

**FEDERAL AVIATION ADMINISTRATION  
FLIGHT STANDARDS SERVICE  
RNAV (GPS) STANDARD INSTRUMENT APPROACH PROCEDURE**

**TITLE 14 CFR PART 97.33**

Bearings, headings, courses, tracks 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 feet RVR.

<u><b>AIRPORT ID</b></u> KMSS	<u><b>PROCEDURE NAME</b></u> RNAV (GPS) RWY 9	<u><b>ORIGINAL/AMENDMENT</b></u> 2	<u><b>CITY</b></u> MASSENA	<u><b>STATE</b></u> NY		
<u><b>AIRPORT ELEVATION</b></u> 221	<u><b>TDZE</b></u> 205	<u><b>SUPERSEDED</b></u> RNAV (GPS) RWY 9	<u><b>ORIGINAL/AMENDMENT</b></u> 1E	<u><b>DATED</b></u> 03/25/2021	<u><b>MAG VAR</b></u> 14W	<u><b>EPOCH YEAR</b></u> 1980
<u><b>FACILITY</b></u> RNAV	<u><b>COORDINATES OF FACILITIES</b></u>	<u><b>ACTUAL EFFECTIVE DATE</b></u> 17 JUNE 2021	<u><b>REQUIRED EFFECTIVE DATE</b></u> ROUTINE	<u><b>CANCEL/SUSPEND</b></u>		

**TAA**

<b>FROM</b>	<b>FIX TYPE</b>	<b>TO</b>	<b>FIX TYPE</b>	<b>ALTITUDE</b>
1. 345/30 CW 165/30	NOPT	345/5 CW 165/5		4100
2. 345/5 CW 165/5		WERKI	IF/IAF	2000
3. 165/30 CW 255/30		NIPHI	IAF	2000
4. 255/30 CW 345/30		255/7 CW 345/7		4700
5. 255/7 CW 345/7		AWIPI	IAF	3100

**TERMINAL ROUTES**

<b>FROM</b>	<b>FIX TYPE</b>	<b>TO</b>	<b>FIX TYPE</b>	<b>LEG TYPE</b>	<b>FO/FB</b>	<b>RNP</b>	<b>COURSE</b>	<b>DISTANCE</b>	<b>ALTITUDE</b>
AWIPI	IAF	WERKI	NOPT	TF	FB	1.00	344.91	6.70	2000
NIPHI	IAF	WERKI	NOPT	TF	FB	1.00	164.81	6.70	2000
WERKI	IF/IAF	KFOXX		TF	FB	1.00	074.86	5.00	1900
KFOXX	FAF	WOPRA/1.93 NM TO ZIGMA		TF	FB	0.30	074.93	2.76	
WOPRA/1.93 NM TO ZIGMA		ZIGMA	MAP	TF	FO	0.30	074.93	1.93	
ZIGMA	MAP	621 MSL		CA			074.93		
621 MSL		WERKI		DF	FO	1.00			2000





**MINIMUMS:**

TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT

**ALTERNATE:** NA ☐ STANDARD - NA WHEN LOCAL WEATHER NOT AVAILABLE.

<u>CATEGORY:</u>	<u>A</u>			<u>B</u>			<u>C</u>			<u>D</u>			<u>E</u>		
<u>FINAL TYPE</u>	<u>DA/MDA</u>	<u>VIS</u>	<u>HAT/HAA</u>	<u>DA/MDA</u>	<u>VIS</u>	<u>HAT/HAA</u>	<u>DA/MDA</u>	<u>VIS</u>	<u>HAT/HAA</u>	<u>DA/MDA</u>	<u>VIS</u>	<u>HAT/HAA</u>	<u>DA/MDA</u>	<u>VIS</u>	<u>HAT/HAA</u>
LNAV MDA	680	1	475	680	1	475	680	1 3/8	475	680	1 3/8	475			
CIRCLING	740	1	519	740	1	519	880	1 3/4	659	880	2	659			

**CHANGES - REASONS**

1. ADDED "CHART CIRCLING ICON" TO ADDITIONAL FLIGHT DATA - EXPANDED CIRCLING IMPLEMENTED.
2. ADJUSTED "FAC CROSSES RWY C/L EXTENDED" NOTE IN ADDITIONAL FLIGHT DATA FROM "2843" TO "3000" FT TO THLD - FAC AIMING ADJUSTED TO CROSS C/L EXTENDED AT 3000 FT IAW 8260.3D PARA 4-2-4.A.(1).
3. TAA SEGMENT FROM 345/30 CW 165/30 TO 345/5 CW 165/5 ALTITUDE CHANGED FROM "4000" TO "4100" - NEW CONTROLLING OBSTACLE.
4. TAA SEGMENT CHANGED FROM "FROM 255/30 CW 345/30 TO 255/5 CW 345/5 ALTITUDE 4000" TO "FROM 255/30 CW 345/30 TO 255/7 CW 345/7 ALTITUDE 4100" - NEW CONTROLLING OBSTACLE, STEPDOWN DISTANCE CHANGED WITH INCREASE IN IAF LEG DISTANCE.
5. TAA SEGMENT CHANGED FROM "FROM 255/5 CW 345/5 TO AWIPI ALTITUDE 2100" TO "FROM 255/7 CW 345/7 TO AWIPI ALTITUDE 3100" - NEW CONTROLLING OBSTACLE, STEPDOWN DISTANCE CHANGED WITH INCREASE IN IAF LEG DISTANCE.
6. UPDATED COURSE/DISTANCE FOR LEG AWIPI TO WERKI IN TERMINAL ROUTES FROM "345.11/5.00" TO "344.91/6.70" - APPROACH GEOMETRY CHANGED DUE TO GPA/FAC AIMING ADJUSTMENT, LEG LENGTH INCREASED TO ACCOMMODATE ATC VECTORS.
7. UPDATED COURSE/DISTANCE FOR LEG NIPHI TO WERKI IN TERMINAL ROUTES FROM "165.03/5.00" TO "164.81/6.70" - APPROACH GEOMETRY CHANGED DUE TO GPA/FAC AIMING ADJUSTMENT, LEG LENGTH INCREASED TO ACCOMMODATE ATC VECTORS.
8. UPDATED COURSE/DISTANCE FOR LEG WERKI TO KFOXX IN TERMINAL ROUTES FROM "075.07/6.00" TO "074.86/5.00" - APPROACH GEOMETRY CHANGED DUE TO GPA/FAC AIMING ADJUSTMENT, LEG LENGTH DECREASED TO DEFAULT C/D INTERMEDIATE LEG LENGTH IAW 8260.3D PARA 1-3-1.E.(2).
9. UPDATED LEG IN TERMINAL ROUTES FROM "FROM KFOXX TO WOPRA/2.00NM TO ZIGMA, CRS 075.15, DIST 3.02" TO "FROM KFOXX TO WOPRA/1.93NM TO ZIGMA, CRS 074.93, DIST 2.76" - APPROACH GEOMETRY CHANGED DUE TO GPA/FAC AIMING ADJUSTMENT.
10. UPDATED LEG IN TERMINAL ROUTES FROM "FROM WOPRA/2.00NM TO ZIGMA TO ZIGMA, CRS 075.15, DIST 2.00" TO "FROM WOPRA/1.93NM TO ZIGMA TO ZIGMA, CRS 074.93, DIST 1.93" - APPROACH GEOMETRY CHANGED DUE TO GPA/FAC AIMING ADJUSTMENT.
11. MISSED APPROACH INSTRUCTIONS CHANGED FROM "CLIMB TO 1900 DIRECT CONCI AND ON TRACK 153.22 TO MSS VORTAC AND HOLD" TO "CLIMBING RIGHT TURN TO 2000 DIRECT WERKI AND HOLD" - MA REDESIGNED PER ZBW/FPT.
12. UPDATED PROFILE SECTION, LINE 2, INBOUND COURSE FROM "075.07" TO "074.86" - REALIGNED HOLDING PATTERN WITH APPROACH GEOMETRY CHANGES.
13. UPDATED PROFILE SECTION, LINE 3, FAC/DIST FAF TO MAP/DIST FAF TO THLD FROM "075.15/5.03/5.48" TO "074.93/4.69/5.19" - FAF, KFOXX, AND MAP, WOPRA, MOVED DUE TO APPROACH GEOMETRY CHANGES.
14. UPDATED PROFILE SECTION, LINE 4, "WOPRA/2.00 NM TO ZIGMA" TO "WOPRA/1.93 NM TO ZIGMA" - SDF, WOPRA, MOVED DUE TO APPROACH GEOMETRY CHANGES.
15. CHANGED "CHART PLANVIEW NOTE: FINAL APPROACH COURSE OFFSET" FROM "15.08" TO "15.22" DEGREES - FAC AIMING ADJUSTED WITH C/L EXTENDED CROSSING POINT CHANGE.
16. REMOVED HOLDING PATTERN FROM ADDITIONAL FLIGHT DATA - NO LONGER REQUIRED, MISSED APPROACH REDESIGNED TO RETURN BACK TO HILO-PT PER ZBW/FPT.
17. CIRCLING CAT C MDA/HAA CHANGED FROM "800/579" TO "880/659" AND VIS FROM "1 1/2" TO "1 3/4" - PREVIOUS CONTROLLING OBSTACLE NO LONGER IN DATABASE.
18. CIRCLING CAT D MDA/VIS/HAA CHANGED FROM "900/2 1/4/ 679" TO "880/2/659" - XP REMOVED KEEPING MINIMA AS PREVIOUSLY PUBLISHED.
19. CHANGED ALTERNATE MINIMUMS FROM "STANDARD - CAT D 800-2 1/4, NA WHEN LOCAL WEATHER NOT AVAILABLE" TO "STANDARD - NA WHEN LOCAL WEATHER NOT AVAILABLE" - CAT D VIS NOW WITHIN ALTERNATE REQUIREMENTS.
20. REMOVED LEGS "ZIGMA TO 621 MSL", "621 MSL TO CONCI", AND "CONCI TO MSS VORTAC" FROM TERMINAL ROUTES - MISSED APPROACH REDESIGNED TO RETURN BACK TO HILO-PT PER ZBW/FPT.
21. ADDED CA LEG "ZIGMA TO 621 MSL" AND MA LEG "621 MSL TO WERKI, ALTITUDE 2000" TO TERMINAL ROUTES - MA REDESIGNED PER ZBW/FPT.
22. CHANGED CHARTED OBSTACLES NOTE FROM "CHART FAS OBST: 570 TWR 445411N/0745301W" TO "CHART FAS OBST: 412 TOWER 445553N/0745326W. CHART 535 TOWER 445519N/0745454W" - NEW FINAL APPROACH CONTROLLING OBSTACLES.



**AIRPORT ID**  
KMSS

**PROCEDURE NAME**  
RNAV (GPS) RWY 9

**ORIGINAL/AMENDMENT**  
2

**CITY**  
MASSENA

**STATE**  
NY

**COORDINATED WITH:**

**A4A** ☐ **ALPA** ☒ **AOPA** ☒ **APA** ☒ **HAI** ☐ **NBAA** ☒ **OTHER:** ZBW, EASTERN FPT, AMGR

**FLIGHT CHECKED BY**

JEREMY R VIRTS

*Digitally signed by*  
**JASON KRETSCHMER**  
May 10, 2021

**OFFICE**  
FICO

**DATE**  
02/24/2021

**DEVELOPED BY**

JASON KRETSCHMER (COLIN CAMPBELL)

*Digitally signed by*  
**JASON KRETSCHMER**

**OFFICE**  
AJV-A421

**DATE**  
12/08/2020

**APPROVED BY**

MARLON ROBINSON

Jan 14, 2021  
*Digitally signed by*  
**JASON KRETSCHMER**  
Jan 14, 2021

**OFFICE**  
AJV-A420

**DATE**

**TITLE**  
MANAGER

