

RNAV - STANDARD INSTRUMENT APPROACH PROCEDURE TITLE 14 CFR PART 97.33				Bearings, headings, courses, and radials are magnetic. Elevations and altitudes are in feet, MSL, except HAT, HAA, TCH, and RA. Altitudes are minimum altitudes unless otherwise indicated. Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles or in feet RVR.											
TERMINAL ROUTES										MISSED APPROACH					
FROM		TO		COURSE AND DISTANCE				ALTITUDE		LPV: DA LNAV/VNAV: DA LNAV: RW12L CLIMB TO 1300, THEN CLIMBING LEFT TURN TO 3000 DIRECT KANAC AND HOLD. ADDITIONAL FLIGHT DATA: HOLD E, RT, 275.59 INBOUND. CHART FAS OBST: 996 CTRL TWR 445318N/0931318W DISTANCE TO THLD FROM 200 HAT: 0.47 NM. CHART VDP AT 1.07 NM TO RW12L* *LNAV ONLY. WAAS CHANNEL # 45525 REFERENCE PATH ID: W12B CHART CIRCLING ICON. CHART MANDATORY 7000 AT KAYQU LTP HAE: 228.4 M					
KAYQU (IAF)		SHUUT (TF) (FB) (RNP 1.00)		180.97 / 6.56				5000							
SHUUT		HAMML (TF) (FB) (RNP 1.00)		151.35 / 6.38				4000							
CCJAY (IAF)		UBTYA (TF) (FB) (RNP 1.00)		121.06 / 3.14				6000							
UBTYA		ALGIN (TF) (FB) (RNP 1.00)		121.10 / 3.14				5000							
ALGIN		HAMML (TF) (FB) (RNP 1.00)		121.15 / 3.14				4000							
(SEE FORM 8260-10)															
1. PT _____ SIDE OF COURSE _____ OUTBOUND _____ FT WITHIN _____ MILES OF _____ (IAF) 2. PROFILE STARTS AT HAMML 3. FAC: 121.24 FAF: WASHY DIST FAF TO MAP: 6.62 THLD: 6.62 4. MIN. ALT: HAMML 4000, WASHY 3000, AASUN/1.70 NM TO RW12L 1420* 5. DIST TO THLD FROM OM: _____ MM: _____ IM: _____ 150 HAT: _____ 100 HAT: _____ GS ANT: _____ 6. MIN GS INCPT: 3000 GS ALT AT: WASHY 3000 OM: _____ MM: _____ IM: _____ 7. GS ANGLE: 3.00 TCH: 52.2 34:1 IS CLEAR 8. MSA FROM: RW12L 3500															
										MAG VAR: 0E			EPOCH YEAR: 2015		
MINIMUMS															
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT								ALTERNATE: N A		STANDARD @					
CATEGORY =====>		A		B		C		D		E					
	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA
LPV DA	1041	2400	200	1041	2400	200	1041	2400	200	1041	2400	200	1041	2400	200
LNAV/VNAV DA	1211	4000	370	1211	4000	370	1211	4000	370	1211	4000	370	1211	4000	370
LNAV MDA	1260	2400	419	1260	2400	419	1260	4000	419	1260	4000	419	1260	4000	419
CIRCLING	1360	1	518	1360	1	518	1460	1 3/4	618	1660	2 3/4	818	1800	3	958
NOTES: CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -20C (-4F) OR ABOVE 54C @ CAT D 900-2 3/4, CAT E 1000-3 (130F). CHART NOTE: SIMULTANEOUS APPROACH AUTHORIZED WITH RWY 12R. CHART NOTE: USE OF FD OR AP PROVIDING RNAV TRACK GUIDANCE REQUIRED DURING SIMULTANEOUS OPERATIONS. (CONTINUED ON PAGE 2)															
CITY AND STATE		ELEVATION: 842 TDZE: 841		FACILITY IDENTIFIER: RNAV		PROCEDURE NO./AMDT NO./EFFECTIVE DATE:				SUP:					
MINNEAPOLIS, MN		AIRPORT NAME:		MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN		RNAV (GPS) Z RWY 12L, AMDT 5				AMDT: 4					
						5 JANUARY 2017				DATED 03/05/2015					

QUALITY
22
CHECKED

US DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION
RNAV - STANDARD
INSTRUMENT APPROACH PROCEDURE - TITLE 14 CFR PART 97.33

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TERMINAL ROUTES, (CONT.):

FROM	TO	COURSE AND DISTANCE	ALTITUDE
HAMML (IF)	WASHY (TF) (FB) (RNP 1.00)	121.19 / 3.14	3000
WASHY (FAF)	AASUN/1.70 NM TO RW12L (TF) (FB) (RNP 0.30)	121.24 / 4.92	
AASUN/1.70 NM TO RW12L	RW12L (MAP) (TF) (FO) (RNP 0.30)	121.24 / 1.70	
RW12L (MAP)	1300 MSL	121.24	1300
1300 MSL	KANAC (DF) (FO) (RNP 1.00)		3000

NOTES, (CONT.):

CHART NOTE: LNAV PROCEDURE NA DURING SIMULTANEOUS OPERATIONS.

CHART NOTE: DME/DME RNP-0.3 NA.

CHART SPEED ICON IN PLANVIEW AT KAYQU : MAX 210 KIAS.

CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).

CHART NOTE: FOR INOPERATIVE ALS, INCREASE LPV CAT E VISIBILITY TO RVR 4000, LNAV/VNAV CAT E VISIBILITY TO 1 1/4 SM, LNAV CATS C/D/E VISIBILITY TO RVR 6000.

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 CHAMBERLAIN

FACILITY
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 RNAV (GPS) Z RWY 12L, AMDT 5
 5 JANUARY 2017

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**RNAV STANDARD INSTRUMENT APPROACH PROCEDURE
FLIGHT STANDARDS SERVICE - FAR PART 97.33**

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FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KMSP
RUNWAY	RW12L
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	Z
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W12B
LTP/FTP LATITUDE	445334.6285N
LTP/FTP LONGITUDE	0931315.5665W
LTP/FTP ELLIPSOIDAL HEIGHT	+02284
FPAP LATITUDE	445248.2900N
FPAP LONGITUDE	0931128.5300W
THRESHOLD CROSSING HEIGHT (TCH)	00052.2
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0248
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	35.0
 <u>CRC REMAINDER</u>	 E7B2BE96

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K3
LTP ORTHOMETRIC HEIGHT	+02556
FPAP ORTHOMETRIC HEIGHT	+02556

CITY AND STATE
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RNAV (GPS) Z RWY 12L, AMDT 5
5 JANUARY 2017

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