

**FEDERAL AVIATION ADMINISTRATION  
FLIGHT STANDARDS SERVICE  
RNAV (RNP) 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> KMWH	<u><b>PROCEDURE NAME</b></u> RNAV (RNP) Z RWY 22	<u><b>ORIGINAL/AMENDMENT</b></u> ORIG-B	<u><b>CITY</b></u> MOSES LAKE	<u><b>STATE</b></u> WA		
<u><b>AIRPORT ELEVATION</b></u> 1189	<u><b>TDZE</b></u> 1166	<u><b>SUPERSEDED</b></u> RNAV (RNP) Z RWY 22	<u><b>ORIGINAL/AMENDMENT</b></u> ORIG-A	<u><b>DATED</b></u> 08/21/2014	<u><b>MAG VAR</b></u> 18E	<u><b>EPOCH YEAR</b></u> 1995
<u><b>FACILITY</b></u> RNAV	<u><b>COORDINATES OF FACILITIES</b></u>	<u><b>ACTUAL EFFECTIVE DATE</b></u> 24 MARCH 2022	<u><b>REQUIRED EFFECTIVE DATE</b></u> ROUTINE	<u><b>CANCEL/SUSPEND</b></u>		

**TERMINAL ROUTES**

<u><b>FROM</b></u>	<u><b>FIX TYPE</b></u>	<u><b>TO</b></u>	<u><b>FIX TYPE</b></u>	<u><b>LEG TYPE</b></u>	<u><b>FO/FB</b></u>	<u><b>RNP</b></u>	<u><b>COURSE</b></u>	<u><b>DISTANCE</b></u>	<u><b>ALTITUDE</b></u>
SUBDY	IAF	MALEE		TF	FB	1.00	252.00	11.29	4000
MALEE		OPMIE		TF	FB	0.30	216.36	4.20	3100
EPH VORTAC	IAF	YERUD		TF	FB	1.00	063.25	7.94	4000
YERUD		OPMIE		RF	FB	0.30	(3.90 NM RADIUS CW (CFTTT))	10.40	3100
OPMIE	IF	I PROF	PFAF	TF	FB	0.30	216.30	1.99	2800
I PROF	PFAF	RW22	MAP	TF	FO	0.30	216.27	5.01	
RW22	MAP	ONPIC		TF	FO	1.00	216.19	12.85	4000

**MISSED APPROACH**

**MAP:**  
RNP: DA

**MISSED APPROACH INSTRUCTIONS:**  
CLIMB TO 4000 ON TRACK 216.19 TO ONPIC AND HOLD.

**ALTERNATE MISSED APPROACH INSTRUCTIONS:**



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF

(IAF)

2. PROFILE STARTS AT OPMIE

3. FAC: 216.27

PFAF: IPROF

DIST PFAF TO MAP:

DIST PFAF TO THLD:

4. MIN ALT: OPMIE 3100, IPROF 2800

5. DIST TO THLD FROM PFAF: 5.01

MM:

IM:

150 HAT:

255 HAT: 0.68

GS ANT:

6. MIN GP INCPT: 2800

GP ALT AT PFAF : IPROF 2800

OM:

MM:

IM:

7. GP ANGLE: 3.00

34:1: IS CLEAR

20:1: IS CLEAR

TCH: 50.0

8. MSA FROM: RW22 4300

PBN REQUIREMENTS NOTE:

RNP AR APCH - GPS.

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, PROCEDURE NA BELOW -15°C OR ABOVE 54°C.  
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT SUBDY ON T268 AND V2-448 NORTHEAST BOUND.  
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT EPH VORTAC ON RADIALS 060 CW 135.  
CHART PLANVIEW NOTE AT YERUD: DO NOT EXCEED 210 KIAS UNTIL OPMIE.

ADDITIONAL FLIGHT DATA:

HOLD SW, RT, 036.01 INBOUND.

MINIMUMS:

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

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

CATEGORY:	A			B			C			D			E		
FINAL TYPE	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA
AUTHORIZATION REQUIRED															
RNP 0.10 DA	1421	3/4	255	1421	3/4	255	1421	3/4	255	1421	3/4	255			
RNP 0.30 DA	1508	1	342	1508	1	342	1508	1	342	1508	1	342			



**CHANGES - REASONS**

1. INCORPORATED NOTAM 1/6866 - DA/HATS CHANGED
2. TERMINAL ROUTES: RF SEGMENT YEROD TO OPMIE CNF FIX NAME CHANGED FROM QUZRU TO CFTTT - NEW CNF FIX NAMING CRITERIA
3. MISSED APPROACH: CHANGED MAP FROM "MAP: DA" TO "RNP: DA" - 8260.19I 8-6-6. C. (1)
4. MISSED APPROACH: CHANGED MA INSTRUCTIONS FROM "CLIMB TO 4000 ON TRACK 216.20 TO ONPIC AND HOLD." TO "CLIMB TO 4000 ON TRACK 216.19 TO ONPIC AND HOLD." - NEW TARGETS BUILD
5. PROFILE LINE 5: ADDED DISTANCE TO THLD FROM 255 HAT: 0.68 AND REMOVED FROM ADDITIONAL FLIGHT DATA "DISTANCE TO THLD FROM 250 HATH: 0.83 NM" - NEW CRITERIA FORMAT/NEW HAT
6. PROFILE LINE 7: ADDED 20:1 IS CLEAR - NO 20:1 OBSTACLE PENETRATIONS
7. LANDING MINIMUMS: CHANGED RNP 0.10 DA/HAT/VIS FROM "1416/250/ 3/4" TO "1421/255/ 3/4" - NEW CONTROLLING OBSTACLE/MA PENETRATOR/VISIBILITY CHECKS
8. LANDING MINIMUMS: CHANGED RNP 0.30 DA/HAT/VIS FROM "1476/310/1" TO "1508/342/1" - NEW CONTROLLING OBSTACLE/MA PENETRATOR/VISIBILITY CHECKS
9. NOTES/EQUIPMENT REQUIREMENTS: ADDED "RNP AR APCH - GPS. FROM EPH VORTAC: RF REQUIRED"; REMOVED "CHART PLANVIEW NOTE ADJACENT TO EPHRATA VORTAC: RF REQUIRED", REMOVED "GPS REQUIRED" FROM NOTES; REMOVED "ROUTE TYPE; A, R", "ROUTE TYPE QUALIFIER1: P" AND "ROUTE TYPE QUALIFIER2: S" FROM ADDITIONAL FLIGHT DATA - NEW PBN DESIGNATIONS AND FORMAT
10. NOTES: CHANGED "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, PROCEDURE NA BELOW -17C (2F) OR ABOVE 46C (114F)" TO "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, PROCEDURE NA BELOW -15C OR ABOVE 54C" - NEW 5-YR HISTORICAL TEMPERATURE CALCULATION
11. NOTES: CHANGED FROM "CHART PLANVIEW NOTE AT YEROD: MAX 210 KIAS" TO "CHART PLANVIEW NOTE AT ZIRVO: DO NOT EXCEED 210 KIAS UNTIL OPMIE" - 8260.19I, 4-6-10. G. NEW FORMAT
12. NOTES: CHANGED PLANVIEW NOTE FROM "PROCEDURE NA FOR ARRIVALS AT SUBDY ON V2-448 EAST BOUND" TO "PROCEDURE NA FOR ARRIVALS AT SUBDY ON T268 AND V2-448 NORTHEAST BOUND" - NEW LOW RNAV ROUTE/COURSE 232 IS NE DIRECTION
13. ADDITIONAL FLIGHT DATA: REMOVED #TCH 1203.4 (DO NOT CHART)" - NO LONGER REQUIRED BY CRITERIA
14. ALTERNATE MINIMUMS: ADDED "NA WHEN LOCAL WEATHER NOT AVAILABLE" - NEW FORMAT PER 8260.19I, 8-6-11

**COORDINATED WITH:**A4A ☒ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: ZSE ARTCC, MWH ATCT, MWH APP CON, AMGRDigitally signed by  
**JON DENTON****FLIGHT CHECKED BY**

"PROCESSED IAW TECHNICAL SUPPORT GROUP (AJF-17) MEMO DATED 07/07/2021, SUBJECT: GUIDANCE FOR PROCEDURAL CHANGES REQUIRING FLIGHT INSPECTION/VALIDATION"

JOEL F HAWKLEY

Digitally signed by

**DEVELOPED BY**

APRIL SARMENTO

**APRIL T SARMENTO**

Oct 28, 2021

**OFFICE**

FPO

**DATE**

Nov 09, 2021

**OFFICE**

AJV-A432

**DATE**

09/29/2021

**APPROVED BY**

LONNIE EVERHART

Digitally signed by

**JON DENTON**

Nov 09, 2021

**OFFICE**

AJV-A430

**DATE****TITLE**  
MANAGERQUALITY  
10  
CHECKED