U.S. DEPARTMENT of TRANSPORTATION – FEDERAL AVIATION ADMINISTRATION

GRAPHIC DEPARTURE PROCEDURE (DP)

Bearings, headings, courses, tracks, and radials are magnetic. Elevation 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 statue miles or feet RVR unless otherwise indicated. Graphic depictions attached.

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
LWOOD (RNAV)	ONE	LWOOD1.LWOOD	NONE		10 Jan 2013

TYPE: RNAV SID

DP ROUTE DESCRIPTION:

TAKEOFF RWY 05L, 05R: CLIMB HEADING 052.14 OR AS ASSIGNED BY ATC, EXPECT RADAR VECTORS TO FOCAL THEN ON DEPICTED ROUTE TO LWOOD, THENCE...
TAKEOFF RWY 23L: CLIMB HEADING 232.15 OR AS ASSIGNED BY ATC, EXPECT RADAR VECTORS TO FOCAL THEN ON DEPICTED ROUTE TO LWOOD, THENCE...
TAKEOFF RWY 23R: CLIMB HEADING 232.16 OR AS ASSIGNED BY ATC, EXPECT RADAR VECTORS TO FOCAL THEN ON DEPICTED ROUTE TO LWOOD, THENCE...

...ON ASSIGNED TRANSITION, MAINTAIN 7000 OR ALTITUDE ASSIGNED BY ATC. EXPECT CLEARANCE TO FILED ALTITUDE WITHIN TEN MINUTES AFTER DEPARTURE.

TRANSITION ROUTES (GRAPHIC DEPICTION ONLY):

Transition Name	Transition Computer Codes	From FIX/NAVAID	To FIX/NAVAID	Course	Distance	MEA	MOCA	Crossing Altitudes/Fixes
PULASKI	LWOOD1.PSK	LWOOD	OPUSS	TRACK 331.39	29.79	13500	3300	
		OPUSS	PSK VORTAC	TRACK 310.07	55.71	18000	5700	
ROANOKE	LWOOD1.ROA	LWOOD	ROA VORTAC	TRACK 341.72	77.19	18000	5700	

PROCEDURAL DATA NOTES/TAKEOFF MINIMUMS:

NOTE: TRANSPONDER CODE WILL BE ASSIGNED VIA PDC OR RALEIGH CLEARANCE DELIVERY.
NOTE: IF UNABLE TO ACCEPT CLIMB RATE, ADVISE ATC ON INITIAL CONTACT.
NOTE: RNAV-1.
NOTE: DME/DME/IRU OR GPS REQUIRED.
NOTE: RADAR REQUIRED.
NOTE: FOR TURBOJET AIRCRAFT ONLY.

TAKEOFF MINIMUMS:
RWY 14, 32, NA – RUNWAY TOO SHORT FOR TURBOJETS.
RWY 05L, 05R, 23R, STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 940.
RWY 23L, STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 1100.

TAKEOFF OBSTACLES NOTES:

RWY 05L, TREES BEGINNING 3802 FT FROM DER, 1237 FT LEFT OF CENTERLINE, UP TO 77 FT AGL/506 FT MSL. TANK AND TREES BEGINNING 2011 FT FROM DER, 948 FT RIGHT OF CENTERLINE, UP TO 138 FT AGL/547 FT MSL.
RWY 05R, TREES BEGINNING 1436 FT FROM DER, 803 FT RIGHT OF CENTERLINE, UP TO 80 FT AGL/469 FT MSL.
RWY 23L, TREES BEGINNING 1495 FT FROM DER, 797 FT LEFT OF CENTERLINE, UP TO 58 FT AGL/447 FT MSL. LIGHT POLE 1457 FT FROM DER, 878 FT RIGHT OF CENTERLINE, 93 FT AGL/452 FT MSL.

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LWOOD (RNAV)	ONE	LWOOD1.LWOOD	NONE		10 Jan 2013

CONTROLLING OBSTACLES:

RWY 23L, 23R, 2049 FT MSL TOWER (37-001064) 354251.00N/0784903.00W.

LOST COMMUNICATIONS PROCEDURES:

ADDITIONAL FLIGHT DATA:

REFERENCE MAG VAR: KRDU 7W EPOCH YEAR: 1985.
DME/DME ASSESSMENT: SAT (RNP 2.0).

CHART: MEA/MOCA FROM FOCAL TO EPOCH, 6200/2200.
CHART: MEA/MOCA FROM EPOCH TO LWOOD, 7500/2000.

PILOT NAVIGATION AREA:
7NM ARC CENTERED ON FOCAL (IF), CW
FROM: POINT A (BEARING 255.50 TO FOCAL)
TO: POINT B (BEARING 345.50 TO FOCAL)
MINIMUM ALTITUDE - 5000

AIRPORTS SERVED:

RALEIGH-DURHAM INTL – RALEIGH/DURHAM, NC.

COMMUNICATIONS:

ATIS, CLEARANCE DELIVERY, GROUND CONTROL, TOWER, DEPARTURE CONTROL: 132.35/256.9

FIXES AND/OR NAVAIDS:

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
LWOOD (RNAV)	ONE	LWOOD1.LWOOD	NONE		10 Jan 2013

FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
RW05L (AER)	355228.02N/0784807.07W	N	-	-	-	-			CG 500 FT/NM TO 940
		-	-	VM	045.14	-			
FOCAL	360205.45N/0791524.28W	Y	FB	DF	-	-			
RW05R (AER)	355152.67N/0784750.42W	N	-	-	-	-			CG 500 FT/NM TO 940
		-	-	VM	045.14	-			
FOCAL	360205.45N/0791524.28W	Y	FB	DF	-	-			
RW23L (AER)	355244.98N/0784645.82W	N	-	-	-	-			CG 500 FT/NM TO 1100
		-	-	VM	225.15	-			
FOCAL	360205.45N/0791524.28W	Y	FB	DF	-	-			
RW23R (AER)	355337.76N/0784640.92W	N	-	-	-	-			CG 500 FT/NM TO 940
		-	-	VM	225.16	-			
FOCAL	360205.45N/0791524.28W	Y	FB	DF	-	-			
FOCAL	360205.45N/0791524.28W	Y	FB	IF	-	-			
EPOCH	360423.46N/0792155.68W	Y	FB	TF	293.50	5.77			
LWOOD	361050.35N/0792253.60W	Y	FB	TF	353.08	6.49			
LWOOD	361050.35N/0792253.60W	Y	-	IF	-	-			LWOOD1.PSK
OPUSS	363503.70N/0794425.71W	Y	FB	TF	324.39	29.79			
PSK VORTAC	370515.74N/0804246.44W	Y	FB	TF	303.07	55.71			
									LWOOD1.ROA
LWOOD	361050.35N/0792253.60W	Y	-	IF	-	-			
ROA VORTAC	372036.47N/0800413.43W	Y	FB	TF	334.72	77.19			

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
LWOOD (RNAV)	ONE	LWOOD1.LWOOD	NONE		10 Jan 2013

ARINC PACKET - 424-18 - SID

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                 1         2         3         4         5         6         7         8         9         0         1         2         3
NAVAID  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAD        PSK   K6011680VTHA N37051574W080424644    N37051574W080424644W0060021202     NARPULASKI
        SUSAD        ROA   K6010940VTL  N37203647W080041343    N37203647W080041343W0040030721     NARROANOKE

                 1         2         3         4         5         6         7         8         9         0         1         2         3
WP      123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAEAENRT   EPOCH K70    W     N36042346W079215568                      W0087     NAR           EPOCH
        SUSAEAENRT   FOCAL K70    W     N36020545W079152428                      W0087     NAR           FOCAL
        SUSAEAENRT   LWOOD K70    W     N36105035W079225360                      W0087     NAR           LWOOD
        SUSAEAENRT   OPUSS K60    W     N36350370W079442571                      W0085     NAR           OPUSS

                 1         2         3         4         5         6         7         8         9         0         1         2         3
AIRPORT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KRDUK7ARDU     0     100YHN35523950W078471490W007000435         1800018000C    MNAR    RALEIGH-DURHAM INTL

                 1         2         3         4         5         6         7         8         9         0         1         2         3
SEGMENT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KRDUK7DLWOOD14RW05B 010         0        VM                      0521                    18000
        SUSAP KRDUK7DLWOOD14RW05B 020FOCALK7EA0EE   010DF
        SUSAP KRDUK7DLWOOD14RW23B 010         0        VM                      2322                    18000
        SUSAP KRDUK7DLWOOD14RW23B 020FOCALK7EA0EE   010DF
        SUSAP KRDUK7DLWOOD15      010FOCALK7EA0E       IF                                              18000
        SUSAP KRDUK7DLWOOD15      020EPOCHK7EA0E    010TF                      30050058
        SUSAP KRDUK7DLWOOD15      030LWOODK7EA0EE   010TF                      00010065
        SUSAP KRDUK7DLWOOD16PSK   010LWOODK7EA0E       IF                                              18000
        SUSAP KRDUK7DLWOOD16PSK   020OPUSSK6EA0E    010TF                      33140298
        SUSAP KRDUK7DLWOOD16PSK   030PSK  K6D 0VE   010TF                      31010557
        SUSAP KRDUK7DLWOOD16ROA   010LWOODK7EA0E       IF                                              18000
        SUSAP KRDUK7DLWOOD16ROA   020ROA  K6D 0VE   010TF                      34170772

                 1         2         3         4         5         6         7         8         9         0         1         2         3
RUNWAY  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KRDUK7GRW05L  0100000521 N35522802W078480707+0400    +0079800367000057150IIGKK1
        SUSAP KRDUK7GRW05R  0075000521 N35515267W078475042+0400    +0089100397000059150IIRDU1
        SUSAP KRDUK7GRW23L  0075002322 N35524498W078464582-0400    +0099200431000056150IILEI1
        SUSAP KRDUK7GRW23R  0100002322 N35533776W078464092-0400    +0092500409000056150IIDMP3
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DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
LWOOD (RNAV)	ONE	LWOOD1.LWOOD	NONE		10 Jan 2013

ARINC SUMMARY - 424-18 - SID

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
	RW05B		010		VM		FB		052.1()			
	RW05B	FOCAL	020		DF		FB	1.0				
	RW23B		010		VM		FB		232.2()			
	RW23B	FOCAL	020		DF		FB	1.0				
		FOCAL	010		IF		FB					
		EPOCH	020		TF		FB	1.0	300.5()	005.8		
		LWOOD	030		TF		FB	1.0	000.1()	006.5		
	PSK	LWOOD	010		IF		FB					
	PSK	OPUSS	020		TF		FB	1.0	331.4()	029.8		
	PSK	PSK	030		TF		FB	1.0	310.1()	055.7		
	ROA	LWOOD	010		IF		FB					
	ROA	ROA	020		TF		FB	1.0	341.7()	077.2		

POINT DATA

WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
PSK	N370515.74	W0804246.44	N3705.262	W08042.774
ROA	N372036.47	W0800413.43	N3720.608	W08004.224
EPOCH	N360423.46	W0792155.68	N3604.391	W07921.928
FOCAL	N360205.45	W0791524.28	N3602.091	W07915.405
LWOOD	N361050.35	W0792253.60	N3610.839	W07922.893
OPUSS	N363503.70	W0794425.71	N3635.062	W07944.429
RW05L	N355228.02	W0784807.07	N3552.467	W07848.118
RW05R	N355152.67	W0784750.42	N3551.878	W07847.840
RW23L	N355244.98	W0784645.82	N3552.750	W07846.764
RW23R	N355337.76	W0784640.92	N3553.629	W07846.682

RUNWAY DATA

RWY	THRESHOLD ELEVATION	TCH
RW05L	00367	57
RW05R	00397	59
RW23L	00431	56
RW23R	00409	56