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DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
HESTIN	ONE	HSTIN1.HSTIN	NONE		26 JUL 2012

TYPE: RNAV SID

DP ROUTE DESCRIPTION:

TAKEOFF RW17: CLIMB HEADING 167.53 TO OR ABOVE 1360, THEN INTERCEPT COURSE 215.00 TO BDOGG, THEN ON TRACK 212.31 TO CROSS MNDEE AT OR ABOVE 4000 AND AT OR BELOW 7000, THEN ON TRACK 212.09 TO PRAMN, THEN ON TRACK 209.69 TO CROSS HITTL AT OR ABOVE 8000 AND AT OR BELOW 17000, THEN ON TRACK 209.67 TO CROSS NANCZ AT OR ABOVE 11000 AND AT OR BELOW 17000, THEN ON TRACK 209.78 TO HSTIN, THENCE...

...VIA (TRANSITION).

TRANSITION ROUTES (GRAPHIC DEPICTION ONLY):

Transition Name	Transition Computer Codes	From FIX/NAVAID	To FIX/NAVAID	Course	Distance	MEA	MOCA	Crossing Altitudes/Fixes
DABOY	HSTIN1.DABOY	HSTIN	YUPER	187.19	49.22	11000	2600	
		YUPER	DABOY	188.37	79.46	11000	2700	
ZZEEE	HSTIN1.ZZEEE	HSTIN	BBERD	207.38	46.45	11000	2600	
		BBERD	ZZEEE	207.45	83.81	11000	3000	

PROCEDURAL DATA NOTES/TAKEOFF MINIMUMS:

TAKEOFF MINIMUMS: RWY 4, 12L, 12R, 22, 30L, 30R, 35 NA – AIR TRAFFIC. RWY 17, STANDARD WITH MINIMUM CLIMB OF 370' PER NM TO 11000.
NOTE: FOR USE BY TURBOJET AIRCRAFT ONLY.
NOTE: RADAR REQUIRED.
NOTE: DME/DME/IRU OR GPS REQUIRED.
NOTE: RNAV 1.

TAKEOFF OBSTACLES NOTES:

RWY 17, ANTENNA 1272' FROM DER, 562' RIGHT OF CENTERLINE, 57' AGL/891' MSL. POLE 409' FROM DER, 530' RIGHT OF CENTERLINE, 29' AGL/866' MSL. WDI ON BLDG 2619' FROM DER, 881' LEFT OF CENTERLINE, 97' AGL/918' MSL. BLDG 2619' FROM DER, 859' LEFT OF CENTERLINE, 84' AGL/905' MSL. LT 1176' FROM DER, 291' RIGHT OF CENTERLINE, 11' AGL/875' MSL. TREE 2619' FROM DER, ON CENTERLINE, 79' AGL/900' MSL.

CONTROLLING OBSTACLES:

LOST COMMUNICATIONS PROCEDURES:

U.S. DEPARTMENT of TRANSPORTATION – FEDERAL AVIATION ADMINISTRATION

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HESTIN	ONE	HSTIN1.HSTIN	NONE		26 JUL 2012

ADDITIONAL FLIGHT DATA:

REFERENCE MAG VAR: KMSP 2E EPOCH YR: 1995
DME/DME ASSESSMENT: SAT (RNP 2.0)

AIRPORTS SERVED:

MINNEAPOLIS-ST PAUL INTL/WOLD CHAMBERLAIN AIRPORT MINNEAPOLIS, MN.

COMMUNICATIONS:

ATIS, CEARANCE DELIVERY, DEPARTURE CONTROL SOUTH OR EAST, DEPARTURE CONTROL NORTH OR WEST, ZMP, ATCT.

FIXES AND/OR NAVAIDS:

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
HESTIN	ONE	HSTIN1.HSTIN	NONE		26 JUL 2012

FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
RW17 (AER)	445315.91N/0931432.10W	N	-	-	-	-			
1360 MSL	445003.06N/0931342.01W	-	-	VI	169.53	3.27			CG 370 FT/NM TO 11000 RECOMMENDED NAVAID: MSP VOR/DME
BDOGG	444831.68N/0931518.72W	Y	FB	CF	217.00	1.91			VI/CF PERMITTED
MNDEE	444414.85N/0931924.52W	Y	FB	TF	214.31	5.18	AT/ABOVE 4000, AT/BELOW 7000		
PRAMN	444003.22N/0932323.11W	Y	FB	TF	214.09	5.06			
HITTL	443456.19N/0932748.29W	Y	FB	TF	211.69	6.01	AT/ABOVE 8000, AT/BELOW 17000		
NANCZ	442452.14N/0933627.99W	Y	FB	TF	211.67	11.82	AT/ABOVE 11000, AT/BELOW 17000		
HSTIN	440008.00N/0935740.00W	Y	FB	TF	211.78	29.06			
HSTIN	440008.00N/0935740.00W	Y	FB	IF	-	-	HSTIN1.DABOY		
YUPER	431132.00N/0940825.00W	Y	FB	TF	189.19	49.22			
DABOY	415319.05N/0942734.27W	Y	FB	TF	190.37	79.46			
HSTIN	440008.00N/0935740.00W	Y	FB	IF	-	-	HSTIN1.ZZEEE		
BBERD	431935.00N/0942853.00W	Y	FB	TF	209.38	46.45			
ZZEEE	420621.00N/0952414.00W	Y	FB	TF	209.45	83.81			

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
HESTIN RNAV	ONE	HSTIN1.HSTIN	NONE		26 JUL 2012

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        MSP   K3011530VDLW N44534740W093141151    N44534740W093141151E0020008311     NARMINNEAPOLIS

                 1         2         3         4         5         6         7         8         9         0         1         2         3
WP      123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAEAENRT   BBERD K30    W     N43193500W094285300                      E0018     NAR           BBERD
        SUSAEAENRT   BDOGG K30    W     N44483168W093151872                      E0006     NAR           BDOGG
        SUSAEAENRT   DABOY K30    C     N41531905W094273427                      E0019     NAR           DABOY
        SUSAEAENRT   HITTL K30    W     N44345619W093274829                      E0008     NAR           HITTL
        SUSAEAENRT   HSTIN K30    W   H N44000800W093574000                      E0013     NAR           HSTIN
        SUSAEAENRT   MNDEE K30    W     N44441485W093192452                      E0007     NAR           MNDEE
        SUSAEAENRT   NANCZ K30    W     N44245214W093362799                      E0010     NAR           NANCZ
        SUSAEAENRT   PRAMN K30    W     N44400322W093232311                      E0008     NAR           PRAMN
        SUSAEAENRT   YUPER K30    W     N43113200W094082500                      E0015     NAR           YUPER
        SUSAEAENRT   ZZEEE K30    W     N42062100W095241400                      E0026     NAR           ZZEEE

                 1         2         3         4         5         6         7         8         9         0         1         2         3
AIRPORT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KMSPK3AMSP     0     110YHN44525504W093131836E002000841         1800018000C    MNAR    MINNEAPOLIS-ST PAUL INTL/WOLD-

                 1         2         3         4         5         6         7         8         9         0         1         2         3
SEGMENT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KMSPK3DHSTIN14RW17  010         0        VI                    1675        + 01360     18000
        SUSAP KMSPK3DHSTIN14RW17  020BDOGGK3EA0E    010CF MSP K3      1866005321500019D
        SUSAP KMSPK3DHSTIN14RW17  030MNDEEK3EA0E    010TF                    21230052    B 0700004000
        SUSAP KMSPK3DHSTIN14RW17  040PRAMNK3EA0E    010TF                    21210051
        SUSAP KMSPK3DHSTIN14RW17  050HITTLK3EA0E    010TF                    20970060    B 1700008000
        SUSAP KMSPK3DHSTIN14RW17  060NANCZK3EA0E    010TF                    20970118    B 1700011000
        SUSAP KMSPK3DHSTIN14RW17  070HSTINK3EA0EE   010TF                    20980291
        SUSAP KMSPK3DHSTIN16DABOY 010HSTINK3EA0E       IF                                     18000
        SUSAP KMSPK3DHSTIN16DABOY 020YUPERK3EA0E    010TF                    18720492
        SUSAP KMSPK3DHSTIN16DABOY 030DABOYK3EA0EE   010TF                    18840795
        SUSAP KMSPK3DHSTIN16ZZEEE 010HSTINK3EA0E       IF                                     18000
        SUSAP KMSPK3DHSTIN16ZZEEE 020BBERDK3EA0E    010TF                    20740465
        SUSAP KMSPK3DHSTIN16ZZEEE 030ZZEEEK3EA0EE   010TF                    20750838

                 1         2         3         4         5         6         7         8         9         0         1         2         3
RUNWAY  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
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QUALITY CHECKED

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
HESTIN RNAV	ONE	HSTIN1.HSTIN	NONE		26 JUL 2012

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SUSAP KMSPK3GRW17    0080001675 N44531591W093143210-0100    +022910084000006015 0VITJZ0
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QUALITY CHECKED

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
HESTIN RNAV	ONE	HSTIN1.HSTIN	NONE		26 JUL 2012

ARINC SUMMARY - 424-18 - SID

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
	RW17		010		VI		FB		167.5()		AA 01360	
	RW17	BDOGG	020		CF		FB	1.0	215.0()	001.9		
	RW17	MNDEE	030		TF		FB	1.0	212.3()	005.2	BT 0700004000	
	RW17	PRAMN	040		TF		FB	1.0	212.1()	005.1		
	RW17	HITTL	050		TF		FB	1.0	209.7()	006.0	BT 1700008000	
	RW17	NANCZ	060		TF		FB	1.0	209.7()	011.8	BT 1700011000	
	RW17	HSTIN	070		TF		FB	1.0	209.8()	029.1		
	DABOY	HSTIN	010		IF		FB					
	DABOY	YUPER	020		TF		FB	1.0	187.2()	049.2		
	DABOY	DABOY	030		TF		FB	1.0	188.4()	079.5		
	ZZEEE	HSTIN	010		IF		FB					
	ZZEEE	BBERD	020		TF		FB	1.0	207.4()	046.5		
	ZZEEE	ZZEEE	030		TF		FB	1.0	207.5()	083.8		

POINT DATA

WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
MSP	N445347.40	W0931411.51	N4453.790	W09314.192
BBERD	N431935.00	W0942853.00	N4319.583	W09428.883
BDOGG	N444831.68	W0931518.72	N4448.528	W09315.312
DABOY	N415319.05	W0942734.27	N4153.318	W09427.571
HITTL	N443456.19	W0932748.29	N4434.937	W09327.805
HSTIN	N440008.00	W0935740.00	N4400.133	W09357.667
MNDEE	N444414.85	W0931924.52	N4444.248	W09319.409
NANCZ	N442452.14	W0933627.99	N4424.869	W09336.467
PRAMN	N444003.22	W0932323.11	N4440.054	W09323.385
YUPER	N431132.00	W0940825.00	N4311.533	W09408.417
ZZEEE	N420621.00	W0952414.00	N4206.350	W09524.233
RW17	N445315.91	W0931432.10	N4453.265	W09314.535

RUNWAY DATA

RWY	THRESHOLD ELEVATION	TCH
RW17	00840	60