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DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
HGGRD (RNAV)	ONE	HGGRD1.HGGRD	NONE		

TYPE: RNAV SID

DP ROUTE DESCRIPTION:

TAKEOFF RWY 02C: CLIMB HEADING 020.98 TO 1100, THEN DIRECT JOOON, THEN ON HEADING 015.00 THENCE...
TAKEOFF RWY 02L: CLIMB HEADING 020.65 TO 1100, THEN DIRECT FOOFY, THEN ON HEADING 020.65 THENCE...
TAKEOFF RWY 02R: CLIMB HEADING 020.99 TO 1100, THEN RIGHT TURN DIRECT KDNCE, THEN ON HEADING 055.00 THENCE...
TAKEOFF RWY 13: CLIMB HEADING 136.30 TO 1100, THEN RIGHT TURN DIRECT KLSTR, THEN ON HEADING 260.00 THENCE...
TAKEOFF RWY 20C: CLIMB HEADING 200.99 TO 1100, THEN RIGHT TURN DIRECT MIJOM, THEN ON HEADING 275.00 THENCE...
TAKEOFF RWY 20L: CLIMB HEADING 201.00 TO 1100, THEN RIGHT TURN DIRECT PWERS, THEN ON HEADING 220.00 THENCE...
TAKEOFF RWY 20R: CLIMB HEADING 200.65 TO 1300, THEN RIGHT TURN DIRECT BOGAA, THEN ON HEADING 260.00 THENCE...
TAKEOFF RWY 31: CLIMB HEADING 316.32 TO 1100, THEN LEFT TURN DIRECT YAHYA, THEN ON HEADING 280.00 THENCE...

...EXPECT RADAR VECTORS TO MERRL, THEN ON TRACK 316.76 TO HGGRD (MEA 12600/MOCA 2700), MAINTAIN 4000. EXPECT CLEARANCE TO FILED ALTITUDE WITHIN 5 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
TINGS	HGGRD1.TINGS	HGGRD	TINGS	317.81	41.67	18000	2100	

PROCEDURAL DATA NOTES/TAKEOFF MINIMUMS:

NOTE: TRANSPONDER CODE WILL BE ISSUED VIA PDC OR NASHVILLE CLEARANCE DELIVERY.
NOTE: IF UNABLE TO ACCEPT CLIMB RATES, ADVISE ATC ON INITIAL CONTACT.
NOTE: RNAV-1.
NOTE: DME/DME/IRU OR GPS REQUIRED.
NOTE: RADAR REQUIRED.

TAKEOFF MINIMUMS:
RWY 02C, 02L, 02R, 13, 20L, 31, STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 1100.
RWY 20C, 20R, STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 1300.

TAKEOFF OBSTACLES NOTES:

RWY 02L, TREES BEGINNING 203 FT FROM DER, 489 FT RIGHT OF CENTERLINE, UP TO 60 FT AGL/576 FT MSL.
RWY 13, BLAST FENCE OBSTRUCTION LIGHT 335 FT FROM DER, 64 FT LEFT OF CENTERLINE, 6 FT AGL/595 FT MSL. TREES BEGINNING 2852 FT FROM DER, 28 FT RIGHT OF CENTERLINE, UP TO 60 FT AGL/685 FT MSL. POLE 3761 FT FROM DER, 726 FT RIGHT OF CENTERLINE, 60 FT AGL/689 FT MSL.
RWY 20C, TREES BEGINNING 2089 FT FROM DER, 934 FT RIGHT OF CENTERLINE, UP TO 60 FT AGL/623 FT MSL.
RWY 20L, TREES BEGINNING 1844 FT FROM DER, 720 LEFT OF CENTERLINE, UP TO 60 FT AGL/639 FT MSL.
RWY 20R, FLAGPOLE 1298 FT FROM DER, 777 FT RIGHT OF CENTERLINE, 37 FT AGL/636 FT MSL. BLDG 2183 FT FROM DER, 1083 FT RIGHT OF CENTERLINE, 91 FT AGL/680 FT MSL.

GRAPHIC DEPARTURE PROCEDURE (DP)

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DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
HGGRD (RNAV)	ONE	HGGRD1.HGGRD	NONE		

RWY 31, GROUND 2 FT FROM DER, 498 FT LEFT OF CENTERLINE, 541 FT MSL. LOC OBSTRUCTION LIGHT 303 FT FROM DER, ON CENTERLINE, 48 FT AGL/547 FT MSL. BLAST FENCE OBSTRUCTION LIGHT 382 FT FROM DER, 50 FT LEFT OF CENTERLINE, 30 FT AGL/569 FT MSL. TREES BEGINNING 789 FT FROM DER, 331 FT RIGHT OF CENTERLINE, UP TO 60 FT AGL/602 FT MSL. POLE 1012 FT FROM DER, 429 FT LEFT OF CENTERLINE, 29 FT AGL/578 FT MSL. TRANSMISSION TOWER 1882 FT FROM DER, 219 FT RIGHT OF CENTERLINE, 61 FT AGL/610 FT MSL. POLE 2037 FT FROM DER, 422 FT RIGHT OF CENTERLINE, 47 FT AGL/596 FT MSL. TRANSMISSION TOWER 2778 FT FROM DER, 83 FT LEFT OF CENTERLINE, 91 FT AGL/630 FT MSL.

CONTROLLING OBSTACLES:

RWY 31, 816 FT MSL TOWER (47-000499) 360949.00N/0864254.00W.

OBSTACLES MANDATING ODP ROUTE DEVELOPMENT: RWY 20C, RWY 20L, RWY 20R – 2049 FT MSL TOWER (47-002263) 360250.42N/0864948.93W. RWY 31 – 2049 FT MSL ANT (KJWNT0151) 360827.45N/0865156.48W,

LOST COMMUNICATIONS PROCEDURES:

ADDITIONAL FLIGHT DATA:

REFERENCE MAG VAR: KBNA 3W EPOCH YEAR: 2010.
DME/DME ASSESSMENT: SAT (RNP 2.0).

CHART R-3702A/B.

PILOT NAVIGATION AREA:
7NM ARC CENTERED ON MERRL (IF), CW
FROM: POINT A (BEARING 271.76 TO MERRL)
TO: POINT B (BEARING 001.76 TO MERRL)
MINIMUM ALTITUDE - 6000

AIRPORTS SERVED:

NASHVILLE INTL – NASHVILLE, TN.

COMMUNICATIONS:

ATIS CLEARANCE DELIVERY, GROUND CONTROL, TOWER, DEPARTURE CONTROL.

FIXES AND/OR NAVAIDS:

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
HGGRD (RNAV)	ONE	HGGRD1.HGGRD	NONE		

REMARKS:

FLIGHT INSPECTED BY:

Thomas Page 8/23/12

REQUIRED EFFECTIVE DATE:

ROUTINE

DEVELOPED BY:

DAVID SAUER AJV-352 5/22/12

APPROVED BY:

DARRYEL ADAMS AJV-352

COORDINATED WITH:

ALPA, AOPA, ATA, NBAA, ZME, ZID, BNA ATCT, BNA APP CON, BNA AMGR.

CHANGES:

REASONS:

8/3/12: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 5/22/12.

1. CHANGED DP ROUTE DESCRIPTION ALTITUDES FROM "...TURBOJETS MAINTAIN 4000, PROPELLER AIRCRAFT MAINTAIN 3000" TO "...TURBOJETS MAINTAIN 5000, PROPELLER AIRCRAFT MAINTAIN 4000"

8/28/12: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 5/22/12.

1. CHANGED DP ROUTE DESCRIPTION ALTITUDES FROM "...TURBOJETS MAINTAIN 5000, PROPELLER AIRCRAFT MAINTAIN 4000" TO "MAINTAIN 4000".

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
HGGRD RNAV	ONE	HGGRD1.HGGRD	NONE		

FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
RW02C (AER)	360611.99N/0864116.66W	N	-	-	-	-			
1100 MSL	-	-	-	VA	017.98	-			CG 500 FT/NM TO 1100
JOOON	361030.30N/0863950.22W	Y	FO	DF	-	-			
	-	-	-	VM	012.00	-			
MERRL	362610.73N/0870845.83W	Y	FB	DF	-	-			
HGGRD	364852.31N/0873818.79W	Y	FB	TF	313.76	32.85			
RW02L (AER)	360703.64N/0864111.31W	N	-	-	-	-			
1100 MSL	-	-	-	VA	017.65	-			CG 500 FT/NM TO 1100
FOOFY	361120.01N/0863930.71W	Y	FO	DF	-	-			
	-	-	-	VM	017.65	-			
MERRL	362610.73N/0870845.83W	Y	FB	DF	-	-			
HGGRD	364852.31N/0873818.79W	Y	FB	TF	313.76	32.85			
RW02R (AER)	360645.77N/0864003.52W	N	-	-	-	-			
1100 MSL	-	-	-	VA	017.99	-			CG 500 FT/NM TO 1100
KDNCE	361107.30N/0863455.24W	Y	FO	DF	-	-			RIGHT TURN
	-	-	-	VM	052.00	-			
MERRL	362610.73N/0870845.83W	Y	FB	DF	-	-			
HGGRD	364852.31N/0873818.79W	Y	FB	TF	313.76	32.85			

QUALITY CHECKED 3

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
HGGRD RNAV	ONE	HGGRD1.HGGRD	NONE		

FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
RW13 (AER)*	360823.16N/0864136.17W*	N	-	-	-	-			*DISPL THLD (801 FT)
1100 MSL	-	-	-	VA	133.30	-			CG 500 FT/NM TO 1100
KLSTR	360401.80N/0865016.36W	Y	FO	DF	-	-			RIGHT TURN
	-	-	-	VM	257.00	-			
MERRL	362610.73N/0870845.83W	Y	FB	DF	-	-			
HGGRD	364852.31N/0873818.79W	Y	FB	TF	313.76	32.85			
RW20C (AER)	360727.24N/0864046.55W	N	-	-	-	-			
1100 MSL	-	-	-	VA	197.99	-			CG 500 FT/NM TO 1300
MIJOM	360456.58N/0865023.82W	Y	FO	DF	-	-			RIGHT TURN
	-	-	-	VM	272.00	-			
MERRL	362610.73N/0870845.83W	Y	FB	DF	-	-			
HGGRD	364852.31N/0873818.79W	Y	FB	TF	313.76	32.85			
RW20L (AER)	360801.01N/0863933.40W	N	-	-	-	-			
1100 MSL	-	-	-	VA	198.00	-			CG 500 FT/NM TO 1100
PWERS	360224.47N/0864421.88W	Y	FO	DF	-	-			RIGHT TURN
	-	-	-	VM	217.00	-			
MERRL	362610.73N/0870845.83W	Y	FB	DF	-	-			
HGGRD	364852.31N/0873818.79W	Y	FB	TF	313.76	32.85			

QUALITY 3 CHECKED

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
HGGRD RNAV	ONE	HGGRD1.HGGRD	NONE		

FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
RW20R (AER)	360816.23N/0864042.84W	N	-	-	-	-			
1300 MSL	-	-	-	VA	197.65	-			CG 500 FT/NM TO 1300
BOGAA	360440.70N/0864923.38W	Y	FO	DF	-	-			RIGHT TURN
	-	-	-	VM	257.00	-			
MERRL	362610.73N/0870845.83W	Y	FB	DF	-	-			
HGGRD	364852.31N/0873818.79W	Y	FB	TF	313.76	32.85			
RW31 (AER)*	360718.81N/0864012.01W*	N	-	-	-	-			*DISPL THLD (741 FT)
1100 MSL	-	-	-	VA	313.32	-			CG 500 FT/NM TO 1100
YAHYA	360910.44N/0864911.86W	Y	FO	DF	-	-			LEFT TURN
	-	-	-	VM	277.00	-			
MERRL	362610.73N/0870845.83W	Y	FB	DF	-	-			
HGGRD	364852.31N/0873818.79W	Y	FB	TF	313.76	32.85			
HGGRD	364852.31N/0873818.79W	Y	-	IF	-	-			HGGRD1.TINGS
TINGS	371810.87N/0881522.30W	Y	FB	TF	314.81	41.67			

QUALITY CHECKED 3

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
HGGRD RNAV	ONE	HGGRD1.HGGRD	NONE		

ARINC PACKET - 424-18 - SID

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                 1         2         3         4         5         6         7         8         9         0         1         2         3
WP      123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAEAENRT   BOGAA K70    W     N36044070W086492338                    W0033     NAR           BOGAA
        SUSAEAENRT   FOOFY K70    W     N36112001W086393071                    W0035     NAR           FOOFY
        SUSAEAENRT   HGGRD K50    W     N36485231W087381879                    W0028     NAR           HGGRD
        SUSAEAENRT   JOOON K70    W     N36103030W086395022                    W0035     NAR           JOOON
        SUSAEAENRT   KDNCE K70    W     N36110730W086345524                    W0035     NAR           KDNCE
        SUSAEAENRT   KLSTR K70    W     N36040180W086501636                    W0033     NAR           KLSTR
        SUSAEAENRT   MERRL K70    W     N36261073W087084583                    W0031     NAR           MERRL
        SUSAEAENRT   MIJOM K70    W     N36045658W086502382                    W0033     NAR           MIJOM
        SUSAEAENRT   PWERS K70    W     N36022447W086442188                    W0034     NAR           PWERS
        SUSAEAENRT   TINGS K50    C   H N37181087W088152230                    W0024     NAR           TINGS
        SUSAEAENRT   YAHYA K70    W     N36091044W086491186                    W0033     NAR           YAHYA

                 1         2         3         4         5         6         7         8         9         0         1         2         3
AIRPORT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KBNAK7ABNA     0     110YHN36072810W086404150W003000599         1800018000C    MNAR    NASHVILLE INTL

                 1         2         3         4         5         6         7         8         9         0         1         2         3
SEGMENT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KBNAK7DHGGRD14RW02C 010         0        VA                     0210        + 01100     18000
        SUSAP KBNAK7DHGGRD14RW02C 020JOOONK7EA0EY   010DF
        SUSAP KBNAK7DHGGRD14RW02C 030         0        VM                     0150
        SUSAP KBNAK7DHGGRD14RW02C 040MERRLK7EA0E    010DF
        SUSAP KBNAK7DHGGRD14RW02C 050HGGRDK5EA0EE   010TF                     31680329
        SUSAP KBNAK7DHGGRD14RW02L 010         0        VA                     0207        + 01100     18000
        SUSAP KBNAK7DHGGRD14RW02L 020FOOFYK7EA0EY   010DF
        SUSAP KBNAK7DHGGRD14RW02L 030         0        VM                     0207
        SUSAP KBNAK7DHGGRD14RW02L 040MERRLK7EA0E    010DF
        SUSAP KBNAK7DHGGRD14RW02L 050HGGRDK5EA0EE   010TF                     31680329
        SUSAP KBNAK7DHGGRD14RW02R 010         0        VA                     0210        + 01100     18000
        SUSAP KBNAK7DHGGRD14RW02R 020KDNCEK7EA0EY   010DF
        SUSAP KBNAK7DHGGRD14RW02R 030         0        VM                     0550
        SUSAP KBNAK7DHGGRD14RW02R 040MERRLK7EA0E    010DF
        SUSAP KBNAK7DHGGRD14RW02R 050HGGRDK5EA0EE   010TF                     31680329
        SUSAP KBNAK7DHGGRD14RW13  010         0        VA                     1363        + 01100     18000
        SUSAP KBNAK7DHGGRD14RW13  020KLSTRK7EA0EY  R010DF
        SUSAP KBNAK7DHGGRD14RW13  030         0        VM                     2600
        SUSAP KBNAK7DHGGRD14RW13  040MERRLK7EA0E    010DF
        SUSAP KBNAK7DHGGRD14RW13  050HGGRDK5EA0EE   010TF                     31680329
        SUSAP KBNAK7DHGGRD14RW20C 010         0        VA                     2010        + 01100     18000
```

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
HGGRD RNAV	ONE	HGGRD1.HGGRD	NONE		

```
SUSAP KBNAK7DHGGRD14RW20C 020MIJOMK7EA0EY   010DF
SUSAP KBNAK7DHGGRD14RW20C 030         0       VM                    2750
SUSAP KBNAK7DHGGRD14RW20C 040MERRLK7EA0E    010DF
SUSAP KBNAK7DHGGRD14RW20C 050HGGRDK5EA0EE   010TF                   31680329
SUSAP KBNAK7DHGGRD14RW20L 010         0       VA                    2010        + 01100     18000
SUSAP KBNAK7DHGGRD14RW20L 020PWERSK7EA0EY   010DF
SUSAP KBNAK7DHGGRD14RW20L 030         0       VM                    2200
SUSAP KBNAK7DHGGRD14RW20L 040MERRLK7EA0E    010DF
SUSAP KBNAK7DHGGRD14RW20L 050HGGRDK5EA0EE   010TF                   31680329
SUSAP KBNAK7DHGGRD14RW20R 010         0       VA                    2007        + 01300     18000
SUSAP KBNAK7DHGGRD14RW20R 020BOGAAK7EA0EY   010DF
SUSAP KBNAK7DHGGRD14RW20R 030         0       VM                    2600
SUSAP KBNAK7DHGGRD14RW20R 040MERRLK7EA0E    010DF
SUSAP KBNAK7DHGGRD14RW20R 050HGGRDK5EA0EE   010TF                   31680329
SUSAP KBNAK7DHGGRD14RW31  010         0       VA                    3163        + 01100     18000
SUSAP KBNAK7DHGGRD14RW31  020YAHYAK7EA0EY   010DF
SUSAP KBNAK7DHGGRD14RW31  030         0       VM                    2800
SUSAP KBNAK7DHGGRD14RW31  040MERRLK7EA0E    010DF
SUSAP KBNAK7DHGGRD14RW31  050HGGRDK5EA0EE   010TF                   31680329
SUSAP KBNAK7DHGGRD16TINGS 010HGGRDK5EA0E      IF                                                18000
SUSAP KBNAK7DHGGRD16TINGS 020TINGSK5EA0EE   010TF                   31780417
```

```
                 1         2         3         4         5         6         7         8         9         0         1         2         3
RUNWAY  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
SUSAP KBNAK7GRW02C   0080010210 N36061199W086411666+0000    +0144300569000060150IIEZN1
SUSAP KBNAK7GRW02L   0077030207 N36070364W086411131-0600    +0153200599000055150IIBNA3
SUSAP KBNAK7GRW02R   0080000210 N36064577W086400352-0600    +0150600590000059150IIUQU3
SUSAP KBNAK7GRW13    0110301363 N36082316W086413617+0400    +0136400543080155150R
SUSAP KBNAK7GRW20C   0080012010 N36072724W086404655+0000    +0145100572000050150R
SUSAP KBNAK7GRW20L   0080002010 N36080101W086393340+0600    +0135300540000047150IISSX1
SUSAP KBNAK7GRW20R   0077032007 N36081623W086404284+0600    +0140100555000059150IIVIY1
SUSAP KBNAK7GRW31    0110303163 N36071881W086401201-0400    +0146800577074152150IIPNO1
```

QUALITY CHECKED 1

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
HGGRD RNAV	ONE	HGGRD1.HGGRD	NONE		

ARINC SUMMARY - 424-18 - SID

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
	RW02C		010		VA		FB		021.0()		AA 01100	
	RW02C	JOOON	020		DF		FO	1.0				
	RW02C		030		VM		FB		015.0()			
	RW02C	MERRL	040		DF		FB	1.0				
	RW02C	HGGRD	050		TF		FB	1.0	316.8()	032.9		
	RW02L		010		VA		FB		020.7()		AA 01100	
	RW02L	FOOFY	020		DF		FO	1.0				
	RW02L		030		VM		FB		020.7()			
	RW02L	MERRL	040		DF		FB	1.0				
	RW02L	HGGRD	050		TF		FB	1.0	316.8()	032.9		
	RW02R		010		VA		FB		021.0()		AA 01100	
	RW02R	KDNCE	020		DF		FO	1.0				
	RW02R		030		VM		FB		055.0()			
	RW02R	MERRL	040		DF		FB	1.0				
	RW02R	HGGRD	050		TF		FB	1.0	316.8()	032.9		
	RW13		010		VA		FB		136.3()		AA 01100	
	RW13	KLSTR	020		DF	R	FO	1.0				
	RW13		030		VM		FB		260.0()			
	RW13	MERRL	040		DF		FB	1.0				
	RW13	HGGRD	050		TF		FB	1.0	316.8()	032.9		
	RW20C		010		VA		FB		201.0()		AA 01100	
	RW20C	MIJOM	020		DF		FO	1.0				
	RW20C		030		VM		FB		275.0()			
	RW20C	MERRL	040		DF		FB	1.0				
	RW20C	HGGRD	050		TF		FB	1.0	316.8()	032.9		
	RW20L		010		VA		FB		201.0()		AA 01100	
	RW20L	PWERS	020		DF		FO	1.0				
	RW20L		030		VM		FB		220.0()			
	RW20L	MERRL	040		DF		FB	1.0				
	RW20L	HGGRD	050		TF		FB	1.0	316.8()	032.9		
	RW20R		010		VA		FB		200.7()		AA 01300	
	RW20R	BOGAA	020		DF		FO	1.0				
	RW20R		030		VM		FB		260.0()			
	RW20R	MERRL	040		DF		FB	1.0				
	RW20R	HGGRD	050		TF		FB	1.0	316.8()	032.9		
	RW31		010		VA		FB		316.3()		AA 01100	
	RW31	YAHYA	020		DF		FO	1.0				
	RW31		030		VM		FB		280.0()			
	RW31	MERRL	040		DF		FB	1.0				
	RW31	HGGRD	050		TF		FB	1.0	316.8()	032.9		
	TINGS	HGGRD	010		IF		FB					
	TINGS	TINGS	020		TF		FB	1.0	317.8()	041.7		

QUALITY CHECKED

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
HGGRD RNAV	ONE	HGGRD1.HGGRD	NONE		

POINT DATA

WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
BOGAA	N360440.70	W0864923.38	N3604.678	W08649.390
FOOFY	N361120.01	W0863930.71	N3611.334	W08639.512
HGGRD	N364852.31	W0873818.79	N3648.872	W08738.313
JOOON	N361030.30	W0863950.22	N3610.505	W08639.837
KDNCE	N361107.30	W0863455.24	N3611.122	W08634.921
KLSTR	N360401.80	W0865016.36	N3604.030	W08650.273
MERRL	N362610.73	W0870845.83	N3626.179	W08708.764
MIJOM	N360456.58	W0865023.82	N3604.943	W08650.397
PWERS	N360224.47	W0864421.88	N3602.408	W08644.365
TINGS	N371810.87	W0881522.30	N3718.181	W08815.372
YAHYA	N360910.44	W0864911.86	N3609.174	W08649.198
RW02C	N360611.99	W0864116.66	N3606.200	W08641.278
RW02L	N360703.64	W0864111.31	N3607.061	W08641.189
RW02R	N360645.77	W0864003.52	N3606.763	W08640.059
RW13	N360823.16	W0864136.17	N3608.386	W08641.603
RW20C	N360727.24	W0864046.55	N3607.454	W08640.776
RW20L	N360801.01	W0863933.40	N3608.017	W08639.557
RW20R	N360816.23	W0864042.84	N3608.271	W08640.714
RW31	N360718.81	W0864012.01	N3607.314	W08640.200

RUNWAY DATA

RWY	THRESHOLD ELEVATION	TCH
RW02C	00569	60
RW02L	00599	55
RW02R	00590	59
RW13	00543	55
RW20C	00572	50
RW20L	00540	47
RW20R	00555	59
RW31	00577	52

RADIO FIX AND HOLDING DATA RECORD

NAME: BOGAA **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 360440.70N/0864923.38W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	DANLS (RNAV)			KBNA	NASHVILLE	TN (US)
DP	GDOGG (RNAV)			KBNA	NASHVILLE	TN (US)
DP	HGGRD (RNAV)			KBNA	NASHVILLE	TN (US)
DP	KRSTA (RNAV)			KBNA	NASHVILLE	TN (US)
DP	PARDN (RNAV)			KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 11/15/2012

DEVELOPED BY: **DATE:** 05/14/2012 **OFFICE:** AJV-352 **NAME:** DAVID SAUER

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZME
ATC FACILITY: BNA APP CON
OTHER:

QUALITY 3 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: FOOFY **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 361120.01N/0863930.71W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	CHADM (RNAV)			KBNA	NASHVILLE	TN (US)
DP	DANLS (RNAV)			KBNA	NASHVILLE	TN (US)
DP	DRURY (RNAV)			KBNA	NASHVILLE	TN (US)
DP	EVVAN (RNAV)			KBNA	NASHVILLE	TN (US)
DP	FLAME (RNAV)			KBNA	NASHVILLE	TN (US)
DP	GDOGG (RNAV)			KBNA	NASHVILLE	TN (US)
DP	HGGRD (RNAV)			KBNA	NASHVILLE	TN (US)
DP	KRSTA (RNAV)			KBNA	NASHVILLE	TN (US)
DP	PARDN (RNAV)			KBNA	NASHVILLE	TN (US)
DP	PREDS (RNAV)			KBNA	NASHVILLE	TN (US)
DP	TAZMO (RNAV)			KBNA	NASHVILLE	TN (US)
DP	TIPPN (RNAV)			KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 11/15/2012

DEVELOPED BY: **DATE:** 05/11/2012 **OFFICE:** AJV-352 **NAME:** DAVID SAUER

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION: **NFDC**
FPO: EST
ARTCC: ZME
ATC FACILITY: BNA APP CON
OTHER:

QUALITY CHECKED 3

RADIO FIX AND HOLDING DATA RECORD

NAME: HGGRD **STATE:** KY **COUNTRY:** US

LATITUDE/LONGITUDE: 364852.31N/0873818.79W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	HGGRD (RNAV)			KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 11/15/2012

DEVELOPED BY: **DATE:** 05/14/2012 **OFFICE:** AJV-352 **NAME:** DAVID SAUER

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION: **NFDC**
FPO: EST
ARTCC: ZME
ATC FACILITY: BNA APP CON
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: JOOON **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 361030.30N/0863950.22W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	CHADM (RNAV)			KBNA	NASHVILLE	TN (US)
DP	DANLS (RNAV)			KBNA	NASHVILLE	TN (US)
DP	DRURY (RNAV)			KBNA	NASHVILLE	TN (US)
DP	EVVAN (RNAV)			KBNA	NASHVILLE	TN (US)
DP	FLAME (RNAV)			KBNA	NASHVILLE	TN (US)
DP	GDOGG (RNAV)			KBNA	NASHVILLE	TN (US)
DP	HGGRD (RNAV)			KBNA	NASHVILLE	TN (US)
DP	KRSTA (RNAV)			KBNA	NASHVILLE	TN (US)
DP	PARDN (RNAV)			KBNA	NASHVILLE	TN (US)
DP	PREDS (RNAV)			KBNA	NASHVILLE	TN (US)
DP	TAZMO (RNAV)			KBNA	NASHVILLE	TN (US)
DP	TIPPN (RNAV)			KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 11/15/2012

DEVELOPED BY: **DATE:** 05/11/2012 **OFFICE:** AJV-352 **NAME:** DAVID SAUER

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZME
ATC FACILITY: BNA APP CON
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: KDNCE **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 361107.30N/0863455.24W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	CHADM (RNAV)			KBNA	NASHVILLE	TN (US)
DP	DANLS (RNAV)			KBNA	NASHVILLE	TN (US)
DP	DRURY (RNAV)			KBNA	NASHVILLE	TN (US)
DP	EVVAN (RNAV)			KBNA	NASHVILLE	TN (US)
DP	FLAME (RNAV)			KBNA	NASHVILLE	TN (US)
DP	GDOGG (RNAV)			KBNA	NASHVILLE	TN (US)
DP	HGGRD (RNAV)			KBNA	NASHVILLE	TN (US)
DP	KRSTA (RNAV)			KBNA	NASHVILLE	TN (US)
DP	PARDN (RNAV)			KBNA	NASHVILLE	TN (US)
DP	PREDS (RNAV)			KBNA	NASHVILLE	TN (US)
DP	TAZMO (RNAV)			KBNA	NASHVILLE	TN (US)
DP	TIPPN (RNAV)			KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 11/15/2012

DEVELOPED BY: **DATE:** 05/11/2012 **OFFICE:** AJV-352 **NAME:** DAVID SAUER

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZME
ATC FACILITY: BNA APP CON
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: KLSTR **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 360401.80N/0865016.36W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	DANLS (RNAV)			KBNA	NASHVILLE	TN (US)
DP	GDOGG (RNAV)			KBNA	NASHVILLE	TN (US)
DP	HGGRD (RNAV)			KBNA	NASHVILLE	TN (US)
DP	KRSTA (RNAV)			KBNA	NASHVILLE	TN (US)
DP	PARDN (RNAV)			KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 11/15/2012

DEVELOPED BY: **DATE:** 05/14/2012 **OFFICE:** AJV-352 **NAME:** DAVID SAUER

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZME
ATC FACILITY: BNA APP CON
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: MERRL **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 362610.73N/0870845.83W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	HGGRD (RNAV)			KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 11/15/2012

DEVELOPED BY: **DATE:** 05/14/2012 **OFFICE:** AJV-352 **NAME:** DAVID SAUER

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZME
ATC FACILITY: BNA APP CON
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: MIJOM **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 360456.58N/0865023.82W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	DANLS (RNAV)			KBNA	NASHVILLE	TN (US)
DP	GDOGG (RNAV)			KBNA	NASHVILLE	TN (US)
DP	HGGRD (RNAV)			KBNA	NASHVILLE	TN (US)
DP	KRSTA (RNAV)			KBNA	NASHVILLE	TN (US)
DP	PARDN (RNAV)			KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 11/15/2012

DEVELOPED BY: **DATE:** 05/14/2012 **OFFICE:** AJV-352 **NAME:** DAVID SAUER

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZME
ATC FACILITY: BNA APP CON
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: PWERS **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 360224.47N/0864421.88W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	DANLS (RNAV)			KBNA	NASHVILLE	TN (US)
DP	DRURY (RNAV)			KBNA	NASHVILLE	TN (US)
DP	GDOGG (RNAV)			KBNA	NASHVILLE	TN (US)
DP	HGGRD (RNAV)			KBNA	NASHVILLE	TN (US)
DP	PARDN (RNAV)			KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 11/15/2012

DEVELOPED BY: **DATE:** 05/14/2012 **OFFICE:** AJV-352 **NAME:** DAVID SAUER

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZME
ATC FACILITY: BNA APP CON
OTHER:

INFO ONLY

RADIO FIX AND HOLDING DATA RECORD

NAME: TINGS **STATE:** KY **COUNTRY:** US

LATITUDE/LONGITUDE: 371810.87N/0881522.30W **TYPE:** WP, INT, DME

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	DIST FROM FAC FEET	MRA	MAA
1	POCKET CITY	PXV	VORTAC	H	209.29	212.29	44.25	44.25		18000	45000
2	NASHVILLE	BNA	VORTAC	H	315.14	313.14	103.09	103.09		18000	45000
3	BOWLING GREEN	BWG	VORTAC	H	283.00	285.00		89.84		18000	24000
4	FARMINGTON	FAM	VORTAC	H	101.62	102.62		97.02		18000	24000

HOLDING: **HOLDING TYPE OF ACTION:** NO CHANGE

REMARKS:
POCKET CITY (FAC 1) AND NASHVILLE (FAC 2) USED TO ESTABLISH FIX COORDINATES

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	DRUSE (RNAV)			KSTL	ST LOUIS	MO (US)
DP	HGGRD (RNAV)			KBNA	NASHVILLE	TN (US)
EN ROUTE	J29	1, 2				(US)
EN ROUTE	J45	1, 2				(US)
EN ROUTE	Q19					(US)
STAR	HEHAW	1, 2, 3, 4		KMBT	MURFREESBORO	TN (US)
STAR	HEHAW	1, 2, 3, 4		KBNA	NASHVILLE	TN (US)
STAR	HEHAW	1, 2, 3, 4		KJWN	NASHVILLE	TN (US)
STAR	HEHAW	1, 2, 3, 4		KMQY	SMYRNA	TN (US)

REQUIRED CHARTING: DP, STAR, CONTROLLER, EN ROUTE HIGH

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 5 **DATE OF REVISION:** 09/20/2012

REASON FOR REVISION:
1. ADDED FIX TYPE WP.
2. ADDED DIST FROM FAC NM TO FAC 3.
3. ADDED FAC 4.
4. ADDED FACILITIES USED TO ESTABLISH FIX COORDINATES REMARK.
5. UPDATED FIX USE.

DEVELOPED BY: **DATE:** 04/06/2012 **OFFICE:** AJV-353 **NAME:** JILL OLSON (STEVE NELSON)

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZME, ZKC, ZID
ATC FACILITY:
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: YAHYA **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 360910.44N/0864911.86W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	DANLS (RNAV)			KBNA	NASHVILLE	TN (US)
DP	DRURY (RNAV)			KBNA	NASHVILLE	TN (US)
DP	GDOGG (RNAV)			KBNA	NASHVILLE	TN (US)
DP	HGGRD (RNAV)			KBNA	NASHVILLE	TN (US)
DP	KRSTA (RNAV)			KBNA	NASHVILLE	TN (US)
DP	PARDN (RNAV)			KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 11/15/2012

DEVELOPED BY: **DATE:** 05/14/2012 **OFFICE:** AJV-352 **NAME:** DAVID SAUER

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZME
ATC FACILITY: BNA APP CON
OTHER: