

**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> RALEIGH-DURHAM INTL	<u>AIRPORT ID</u> KRDU	<u>PROCEDURE NAME</u> ILS OR LOC RWY 23L	<u>ORIGINAL/AMENDMENT</u> 10	<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SUPERSEDED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> 9A	<u>DATED</u> 10/11/2018	<u>MAG VAR</u> 9W	<u>EPOCH YEAR</u> 2020
<u>FACILITY</u> I-LEI	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 25 FEBRUARY 2021	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</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>
BUTTS	IAF	WARMS		TF	FB	1.00	149.99	6.30	4000
WARMS		DINTS/I-LEI 12.42 DME		TF	FB	1.00	202.83	6.12	4000
ESELL	IAF	DUWON/I-LEI 15.56 DME		TF	FB	1.00	245.42	8.52	5000
DUWON/I-LEI 15.56 DME	IAF	DINTS/I-LEI 12.42 DME					234.15	3.14 (I-LEI)	4000
DINTS/I-LEI 12.42 DME		DOCAT/I-LEI 10.01 DME/RADAR					234.15	2.41 (I-LEI)	3000
DOCAT/I-LEI 10.01 DME/RADAR	IF	APUCU/I-LEI 6.76 DME/RADAR					234.15	3.25 (I-LEI)	2200

**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:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF

(IAF)
2. PROFILE STARTS AT DUWON
3. FAC: 234.15

FAF: APUCU/I-LEI 6.76 DME/RADAR

DIST FAF TO MAP: 4.38

DIST FAF TO THLD: 5.38
4. MIN ALT: DUWON/I-LEI 15.56 DME 5000, DINTS/I-LEI 12.42 DME 4000, DOCAT/I-LEI 10.01 DME/RADAR 3000, APUCU/I-LEI 6.76 DME/RADAR 2200, LEPEC/I-LEI 3.68 DME 1200\*
5. DIST TO THLD FROM OM:

MM:

IM:

150 HAT:

GS ANT: 1001
6. MIN GS INCPT: 2200

GS ALT AT FAF : APUCU/I-LEI 6.76 DME/RADAR 2200

OM:

MM:

IM:
7. GP ANGLE: 3.00

34:1:

20:1:

TCH: 55.8
8. MSA FROM: RDU VORTAC 3400

EQUIPMENT REQUIREMENTS NOTES:

RNAV 1-DME/DME/IRU OR GPS OR 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: LOCALIZER UNUSABLE FOR COUPLED APPROACHES BELOW 1100 OR WITHIN 2 NM OF THRESHOLD.  
CHART SPEED ICON IN PLANVIEW AT BUTTS: MAX 210 KIAS.  
CHART SPEED ICON IN PLANVIEW AT ESELL: MAX 210 KIAS.  
CHART SPEED ICON IN PLANVIEW AT DUWON: MAX 210 KIAS.

ADDITIONAL FLIGHT DATA:

CHART MANDATORY 6000 AT BUTTS.  
CHART MANDATORY 6000 AT ESELL.  
HOLD E, RT, 271.91 INBOUND.  
CHART IN PLANVIEW: ALTERNATE MA HOLDING, HOLD W ZEBUL INT, RT, 088.55 INBOUND.  
CHART FAS OBST: 587 TREE 355352N/0784448W.  
CHART IN PLANVIEW: ZEBUL INT.  
CHART MANDATORY 4000 AT WARMS.  
CHART CIRCLING ICON.

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	1020	1 1/2	585	1180	2 1/2	745			

**CHANGES - REASONS**

- 1. ADDED IAF TRANSITION FROM BUTTS (IAF) TO DOCAT (IF). - PER FPT CHECKLIST.
- 2. ADDED IAF TRANSITION FROM ESELL (IAF) TO DOCAT (IF). - PER FPT CHECKLIST.
- 3. DELETED EQUIPMENT REQUIREMENTS NOTE: RADAR REQUIRED FOR PROCEDURE ENTRY. - ADDED "RNAV 1-GPS REQUIRED FOR PROCEDURE ENTRY.
- 4. CHANGED DOCAT (IF) TO APUCU (PFAF) DISTANCE FROM 7.94 NM TO 3.25 NM. - DOCAT MOVED 3.43 NM SW/APUCU MOVED 1.28 NM NE.
- 5. CHANGED FAF ALTITUDE FROM 1800 TO 2200. - PER FPT CHECKLIST/DESIGN.
- 6. LOWERED CIRCLING CAT C MDA/HAA FROM 1040/605 TO 1020/585. - NEW OBSTACLE EVALUATION.
- 7. LOWERED MIN ALTITUDE AT DOCAT FROM 4000 TO 3000. - PER FPT CHECKLIST/DESIGN.
- 8. ADDED CHART SPEED ICON IN PLANVIEW AT BUTTS: MAX 210 KIAS TO ADDITIONAL FLIGHT DATA. - PER FPT CHECKLIST/DESIGN.
- 9. ADDED CHART SPEED ICON IN PLANVIEW AT ESELL: MAX 210 KIAS TO ADDITIONAL FLIGHT DATA. - PER FPT CHECKLIST/DESIGN.
- 11. REMOVED CHART NOTE: "FOR INOPERATIVE ALS, INCREASE S-LOC-23L CAT C/D VISIBILITY TO 2 1/2 SM". - NEW VISCHECK CALCULATION.
- 12 CHANGED CIRCLING CAT C VISIBILITY FROM 1 3/4 SM TO 1 1/2 SM. - NEW VISCHECK CALCULATION.
- 13. ADDED MANDATORY ALTITUDES AT BUTTS AND ESSEL - ENTRY POINTS FROM STANDARD TERMINAL ARRIVAL ROUTES.

2/23/2020: THIS IS AN UPDATED COPY OF THE FORM THAT WAS DEVELOPED ON 12/30/2019.

- 1. DINTS CHANGED FROM A WAYPOINT TO A DME FIX: DINTS/I-LEI 12.42 DME.
- 2. DUWON CHANGED FROM A WAYPOINT TO A DME FIX: DUWON/I-LEI 15.56 DME.
- 3. EQUIPMENT REQUIREMENTS NOTES CHANGED FROM RNAV 1-GPS OR RADAR REQUIRED FOR PROCEDURE ENTRY TO RNAV 1-DME/DME/IRU OR GPS OR RADAR REQUIRED FOR PROCEDURE ENTRY.
- 4. PROFILE LINE 2 CHANGED FROM PROFILE STARTS AT DOCAT TO DUWON/I-LEI 15.56 DME.
- 5. ADDED CHART MANDATORY 4000 AT WARMS.

5/18/2020: THIS IS AN UPDATED COPY OF THE FORM THAT WAS DEVELOPED ON 12/30/2019.

- 1. ADDED NOTES: CHART SPEED ICON IN PLANVIEW AT DUWON: MAX 210 KIAS.

**COORDINATED WITH:**

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

**FLIGHT CHECKED BY**

THOMAS ROBERT CONKLIN

*Digitally signed by*  
**WARDELL HENNING**  
Nov 09, 2020

**OFFICE**  
FIOG

**DATE**  
03/04/2020

**DEVELOPED BY**

WARDELL HENNING (THOR CORNELL)

*Digitally signed by*  
**WARDELL HENNING**  
Nov 09, 2020

**OFFICE**  
AJV-A432

**DATE**  
12/30/2019

**APPROVED BY**

LONNIE EVERHART

*Digitally signed by*  
**WARDELL HENNING**  
Nov 09, 2020

**OFFICE**  
AJV-A430

**DATE**

**TITLE**  
MANAGER

