

**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><b>AIRPORT ID</b></u><br>KFL       | <u><b>PROCEDURE NAME</b></u><br>RNAV (GPS) Z RWY 10L | <u><b>ORIGINAL/AMENDMENT</b></u><br>5                 | <u><b>CITY</b></u><br>FORT LAUDERDALE            | <u><b>STATE</b></u><br>FL         |                             |                                  |
| <u><b>AIRPORT ELEVATION</b></u><br>65 | <u><b>TDZE</b></u><br>7                              | <u><b>SUPERSEDED</b></u><br>RNAV (GPS) Z RWY 10L      | <u><b>ORIGINAL/AMENDMENT</b></u><br>4A           | <u><b>DATED</b></u><br>09/13/2018 | <u><b>MAG VAR</b></u><br>6W | <u><b>EPOCH YEAR</b></u><br>2015 |
| <u><b>FACILITY</b></u><br>RNAV        | <u><b>COORDINATES OF FACILITIES</b></u>              | <u><b>ACTUAL EFFECTIVE DATE</b></u><br>12 AUGUST 2021 | <u><b>REQUIRED EFFECTIVE DATE</b></u><br>ROUTINE | <u><b>CANCEL/SUSPEND</b></u>      |                             |                                  |

**TERMINAL ROUTES**

| <u><b>FROM</b></u>     | <u><b>FIX TYPE</b></u> | <u><b>TO</b></u>       | <u><b>FIX TYPE</b></u> | <u><b>LEG TYPE</b></u> | <u><b>FO/FB</b></u> | <u><b>RNP</b></u> | <u><b>COURSE</b></u> | <u><b>DISTANCE</b></u> | <u><b>ALTITUDE</b></u> |
|------------------------|------------------------|------------------------|------------------------|------------------------|---------------------|-------------------|----------------------|------------------------|------------------------|
| FLL VOR/DME            |                        | HOLID                  |                        | TF                     | FO                  | 1.00              | 276.91               | 19.23                  | 5000                   |
| HOLID                  | IF/IAF                 | GAMVE                  |                        | TF                     | FB                  | 1.00              | 096.22               | 6.93                   | 4000                   |
| GAMVE                  |                        | WAROR                  |                        | TF                     | FB                  | 1.00              | 096.29               | 3.14                   | 3000                   |
| WAROR                  |                        | NOVAE                  |                        | TF                     | FB                  | 1.00              | 096.29               | 3.77                   | 1800                   |
| NOVAE                  | FAF                    | PAKEE/1.60 NM TO RW10L |                        | TF                     | FB                  | 0.30              | 096.31               | 3.88                   |                        |
| PAKEE/1.60 NM TO RW10L |                        | RW10L                  | MAP                    | TF                     | FO                  | 0.30              | 096.31               | 1.60                   |                        |
| RW10L                  | MAP                    | 800 MSL                |                        | CA                     |                     |                   | 096.31               |                        | 800                    |
| 800 MSL                |                        | MARTS                  |                        | DF                     | FO                  | 1.00              |                      |                        | 4000                   |

**MISSED APPROACH**

**MAP:**

LPV: DA  
LNAV/VNAV: DA  
LNAV: RW10L

**MISSED APPROACH INSTRUCTIONS:**

CLIMB TO 800 THEN CLIMBING LEFT TURN TO 4000 DIRECT MARTS AND HOLD. CONTINUE CLIMB-IN-HOLD TO 4000.

**ALTERNATE MISSED APPROACH INSTRUCTIONS:**



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF

(IAF)

2. HOLD W HOLID, LT, 096.22 INBOUND, 5000 FT. IN LIEU OF PT (IAF), MAX 5000.

3. FAC: 096.31FAF: NOVAEDIST FAF TO MAP: 5.48DIST FAF TO THLD: 5.48

4. MIN ALT: HOLID 5000, GAMVE 4000, WAROR 3000, NOVAE 1800, PAKEE/1.60 NM TO RW10L 560

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

6. MIN GP INCPT: 1800GP ALT AT FAF : NOVAE 1800OM:MM:IM:

7. GP ANGLE: 3.0034:1: IS CLEAR20:1: IS CLEARTCH: 48.8

8. MSA FROM: RW10L 2100

PBN REQUIREMENTS NOTE:

RNP APCH - GPS.

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW 7°C OR ABOVE 54°C.  
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).  
CHART NOTE: INOPERATIVE TABLE DOES NOT APPLY TO LPV ALL CATS.  
CHART NOTE: LNAV PROCEDURE NA DURING SIMULTANEOUS OPERATIONS.  
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL AT FLL VOR/DME ON V3 NORTHEAST BOUND.  
CHART NOTE: FOR INOPERATIVE ALS, INCREASE LNAV/VNAV VISIBILITY ALL CATS TO 1 3/8 SM, LNAV VISIBILITY CAT A AND B TO RVR 5500 AND CATS C/D TO RVR 6000.  
CHART NOTE: USE OF FD OR AP REQUIRED DURING SIMULTANEOUS OPERATIONS.  
CHART NOTE: SIMULTANEOUS APPROACH AUTHORIZED.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.  
HOLD E, RT, 271.34 INBOUND.  
CHART FAS OBST: 156 CRANE (12-116399) 260430N/0801148W.  
CHART 169 POLE 260459N/0801150W.  
CHART VDP AT 1.05 NM TO RW10L.  
WAAS CHANNEL # 48902  
REFERENCE PATH ID: W10A  
CHART MANDATORY 5000 AT HOLID.  
LTP HAE: -23.8 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       | 207    | 2400 | 200     | 207    | 2400 | 200     | 207    | 2400 | 200     | 207    | 2400  | 200     |        |     |         |
| LNAV/VNAV DA | 495    | 5000 | 488     | 495    | 5000 | 488     | 495    | 5000 | 488     | 495    | 5000  | 488     |        |     |         |
| LNAV MDA     | 420    | 2400 | 413     | 420    | 2400 | 413     | 420    | 4000 | 413     | 420    | 4000  | 413     |        |     |         |
| CIRCLING     | 680    | 1    | 615     | 680    | 1    | 615     | 800    | 2    | 735     | 800    | 2 1/4 | 735     |        |     |         |

**CHANGES - REASONS**

1. CHANGED VDP FROM "1.21" TO "1.05" AND TCH FROM "47.6" TO "48.8" - NEW TARGETS EVALUATION.
2. CHANGED HAT AND DISTANCE FROM "250, 0.63 NM" TO HAT "200, 0.48 NM" - NEW TARGETS EVALUATION.
3. UPDATED BARO VNAV CRITICAL TEMPERATURES TO 7C AND 54C, ACT 7C, APT ISA 14.87C, DESCENT RATE (FPM) STANDARD TEMP 955, DESCENT RATE (FPM) HIGH TEMP 1260 - 8260.19I 8-7-1 C10.
4. ADDED "34:1 IS CLEAR" AND "20:1 IS CLEAR" - THERE ARE NO PENETRATIONS TO THE VISUAL SURFACE.
5. CHANGED MISSED APPROACH FROM "CLIMB TO 800 THEN CLIMBING LEFT TURN TO 2000 DIRECT ZIMAV AND HOLD" TO "CLIMB TO 800 THEN CLIMBING LEFT TURN TO 4000 DIRECT MARTS AND HOLD" - TO STANDARDIZE FIX NAMES ACROSS PROCEDURES WHICH AIDS IN THE MORE EFFICIENT FLOW OF ATC TRAFFIC.
6. MOVED FIX NOVAE 24.74 FEET SE - TO ALIGN WITH FAC.
7. CHANGED FINAL APPROACH COURSE HEADING FROM "96.33" TO "96.31" - NEW TARGETS EVALUATION.
8. UPDATED NOTE FROM "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW 5°C (40°F) OR ABOVE 54°C (130°F)" TO "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW 7°C OR ABOVE 54°C" - 8260.19I 8-6-9 R.
9. CHANGED EQUIPMENT REQUIREMENT NOTE FROM "RNP APCH" TO "RNP APCH-GPS" - 8260.19I 8-6-8 B.
10. REMOVED CHART NOTE "RWY 10L HELICOPTER VISIBILITY REDUCTION BELOW RVR 4000 NOT AUTHORIZED" - NO HELICOPTER VISIBILITY RESTRICTIONS.
11. ADDED FIXES GAMVE AND WAROR AND REMOVED FIX PIONN - TO STREAMLINE APPROACH WITH OTHERS AT THE AIRPORT.
12. REMOVED CHART PLANVIEW NOTE: "NOPT FOR ARRIVALS AT PIONN ON V267-437 SOUTHBOUND" - FIX PIONN NO LONGER USED ON PROCEDURE.
13. CHANGED LNAV VNAV DA/HAT FROM "DA 477/HAT 470" TO "DA 495/HAT 488" AND RVR VIS FROM "5700" TO "5000" - CONTROLLING OBSTACLE (12-000210) SLOPE INCREASED, NEW SURVEY 1/27/16..
14. CHANGED LPV DA/HAT FROM "DA 257/HAT 250" TO "DA 207/HAT 200" AND RVR VIS FROM "4000" TO "2400" - NEW TARGETS EVALUATION AND A PREVIOUS PENETRATION OF THE INNER OFZ (APPROACH LIGHT PLANE) PROVIDED BY THE AIRPORT IS NO LONGER A FACTOR.
15. CHANGED LNAV STEPDOWN CAT A TO D MINIMUMS FROM "MDA 460/HAT 453" TO "MDA 420/HAT 413" AND RVR VIS CAT A AND B FROM "4000" TO "2400" AND CAT C AND D FROM "4500" TO "4000" - NEW CONTROLLING OBSTACLE CRANE 156 MSL (12-116399), NEW SURVEY 1/27/16.
16. CHANGED CHART NOTE FROM "FOR INOPERATIVE MALSR, INCREASE S-LOC 10L CATS A, B VISIBILITY TO RVR 5000 AND CATS C, D VISIBILITY TO 1 5/8 MILES. PAKEE FIX MINIMUMS: INCREASE S-LOC 10L ALL CATS VISIBILITY TO RVR 5500" TO "FOR INOPERATIVE ALS, INCREASE LNAV/VNAV VISIBILITY ALL CATS TO 1 3/8 SM, LNAV VISIBILITY CAT A AND B TO RVR 5500 AND CATS C/D TO RVR 6000" - 8260.19I 8-6-11 O 3.
17. CHANGED CRC FROM "609037B1" TO "8E70555A" - NEW FPAP COORDINATES.
18. CHANGED H-I-L TO HOLID WITH MANDATORY 5000 CHARTED - ATC REQUEST.



**COORDINATED WITH:**

**A4A** ☒    **ALPA** ☒    **AOPA** ☒    **APA** ☒    **HAI** ☐    **NBAA** ☒    **OTHER:** ZMA, MIA APP CON, FLL ATCT, APT MGR

**FLIGHT CHECKED BY**

MICHAEL W PEDERGRASS

*Digitally signed by*

**JOHN BORDY**

Jun 10, 2021

**OFFICE**

FICO

**DATE**

06/04/2021

**DEVELOPED BY**

JOHN BORDY (ARTHUR ULVESTAD)

*Digitally signed by*

**JOHN BORDY**

Jun 10, 2021

**OFFICE**

AJV-A422

**DATE**

03/18/2021

**APPROVED BY**

MARLON ROBINSON

*Digitally signed by*

**JOHN BORDY**

Jun 10, 2021

**OFFICE**

AJV-A420

**DATE**

**TITLE**  
MANAGER



FAS DATA BLOCK INFORMATION

| <u>DATA FIELD</u>                        | <u>DATA</u>   |
|--|---------------|
| OPERATION TYPE                           | 0             |
| SBAS SERVICE PROVIDER IDENTIFIER         | 0             |
| AIRPORT IDENTIFIER                       | KFLL          |
| RUNWAY                                   | RW10L         |
| APPROACH PERFORMANCE DESIGNATOR          | 0             |
| ROUTE INDICATOR                          | Z             |
| REFERENCE PATH DATA SELECTOR             | 0             |
| REFERENCE PATH IDENTIFIER (APPROACH ID)  | W10A          |
| LTP/FTP LATITUDE                         | 260436.9815N  |
| LTP/FTP LONGITUDE                        | 0800953.2165W |
| LTP/FTP ELLIPSOIDAL HEIGHT               | -00238        |
| FPAP LATITUDE                            | 260436.4120N  |
| FPAP LONGITUDE                           | 0800814.2630W |
| THRESHOLD CROSSING HEIGHT (TCH)          | 00048.8       |
| TCH UNITS SELECTOR (METERS OR FEET USED) | F             |
| GLIDEPATH ANGLE (GPA)                    | 03.00         |
| COURSE WIDTH AT THRESHOLD                | 106.75        |
| LENGTH OFFSET                            | 0184          |
| HORIZONTAL ALERT LIMIT (HAL)             | 40.0          |
| VERTICAL ALERT LIMIT (VAL)               | 35.0          |
| <br>CRC REMAINDER                        | <br>8E70555A  |

ADDITIONAL PATH POINT RECORD INFORMATION

|                         |        |
|-------------------------|--------|
| ICAO CODE               | K7     |
| LTP ORTHOMETRIC HEIGHT  | +00018 |
| FPAP ORTHOMETRIC HEIGHT | +00018 |

