

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

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

| | | | | | | |
|----------------------------------|--|--|---|----------------------------|----------------------|---------------------------|
| <u>AIRPORT ID</u> KLYV | <u>PROCEDURE NAME</u> RNAV (GPS) RWY 36 | <u>ORIGINAL/AMENDMENT</u> ORIG-C | <u>CITY</u> LIVERNE | <u>STATE</u> MN | | |
| <u>AIRPORT ELEVATION</u> 1435 | <u>TDZE</u> 1433 | <u>SUPERSEDED</u> RNAV (GPS) RWY 36 | <u>ORIGINAL/AMENDMENT</u> ORIG-B | <u>DATED</u> 04/21/2022 | <u>MAG VAR</u> 3E | <u>EPOCH YEAR</u> 2010 |
| <u>FACILITY</u> RNAV | <u>COORDINATES OF FACILITIES</u> | <u>ACTUAL EFFECTIVE DATE</u> 28 DECEMBER 2023 | <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> |
|-----------------------|-----------------|-----------------------|-----------------|-----------------|--------------|------------|---------------|-----------------|-----------------|
| JILRO | | FIMIM | | TF | FB | 1.00 | 047.58 | 19.27 | 3200 |
| NEWRN | | JEGOL | | TF | FB | 1.00 | 305.93 | 16.12 | 3200 |
| JEGOL | IAF | HEXAM | NOPT | TF | FB | 1.00 | 265.53 | 5.00 | 3200 |
| FIMIM | IAF | HEXAM | NOPT | TF | FB | 1.00 | 085.37 | 5.00 | 3200 |
| HEXAM | IF/IAF | OKPOE | | TF | FB | 1.00 | 355.45 | 6.10 | 3200 |
| OKPOE | FAF | IGURY/1.80 NM TO RW36 | | TF | FB | 0.30 | 355.44 | 3.53 | |
| IGURY/1.80 NM TO RW36 | | RW36 | MAP | TF | FO | 0.30 | 355.44 | 1.80 | |
| RW36 | MAP | 1633 MSL | | CA | | | 355.44 | | |
| 1633 MSL | | TYIBR | | DF | FO | 1.00 | | | 3300 |

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW36

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3300 DIRECT TYIBR AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF

(IAF)

2. HOLD S HEXAM, RT, 355.45 INBOUND, 3200 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 355.44FAF: OKPOEDIST FAF TO MAP: 5.33DIST FAF TO THLD: 5.33

4. MIN ALT: HEXAM 3200, OKPOE 3200, IGURY/1.80 NM TO RW36 2040

5. DIST TO THLD FROM OM:MM:IM:150 HAT:200 HAT: 0.48GS ANT:

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

7. GP ANGLE: 3.0034:1: IS CLEAR20:1: IS CLEARTCH: 51.0

8. MSA FROM: RW36 4500

PBN REQUIREMENTS NOTE:

RNP APCH - GPS.

NOTES:

CHART NOTE: BARO-VNAV AND VDP NA WHEN USING PIPESTONE ALTIMETER SETTING.
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -17°C OR ABOVE 54°C.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT JILRO ON T400 SOUTHWEST BOUND.
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE PIPESTONE ALTIMETER SETTING: INCREASE LPV DA TO 1727 FEET; INCREASE LNAV/VNAV DA TO 1977 FEET AND VISIBILITY ALL CATS 1/4 SM; INCREASE ALL MDAS 100 FEET AND VISIBILITY LNAV CATS C/D AND CIRCLING CATS B/C 1/4 SM.

ADDITIONAL FLIGHT DATA:

HOLD N, RT, 175.43 INBOUND.
CHART FAS OBST: 1574 TREE 433529N/0961346W.
CHART VDP AT 1.20 NM TO RW36.
WAAS CHANNEL # 40117
REFERENCE PATH ID: W36A
LTP HAE: 408.9 M

MINIMUMS:

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

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

| CATEGORY: | A | | | B | | | C | | | D | | | E | | |
|--------------|--------|-------|---------|--------|-------|---------|--------|-------|---------|--------|-------|---------|--------|-----|---------|
| FINAL TYPE | DA/MDA | VIS | HAT/HAA | DA/MDA | VIS | HAT/HAA | DA/MDA | VIS | HAT/HAA | DA/MDA | VIS | HAT/HAA | DA/MDA | VIS | HAT/HAA |
| LPV DA | 1633 | 1 | 200 | 1633 | 1 | 200 | 1633 | 1 | 200 | 1633 | 1 | 200 | | | |
| LNAV/VNAV DA | 1883 | 1 3/8 | 450 | 1883 | 1 3/8 | 450 | 1883 | 1 3/8 | 450 | 1883 | 1 3/8 | 450 | | | |
| LNAV MDA | 1840 | 1 | 407 | 1840 | 1 | 407 | 1840 | 1 1/8 | 407 | 1840 | 1 1/8 | 407 | | | |
| CIRCLING | 1940 | 1 | 505 | 2160 | 1 | 725 | 2360 | 2 3/4 | 925 | 2360 | 3 | 925 | | | |

QUALITY
34
CHECKED

CHANGES - REASONS

1. INCORPORATED CHANGES FROM P-NOTAM FOR AMDT ORIG-A AND ORIG-B INTO FORM - IAW 8260.19I 8-3-4C (3).
2. TDZE CHANGED FROM "1432" TO "1433" - UPDATED AIRNAV DATA.
3. TERMINAL ROUTES: ADDED LEG FROM OKPOE TO IGURY/1.80 NM TO RW36 - LEG NOT DOCUMENTED ON ORIGINAL FORMS.
4. TERMINAL ROUTES: ADDED LEG FROM IGURY/1.80 NM TO RW36 TO RW36 - LEG NOT DOCUMENTED ON ORIGINAL FORMS.
5. TERMINAL ROUTES: ADDED CA LEG - LEG NOT DOCUMENTED ON ORIGINAL FORMS.
6. TERMINAL ROUTES: MAP CA LEG CHANGED FROM "1632" TO "1633" - LPV DA UPDATED IAW 8260.58B 3-5-2B.
7. TERMINAL ROUTES: ADDED DF LEG FROM 1633 MSL TO TYIBR - LEG NOT DOCUMENTED ON ORIGINAL FORMS.
8. PROFILE LINE 2: ADDED "MAX 6000" TO PROFILE LINE 2 - UPDATED IAW 8260.19I 8-6-7B (2).
9. PROFILE LINE 4: DELETED ASTERISK NEXT TO STEPDOWN FIX ALTITUDE AND ""LNAV ONLY" CHART NOTE - IAW 8260.19I PARA 8-6-7D.
10. PROFILE LINE 5: MOVED "200 HAT: 0.48" FROM ADDITIONAL FLIGHT DATA TO PROFILE LINE 5 - IAW 8260.19I 8-6-7E.
11. PROFILE LINE 6: UPDATED LINE FROM "MIN GS INCPT: 3200, GS ALT AT: OKPOE" TO "MIN GP INCPT: 3200, GP ALT AT PFAF: OKPOE 3200" - IAW 8260.19I 8-6-7F (3).
12. PROFILE LINE 7: ADDED 20:1 IS CLEAR - NO PENETRATIONS EXIST.
13. ADDED PBN REQUIREMENTS NOTE: "RNP APCH - GPS" - IAW 8260.19I 8-6-8B (2).
14. NOTES: REMOVED "DME/DME RNP-0.3 NA" - IAW 8260.19I 1-1-5F (18).
15. NOTES: CHANGED CHART NOTE FROM "CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -17°C (2°F) OR ABOVE 46°C (114°F)." TO "CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -17°C OR ABOVE 54°C" - REMOVED FAHRENHEIT VALUES IAW 8260.19I 8-6-9R; UPDATED 8260.58B CALCULATIONS.
16. NOTES: REMOVED CHART PLANVIEW NOTE "PROCEDURE NA FOR ARRIVALS AT NEWRN ON V462 EAST BOUND" - V462 NO LONGER ACTIVE.
17. NOTES: UPDATED CHART PROFILE NOTE FROM "VGSI AND RNAV GLIDEPATH NOT COINCIDENT" TO "VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET})" - IAW 8260.19I 8-6-9M (2).
18. ADDITIONAL FLIGHT DATA: VDP CHANGED FROM "1.21 NM TO RW36" TO "1.20 NM TO RW36" - THRESHOLD ELEVATION CHANGED FROM 1427.8 FT TO 1428.4 FT DUE TO UPDATED AIRNAV DATA.
19. ADDITIONAL FLIGHT DATA: ADDED LTP HAE: 408.9 M - IAW 8260.19I 8-6-10J (3).
20. UPDATED ALTERNATE MINIMUMS FROM "NA" TO "STANDARD - CAT C 1000-2 3/4, CAT D 1000-3, NA WHEN LOCAL WEATHER NOT AVAILABLE" - PRIMARY ALTIMETER IS ON WMSCR.
21. MINIMUMS: LPV DA CHANGED FROM "1632" TO "1633" - UPDATED TDZE VALUE.
22. MINIMUMS: LNAV/VNAV DA ALL CATS CHANGED FROM "1882" TO "1883" - UPDATED TDZE VALUE.
23. MINIMUMS: LNAV ALL CATS HAT CHANGED FROM "408" TO "407" - UPDATED TDZE VALUE.
24. LNAV/VNAV VISIBILITY ALL CATS CHANGED FROM "1 1/2" TO "1 3/8" - IAW 8260.3E TABLE 3-3-1.
25. LNAV VISIBILITY CATS C AND D CHANGED FROM "1 1/4" TO "1 1/8" - IAW 8260.3E TABLE 3-3-1.
26. CRC REMAINDER CHANGED FROM "B345E019" TO "E384CB94" - LTP/FTP LAT/LONG CHANGED FROM "433639.6400N/0961303.0765W" TO "433639.6375N/0961303.0610W" LTP/FTP ELLIPSOIDAL HEIGHT CHANGED FROM "+04088" TO "+04089", FPAP LAT/LONG CHANGED FROM "433808.7200N/0961306.4200W" TO "433808.7165N/0961306.3905W".

COORDINATED WITH:

A4A ☐ **ALPA** ☒ **AOPA** ☒ **APA** ☐ **HAI** ☐ **NBAA** ☒ **OTHER:** ZMP, AMGR, FSD APP CON.

FLIGHT CHECKED BY

MATTHEW OLSTAD

OFFICE

FPO

DATE

11/09/2023

Digitally signed by

ROBERT G HAMILTON

Nov 14, 2023

DEVELOPED BY

DAVID TEFFETELLER (HOPE N. DENTON)

OFFICE

AJV-A433

DATE

07/13/2023

Digitally signed by

ROBERT G HAMILTON

Nov 14, 2023

APPROVED BY

DAVID TEFFETELLER

OFFICE

AJV-A433

DATE

Digitally signed by
ROBERT G HAMILTON
Nov 14, 2023

TITLE
MANAGER

FAS DATA BLOCK INFORMATION

| <u>DATA FIELD</u> | <u>DATA</u> |
|--|---------------|
| OPERATION TYPE | 0 |
| SBAS SERVICE PROVIDER IDENTIFIER | 0 |
| AIRPORT IDENTIFIER | KLYV |
| RUNWAY | RW36 |
| APPROACH PERFORMANCE DESIGNATOR | 0 |
| ROUTE INDICATOR | |
| REFERENCE PATH DATA SELECTOR | 0 |
| REFERENCE PATH IDENTIFIER (APPROACH ID) | W36A |
| LTP/FTP LATITUDE | 433639.6375N |
| LTP/FTP LONGITUDE | 0961303.0610W |
| LTP/FTP ELLIPSOIDAL HEIGHT | +04089 |
| FPAP LATITUDE | 433808.7165N |
| FPAP LONGITUDE | 0961306.3905W |
| 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 | 1472 |
| HORIZONTAL ALERT LIMIT (HAL) | 40.0 |
| VERTICAL ALERT LIMIT (VAL) | 35.0 |
| | |
| CRC REMAINDER | E384CB94 |

ADDITIONAL PATH POINT RECORD INFORMATION

| | |
|-------------------------|--------|
| ICAO CODE | K3 |
| LTP ORTHOMETRIC HEIGHT | +04354 |
| FPAP ORTHOMETRIC HEIGHT | +04354 |