

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.

DP NAME						NUMBER	DP COMPUTER CODE	SUPERSEDED NUMBER	DATED	ACTUAL EFFECTIVE DATE
ESTRR						FIVE	ESTRR5.ESTRR	FOUR	01/03/2019	21 Mar 2024
TYPE:	OBSTACLE	COPTER	SID	SPECIAL	RNAV					
	☐	☐	☒	☐	☒					

DP ROUTE DESCRIPTION:

CHARLOTTE/DOUGLAS INTL (KCLT):
TAKEOFF RWY 18C: CLIMB ON HEADING 182.96 TO 1260, THEN ON HEADING 182.96 OR AS ASSIGNED BY ATC ON RADAR VECTORS TO GINNN, THENCE...
TAKEOFF RWY 18L: CLIMB ON HEADING 182.97 TO 1260, THEN ON HEADING 182.97 OR AS ASSIGNED BY ATC ON RADAR VECTORS TO GINNN, THENCE...
TAKEOFF RWY 18R: CLIMB ON HEADING 182.96 TO 1260, THEN ON HEADING 200.00 OR AS ASSIGNED BY ATC ON RADAR VECTORS TO GINNN, THENCE...
TAKEOFF RWY 36C: CLIMB ON HEADING 002.96 TO 1260, THEN ON HEADING 330.00 OR AS ASSIGNED BY ATC ON RADAR VECTORS TO GINNN, THENCE...
TAKEOFF RWY 36L: CLIMB ON HEADING 002.96 TO 1260, THEN ON HEADING 315.00 OR AS ASSIGNED BY ATC ON RADAR VECTORS TO GINNN, THENCE...
TAKEOFF RWY 36R: CLIMB ON HEADING 002.97 TO 1260, THEN ON HEADING 025.00 OR AS ASSIGNED BY ATC ON RADAR VECTORS TO GINNN, THENCE...

...ON TRACK 254.92 TO ESTRR, THEN ON IPTAY TRANSITION. MAINTAIN 8000. EXPECT CLEARANCE TO FILED ALTITUDE WITHIN 10 MINUTES AFTER DEPARTURE.

CONCORD-PADGETT RGNL (KJQF):
TAKEOFF RWY 2: CLIMB ON HEADING 016.46 TO 2200, THEN ON HEADING ASSIGNED BY ATC, THENCE...
TAKEOFF RWY 20: CLIMBING LEFT TURN HEADING 150.00 TO 2400, THEN ON HEADING ASSIGNED BY ATC, THENCE...

GASTONIA MUNI (KAKH):
TAKEOFF RWY 3: CLIMB ON HEADING 049.34 TO 2700 BEFORE TURNING LEFT, THEN ON HEADING ASSIGNED BY ATC, THENCE...
TAKEOFF RWY 21: CLIMB ON HEADING 214.33 TO 1600 BEFORE PROCEEDING NORTH, THEN ON HEADING ASSIGNED BY ATC, THENCE...

LINCOLNTON-LINCOLN COUNTY RGNL (KIPJ):
TAKEOFF RWY 5: CLIMB ON HEADING 063.15 TO 2000 BEFORE PROCEEDING ON COURSE, THEN ON HEADING ASSIGNED BY ATC, THENCE...
TAKEOFF RWY 23: CLIMB ON HEADING 243.16 TO 2800 BEFORE TURNING LEFT, THEN ON HEADING ASSIGNED BY ATC, THENCE....

MID-CAROLINA RGNL (KRUQ):
TAKEOFF RWY 2: CLIMB ON HEADING ASSIGNED BY ATC, THENCE...
TAKEOFF RWY 20: CLIMB ON HEADING 201.99 TO 1700 BEFORE TURNING RIGHT, THEN ON HEADING ASSIGNED BY ATC, THENCE...

... ON RADAR VECTORS TO GINNN, THEN ON TRACK 254.92 TO ESTRR, THEN ON IPTAY TRANSITION. MAINTAIN 3000, EXPECT CLEARANCE TO FILED ALTITUDE WITHIN 10 MINUTES AFTER DEPARTURE

DEPARTING CHARLOTTE-MONROE EXECUTIVE (KEQY), LANCASTER COUNTY-MC WHIRTER FIELD (KLKR), STANLY COUNTY (KVUJ), AND ROCK HILL/YORK CO/BRYANT FIELD (KUZA): CLIMB ON HEADING ASSIGNED BY ATC, ON RADAR VECTORS TO GINNN, THEN ON TRACK 254.92 TO ESTRR, THEN ON IPTAY TRANSITION. MAINTAIN 3000, EXPECT FILED ALTITUDE WITHIN 10 MINUTES AFTER DEPARTURE.

TRANSITION ROUTES (GRAPHIC DEPICTION ONLY):

TRANSITION NAME	TRANSITION COMPUTER CODE	FROM FIX/NAVAID	TO FIX/NAVAID	COURSE	DISTANCE	MEA	MOCA	CROSSING ALTITUDE/FIXES
IPTAY	ESTRR5.IPTAY	ESTRR	DEBIE	TRACK 255.36	11.46	7600	2700	
		DEBIE	IPTAY	TRACK 242.99	61.78	FL180	2900	



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PROCEDURAL DATA NOTES:**NOTE:** FOR TURBO JETS ONLY.**NOTE:** IF UNABLE TO ACCEPT CLIMB RATES, ADVISE ATC ON INITIAL CONTACT.**NOTE:** TRANSPONDER CODE WILL BE ISSUED VIA PDC OR CHARLOTTE CLNC DEL.**NOTE:** CHARLOTTE/DOUGLAS INTL ONLY: ACCELERATE TO 250 KIAS, IF UNABLE ADVISE ATC. UPON REACHING 10000 MSL, ACCELERATE TO AND MAINTAIN 280 KIAS, IF UNABLE ADVISE ATC**NOTE:** ALL OTHER AIRPORTS: UPON REACHING 10000 MSL, ACCELERATE TO AND MAINTAIN 280 KIAS, IF UNABLE ADVISE ATC.**PBN REQUIREMENTS NOTES:**

RNAV 1 - DME/DME/IRU OR GPS.

EQUIPMENT REQUIREMENT NOTES:

RADAR REQUIRED.

TAKEOFF MINIMUMS:**CHARLOTTE/DOUGLAS INTL (KCLT):****RWY 18C, 18L, 18R, 36C, 36R:** STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 1260.**RWY 36L:** STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 1400.**CONCORD-PADGETT RGNL (KJQF):****RWY 2:** STANDARD.**RWY 20:** STANDARD WITH MINIMUM CLIMB OF 320 FT PER NM TO 2400.**GASTONIA MUNI (KAKH):****RWY 3, 21:** STANDARD.**CHARLOTTE-MONROE EXECUTIVE (KEQY):****RWY 5, 23:** STANDARD.**LINCOLN-TON-LINCOLN COUNTY RGNL (KIPJ):****RWY 5, 23:** STANDARD.**LANCASTER COUNTY-MC WHIRTER FIELD (KLKR):****RWY 6, 24:** STANDARD.**STANLY COUNTY (KVUJ):****RWY 4L, 22R:** NA - ENVIRONMENTAL.**RWY 22L:** STANDARD**RWY 4R:** 300-1 3/4 OR STANDARD WITH MINIMUM CLIMB OF 315 FT PER NM TO 1000.**MID-CAROLINA RGNL (KRUQ):****RWY 2:** STANDARD.**RWY 20:** 400-2 3/4 OR STANDARD WITH MINIMUM CLIMB OF 205 FT PER NM TO 1300, OR ALTERNATIVELY, WITH STANDARD TAKEOFF MINIMUMS AND A NORMAL 200 FT PER NM CLIMB GRADIENT, TAKEOFF MUST OCCUR NO LATER THAN 1200 FT PRIOR TO DER.**ROCK HILL/YORK CO/BRYANT FIELD (KUZA):****RWY 2, 20:** STANDARD.**TAKEOFF OBSTACLES NOTES:**

SEE FORM 8260-15A, TAKEOFF MINIMUMS AND OBSTACLE DEPARTURE PROCEDURES (ODP).

CONTROLLING OBSTACLES:**CHARLOTTE/DOUGLAS INTL (KCTL):****RWY 36L:** 2748 FT MSL TOWER 352145.00N/0810918.00W.

CONCORD-PADGETT RGNL (KJQF):
RWY 20: 1950 FT MSL TOWER 351715.00N/0804144.00W.

STANLY COUNTY (KVUJ):
RWY 4R: 732 FT MSL TREE (37-111225) 352557.53N/0800829.12W (CLIMB GRADIENT), 803 FT MSL TREE (37-112801) 352620.07N/0800816.77W (CLIMB TO ALTITUDE), 820 FT MSL TREE (37-116182) 352627.52N/0800810.70W (CEILING), 790 FT MSL (37-114938) 352637.40N/0800804.59N (VISIBILITY).

MID-CAROLINA RGNL (KRUQ):
RWY 20: 1121 FT MSL TOWER 353613.00N/0803234.12W.

MSA:
KCLT MSA FROM KCLT 3800.
KJQF MSA FROM KJQF 3800.
KAKH MSA FROM KAKH 3800.
KEQY MSA FROM KEQY 3100.
KIPJ MSA FROM KIPJ 3800.
KLKR MSA FROM KLKR 2300.
KVUJ MSA FROM KVUJ 3100.
KRUQ MSA FROM KRUQ 3400.
KUZA MSA FROM KUZA 3800.

LOST COMMUNICATIONS PROCEDURES:

ADDITIONAL FLIGHT DATA:
AIRPORT MV: KCLT 7W/2000 (P), KJQF 6W/1995, KAKH 6W/2000, KEQY 6W/1990, KIPJ 6W/1995, KLKR 7W/2000, KVUJ 6W/1985, KRUQ 6W/1985, KUZA 5W/1990.
DME/DME ASSESSMENT: SAT (RNP 2.0)
CHARLOTTE/DOUGLAS INTL - CHART: TOP ALTITUDE 8000
CONCORD-PADGETT RGNL - CHART: TOP ALTITUDE 3000.
GASTONIA MUNI - CHART: TOP ALTITUDE 3000.
CHARLOTTE-MONROE EXECUTIVE - CHART: TOP ALTITUDE 3000.
LINCOLNTON-LINCOLN COUNTY RGNL - CHART: TOP ALTITUDE 3000.
LANCASTER COUNTY-MC WHIRTER FIELD - CHART: TOP ALTITUDE 3000.
STANLY COUNTY - CHART: TOP ALTITUDE 3000.
MID-CAROLINA RGNL - CHART: TOP ALTITUDE 3000.
ROCK HILL/YORK CO/BRYANT FIELD - CHART: TOP ALTITUDE 3000.
CHART NOTE: (CHARLOTTE/DOUGLAS INTL ONLY) SEE ADDITIONAL REQUIREMENTS ON AAUP.

AIRPORTS SERVED:		
AIRPORT ID	CITY	STATE
KCLT	CHARLOTTE	NC
KJQF	CONCORD	NC
KAKH	GASTONIA	NC
KEQY	MONROE	NC
KIPJ	LINCOLNTON	NC



NFDD No. 025

02/06/2024

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DP NAME	NUMBER	DP COMPUTER CODE	SUPERSEDED NUMBER	DATED	ACTUAL EFFECTIVE DATE
ESTRR	FIVE	ESTRR5.ESTRR	FOUR	01/03/2019	21 Mar 2024

KLKR	LANCASTER	SC
KVUJ	ALBEMARLE	NC
KRUQ	SALISBURY	NC
KUZA	ROCK HILL	SC

COMMUNICATIONS:

CHARLOTTE/DOUGLAS INTL: CHART: ATIS, CLNC DEL, GND CON, TOWER.

CONCORD-PADGETT RGNL: CHART: ATIS, CLNC DEL, GND CON, TOWER, UNICOM.

GASTONIA MUNI: CHART: ASOS, CLNC DEL, UNICOM.

CHARLOTTE-MONROE EXECUTIVE: CHART: ASOS, CLNC DEL, UNICOM.

LINCOLNTON-LINCOLN COUNTY RGNL: CHART: AWOS, CLNC DEL (GCO), UNICOM.

LANCASTER COUNTY-MC WHIRTER FIELD: CHART: AWOS, GCO, UNICOM.

STANLY COUNTY: CHART: ATIS, CLNC DEL, GND CON, TOWER.

MID-CAROLINA RGNL: CHART: AWOS, CLNC DEL, UNICOM.

ROCK HILL/YORK CO/BRYANT FIELD: CHART: ASOS, CLNC DEL, UNICOM

FIXES AND/OR NAVAIDS:

BGRED, CHOPZ

REMARKS:

1. CONCORD-PADGETT RGNL RWY 20 CLIMB GRADIENT ROUNDED TO 320 FT PER NM FOR PUBLICATION (COMPUTED VALUE 317 FT PER NM).

2. MID-CAROLINA RGNL COUNTY RWY 20 CLIMB GRADIENT ROUNDED TO 205 FT PER NM FOR PUBLICATION (COMPUTED VALUE 202 FT PER NM).

3. ABBREVIATED AMENDMENT.

FLIGHT INSPECTED BY

ERIC L GEYER

Digitally signed by
CASEY D HILL
Jan 18, 2024

OFFICE

FPO

DATE

01/11/2024

DEVELOPED BY

ANA VEGA

Digitally signed by
ANA Y VEGA
Oct 12, 2023

OFFICE

AJV-A412

DATE

01/06/2023

APPROVED BY

JULIE MORGAN

Digitally signed by
MARK D ADAMS
Nov 07, 2023

OFFICE

AJV-A410

DATE

TITLE

MANAGER

REQUIRED EFFECTIVE DATE

ROUTINE

COORDINATED WITH:

A4A

ALPA

AOPA

APA

HAI

NBAA

OTHER: ZTL, CLT APP CON, CLT ATCT, JQF ATCT, VUJ ATCT, AMGR(S).

CHANGES - REASONS:

1. REMOVED ALL REFERENCES TO KCLT RWY 5/23 - INCORPORATE NOTAM CLT 05/427.

2. TAKEOFF MINIMUMS: STANLY COUNTY (KVUJ) AMENDED RWY 4R FROM "300 1 1/2 OR STANDARD WITH MINIMUM CLIMB OF 276 FT PER NM TO 1000" TO "300-1 3/4 OR STANDARD WITH MINIMUM CLIMB OF 315 FT PER NM TO 1000" - INCORPORATE FDC 3/0577.

3. TAKEOFF MINIMUMS: STANLY COUNTY (KVUJ) RWY 4L, 22R UPDATED TO READ "NA - ENVIRONMENTAL" - PER AIRNAV USED AS ASSAULT STRIP BY MILITARY, IT IS NOT USED FOR IFR OPERATIONS.

4. CONTROLLING OBSTACLES: STANLY COUNTY (KVUJ) RWY 4R UPDATED FROM "837 FT MSL TREE 352627.34N/0800808.17W" TO "732 FT MSL TREE (37-111225) 352557.53N/0800829.12W (CLIMB

QUALITY
20
CHECKED

FAA Form 8260-15B (12/21) Supersedes Previous Edition

Electronic Version

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<u>DP NAME</u>	<u>NUMBER</u>	<u>DP COMPUTER CODE</u>	<u>SUPERSEDED NUMBER</u>	<u>DATED</u>	<u>ACTUAL EFFECTIVE DATE</u>
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GRADIENT) AND ADDED "803 FT MSL TREE (37-112801) 352620.07N/0800816.77W (CLIMB TO ALTITUDE), 820 FT MSL TREE (37-116182) 352627.52N/0800810.70W (CEILING), 790 FT MSL (37-114938) 352637.40N/0800804.59N (VISIBILITY)."AND CHARLOTTE/DOUGLAS INTL (KCLT) UPDATED RWY 36L TO "2748 FT MSL TOWER 352145.00N/0810918.00W - NEW PENETRATING OBSTACLES.

5. CONTROLLING OBSTACLES: REMOVED ALL "ROUTE DEVELOPMENT" OBSTACLES - ROUTE ISN'T BASED ON OBSTACLES.

6. COMBINED NOTES "RNAV 1" AND "DME/DME/IRU OR GPS REQUIRED" TO READ "RNAV 1 - DME/DME/IRU OR GPS REQUIRED" AND MOVED TO PBN REQUIREMENTS NOTES - IAW 8260.46J 2-1-1F (6) AND APPENDIX E, SECTION 1 PARA 5 MEMO.

7. PROCEDURAL DATA NOTES: MOVED RADAR REQUIRED NOTE TO EQUIPMENT REQUIREMENT NOTES - IAW 8260.46J 2-1-1 F (5).

8. PROCEDURAL DATA NOTES: REPLACED "TURBOJETS ONLY" WITH "TURBO JETS ONLY" - IAW 8260.46J APP E, SEC 1, PARA 2G.

9. ADDITIONAL FLIGHT DATA: REMOVED "REFERENCE PILOT NAVIGATION AREA" - NO LONGER REQUIRED PER 8260.46J.

10. COMMUNICATIONS: REMOVED DEPARTURE CONTROL (DEP CON) - CHARTING DEPARTURE CONTROL FREQUENCY OCCURS AUTOMATICALLY PER IAW 8260.46J APPENDIX E.

11. AIRPORTS SERVED: UPDATED TO "AIRPORT ID" ONLY - IAW 8260.46J.

12. CHANGED DP ROUTE DESCRIPTION FOR ALL RUNWAYS FROM "CLIMB HEADING" TO "CLIMB ON HEADING" - IAW 8260.46J APPENDIX E.

13. ADDED "APT. ID" FOLLOWING THE AIRPORT NAME ON DP ROUTE DESCRIPTION, TAKEOFF MINIMUMS AND CONTROLLING OBSTACLES - IAW 8260.46J.

14. MSA ADDED "KCLT MSA FROM KCLT 3800; KJQF MSA FROM KJQF 3800; KAKH MSA FROM KAKH 3800; KEQY MSA FROM KEQY 3100; KIPJ MSA FROM KIPJ 3800; KLKR MSA FROM KLKR 2300; KVUJ MSA FROM KVUJ 3100; KRUQ MSA FROM KRUQ 3400; KUZA MSA FROM KUZA 3800" - IAW 8260.46J APP E, SEC 1, PARA 2K AW 8260.46J, APPENDIX E (2) (K).

15. ADDITIONAL FLIGHT DATA: ADDED " AIRPORT MV: KCLT (P) 7W/2000, KJQF 6W/1995, KAKH 6W/2000, KEQY 6W/1990, KIPJ 6W/1995, KLKR 7W/2000, KVUJ 6W/1985, KRUQ 6W/1985, KUZA 5W/1990" - CRITERIA CLARIFICATION MEMO (7/15/2022) TO MEMO 283 (6/2/2022).

16. TRANSITION ROUTES: ADDED MOCA VALUES - NOT INCLUDED IN THE CURRENT PROCEDURE, IAW 8260.46J SECTION 2, PARA 2(8).

17. COMMUNICATIONS: ADDED "CHART:" TO THE FREQUENCIES FOR EACH AIRPORT - IAW 8260.46J APP. E, SEC 1, PARA 2O.

18. REMARKS: REMOVED "LETTER OF APPROVAL FOR VUJ, RUQ, EQY, LKR AND RWY 2 AT JQF AIRPORTS NOT LOCATED WITHIN EXTENDED PNA REQUIRED AND ON FILE APPROVED BY AFS-400 5-4-16" - NO LONGER REQUIRED.

19. COMMUNICATIONS: STANLY COUNTY (KVUJ) REMOVED "UNICOM" - PER NFDD 42 REMOVED FROM ARP.

20. DP ROUTE DESCRIPTION: REPLACE ALL INSTANCES OF "EXPECT RADAR" TO "ON RADAR" - IAW 8260.46J 2-1-1.G (2).

21. DP ROUTE DESCRIPTION: MID-CAROLINA RGNL (KRUQ) ADDED "TAKEOFF RWY 2: CLIMB ON HEADING ASSIGNED BY ATC, THENCE..." - FORM UPDATED.

9/20/23: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 1/6/23

CHANGED MOCA VALUE ON TRANSITION ROUTE:

IPTAY: ESTRR - DEBIE FROM "2400" TO "2700" AND DEBIE - IPTAY FROM "2200" TO "2900".

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

DP NAME				NUMBER		DP COMPUTER CODE		SUPERSEDED NUMBER		DATED		ACTUAL EFFECTIVE DATE	
ESTRR				FIVE		ESTRR5.ESTRR		FOUR		01/03/2019		21 Mar 2024	
FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS				
RW18C (AER)	351338.63N/0805711.41W	N	-	-	-	-							
1260 MSL		-	-	VA	175.96	-			CG 500 FT/NM TO 1260				
		-	-	VM	175.96	-							
GINNN	350233.33N/0812807.08W	Y	FB	DF	-	-							
RW18L (AER)	351329.05N/0805610.17W	N	-	-	-	-							
1260 MSL		-	-	VA	175.97	-			CG 500 FT/NM TO 1260				
		-	-	VM	175.97	-							
GINNN	350233.33N/0812807.08W	Y	FB	DF	-	-							
RW18R (AER)	351331.02N/0805802.71W	N	-	-	-	-							
1260 MSL		-	-	VA	175.96	-			CG 500 FT/NM TO 1260				
		-	-	VM	193.00	-							
GINNN	350233.33N/0812807.08W	Y	FB	DF	-	-							
RW36C (AER)	351159.97N/0805702.92W	N	-	-	-	-							
1260 MSL		-	-	VA	355.96	-			CG 500 FT/NM TO 1260				
		-	-	VM	323.00	-							
GINNN	350233.33N/0812807.08W	Y	FB	DF	-	-							
RW36L (AER)	351202.23N/0805755.07W	N	-	-	-	-							
1260 MSL		-	-	VA	355.96	-			CG 500 FT/NM TO 1400				
												QUALITY	



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ESTRR		FIVE		ESTRR5.ESTRR		FOUR		01/03/2019	21 Mar 2024
<u>FIX/NAVAID</u>	<u>LAT/LONG</u>	<u>C</u>	<u>FO/FB</u>	<u>LEG TYPE</u>	<u>TC</u>	<u>DIST (NM)</u>	<u>ALTITUDE</u>	<u>SPEED</u>	<u>REMARKS</u>
		-	-	VM	308.00	-			
GINNN	350233.33N/0812807.08W	Y	FB	DF	-	-			
RW36R (AER)	351203.45N/0805602.82W	N	-	-	-	-			
1260 MSL		-	-	VA	355.97	-			CG 500 FT/NM TO 1260
		-	-	VM	018.00	-			
GINNN	350233.33N/0812807.08W	Y	FB	DF	-	-			
GINNN	350233.33N/0812807.08W	Y	-	IF	-	-			
ESTRR	350003.71N/0813534.71W	Y	FB	TF	247.92	6.61			
ESTRR	350003.71N/0813534.71W	Y	-	IF	-	-			ESTRR5.IPTAY
DEBIE	345549.06N/0814832.06W	Y	FB	TF	248.36	11.46			
IPTAY	342056.57N/0825023.07W	Y	FB	TF	235.99	61.78			