US DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

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

FROM	TO	COURSE AND DISTANCE	ALTITUDE
PILIY (IAF)	BOPMY (NOPT) (FB)	264.53 / 8.64	3000
ZERAD (IAF)	BOPMY (NOPT) (FB)	002.77 / 6.43	3000
BOPMY (IF/IAF)	OHEXE (FB)	305.06 / 6.20	2800
OHEXE (FAF)	WUSKA/2.20 NM TO RW30 (FB)	304.98 / 2.77	
WUSKA/2.20 NM TO RW30	RW30 (MAP) (FO)	304.95 / 2.20	
RW30 (MAP)	1429 MSL	304.95	
1429 MSL	PELBE (FO)		3200

MISSED APPROACH

LPV: DA
LNAV/VNAV: DA
LNAV: RW30

CLIMB TO 3200 DIRECT PELBE AND HOLD.

1. PT ____ SIDE OF COURSE ____ OUTBOUND ____ FT WITHIN ____ MILES OF ____ (IAF)
2. HOLD SE BOPMY, RT, 305.06 INBOUND, 3000 FT. IN LIEU OF PT (IAF)
3. FAC: 304.98 FAF: OHEXE DIST FAF TO MAP: 4.97 THLD: 4.97
4. MIN. ALT: BOPMY 3000, OHEXE 2800, WUSKA/2.20 NM TO RW30 1900*
5. DIST TO THLD FROM OM: ____ MM: ____ IM: ____ 150 HAT: ____ 100 HAT: ____ GS ANT: ____
6. MIN GS INCPT: 2800 GS ALT AT: OHEXE 2800 OM: ____ MM: ____ IM: ____
7. GS ANGLE: 3.00 TCH: 40.0 34:1 IS NOT CLEAR
8. MSA FROM: RW30 3800

ADDITIONAL FLIGHT DATA:
HOLD NW, RT, 124.75 INBOUND.
CHART FAS OBST: 1330 TOWER 442502N/0954706W
DISTANCE TO THLD FROM 250 HATH: 0.66 NM.
CHART VDP AT 1.16 MILES TO RW30*
*LNAV ONLY.
WAAS CHANNEL # 86321
REFERENCE PATH ID: W30A
LTP HAE: 332.4 M

MAG VAR: 5E EPOCH YEAR: 1995

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	1429	7/8	250	1429	7/8	250	1429	7/8	250	1429	7/8	250			
LNAV/VNAV DA	1463	1	284	1463	1	284	1463	1	284	1463	1	284			
LNAV MDA	1580	1	401	1580	1	401	1580	1 1/8	401	1580	1 1/8	401			
CIRCLING	1640	1	457	1640	1	457	1640	1 1/2	457	1740	2	557			

NOTES:
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -17C (2F) OR ABOVE 36C (96F).
CHART NOTE: DME/DME RNP-0.3 NA.
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT.
CHART NOTE: VDP NA WITH TRACY ALTIMETER SETTING.
(SEE FORM 8260-10)

@ NA WHEN LOCAL WEATHER NOT AVAILABLE.

CITY AND STATE	ELEVATION: 1183 THRE: 1179	FACILITY IDENTIFIER:	PROCEDURE NO./AMDT NO./EFFECTIVE DATE:	SUP:
MARSHALL, MN	AIRPORT NAME: SOUTHWEST MINNESOTA RGNL MARSHALL/RYAN FLD	RNAV	RNAV (GPS) RWY 30, ORIG-A	AMDT: ORIG
				DATED 05/05/2011

ALL AFFECTED PROCEDURES REVIEWED?	COORDINATES OF FACILITIES	REQUIRED EFFECTIVE DATE
[ ] YES [X] NO		**ROUTINE**

COORDINATED WITH:

ATA	AAT	ALPA	APA	AOPA	NBAA	OTHER (specify)
[ ]	[ ]	[X]	[ ]	[X]	[X]	[X] **ZMP, ARPT MGR**

FLIGHT CHECKED BY		
NAME: **EDWARD WILLIAM EUGENE MESA**	FIFO **AVN-200**	DATE: **02/02/2011**
DEVELOPED BY		
NAME: **LARRY H STROUT (BRIAN BERUBEE)**	FIFO **AJV-353**	DATE: **08/30/2011**
APPROVED BY		
NAME: **LARRY H STROUT** **MANAGER**	FIFO **AJV-353**	DATE:

CHANGES:

1. PELBO REPOSITIONED .23 NM
2. HOLDING INBOUND COURSE CHANGED FROM 124.76
3. CHANGED MISSED COURSE FROM 309.98
4. RAISED LNAV/VNAV VISIBILITY FROM 7/8

REASONS:

1. 8260.54A CRITERIA APPLIED TO OPPPOSITE END RNAV (GPS)
2. RECALCULATION
3. CORRECTED TO LAST COURSE FLOWN
4. DISTANCE DA TO THLD GREATER THAN 7/8

NOTES, (CONT.):
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE TRACY ALTIMETER SETTING AND INCREASE ALL DA 58 FEET AND ALL MDA 60 FEET, AND LPV VISIBILITY ALL CATS 1/8 MILE, LNAV/VNAV VISIBILITY ALL CATS 1/4 MILE, AND LNAV CAT C AND D VISIBILITY 1/4 MILE.
CHART NOTE: VISIBILITY REDUCTION BY HELICOPTERS NA.
CHART NOTE: BARO VNAV NA WHEN USING TRACY ALTIMETER SETTING.

ALL AFFECTED PROCEDURES REVIEWED?	COORDINATES OF FACILITIES	REQUIRED EFFECTIVE DATE
☐ YES ☐ NO		

COORDINATED WITH:

ATA	AAT	ALPA	APA	AOPA	NBAA	OTHER (specify)
☐	☐	☐	☐	☐	☐	☐ _____

FLIGHT CHECKED BY		
NAME:	FIFO	DATE:
DEVELOPED BY		
NAME:	FIFO	DATE:
APPROVED BY		
NAME:	FIFO	DATE:

CHANGES:

REASONS:

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FAS DATA BLOCK INFORMATION

DATA FIELD	DATA
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KMML
RUNWAY	RW30
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W30A
LTP/FTP LATITUDE	442645.0600N
LTP/FTP LONGITUDE	0954900.7960W
LTP/FTP ELLIPSOIDAL HEIGHT	+03324
FPAP LATITUDE	442742.2300N
FPAP LONGITUDE	0955036.2200W
THRESHOLD CROSSING HEIGHT (TCH)	00040.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0552
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	2A399234

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K3
LTP ORTHOMETRIC HEIGHT	+03593
FPAP ORTHOMETRIC HEIGHT	+03593

CITY AND STATE	ELEVATION: 1183 THRE: 1179	FACILITY IDENTIFIER:	PROCEDURE NO./ AMDT NO./EFFECTIVE DATE:	SUP:
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				DATED: 05/05/2011

ALL AFFECTED PROCEDURES REVIEWED?	COORDINATES OF FACILITIES	REQUIRED EFFECTIVE DATE
☐ YES ☐ NO		

COORDINATED WITH:

ATA ☐ AAT ☐ ALPA ☐ APA ☐ AOPA ☐ NBAA ☐ OTHER (specify) ☐ _____

FLIGHT CHECKED BY		
NAME:	FIFO	DATE:
DEVELOPED BY		
NAME:	FIFO	DATE:
APPROVED BY		
NAME:	FIFO	DATE:

CHANGES:

REASONS:

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ARINC PACKET - 424-18 - RNAV (GPS)

```
                 1         2         3         4         5         6         7         8         9         0         1         2         3
WP      123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        --------------------------------------------------------------------------------------------------------------------------------
        SUSAEAENRT   BOPMY K30    W     N44193436W095370475                      E0027     NAR           BOPMY
        SUSAEAENRT   OHEXE K30    W     N44233376W095434214                      E0027     NAR           OHEXE
        SUSAEAENRT   PELBE K30    W     N44342309W096014820                      E0030     NAR           PELBE
        SUSAEAENRT   PILIY K30    C   L N44193929W095250267                      E0025     NAR           PILIY
        SUSAEAENRT   WUSKA K30    W     N44252033W095463954                      E0028     NAR           WUSKA
        SUSAEAENRT   ZERAD K30    C   L N44131195W095381745                      E0027     NAR           ZERAD

                 1         2         3         4         5         6         7         8         9         0         1         2         3
AIRPORT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        --------------------------------------------------------------------------------------------------------------------------------
        SUSAP KMMLK3AMML     0     072YHN44270623W095492791E005001183         1800018000C    MNAR    SOUTHWEST MINNESOTA RGNL MARSH

                 1         2         3         4         5         6         7         8         9         0         1         2         3
SEGMENT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        --------------------------------------------------------------------------------------------------------------------------------
        SUSAP KMMLK3FR30   ABOPMY 010BOPMYK3EA0EE AR   HF                    30510040    + 03000     18000                A JS
        SUSAP KMMLK3FR30   APILIY 010PILIYK3EA0E  A    IF                                        18000                A JS
        SUSAP KMMLK3FR30   APILIY 020BOPMYK3EA0EE B 010TF                     26450086    + 03000                          A JS
        SUSAP KMMLK3FR30   AZERAD 010ZERADK3EA0E  A    IF                                        18000                A JS
        SUSAP KMMLK3FR30   AZERAD 020BOPMYK3EA0EE B 010TF                     00280064    + 03000                          A JS
        SUSAP KMMLK3FR30   R      010BOPMYK3EA0E  I    IF                                + 03000     18000                A JS
        SUSAP KMMLK3FR30   R      020OHEXEK3EA1E  F 051TF                     30510062    + 02800                RW30  K3PGA JS
        SUSAP KMMLK3FR30   R      020OHEXEK3EA2WALPV       ALNAV/VNAV ALNAV                                                JS
        SUSAP KMMLK3FR30   R      021WUSKAK3EA0E S  031TF                     30500028    V 0190001919        -300         A JS
        SUSAP KMMLK3FR30   R      030RW30 K3PG0GY M 031TF                     30500022      01219             -300         A JS
        SUSAP KMMLK3FR30   R      040         0  M     CA                     3050        + 01429                          A JS
        SUSAP KMMLK3FR30   R      050PELBEK3EA0EY      DF                                + 03200                          A JS
        SUSAP KMMLK3FR30   R      060PELBEK3EA0EE  R   HM                     12480040    + 03200                          A JS

                 1         2         3         4         5         6         7         8         9         0         1         2         3
RUNWAY  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        --------------------------------------------------------------------------------------------------------------------------------
        SUSAP KMMLK3GRW30    0072213049 N44264506W095490080+0100    +0332401179000040100R
```

CITY AND STATE	ELEVATION: 1183 THRE: 1179	FACILITY IDENTIFIER:	PROCEDURE NO./ AMDT NO./EFFECTIVE DATE:	SUP:
MARSHALL, MN	AIRPORT NAME: SOUTHWEST MINNESOTA RGNL MARSHALL/RYAN FLD	RNAV	RNAV (GPS) RWY 30, ORIG-A	AMDT: ORIG
				DATED: 05/05/2011

ALL AFFECTED PROCEDURES REVIEWED?	COORDINATES OF FACILITIES	REQUIRED EFFECTIVE DATE
☐ YES ☐ NO		

COORDINATED WITH:

ATA ☐ AAT ☐ ALPA ☐ APA ☐ AOPA ☐ NBAA ☐ OTHER (specify) ☐ _____

FLIGHT CHECKED BY		
NAME:	FIFO	DATE:
DEVELOPED BY		
NAME:	FIFO	DATE:
APPROVED BY		
NAME:	FIFO	DATE:

CHANGES:

REASONS:

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```
                1         2         3         4         5         6         7         8         9         0         1         2         3
PP      123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KMMLK3PR30   RW30 001 0000W30A0N4426450600W09549007960+033240300N4427422300W095503622001067505520004 00F4005002A399234
        SUSAP KMMLK3PR30   RW30 002E      +03593+03593LPV       86321
```

```
                1         2         3         4         5         6         7         8         9         0         1         2         3
MSA     123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KMMLK3SRW30 K3PG                0   18018003825                                                                        M
```

CITY AND STATE	ELEVATION: 1183 THRE: 1179	FACILITY IDENTIFIER:	PROCEDURE NO./ AMDT NO./EFFECTIVE DATE:	SUP:
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				DATED: 05/05/2011

ALL AFFECTED PROCEDURES REVIEWED?	COORDINATES OF FACILITIES	REQUIRED EFFECTIVE DATE
☐ YES ☐ NO		

COORDINATED WITH:

ATA	AAT	ALPA	APA	AOPA	NBAA	OTHER (specify)
☐	☐	☐	☐	☐	☐	☐ _____

FLIGHT CHECKED BY		
NAME:	FIFO	DATE:
DEVELOPED BY		
NAME:	FIFO	DATE:
APPROVED BY		
NAME:	FIFO	DATE:

CHANGES:

REASONS:

U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

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

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ARINC FLIGHT INSPECTION SUMMARY - VERSION 424-18 - RNAV (GPS)

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE
	BOPMY	BOPMY	010	IAF	HF	R	FO		305.1(310.1T)	004.0	03000
	PILIY	PILIY	010	IAF	IF						
	PILIY	BOPMY	020	IF	TF		FB	1.0	264.5(269.5T)	008.6	03000
	ZERAD	ZERAD	010	IAF	IF						
	ZERAD	BOPMY	020	IF	TF		FB	1.0	002.8(007.8T)	006.4	03000
		BOPMY	010	FACF	IF						03000
		OHEXE	020	FAF	TF		FB	0.5	305.1(310.1T)	006.2	02800
		WUSKA	021	SDF	TF		FB	0.3	305.0(310.0T)	002.8	0190001919
		RW30	030	MAP	TF		FO	0.3	305.0(310.0T)	002.2	01219

MISSED APPROACH	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE
		040		CA				305.0(310.0T)		01429
	PELBE	050		DF		FO				03200
	PELBE	060		HM	R	FO		124.8(129.8T)	004.0	03200

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	BOPMY	N441934.36	W0953704.75	N4419.573	W09537.079
	OHEXE	N442333.76	W0954342.14	N4423.563	W09543.702
	PELBE	N443423.09	W0960148.20	N4434.385	W09601.803
	PILIY	N441939.29	W0952502.67	N4419.655	W09525.045
	WUSKA	N442520.33	W0954639.54	N4425.339	W09546.659
	ZERAD	N441311.95	W0953817.45	N4413.199	W09538.291
	RW30	N442645.06	W0954900.80	N4426.751	W09549.013

RUNWAY DATA	RWY	THRESHOLD ELEVATION	TCH
	RW30	01179	40

CITY AND STATE	ELEVATION: 1183 THRE: 1179	FACILITY IDENTIFIER:	PROCEDURE NO./ AMDT NO./EFFECTIVE DATE:	SUP:
MARSHALL, MN	AIRPORT NAME: SOUTHWEST MINNESOTA RGNL MARSHALL/RYAN FLD	RNAV	RNAV (GPS) RWY 30, ORIG-A	AMDT: ORIG
				DATED: 05/05/2011

ALL AFFECTED PROCEDURES REVIEWED?	COORDINATES OF FACILITIES	REQUIRED EFFECTIVE DATE
☐ YES ☐ NO		

COORDINATED WITH:

ATA	AAT	ALPA	APA	AOPA	NBAA	OTHER (specify)
☐	☐	☐	☐	☐	☐	☐ _____

FLIGHT CHECKED BY		
NAME:	FIFO	DATE:
DEVELOPED BY		
NAME:	FIFO	DATE:
APPROVED BY		
NAME:	FIFO	DATE:

CHANGES:

REASONS:

STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD

PART - A OBSTRUCTION DATA

1. APP SEGMENT	FROM	TO	OBSTRUCTION	COORDINATES	ELEV. MSL	ROC	ALT. ADJUSTMENTS	MIN. ALT.
INITIAL	PILIY	BOPMY	1. AAO	441800.00N/0953839.00W	1477 (4E)	1000	AT523	3000
			2. TERRAIN	441748.00N/0953757.00W	1264 (1300)		AS1500	2800
INITIAL	ZERAD	BOPMY	3. TOWER (27-001146)	441325.00N/0953900.00W	1724 (3C)	1000		2800
			4. TERRAIN	441412.00N/0954006.00W	1500 (1500)		AS1500	3000
INTERMEDIATE	BOPMY (IF/IAF)	OHEXE	5. AAO	442112.00N/0954345.00W	1526 (4E)	500	AC98 AT676	2800
			6. TERRAIN	442105.10N/0954345.68W	1239 (1200)		AS1500	2700
FINAL: LPV	OHEXE	RW30	7. ELECTRICAL SYSTEM (KMMLT025)	442639.01N/0954840.73W	1225 (2C)	ASC	AC20	1429/250
FINAL: LNAV/VNAV	OHEXE	RW30	8. ANTENNA	442643.81N/0954815.07W	1292 (1B)	PDA	AC10	1463/284
FINAL: LNAV	OHEXE	WUSKA/2.20 NM TO RW30	9. AAO	442313.82N/0954444.44W	1389 (2C)	250	DG203 RA58	1900
FINAL: LNAV STEPDOWN	WUSKA/2.20 NM TO RW30	RW30	10. TOWER (27-002129)	442502.00N/0954706.00W	1330 (1A)	250		1580
2. HOLD-IN-LIEU-OF-PT	BOPMY		11. AAO	441327.00N/0953503.00W	1618 (4E)	1000	AT382	3000
			12. TERRAIN	441327.00N/0953503.00W	1418 (1400)		AS1500	2900
3. MISSED APPROACH — MAP:	DA / DA / RW30	PELBE				ASC		3200
			13. AAO	443127.00N/0960112.00W	1516 (4E)	1000		2600
ELEV:	1242/1302/1480		14. TERRAIN	443127.00N/0960112.00W	1316 (1300)		AS1500	2800
			15. ANT (KMML0003)	442701.80N/0954741.34W	1336 (1A)	300		1640
			15. ANT (KMML0003)	442701.80N/0954741.34W	1336 (1A)	300		1640
			15. ANT (KMML0003)	442701.80N/0954741.34W	1336 (1A)	300		1640
			16. TOWER (27-001555)	442756.00N/0954557.00W	1345 (5D)	300	HAA	1740

4. CIRCLING AREA	DISTANCE	HT. ABV. ARPT. REQUIRED	HT. ABV. ARPT. ACTUAL
CATEGORY A	1.3 NM	350	457
CATEGORY B	1.5 NM	450	457
CATEGORY C	1.7 NM	450	457
CATEGORY D	2.3 NM	550	557
CATEGORY E	4.5 NM	550	

5. MINIMUM SAFE ALTITUDES — PRIMARY NAVAID: RW30

SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A	SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A
360-360	TWR (27-001105)	241/ 23.7	2772 (5D)	3800					

CITY AND STATE		FACILITY	PROCEDURE AND AMENDMENT NO:	REGION
MARSHALL, MN	ELEVATION: 1183 AIRPORT NAME: SOUTHWEST MINNESOTA RGNL MARSHALL/RYAN FLD	RNAV	RNAV (GPS) RWY 30, ORIG-A	AGL

PART B - SUPPLEMENTAL DATA

1. COMMUNICATIONS WITH:	2. WEATHER SERVICE			3. ALTIMETER SETTING
ZMP ARTCC		N W S	OTHER: AWOS-3	SOURCE: KMML
		F A A		DISTANCE: 0/15.33
		A / C		HOURS REMOTE OPERATION:
SATISFACTORY ON:				
X V H F X U H F H F	LOCATION: KMML			ADJUSTMENT: 0/58

4. MONITOR STATUS	PRIMARY NAVAID:	
	MONITOR POINT:	
	HRS OPTN:	CAT 1
		CAT 3

5. APPROACH & RUNWAY LIGHTING		ALS
		(S) SALS
	X	MALSR 12 (PCL)
	X	HIRL 12 (PCL), 30 (PCL)
	X	MIRL 02 (PCL), 20 (PCL)
	X	REIL 02 (PCL), 20 (PCL), 30 (PCL)
		TDZ
		C/LINE
	X	OTHER (SPECIFY) PAPI-4L 12 (PCL), 02 (PCL), 20 (PCL), 30 (PCL)

6. RUNWAY MARKINGS	BASIC	
	ALL WEATHER	PIR-G 12, 30
	INSTRUMENT	NPI-G 02, 20
7. RUNWAY VISUAL RANGE	APPROACH	
	MIDFIELD	
	ROLL OUT	

8. GLIDE PATH	GP ANGLE: 3.00	ELEV RWY THRESHOLD: 1178.7
	DISTANCE FROM RWY:	ELEV GP ANTENNA:
		THRESHOLD CROSSING HEIGHT: 40.0

9. FINAL APPROACH COURSE AIMING	X	RUNWAY THRESHOLD	FT. FROM THRESHOLD
	X	ON CENTERLINE	FT. FROM CENTERLINE

10. WAIVERS: NONE

PART D - PREPARED BY: LARRY H STROUT (BRIAN BERUBEE)	DATE: 08/30/2011
TITLE: AERONAUTICAL INFORMATION SPECIALIST	OFFICE: AJV-353

PART C - REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

RASS PRESSURE PATTERNS SAME
KMML 1182, KTKC 1340
RA = 57.29.
SEE ATTACHED AIRSPACE LETTER.

VEGETATION 100 FEET USED.

RWY 30 34:1 PENETRATIONS:
KMMLT025 442639.91N/0954840.73W
KMMLT024 442636.77N/0954840.68W

STANDARD DEVIATION ISA-30, NO HISTORICAL WEATHER DATA AVAILABLE

VGSI DATA RWY 30: 3.00/32.0

RADIO FIX AND HOLDING DATA RECORD

NAME: PELBE **STATE:** MN **COUNTRY:** US

LATITUDE/LONGITUDE: 443423.09N/0960148.20W **TYPE:** WP

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

HOLDING: **HOLDING TYPE OF ACTION:** MODIFY

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	LEG LENGTH DME	HOLDING ALTITUDES MIN	HOLDING ALTITUDES MAX	TEMPLATES MIN	TEMPLATES MAX
1	NW		WP	304.75	124.75	R		4	3200	6000	5	6

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	AAO	443345.00N/0961303.00W	1762	4E

REMARKS:
PRECIPITOUS TERRAIN EVALUATION COMPLETE

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (GPS) RWY 12		1	KMML	MARSHALL	MN (US)
IAP	RNAV (GPS) RWY 30		1	KMML	MARSHALL	MN (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1 **DATE OF REVISION:** 02/09/2012

REASON FOR REVISION:
REPOSITIONED FIX .23 NM NW
DELETED FAC 1 AND ASSOCIATED DATA
CHANGED PATTERN 1 HOLDING FROM 124.76
UPDATED PATTERN 1 OBSTACLE FROM 1756 AAO
UPDATED FIX USE

DEVELOPED BY: **DATE:** 08/26/2011 **OFFICE:** AJV-353 **NAME:** LARRY STROUT (BRIAN BERUBEE)

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZMP
ATC FACILITY:
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: BOPMY **STATE:** MN **COUNTRY:** US

LATITUDE/LONGITUDE: 441934.36N/0953704.75W **TYPE:** WP

INFO ONLY

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

HOLDING: **HOLDING TYPE OF ACTION:** ESTABLISH

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	LEG LENGTH DME	HOLDING ALTITUDES MIN	HOLDING ALTITUDES MAX	TEMPLATES MIN	TEMPLATES MAX
1	SE		WP	125.06	305.06	R		4	2800	6000	5	6

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	AAO	441345.00N/0953530.00W	1611	4E

HOLDING RESTRICTIONS:
HOLDING RESTRICTED TO ESTABLISHED PATTERN.

REMARKS:
PRECIPITOUS TERRAIN EVALUATION COMPLETE.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (GPS) RWY 12		1	KMML	MARSHALL	MN (US)
IAP	RNAV (GPS) RWY 30		1	KMML	MARSHALL	MN (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1 **DATE OF REVISION:** 05/05/2011

REASON FOR REVISION:
UPDATED FIX LAT/LONG,FIX MOVED 5164.20 FEET SE.
ADDED HOLDING DATA.
ADDED PRECIPITOUS TERRAIN EVAL.
UPDATED FIX USE.

DEVELOPED BY: **DATE:** 11/05/2010 **OFFICE:** AVN-120 **NAME:** NEIL SIMPANEN

APPROVED BY: **DATE:** 02/08/2011 **OFFICE:** AVN-120 **NAME:** GREGORY YAMAMOTO

SIGNATURE:

DISTRIBUTION: **NFDC**
FPO: CEN
ARTCC: ZMP
ATC FACILITY:
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: OHEXE **STATE:** MN **COUNTRY:** US

LATITUDE/LONGITUDE: 442333.76N/0954342.14W **TYPE:** WP

INFO ONLY

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

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (GPS) RWY 30			KMML	MARSHALL	MN (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1 **DATE OF REVISION:** 05/05/2011

REASON FOR REVISION:
UPDATED FIX LAT/LONG, FIX MOVED 2119.14 FEET NW TO PFAF POSN.
REMOVED FIX MAKEUP DATA.
UPDATED FIX USE.

DEVELOPED BY: **DATE:** 11/05/2010 **OFFICE:** AVN-120 **NAME:** NEIL SIMPANEN

APPROVED BY: **DATE:** 02/08/2011 **OFFICE:** AVN-120 **NAME:** GREGORY YAMAMOTO

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZMP
ATC FACILITY:
OTHER:

RADIO FIX AND HOLDING DATA RECORD

INFO ONLY

NAME: PILIY **STATE:** MN **COUNTRY:** US

LATITUDE/LONGITUDE: 441939.29N/0952502.67W **TYPE:** WP, DME

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

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	REDWOOD FALLS	RWF	VOR/DME	H	229.13	236.13	15.00	15.00		3700	17500

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	V148	1				(US)
IAP	RNAV (GPS) RWY 30			KMML	MARSHALL	MN (US)

REQUIRED CHARTING: IAP, CONTROLLER, EN ROUTE LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 05/05/2011

DEVELOPED BY: **DATE:** 11/05/2010 **OFFICE:** AVN-120 **NAME:** NEIL SIMPANEN

APPROVED BY: **DATE:** 02/08/2011 **OFFICE:** AVN-120 **NAME:** GREGORY YAMAMOTO

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZMP
ATC FACILITY:
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: WUSKA **STATE:** MN **COUNTRY:** US

INFO ONLY

LATITUDE/LONGITUDE: 442520.33N/0954639.54W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (GPS) RWY 30			KMML	MARSHALL	MN (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 05/05/2011

DEVELOPED BY: **DATE:** 11/05/2010 **OFFICE:** AVN-120 **NAME:** NEIL SIMPANEN

APPROVED BY: **DATE:** 02/08/2011 **OFFICE:** AVN-120 **NAME:** GREGORY YAMAMOTO

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZMP
ATC FACILITY:
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: ZERAD **STATE:** MN **COUNTRY:** US

INFO ONLY

LATITUDE/LONGITUDE: 441311.95N/0953817.45W **TYPE:** WP, DME

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

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	REDWOOD FALLS	RWF	VOR/DME	H	229.13	236.13	26.50	26.50		3700	17500

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	V148	1				(US)
IAP	RNAV (GPS) RWY 30			KMML	MARSHALL	MN (US)

REQUIRED CHARTING: IAP, CONTROLLER, EN ROUTE LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 05/05/2011

DEVELOPED BY: **DATE:** 11/05/2010 **OFFICE:** AVN-120 **NAME:** NEIL SIMPANEN

APPROVED BY: **DATE:** 02/08/2011 **OFFICE:** AVN-120 **NAME:** GREGORY YAMAMOTO

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZMP
ATC FACILITY:
OTHER: