257. DELETE NOTE: RADAR REQUIRED. DELETE PLANVIEW NOTE: RADAR REQUIRED. EQUIPMENT REQUIREMENTS NOTE: RADAR REQUIRED TO DEFINE RHYNO AND KNITE. EQUIPMENT REQUIREMENTS NOTE: DME REQUIRED. REMOVE REFERENCE TO SGH R-161 AT BUNSS INT. CHANGE ALL REFERENCES TO BUNSS INT/MXQ 10.00 DME TO BUNSS/MXQ 10.00 DME. DELETE PLANVIEW NOTE: USE OF CVG R-074 AND FLM R-026 MAY BE NECESSARY TO LOCATE RHYNO. THIS IS ILS OR LOC RWY 4L, AMDT 4C. 1807311947-PERM

FDC **8/8036** GUY IAP GUYMON MUNI, Guymon, OK. NDB RWY 18, AMDT 5B... S-23 VISIBILITY CAT C 2 1/2. CIRCLING VISIBILITY CAT C 2 1/2. CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE LIBERAL ALTIMETER SETTING AND INCREASE ALL MDA 120 FEET, INCREASE S-18 CAT A VISIBILITY 1/4 SM; INCREASE CIRCLING CATS A AND C 1/4 SM. CHART NOTE: CIRCLING NA TO RWYS 6 AND 24. THIS IS NDB RWY 18, AMDT 5C. 1808141705-PERM

FDC **8/8791** 1G3 IAP KENT STATE UNIV, Kent, OH. NDB RWY 1, AMDT 13B... DELETE NOTE: NIGHT LANDING: RWY 1 NA. DELETE NOTE: HELICOPTER VISIBILITY REDUCTION BY HELICOPTERS NA. CHART NOTE: RWY 1 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. THIS IS NDB RWY 1, AMDT 13C. 1807191151-PERM

FDC **8/8804** 1G3 IAP KENT STATE UNIV, Kent, OH. RNAV (GPS) RWY 19, AMDT 1A... DELETE NOTE: VISIBILITY REDUCTION BY HELICOPTERS NA. CHART NOTE: RWY 19 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 19, AMDT 1B. 1807191154-PERM

FDC **8/8814** PSX IAP PALACIOS MUNI, Palacios, TX. RNAV (GPS) RWY 13, ORIG-A... CIRCLING CAT A MDA 460/HAA 446. DELETE NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -20C (4F) OR ABOVE 54C (130F). CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -20C OR ABOVE 54C. 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-B. 1808151325-PERM

FDC **8/9448** GOV IAP GRAYLING AAF, Grayling, MI. RNAV (GPS) RWY 14, ORIG-B... LNAV HAT 546 ALL CATS, VIS CAT C 1 5/8. CIRCLING CAT A/B/C HAA 562, VIS CAT C 1 5/8, CAT D HAA 602. CHART TDZE 1154. CHART APT ELEV 1158. CHART NOTE: CIRCLING RWY 5, 23, 32 NA AT NIGHT. CHART NOTE: RWY 14 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. DELETE NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. DELETE NOTE: PROCEDURE NA AT NIGHT FOR CAT C/D AIRCRAFT. CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED USE HOUGHTON LAKE ALTIMETER SETTING AND INCREASE ALL MDAS 60 FEET AND VISIBILITY CAT C 1/8 SM. DELETE NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE HOUGHTON LAKE ALTIMETER SETTING AND INCREASE ALL MDA 60 FEET, INCREASE LNAV CAT C AND D AND CIRCLING CAT C VISIBILITY 1/4 MILE. DELETE NOTE: DME/DME RNP-0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. THIS IS RNAV (GPS) RWY 14, ORIG-C. 1807191726-PERM

FDC **8/9452** GOV IAP GRAYLING AAF, Grayling, MI. NDB RWY 14, AMDT 8B... S-14 HAT 726 ALL CATS, CIRCLING HAA 722 ALL CATS. CHART TDZE 1154. CHART APT ELEV 1158. CHART NOTE: CIRCLING RWY 5, 23, 32 NA AT NIGHT. DELETE NOTE: PROCEDURE NA AT NIGHT FOR CAT C/D AIRCRAFT. DELETE NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. CHART NOTE: RWY 14 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE HOUGHTON LAKE ALTIMETER SETTING AND INCREASE ALL MDAS 60 FEET AND VISIBILITY CAT B/C/D 1/2 SM. DELETE NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE HOUGHTON LAKE ALTIMETER SETTING AND INCREASE ALL MDA 60 FEET AND S-14 AND CIRCLING CAT B, C, AND D VISIBILITY 1/4 MILE. THIS IS NDB RWY 14, AMDT 8C. 1807191729-PERM

FDC **8/9453** GOV IAP GRAYLING AAF, Grayling, MI. VOR RWY 14, AMDT 2B... S-14 HAT 726 ALL CATS, CIRCLING HAA 722 ALL CATS, GORDN FIX MINIMUMS S-14 HAT 566 ALL CATS, VIS CAT C 1 5/8. CIRCLING CAT A/B/C HAA 562, CAT D HAA 602, VIS CAT C 1 5/8. CHART TDZE 1154. CHART APT ELEV 1158. CHART NOTE: RWY 14 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. DELETE NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. DELETE NOTE: PROCEDURE NA AT NIGHT FOR CAT C/D AIRCRAFT. CHART NOTE: CIRCLING RWY 5, 23, 32 NA AT NIGHT. CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE HOUGHTON LAKE ALTIMETER SETTING AND INCREASE ALL MDAS 60 FEET AND VISIBILITY S-14 AND CIRCLING CAT B/C/D 1/2 SM AND GORDN FIX MINIMUMS S-14 AND CIRCLING CAT C 1/8 SM. DELETE NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE HOUGHTON LAKE ALTIMETER SETTING AND INCREASE ALL MDA 60 FEET, INCREASE S-14 AND CIRCLING CAT B, C AND D GORDN FIX MINIMUMS S-14 CAT C AND D AND CIRCLING CAT C VISIBILITY 1/4 MILE. THIS IS VOR RWY 14, AMDT 2C. 1807191731-PERM

FDC **8/9676** PIL IAP PORT ISABEL-CAMERON COUNTY, Port Isabel, TX. RNAV (GPS) RWY 13, AMDT 1... CIRCLING CAT B MDA 620/HAA 601, CAT C MDA 840/HAA 821, VIS CAT C 2 1/2. CHART CIRCLING ICON. CHART NOTE: CIRCLING RWYS 3, 8, 17, 21, 26, 35 NA AT NIGHT. DELETE NOTE: DME/DME RNP-0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. DELETE NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV-VNAV NA BELOW -15C (5F) OR ABOVE 54C (130F). CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV-VNAV NA BELOW -15C OR ABOVE 54C. THIS IS RNAV (GPS) RWY 13, AMDT 1A. 1807091257-PERM

FDC **8/9677** PIL IAP PORT ISABEL-CAMERON COUNTY, Port Isabel, TX. VOR-A, AMDT 6A... CIRCLING CAT A/B MDA 780/HAA 761, CAT C MDA 840/HAA 821, VIS CAT C 2 1/2. CHART CIRCLING ICON. CHART NOTE: CIRCLING RWYS 3, 8, 17, 21, 26, 35 NA AT NIGHT. THIS IS VOR-A, AMDT 6B. 1807091257-PERM

FDC **8/9813** RNH IAP NEW RICHMOND RGNL, New Richmond, WI. RNAV (GPS) RWY 14, AMDT 2C... DELETE NOTE: DME/DME RNP-0.3 NA. PBN REQUIREMENTS NOTE: RNP APCH. CIRCLING CATS A AND B MDA 1540/HAA 542, CAT C MDA 1660/HAA 662, VISIBILITY 1 3/4, CAT D MDA 1660/HAA 662. CHART: CIRCLING ICON. DELETE NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. CHART NOTE: RWY 14 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED. DELETE NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE OSCEOLA ALTIMETER SETTING AND INCREASE ALL DA/MDA 40 FEET; INCREASE LNAV/VNAV ALL CATS VISIBILITY 1/4 SM. CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE OSCEOLA ALTIMETER SETTING AND INCREASE ALL DA/MDA 40 FEET; CIRCLING VISIBILITY CATS C AND D 1/4 SM. THIS IS RNAV (GPS) RWY 14, AMDT 2D. 1807091531-PERM

FDC **8/9851** SLN IAP SALINA RGNL, Salina, KS. NDB RWY 35, AMDT 17A... S-35 MDA 1760/HAT 489, CAT C VISIBILITY 1 SM. CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {3.00}/TCH {48}). CHART NOTE: FOR INOPERATIVE ALS, INCREASE S-35 CATS A/B VISIBILITY TO 1 SM AND CATS C/D TO 1 3/8 SM. CHART FAS OBST: 1141 POLE 384438N/0973731W. THIS IS NDB RWY 35, AMDT 17B. 1807091548-PERM

FDC **8/9939** 8K2 IAP HARPER MUNI, Harper, KS. VOR OR GPS-B, AMDT 1A... CHART NOTE: PROCEDURE NA AT NIGHT. CHART NOTE: CIRCLING NA TO RWYS 12 AND 30. CHART NOTE: USE WICHITA DWIGHT D EISENHOWER NATIONAL ALTIMETER SETTING, WHEN NOT RECEIVED PROCEDURE NA. DELETE NOTE: USE WICHITA ALTIMETER SETTING. THIS IS VOR OR GPS-B, AMDT 1B. 1808021646-PERM

FDC **8/9951** BHB IAP HANCOCK COUNTY-BAR HARBOR, Bar Harbor, ME. ILS OR LOC RWY 22, AMDT 6B... EQUIPMENT REQUIREMENTS NOTE: DME REQUIRED. DELETE BGR VORTAC R-144 AT CDLAC INT/I-BHB 7.1 DME. CHANGE CDLAC INT/I-BHB 7.1 DME TO READ: CDLAC/I-BHB 7.1 DME. THIS IS ILS OR LOC RWY 22, AMDT 6C. 1808021648-PERM