Flight Procedure Tracking Form	Action: FLIGHT CHECK	Task Type: SID	Date Open: 01/04/2013	Task #: 2011072926923415004	Request #: 20110729269234
Procedure: SID KBREW FIVE MINNEAPOLIS MN KMSP		Airport ID: KMSP	Airport: MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN		Reimbursable #:
City: MINNEAPOLIS	ST: MN	GPS #:		Estimated Chart Date: 05/02/2013	FICO #:
Fac ID:	Fac. Type: Proc T	Specialist: COLTON CROWDER			

Procedure Review

	Rec'd	Rel'd	Full Name	Comments
Lead:	09/12/2012	02/11/2013	JILL OLSON	
QA:	02/11/2013	02/11/2013	SCOTT BEARD	
Liaison:	02/11/2013		Spurlin	REQUEST POSSIBLE TABLE TOP REVIEW

Procedure Comments: ENROUTE **Remark Type:** INFORMATION pkg 4, f15

MINNEAPOLIS, MN MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN (KMSP) KBREW FIVE (SID) ENROUTE-YES FC: 3.5.13 PUB: 5.2.13

ATTACHED FORM: 8260-15B; 8260-15C.

CONTACT: JILL OLSON/STEVE BARNETT -AVJ-353 LEADS, 405.954.4014 / 405.954.9307.

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DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
KBREW	FIVE	KBREW5.KBREW	FOUR	12/15/2011	

TYPE: SID

DP ROUTE DESCRIPTION:

MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN:
TAKEOFF ALL RUNWAYS: FLY ASSIGNED HEADING FOR RADAR VECTORS TO GEP VORTAC THEN ON GEP R-293 TO KBREW INT/GEP 55.00 DME. TURBOJET AIRCRAFT MAINTAIN 7000 OR LOWER ASSIGNED ALTITUDE, ALL OTHER AIRCRAFT MAINTAIN 5000 OR LOWER ASSIGNED ALTITUDE.

DME EQUIPPED AIRCRAFT RWY 12L/R DEPARTURES: FOR ASSIGNED HEADINGS FROM 060 CLOCKWISE TO 100, CROSS MSP 7 DME AT OR ABOVE 3500, MAINTAIN ASSIGNED ALTITUDE. IF UNABLE TO COMPLY, ADVISE ATC AS SOON AS POSSIBLE PRIOR TO DEPARTURE. THENCE...

NON-DME EQUIPPED AIRCRAFT RWY 12L/R DEPARTURES: FOR ASSIGNED HEADINGS FROM 060 CLOCKWISE TO 100, CROSS FGT R-010 AT OR ABOVE 3500, MAINTAIN ASSIGNED ALTITUDE. IF UNABLE TO COMPLY, ADVISE ATC AS SOON AS POSSIBLE PRIOR TO DEPARTURE. THENCE...

TAKEOFF RUNWAY 17: FOR ASSIGNED HEADINGS FROM 230 CLOCKWISE TO 285, CROSS MSP 7 DME AT OR ABOVE 3500, MAINTAIN ASSIGNED ALTITUDE. IF UNABLE TO COMPLY, ADVISE ATC AS SOON AS POSSIBLE PRIOR TO DEPARTURE. THENCE...

TAKEOFF RUNWAY 30L/R: FOR ASSIGNED HEADINGS FROM 220 CLOCKWISE TO 360, CROSS MSP 7 DME AT OR ABOVE 3500, MAINTAIN ASSIGNED ALTITUDE. IF UNABLE TO COMPLY, ADVISE ATC AS SOON AS POSSIBLE PRIOR TO DEPARTURE. THENCE...

TAKEOFF RUNWAYS 4, 22, 35: INITIALLY ASSIGNED HEADING, THENCE...

ST PAUL DOWNTOWN HOLMAN FLD:
TAKEOFF RUNWAY 9: CLIMB HEADING 087.66 TO 1400 FOR RADAR VECTORS TO GEP VORTAC THEN ON GEP R-293 TO KBREW INT/GEP 55.00 DME, THENCE...

TAKEOFF RUNWAY 13: CLIMB HEADING 124.74 TO 1300 FOR RADAR VECTORS TO GEP VORTAC THEN ON GEP R-293 TO KBREW INT/GEP 55.00 DME, THENCE...

TAKEOFF RUNWAY 14: CLIMB HEADING 143.03 TO 1400 FOR RADAR VECTORS TO GEP VORTAC THEN ON GEP R-293 TO KBREW INT/GEP 55.00 DME, THENCE...

TAKEOFF RUNWAY 27: CLIMB HEADING 267.67 TO 1700 FOR RADAR VECTORS TO GEP VORTAC THEN ON GEP R-293 TO KBREW INT/GEP 55.00 DME, THENCE...

TAKE OFF RUNWAY 32: CLIMB HEADING 323.04 TO 1400 FOR RADAR VECTORS TO GEP VORTAC THEN ON GEP R-293 TO KBREW INT/GEP 55.00 DME, THENCE...

FLYING CLOUD:
TAKEOFF ALL RUNWAYS: FLY ASSIGNED HEADING AND ALTITUDE FOR RADAR VECTORS TO GEP VORTAC THEN ON GEP R-293 TO KBREW INT/GEP 55.00 DME, THENCE...

ANOKA COUNTY-BLAINE ARPT (JANES FIELD):
TAKEOFF ALL RUNWAYS: FLY ASSIGNED HEADING AND ALTITUDE FOR RADAR VECTORS TO GEP VORTAC THEN ON GEP R-293 TO KBREW INT/GEP 55.00 DME, THENCE...

...VIA TRANSITION OR ASSIGNED ROUTE. EXPECT CLEARANCE TO FILED ALTITUDE/FLIGHT LEVEL 10 (TEN) MINUTES AFTER DEPARTURE.

QUALITY 3 CHECKED

GRAPHIC DEPARTURE PROCEDURE (DP)

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DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
KBREW	FIVE	KBREW5.KBREW	FOUR	12/15/2011	

TRANSITION ROUTES (GRAPHIC DEPICTION ONLY):

Transition Name	Transition Computer Codes	From FIX/NAVAID	To FIX/NAVAID	Course	Distance	MEA	MOCA	Crossing Altitudes/Fixes
FARGO	KBREW5.FAR	KBREW	FAR VORTAC	295.91 (FAR R-116)	120.06	14000	3300	KBREW: AT OR ABOVE 14000

PROCEDURAL DATA NOTES/TAKEOFF MINIMUMS:

NOTES: RADAR REQUIRED.

MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN:
DEPARTURE CROSSING RESTRICTIONS: RWY 12L/R DME AIRCRAFT REQUIRES AN ATC CLIMB GRADIENT OF 546 FT PER NM TO 3500. RWY 12L/R NON-DME AIRCRAFT REQUIRES AN ATC CLIMB GRADIENT OF 594 FT PER NM TO 3500. RWY 17 REQUIRES AN ATC CLIMB GRADIENT OF 465 FT PER NM TO 3500. RUNWAY 30 L/R REQUIRES AN ATC CLIMB GRADIENT OF 380 FEET PER NM TO 3500. (CHART ON MSP ONLY).

TAKEOFF MINIMUMS:
MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN: RWY 4, 12R, 17, 22, 30L, 30R, STANDARD. RWY 12L, 300-1 1/2 OR STANDARD WITH MINIMUM CLIMB OF 207 FT PER NM TO 1100, OR ALTERNATIVELY, WITH STANDARD TAKEOFF MINIMUMS AND A NORMAL 200 FT PER NM CLIMB GRADIENT, TAKEOFF MUST OCCUR NO LATER THAN 1300 FT PRIOR TO DER. RWY 35, STANDARD WITH MINIMUM CLIMB OF 219 FT PER NM TO 2100.

ST PAUL DOWNTOWN HOLMAN FLD: RWY 31, NA - OBSTACLES. RWY 14, STANDARD. RWY 9, STANDARD WITH MINIMUM CLIMB OF 340 FT PER NM TO 1300. RWY 13, STANDARD WITH MINIMUM CLIMB OF 230 FT PER NM TO 1500. RWY 27, 600-2 OR STANDARD WITH MINIMUM CLIMB OF 442 FT PER NM TO 1500. RWY 32, STANDARD WITH MINIMUM CLIMB OF 340 FT PER NM TO 3000.
FLYING CLOUD: RWY 10L, 10R, 18, 28L, 28R, 36, STANDARD.
ANOKA COUNTY-BLAINE ARPT (JANES FIELD): RWY 9, STANDARD WITH MINIMUM CLIMB OF 340 FT PER NM TO 3000. RWY 18, STANDARD WITH MINIMUM CLIMB OF 371 FT PER NM TO 3000. RWY 27, STANDARD WITH MINIMUM CLIMB OF 260 FT PER NM TO 2800. RWY 36, STANDARD WITH A MINIMUM CLIMB OF 259 FT PER NM TO 2800.

TAKEOFF OBSTACLES NOTES:

MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN: NOTE: RWY 4, TREES BEGINNING 800 FT FROM DER, 301 FT LEFT OF CENTERLINE, UP TO 75 FT AGL/925 FT MSL. ROD ON BUILDING 2528 FT FROM DER, 1174 FT LEFT OF CENTERLINE, 78 FT AGL/922 FT MSL. FENCE BEGINNING 13 FT FROM DER, 486 FT LEFT OF CENTERLINE, UP TO 6 FT AGL/860 FT MSL. STACK 4535 FT FROM DER, 480 FT LEFT OF CENTERLINE, 139 FT AGL/949 FT MSL. **NOTE: RWY 12L**, TREE 1.1 NM FROM DER, 1691 FT LEFT OF CENTERLINE, 92 FT AGL/991 FT MSL. LT POLE AND CAMERA ON WALL BEGINNING 398 FT FROM DER, 561 FT RIGHT OF CENTERLINE, UP TO 23 FT AGL/832 FT MSL. **NOTE: RWY 12R**, TREE 1479 FT FROM DER, 561 FT LEFT OF CENTERLINE, 86 FT AGL/855 FT MSL. OL ON POLE 1002 FT FROM DER, 753 FT LEFT OF CENTERLINE, 53 FT AGL/852 FT MSL. **NOTE: RWY 17**, POLE 409 FT FROM DER, 530 FT RIGHT OF CENTERLINE, 29 FT AGL/866 FT MSL. BUILDING 2619 FT FROM DER, 881 FT LEFT OF CENTERLINE, 97 FT AGL/918 FT MSL. BUILDING 1956 FT FROM DER, 904 FT LEFT OF CENTERLINE, 61 FT AGL/866 FT MSL. TREE 2619 FT FROM DER, ON CENTERLINE, 79 FT AGL/900 FT MSL. **NOTE: RWY 22**, TREES BEGINNING 2659 FT FROM DER, 867 FT RIGHT OF CENTERLINE, 94 FT AGL/934 FT MSL.
NOTE: RWY 30L, ANTENNA ON TOWER 3555 FT FROM DER, 1334 FT LEFT OF CENTERLINE, 116 FT AGL/935 FT MSL. **NOTE: RWY 30R**, BILLBOARD SIGN 1463 FT FROM DER, 848 FT RIGHT OF CENTERLINE, 31 FT AGL/880 FT MSL. **NOTE: RWY 35**, TREES BEGINNING 2553 FT FROM DER, 770 FT RIGHT OF CENTERLINE, 100 FT AGL/919 FT MSL. TREES BEGINNING 1989 FT FROM DER, 194 FT LEFT OF CENTERLINE, UP TO 87 FT AGL/906 FT MSL. BUILDINGS BEGINNING 5.4 NM FROM DER, 1781 FT LEFT OF CENTERLINE, UP TO 889 FT AGL/1743 FT MSL.

QUALITY 3 CHECKED

GRAPHIC DEPARTURE PROCEDURE (DP)

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KBREW	FIVE	KBREW5.KBREW	FOUR	12/15/2011	

ST PAUL DOWNTOWN HOLMAN FLD: NOTE: RWY 9, MOBILE CRANE 1362 FT FROM DER, 124 FT LEFT OF CENTERLINE, 68 FT AGL/758 FT MSL. TREES AND SILO 1464 FT FROM DER, 178 FT RIGHT OF CENTERLINE, UP TO 116 FT AGL/816 FT MSL. TREES AND POLE BEGINNING 1.1 NM FROM DER, LEFT AND RIGHT OF CENTERLINE, UP TO 100 FT AGL/1099 FT MSL.

NOTE: RWY 13, TREE AND TOWER BEGINNING 1125 FT FROM DER, 609 FT LEFT OF CENTERLINE, UP TO 67 FT AGL/767 FT MSL. TREE, POLE, VENT ON BUILDING, STACKS, AND OL ON STACK BEGINNING 1672 FT FROM DER, 55 FT RIGHT OF CENTERLINE, UP TO 120 FT AGL/820 FT MSL. TREES BEGINNING 1.9 NM FROM DER, 2938 FT LEFT OF CENTERLINE, UP TO 100 FT AGL/1020 FT MSL.

NOTE: RWY 14, TREES, OL ON DME ANTENNA, AND POLE BEGINNING 290 FT FROM DER, 1 FT RIGHT OF CENTERLINE, UP TO 129 FT AGL/819 FT MSL. TREES AND POLE BEGINNING 1099 FT FROM DER, 6 FT LEFT OF CENTERLINE, UP TO 87 FT AGL/777 FT MSL.

NOTE: RWY 27, TREES, LIGHT POLE, AND FLAGPOLE BEGINNING 617 FT FROM DER, 198 FT LEFT OF CENTERLINE, UP TO 119 FT AGL/829 FT MSL. OL ON ANT, BLDGS, TOWER, AND TREE BEGINNING 810 FT FROM DER, 26 FT RIGHT OF CENTERLINE, UP TO 165 FT AGL/955 FT MSL. TREES AND BLDG BEGINNING 3886 FT FROM DER, 120 FT LEFT OF CENTERLINE, UP TO 84 FT AGL/ 1014 FT MSL. TOWER 1.7 NM FROM DER, 633 FT LEFT OF CENTERLINE, 569 FT AGL/1279 FT MSL.

NOTE: RWY 32, VEHICLE ON ROAD, TREES, RAILROAD, POLES, AND NAVAID BEGINNING 179 FT FROM DER, 267 FT RIGHT OF CENTERLINE, UP TO 58 FT AGL/758 FT MSL. VEHICLE ON ROAD, RAILROAD, AND TREES BEGINNING 192 FT FROM DER, UP TO 59 FT AGL/759 FT MSL. NAVAID 257 FT FROM DER, ON CENTERLINE, 26 FT AGL/726 FT MSL. TREES, POLES, BUILDINGS, AND TOWER BEGINNING 3674 FT FROM DER, 616 FT RIGHT OF CENTERLINE, UP TO 157 FT AGL/ 973 FT MSL. TREES, BUILDINGS, TOWER, SIGN, AND STACK BEGINNING 1924 FT FROM DER, 378 FT LEFT OF CENTERLINE, UP TO 143 FT AGL/969 FT MSL.

FLYING CLOUD: NOTE: RWY 10L, MULTIPLE ANTENNA'S ON HANGAR'S BEGINNING 270 FT FROM DER, 330 FT LEFT OF CENTERLINE, UP TO 26 FT AGL/932 FT MSL. TREE 682 FT FROM DER, 668 FT RIGHT OF CENTERLINE, 26 FT AGL/932 FT MSL.

NOTE: RWY 10R, MULTIPLE OL ON POLES BEGINNING 287 FT FROM DER, 345 FT RIGHT OF CENTERLINE, UP TO 36 FT AGL/939 FT MSL. HANGAR 150 FT FROM DER, 422 FT RIGHT OF CENTERLINE, 21 FT AGL/920 FT MSL. ANTENNA ON BLDG, 536 FT FROM DER, 263 FT RIGHT OF CENTERLINE, 14 FT AGL/913 FT MSL.

NOTE: RWY 18, MULTIPLE TREES BEGINNING 338 FT FROM DER, 166 FT LEFT OF CENTERLINE, UP TO 62 FT AGL/961 FT MSL. OL ON FENCE 176 FT FROM DER, 127 FT LEFT OF CENTERLINE, 10 FT AGL/910 FT MSL. VEHICLE AND ROAD 198 FT FROM DER, 196 FT LEFT OF CENTERLINE, 15 FT AGL/918 FT MSL. FLOODLIGHT 148 FT FROM DER, 374 FT RIGHT OF CENTERLINE, 38 FT AGL/938 FT MSL. OL ON HANGAR 282 FT FROM DER, 317 FT RIGHT OF CENTERLINE, 37 FT AGL/937 FT MSL.

NOTE: RWY 28R, HANGAR 259 FT FROM DER, 355 FT RIGHT OF CENTERLINE, 18 FT AGL/931 FT MSL.

NOTE: RWY 36, WIND VANE 923 FT FROM DER, 404 FT LEFT OF CENTERLINE, 61 FT AGL/960 FT MSL. VENT ON BLDG 943 FT FROM DER, 295 FT LEFT OF CENTERLINE, 44 FT AGL/943 FT MSL. POLE 714 FT FROM DER, 351 FT LEFT OF CENTERLINE, 33 FT AGL/932 FT MSL. MULTIPLE TREES BEGINNING 504 FT FROM DER, 324 FT RIGHT OF CENTERLINE, UP TO 67 FT AGL/966 FT MSL.

ANOKA COUNTY-BLAINE ARPT (JANES FIELD): NOTE: RWY 9, TANK AND MULTIPLE TREES BEGINNING 822 FT FROM DER, 619 FT RIGHT OF CENTERLINE, UP TO 170 FT AGL/1082 FT MSL. TREES 2248 FT FROM DER, 966 FT LEFT OF CENTERLINE, 100 FT AGL/1009 FT MSL.

NOTE: RWY 18, AIRCRAFT ON TAXIWAY 36 FT FROM DER, 481 FT RIGHT OF CENTERLINE, UP TO 21 FT AGL/928 FT MSL. MULTIPLE TREES BEGINNING 406 FT FROM DER, 287 FT LEFT OF CENTERLINE, UP TO 49 FT AGL/959 FT MSL. TOWER 5016 FT FROM DER, 201 FT LEFT OF CENTERLINE, 120 FT AGL/1078 FT MSL.

NOTE: RWY 27, MULTIPLE TREES BEGINNING 7 FT FROM DER, 235 FT RIGHT OF CENTERLINE, UP TO 83 FT AGL/983 FT MSL. MULTIPLE TREES BEGINNING 558 FT FROM DER, 406 FT LEFT OF CENTERLINE, UP TO 57 FT AGL/957 FT MSL.

NOTE: RWY 36, MULTIPLE TREES BEGINNING 86 FT FROM DER, 10 FT RIGHT OF CENTERLINE, UP TO 87 FT AGL/987 FT MSL. MULTIPLE TREES BEGINNING 1282 FT FROM DER, 53 FT LEFT OF CENTERLINE, UP TO 70 FT AGL/970 FT MSL.

QUALITY 3 CHECKED

GRAPHIC DEPARTURE PROCEDURE (DP)

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DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
KBREW	FIVE	KBREW5.KBREW	FOUR	12/15/2011	

CONTROLLING OBSTACLES:

MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN:
RWY 12L: 991 FT MSL TREE 445233.26N/0931008.66W.
RWY 35: 1743 FT MSL BLDG 445834.00N/0931621.00W.

ST PAUL DOWNTOWN HOLMAN FLD:
RWY 9: 1099 FT MSL TREE 445605.23N/0930103.53W.
RWY 13: 1238 FT MSL TOWER 445440.64N/0925910.72W.
RWY 14: 1239 FT MSL AAO 445345.20N/0925922.28W.
RWY 27: 1279 FT MSL STACK 445600.00N/0930631.00W, 2438 FT MSL TOWERS 2 450345.00N/0930822.00W.
RWY 32: 973 FT MSL POLE 445730.00N/0930432.00W, 2376 FT MSL TOWER 450330.00N/0930728.00W.

ANOKA COUNTY-BLAINE ARPT (JANES FIELD):
RWY 9: 1082 FT MSL TANK 450827.28N/0931028.46W, 2438 FT MSL TOWER 450345.00N/0930822.00W.
RWY 18: 1078 FT MSL TOWER 450728.60N/0931234.40W, 2438 FT MSL TOWER 450345.00N/0930822.00W.
RWY 27, 36: 2438 FT MSL TOWER 450345.00N/0930822.00W.

LOST COMMUNICATIONS PROCEDURES:

ADDITIONAL FLIGHT DATA:

AIRPORTS SERVED:

MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN	MINNEAPOLIS, MN
ST PAUL DOWNTOWN HOLMAN FLD	ST PAUL, MN
FLYING CLOUD	MINNEAPOLIS, MN
ANOKA COUNTY-BLAINE AIRPORT (JANES FIELD)	MINNEAPOLIS, MN

COMMUNICATIONS:

ATIS, CLEARANCE DELIVERY, DEPARTURE CONTROL SOUTH OR EAST, DEPARTURE CONTROL NORTH OR WEST, TOWER

FIXES AND/OR NAVAIDS:

HRBEK, HOMUR; FCM VOR/DME.

QUALITY 3 CHECKED

U.S. DEPARTMENT of TRANSPORTATION – FEDERAL AVIATION ADMINISTRATION

GRAPHIC DEPARTURE PROCEDURE (DP)

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DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
KBREW	FIVE	KBREW5.KBREW	FOUR	12/15/2011	

REMARKS:

FLIGHT INSPECTED BY:

REQUIRED EFFECTIVE DATE:
ROUTINE

DEVELOPED BY:
JILL OLSON (COLTON CROWDER) AJV-353 11/28/2012

APPROVED BY:
LARRY STROUT AJV-353

COORDINATED WITH:
ATA, ALPA, APA, AOPA, NBAA, ZMU, MSP ATCT, AMGR

CHANGES:

1. RWY 12L: CHANGED MSP TAKEOFF MINIMUMS FROM "STANDARD" TO "300-1 1/4 OR STANDARD WITH MINIMUM CLIMB OF 207 FT PER NM TO 1100, OR ALTERNATIVELY, WITH STANDARD
TAKEOFF MINIMUMS AND A NORMAL 200 FT PER NM CLIMB GRADIENT, TAKEOFF MUST OCCUR NO LATER THAN 1300 FT PRIOR TO DER".
2. UPDATED MSP RWY 4, 12R, 17, 22, 30L, 30R, AND 35 TAKEOFF OBSTACLE NOTES; ADDED RWY 12L OBSTACLE NOTES.
3. UPDATED MSP RWY 4 CONTROLLING OBSTACLE COORDINATES.
4. REMOVED CLIMB GRADIENT RQMT FROM MSP RWYS 30L AND 30R.
5. REMOVED CONTROLLING OBSTACLES FROM MSP RWY 4, 30L/R, AND UPDATED RWY 35 CONTROLLING OBSTACLE COORDINATES.
6. ADDED RWY 12L CONTROLLING OBSTACLE.

REASONS:

1. - 5. NEW OBSTACLE SURVEY.
6. CRITERIA.

QUALITY 3 Checked

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
KBREW	FIVE	KBREW5.KBREW	FOUR	12/15/2011	

ARINC PACKET - 424-18 - SID

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                 1         2         3         4         5         6         7         8         9         0         1         2         3
NAVAID  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
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        SUSAD        FAR   K3011620VTHA N46451202W096510474    N46451192W096510770E0090009072     NARFARGO
        SUSAD        GEP   K3011730VTHA N45084447W093222345    N45084447W093222345E0060008772     NARGOPHER

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WP      123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
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        SUSAEAENRT   HOMUR K30    R     N45250556W094043650                      E0011     NAR           HOMUR
        SUSAEAENRT   HRBEK K30    R     N45185231W093482517                      E0009     NAR           HRBEK
        SUSAEAENRT   KBREW K30    R   L N45350367W094305321                      E0015     NAR           KBREW

                 1         2         3         4         5         6         7         8         9         0         1         2         3
AIRPORT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KANEK3AANE     0     050YHN45084160W093123670E002000912         1800018000C    MNAR    ANOKA COUNTY-BLAINE ARPT(JANES

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SEGMENT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KANEK3DKBREW52ALL   010GEP  K3D 0V       IF                                                  18000
        SUSAP KANEK3DKBREW52ALL   020HRBEKK3EA0E       TF
        SUSAP KANEK3DKBREW52ALL   030HOMURK3EA0E       TF
        SUSAP KANEK3DKBREW52ALL   040KBREWK3EA0E       TF                                        + 14000
        SUSAP KANEK3DKBREW52ALL   050FAR  K3D 0VE      TF

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RUNWAY  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KANEK3GRW09     0050000887 N45084135W093131228+0100    +024850090500004010 0R
        SUSAP KANEK3GRW18     0048551787 N45090608W093123557-0100    +025070091200005010 0R
        SUSAP KANEK3GRW27     0050002687 N45084074W093120253-0100    +024970090900005010 0IIANE1
        SUSAP KANEK3GRW36     0048553587 N45081815W093123637+0100    +024990091000005010 0V
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QUALITY 1 CHECKED

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
KBREW	FIVE	KBREW5.KBREW	FOUR	12/15/2011	

ARINC SUMMARY - 424-18 - SID

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
	ALL	GEP	010		IF		FB					
	ALL	HRBEK	020		TF		FB					
	ALL	HOMUR	030		TF		FB					
	ALL	KBREW	040		TF		FB				AA 14000	
	ALL	FAR	050		TF		FB					

POINT DATA

WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
FAR	N464512.02	W0965104.74	N4645.200	W09651.079
GEP	N450844.47	W0932223.45	N4508.741	W09322.391
HOMUR	N452505.56	W0940436.50	N4525.093	W09404.608
HRBEK	N451852.31	W0934825.17	N4518.872	W09348.420
KBREW	N453503.67	W0943053.21	N4535.061	W09430.887
RW09	N450841.35	W0931312.28	N4508.689	W09313.205
RW18	N450906.08	W0931235.57	N4509.101	W09312.593
RW27	N450840.74	W0931202.53	N4508.679	W09312.042
RW36	N450818.15	W0931236.37	N4508.303	W09312.606

RUNWAY DATA

RWY	THRESHOLD ELEVATION	TCH
RW09	00905	40
RW18	00912	50
RW27	00909	50
RW36	00910	50

QUALITY CHECKED 7

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
KBREW	FIVE	KBREW5.KBREW	FOUR	12/15/2011	

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        FAR   K3011620VTHA N46451202W096510474    N46451192W096510770E0090009072     NARFARGO
        SUSAD        GEP   K3011730VTHA N45084447W093222345    N45084447W093222345E0060008772     NARGOPHER

                 1         2         3         4         5         6         7         8         9         0         1         2         3
WP      123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAEAENRT   HOMUR K30    R     N45250556W094043650                     E0011     NAR           HOMUR
        SUSAEAENRT   HRBEK K30    R     N45185231W093482517                     E0009     NAR           HRBEK
        SUSAEAENRT   KBREW K30    R   L N45350367W094305321                     E0015     NAR           KBREW

                 1         2         3         4         5         6         7         8         9         0         1         2         3
AIRPORT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KFCMK3AFCM     0     050YHN44493888W093273087E003000906         1800018000C    MNAR    FLYING CLOUD

                 1         2         3         4         5         6         7         8         9         0         1         2         3
SEGMENT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KFCMK3DKBREW52ALL   010GEP  K3D 0V       IF                                                 18000
        SUSAP KFCMK3DKBREW52ALL   020HRBEKK3EA0E       TF
        SUSAP KFCMK3DKBREW52ALL   030HOMURK3EA0E       TF
        SUSAP KFCMK3DKBREW52ALL   040KBREWK3EA0E       TF                                     + 14000
        SUSAP KFCMK3DKBREW52ALL   050FAR  K3D 0VE      TF

                 1         2         3         4         5         6         7         8         9         0         1         2         3
RUNWAY  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KFCMK3GRW10L   0039000980 N44494679W093275422-0200    +0249300906000045075R
        SUSAP KFCMK3GRW10R   0050000980 N44494458W093281454+0000    +0246400896000042100IIFCM1
        SUSAP KFCMK3GRW18    0026911830 N44494415W093271569+0200    +0247300899000037075V
        SUSAP KFCMK3GRW28L   0050002780 N44493514W093270645+0000    +0246900898000055100R
        SUSAP KFCMK3GRW28R   0039002780 N44493944W093270110+0200    +0247200899000045075R
        SUSAP KFCMK3GRW36    0026910030 N44491772W093271960-0200    +0249100905000031075R
```

QUALITY CHECKED

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
KBREW	FIVE	KBREW5.KBREW	FOUR	12/15/2011	

ARINC SUMMARY - 424-18 - SID

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
	ALL	GEP	010		IF		FB					
	ALL	HRBEK	020		TF		FB					
	ALL	HOMUR	030		TF		FB					
	ALL	KBREW	040		TF		FB				AA 14000	
	ALL	FAR	050		TF		FB					

POINT DATA

WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
FAR	N464512.02	W0965104.74	N4645.200	W09651.079
GEP	N450844.47	W0932223.45	N4508.741	W09322.391
HOMUR	N452505.56	W0940436.50	N4525.093	W09404.608
HRBEK	N451852.31	W0934825.17	N4518.872	W09348.420
KBREW	N453503.67	W0943053.21	N4535.061	W09430.887
RW10L	N444946.79	W0932754.22	N4449.780	W09327.904
RW10R	N444944.58	W0932814.54	N4449.743	W09328.242
RW18	N444944.15	W0932715.69	N4449.736	W09327.262
RW28L	N444935.14	W0932706.45	N4449.586	W09327.108
RW28R	N444939.44	W0932701.10	N4449.657	W09327.018
RW36	N444917.72	W0932719.60	N4449.295	W09327.327

RUNWAY DATA

RWY	THRESHOLD ELEVATION	TCH
RW10L	00906	45
RW10R	00896	42
RW18	00899	37
RW28L	00898	55
RW28R	00899	45
RW36	00905	31

QUALITY CHECKED

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
KBREW	FIVE	KBREW5.KBREW	FOUR	12/15/2011	

ARINC PACKET - 424-18 - SID

```
                 1         2         3         4         5         6         7         8         9         0         1         2         3
NAVAID  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAD        FAR   K3011620VTHA N46451202W096510474    N46451192W096510770E0090009072     NARFARGO
        SUSAD        GEP   K3011730VTHA N45084447W093222345    N45084447W093222345E0060008772     NARGOPHER

                 1         2         3         4         5         6         7         8         9         0         1         2         3
WP      123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAEAENRT   HOMUR K30    R     N45250556W094043650                     E0011     NAR           HOMUR
        SUSAEAENRT   HRBEK K30    R     N45185231W093482517                     E0009     NAR           HRBEK
        SUSAEAENRT   KBREW K30    R   L N45350367W094305321                     E0015     NAR           KBREW

                 1         2         3         4         5         6         7         8         9         0         1         2         3
AIRPORT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KSTPK3ASTP     0     064YHN44560464W093033723E003000705         1800018000C    MNAR    ST PAUL DOWNTOWN HOLMAN FLD

                 1         2         3         4         5         6         7         8         9         0         1         2         3
SEGMENT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KSTPK3DKBREW51RW09  010         0        VA                    0877        + 01400     18000
        SUSAP KSTPK3DKBREW51RW09  020         0        VM                    0877
        SUSAP KSTPK3DKBREW51RW09  030GEP  K3D 0V       DF
        SUSAP KSTPK3DKBREW51RW09  040HRBEKK3EA0E       TF
        SUSAP KSTPK3DKBREW51RW09  050HOMURK3EA0E       TF
        SUSAP KSTPK3DKBREW51RW09  060KBREWK3EA0EE      TF
        SUSAP KSTPK3DKBREW51RW13  010         0        VA                    1247        + 01300     18000
        SUSAP KSTPK3DKBREW51RW13  020         0        VM                    1247
        SUSAP KSTPK3DKBREW51RW13  030GEP  K3D 0V       DF
        SUSAP KSTPK3DKBREW51RW13  040HRBEKK3EA0E       TF
        SUSAP KSTPK3DKBREW51RW13  050HOMURK3EA0E       TF
        SUSAP KSTPK3DKBREW51RW13  060KBREWK3EA0EE      TF
        SUSAP KSTPK3DKBREW51RW14  010         0        VA                    1430        + 01400     18000
        SUSAP KSTPK3DKBREW51RW14  020         0        VM                    1430
        SUSAP KSTPK3DKBREW51RW14  030GEP  K3D 0V       DF
        SUSAP KSTPK3DKBREW51RW14  040HRBEKK3EA0E       TF
        SUSAP KSTPK3DKBREW51RW14  050HOMURK3EA0E       TF
        SUSAP KSTPK3DKBREW51RW14  060KBREWK3EA0EE      TF
        SUSAP KSTPK3DKBREW51RW27  010         0        VA                    2677        + 01700     18000
        SUSAP KSTPK3DKBREW51RW27  020         0        VM                    2677
        SUSAP KSTPK3DKBREW51RW27  030GEP  K3D 0V       DF
        SUSAP KSTPK3DKBREW51RW27  040HRBEKK3EA0E       TF
        SUSAP KSTPK3DKBREW51RW27  050HOMURK3EA0E       TF
```

QUALITY CHECKED

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
KBREW	FIVE	KBREW5.KBREW	FOUR	12/15/2011	

```
SUSAP KSTPK3DKBREW51RW27  060KBREWK3EA0EE      TF
SUSAP KSTPK3DKBREW51RW32  010          0       VA                    3230        + 01400     18000
SUSAP KSTPK3DKBREW51RW32  020          0       VM                    3230
SUSAP KSTPK3DKBREW51RW32  030GEP  K3D 0V       DF
SUSAP KSTPK3DKBREW51RW32  040HRBEKK3EA0E       TF
SUSAP KSTPK3DKBREW51RW32  050HOMURK3EA0E       TF
SUSAP KSTPK3DKBREW51RW32  060KBREWK3EA0EE      TF
SUSAP KSTPK3DKBREW53FAR   010KBREWK3EA0E       IF                                + 14000     18000
SUSAP KSTPK3DKBREW53FAR   020FAR  K3D 0VE      TF
```

```
                1         2         3         4         5         6         7         8         9         0         1         2         3
RUNWAY  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KSTPK3GRW09    0036420877 N44560551W093040524+0000    +0186100701000050100D
        SUSAP KSTPK3GRW13    0040041247 N44562107W093035424-0100    +0187400705000040150V
        SUSAP KSTPK3GRW14    0064911430 N44562531W093040144+0000    +0187400705034353150IIVKG1
        SUSAP KSTPK3GRW27    0036422677 N44560509W093031462+0000    +0186200701000040100V
        SUSAP KSTPK3GRW32    0064913230 N44553809W093031666+0000    +0187000704038240150IIBA01
```

QUALITY CHECKED 7

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
KBREW	FIVE	KBREW5.KBREW	FOUR	12/15/2011	

ARINC SUMMARY - 424-18 - SID

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
	RW09		010		VA		FB		087.7()		AA 01400	
	RW09		020		VM		FB		087.7()			
	RW09	GEP	030		DF		FB					
	RW09	HRBEK	040		TF		FB					
	RW09	HOMUR	050		TF		FB					
	RW09	KBREW	060		TF		FB					
	RW13		010		VA		FB		124.7()		AA 01300	
	RW13		020		VM		FB		124.7()			
	RW13	GEP	030		DF		FB					
	RW13	HRBEK	040		TF		FB					
	RW13	HOMUR	050		TF		FB					
	RW13	KBREW	060		TF		FB					
	RW14		010		VA		FB		143.0()		AA 01400	
	RW14		020		VM		FB		143.0()			
	RW14	GEP	030		DF		FB					
	RW14	HRBEK	040		TF		FB					
	RW14	HOMUR	050		TF		FB					
	RW14	KBREW	060		TF		FB					
	RW27		010		VA		FB		267.7()		AA 01700	
	RW27		020		VM		FB		267.7()			
	RW27	GEP	030		DF		FB					
	RW27	HRBEK	040		TF		FB					
	RW27	HOMUR	050		TF		FB					
	RW27	KBREW	060		TF		FB					
	RW32		010		VA		FB		323.0()		AA 01400	
	RW32		020		VM		FB		323.0()			
	RW32	GEP	030		DF		FB					
	RW32	HRBEK	040		TF		FB					
	RW32	HOMUR	050		TF		FB					
	RW32	KBREW	060		TF		FB					
	FAR	KBREW	010		IF		FB				AA 14000	
	FAR	FAR	020		TF		FB					

POINT DATA

WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
FAR	N464512.02	W0965104.74	N4645.200	W09651.079
GEP	N450844.47	W0932223.45	N4508.741	W09322.391
HOMUR	N452505.56	W0940436.50	N4525.093	W09404.608
HRBEK	N451852.31	W0934825.17	N4518.872	W09348.420
KBREW	N453503.67	W0943053.21	N4535.061	W09430.887
RW09	N445605.51	W0930405.24	N4456.092	W09304.087
RW13	N445621.07	W0930354.24	N4456.351	W09303.904

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
KBREW	FIVE	KBREW5.KBREW	FOUR	12/15/2011	

RW14	N445625.31	W0930401.44	N4456.422	W09304.024
RW27	N445605.09	W0930314.62	N4456.085	W09303.244
RW32	N445538.09	W0930316.66	N4455.635	W09303.278

RUNWAY DATA

RWY	THRESHOLD ELEVATION	TCH
RW09	00701	50
RW13	00705	40
RW14	00705	53
RW27	00701	40
RW32	00704	40

QUALITY CHECKED 7