

**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>           | <u>AIRPORT ID</u>                | <u>PROCEDURE NAME</u>        | <u>ORIGINAL/AMENDMENT</u>      | <u>CITY</u>           | <u>STATE</u>   |                   |
| RALEIGH-DURHAM INTL      | KRDU                             | RNAV (GPS) Y RWY 23R         | 2                              | RALEIGH/DURHAM        | NC             |                   |
| <u>AIRPORT ELEVATION</u> | <u>TDZE</u>                      | <u>SUPERSEDED</u>            | <u>ORIGINAL/AMENDMENT</u>      | <u>DATED</u>          | <u>MAG VAR</u> | <u>EPOCH YEAR</u> |
| 435                      | 409                              | RNAV (GPS) Y RWY 23R         | 1C                             | 05/24/2018            | 9W             | 2020              |
| <u>FACILITY</u>          | <u>COORDINATES OF FACILITIES</u> | <u>ACTUAL EFFECTIVE DATE</u> | <u>REQUIRED EFFECTIVE DATE</u> | <u>CANCEL/SUSPEND</u> |                |                   |
| RNAV                     |                                  | 25 FEBRUARY 2021             | ROUTINE                        |                       |                |                   |

**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> |
|--------------------|------------------------|------------------|------------------------|------------------------|---------------------|-------------------|----------------------|------------------------|------------------------|
| BUTTS              | IAF                    | WARMS            |                        | TF                     | FB                  | 1.00              | 149.99               | 6.30                   | 4000                   |
| WARMS              |                        | DABKE            |                        | TF                     | FB                  | 1.00              | 204.02               | 5.20                   | 4000                   |
| ESELL              | IAF                    | MARBY            |                        | TF                     | FB                  | 1.00              | 250.49               | 7.95                   | 5000                   |
| MARBY              | IAF                    | DABKE            |                        | TF                     | FB                  | 1.00              | 234.28               | 3.14                   | 4000                   |
| DABKE              |                        | PRSTN            |                        | TF                     | FB                  | 1.00              | 234.31               | 2.65                   | 3000                   |
| PRSTN              | IF                     | BODLY            |                        | TF                     | FB                  | 1.00              | 234.20               | 3.00                   | 2200                   |
| BODLY              | FAF                    | RW23R            | MAP                    | TF                     | FO                  | 0.30              | 234.20               | 5.45                   |                        |
| RW23R              | MAP                    | 1000 MSL         |                        | CA                     |                     |                   | 234.20               |                        | 1000                   |
| 1000 MSL           |                        | DUHAM            |                        | DF                     | FO                  | 1.00              |                      |                        | 2200                   |

**MISSED APPROACH**

**MAP:**

LPV: DA  
LNAV/VNAV: DA  
LNAV: RW23R

**MISSED APPROACH INSTRUCTIONS:**

CLIMB TO 1000 THEN CLIMBING RIGHT TURN TO 2200 DIRECT DUHAM AND HOLD.

**ALTERNATE MISSED APPROACH INSTRUCTIONS:**



PROFILE:

|                            |  |                 |                       |               |                        |
|----------------------------|--|-----------------|-----------------------|---------------|------------------------|
| 1. PT                      | SIDE OF COURSE                                 | OUTBOUND        | FT WITHIN             | MILES OF      | (IAF)                  |
| 2. PROFILE STARTS AT MARBY |  |                 |                       |               |                        |
| 3. FAC:                    | 234.20   | FAF: BODLY      | DIST FAF TO MAP: 5.45 |               | DIST FAF TO THLD: 5.45 |
| 4. MIN ALT:                | MARBY 5000, DABKE 4000, PRSTN 3000, BODLY 2200 |                 |                       |               |                        |
| 5. DIST TO THLD FROM OM:   | MM:  | IM:             | 150 HAT:              | 200 HAT: 0.46 | GS ANT:                |
| 6. MIN GP INCPT:           | 2200   | GP ALT AT FAF : | BODLY 2200            | OM:           | MM:IM:                 |
| 7. GP ANGLE:               | 3.00   | 34:1: IS CLEAR  | 20:1: IS CLEAR        | TCH: 55.0     |                        |
| 8. MSA FROM:               | RW23R 3400                                     |                 |                       |               |                        |

PBN REQUIREMENTS NOTE:

RNP APCH - GPS.

NOTES:

CHART NOTE: SIMULTANEOUS APPROACH AUTHORIZED.  
CHART NOTE: LNAV PROCEDURE NA DURING SIMULTANEOUS OPERATIONS.  
CHART NOTE: USE OF FD OR AP PROVIDING RNAV TRACK GUIDANCE REQUIRED DURING SIMULTANEOUS OPERATIONS.  
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -12°C OR ABOVE 54°C.  
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).  
CHART NOTE: FOR INOPERATIVE ALS, INCREASE LNAV CAT C/D VISIBILITY TO 1 5/8 SM.  
CHART SPEED ICON IN PLANVIEW AT ESELL: MAX 210 KIAS.  
CHART SPEED ICON IN PLANVIEW AT MARBY: MAX 210 KIAS.  
CHART SPEED ICON IN PLANVIEW AT BUTTS: MAX 210 KIAS.

ADDITIONAL FLIGHT DATA:

CHART MANDATORY 6000 AT BUTTS.  
CHART MANDATORY 6000 AT ESELL.  
CHART MANDATORY 4000 AT WARMS  
HOLD N, RT, 172.91 INBOUND.  
CHART FAS OBST: 571 TREE 355338N/0784538W.  
FAS OBST: 730 AAO 355552N/0784306W.  
DISTANCE TO THLD FROM 200 HAT: 0.46 NM.  
CHART VDP AT 1.57 NM TO RW23R\*  
\*LNAV ONLY.  
WAAS CHANNEL # 45613  
REFERENCE PATH ID: W23A  
CHART CIRCLING ICON.  
LTP HAE: 92.5 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       | 609    | 1800 | 200     | 609    | 1800 | 200     | 609    | 1800  | 200     | 609    | 1800  | 200     |        |     |         |
| LNAV/VNAV DA | 735    | 2600 | 326     | 735    | 2600 | 326     | 735    | 2600  | 326     | 735    | 2600  | 326     |        |     |         |
| LNAV MDA     | 980    | 2400 | 571     | 980    | 2400 | 571     | 980    | 1 1/4 | 571     | 980    | 1 1/4 | 571     |        |     |         |
| CIRCLING     | 980    | 1    | 545     | 980    | 1    | 545     | 1020   | 1 5/8 | 585     | 1180   | 2 1/2 | 745     |        |     |         |

**CHANGES - REASONS**

1. REMOVED TAA ADDED MSA - PER FPT DESIGN REQUEST.
2. ADDED INITIAL SEGMENTS TO PRSTN FROM ESSEL AND BUTTS - PER FPT DESIGN REQUEST.
3. UPDATED COURSE/DISTANCE FOR LEG PRSTN TO BODLY FROM 234.26/6.03 TO 234.20/3.00 - PRSTN MOVED 2.95 NM SW AND BODLY MOVED 0.08 NM NE PER IFPT DESIGN REQUEST.
4. UPDATED COURSE/DISTANCE FOR LEG BODLY TO RW23R FROM 234.21/5.37 TO 234.20/5.45 - BODLY MOVED 0.08 NM NE PER IFPT DESIGN REQUEST.
5. UPDATED FAC FROM 234.21 TO 234.20, DIST FAF TO MAP FROM 5.37 TO 5.45 AND DIST FAF TO THLD FROM 5.37 TO 5.45 - NEW EVALUATION OF FAC IN NEW BUILD.
6. REMOVED PROFILE LINE 2 HOLD NE PRSTN, RT, 234.26 INBOUND, 3400 FT. IN LIEU OF PT (IAF) - HIL AT PRSTN REMOVED PER ATC/FPT REQUEST.
7. CHANGED MISSED APPROACH INSTRUCTIONS FROM "CLIMB TO 3100 DIRECT GUKEY AND RIGHT TURN ON 296.50 TRACK TO CHAPL AND HOLD" TO "CLIMB TO 1000 THEN CLIMBING RIGHT TURN TO 2200 DIRECT DUHAM AND HOLD" - PER FPT DESIGN REQUEST.
8. ADDED PROFILE LINE 8: MSA FROM RW23R 3400 - PER FPT DESIGN REQUEST AND REMOVAL OF TAA.
9. ADDED PROFILE LINE 5: DIST TO THLD FROM 200 HAT: 0.46 - UPDATED EVALUATION WITH NEW BUILD.
10. REMOVED "CHART NOTE: DME/DME RNP-0.3 NA ADDED RNP APCH TO PBN REQUIREMENTS NOTES - IAW 8260.19H.
11. CHANGED CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -15C (5F) OR ABOVE 48C (118F) TO CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -12°C OR ABOVE 54°C - RECALCULATION OF ACT AND UPDATED CHART NOTE FORMAT IAW 8260.19H.
12. CHANGED ADDITIONAL FLIGHT DATA VDP FROM 1.64 NM TO 1.57 NM - NEW EVALUATION COMPLETED.
13. CHANGED LNAV/VNAV DA/HAT ALL CATS FROM 927/518 TO 735/326, AND VISIBILITY ALL CATS FROM 6000 TO 2600 - NEW OBST EVALUATION COMPLETED.
14. CHANGED CHART FAS OBST FROM 680 TANK 355508N/0784438W TO FAS OBST: 730 AAO 355552N/0784306W, LNAV MDA/HAT ALL CATS FROM 1000/591 TO 980/571, CAT C/D VISIBILITY FROM 5000 TO 1 1/4 - NEW OBST EVALUATION AND VIS CHECK CALCULATION.
15. CHANGED CIRCLING CMDA/HAT CAT A/B FROM 1000/565 TO 980/545, CAT C FROM 1040/605 TO 1020/585, CAT C VISIBILITY FROM 1 3/4 TO 1 5/8 - NEW OBS EVALUATION AND VIS CHECK CALCULATION.
16. UPDATED FAS DATA BLOCK INFORMATION AS FOLLOWS: LTP/FTP/FEP LATITUDE/LONGITUDE FROM 355337.7655N/0784640.9195W TO 355337.7655N/0784640.9195W, FPAP LATITUDE/LONGITUDE FROM 355228.0100N/0784807.0900W TO 355228.0170N/0784807.0675W AND CRC REMAINDER FROM C663B6E6 TO 86B986CC - NEW AND OR UPDATED DATA BASE.
17. PROFILE LINE 2 ADDED PROFILE STARTS AT PRSTN - IAW 8260.19H
18. PROFILE LINE 4 CHANGE PRSTN MIN ALT FROM 3400 TO 3000 - IAW 8260.19H AND FPT DESIGN REQUEST.
19. ADDED ADDITIONAL FLIGHT DATA NOTE CHART MANDATORY 6000 AT BUTTS AND CHART MANDATORY 6000 AT ESELL - IAW 8260.19H AND FPT DESIGN REQUEST.
20. ADDED CHART NOTE: FOR INOPERATIVE ALS, INCREASE LNAV CAT C/D VISIBILITY TO 1 5/8 SM - IAW 8260.3D

5/20/2020: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 1/03/2020.

1. PROFILE LINE 2 CHANGED FROM PROFILE STARTS AT PRSTN TO MARBY.
2. PROFILE LINE 4 ADDED MARBY 5000, DABKE 4000.
3. ADDED IAF TO MARBY IN TERMINAL ROUTES.
4. ADDED CHART SPEED ICON IN PLANVIEW AT MARBY: MAX 210 KIAS.
5. ADDED CHART MANDATORY 4000 AT WARMS.

1/12/2021: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 11/6/2020.

- 1.CORRECTED PBN REQUIREMENT NOTE TO ADD "GPS".



COORDINATED WITH:

A4A ☒    ALPA ☒    AOPA ☒    APA ☒    HAI ☐    NBAA ☒    OTHER: KRDU AIRPORT MANAGER, RDU ATCT, ZDC, RDU APP CON

|   |  |                           |                           |                         |
|---|--|---------------------------|---------------------------|-------------------------|
| <u>FLIGHT CHECKED BY</u><br>THOMAS ROBERT CONKLIN         | <i>Digitally signed by</i><br><b>DONALD H LANIER</b><br>Nov 06, 2020 | <u>OFFICE</u><br>FIOG     | <u>DATE</u><br>03/04/2020 |                         |
| <u>DEVELOPED BY</u><br>DONALD H. LANIER (DEXTER SWEETING) | <i>Digitally signed by</i><br><b>DONALD H LANIER</b><br>Nov 06, 2020 | <u>OFFICE</u><br>AJV-A431 | <u>DATE</u><br>01/03/2020 |                         |
| <u>APPROVED BY</u><br>GEORGE DAVIS                        | <i>Digitally signed by</i><br><b>DONALD H LANIER</b><br>Nov 06, 2020 | <u>OFFICE</u><br>AJV-A430 | <u>DATE</u>               | <u>TITLE</u><br>MANAGER |



FAS DATA BLOCK INFORMATION

| <u>DATA FIELD</u>                        | <u>DATA</u>   |
|--|---------------|
| OPERATION TYPE                           | 0             |
| SBAS SERVICE PROVIDER IDENTIFIER         | 0             |
| AIRPORT IDENTIFIER                       | KRDU          |
| RUNWAY                                   | RW23R         |
| APPROACH PERFORMANCE DESIGNATOR          | 0             |
| ROUTE INDICATOR                          | Y             |
| REFERENCE PATH DATA SELECTOR             | 0             |
| REFERENCE PATH IDENTIFIER (APPROACH ID)  | W23A          |
| LTP/FTP LATITUDE                         | 355337.7655N  |
| LTP/FTP LONGITUDE                        | 0784640.9195W |
| LTP/FTP ELLIPSOIDAL HEIGHT               | +00925        |
| FPAP LATITUDE                            | 355228.0170N  |
| FPAP LONGITUDE                           | 0784807.0675W |
| 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                            | 86B986CC      |

ADDITIONAL PATH POINT RECORD INFORMATION

|                         |        |
|-------------------------|--------|
| ICAO CODE               | K7     |
| LTP ORTHOMETRIC HEIGHT  | +01245 |
| FPAP ORTHOMETRIC HEIGHT | +01245 |

