

**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>AIRPORT</u> SOUTHWEST WASHINGTON RGNL	<u>AIRPORT ID</u> KKLS	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 12	<u>ORIGINAL/AMENDMENT</u> 1	<u>CITY</u> KELSO	<u>STATE</u> WA	
<u>AIRPORT ELEVATION</u> 20	<u>TDZE</u> 20	<u>SUPERSEDED</u> RNAV (GPS) RWY 12	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>DATED</u> 04/08/2010	<u>MAG VAR</u> 17E	<u>EPOCH YEAR</u> 2010
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 21 MAY 2020	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</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>
LOATH		AMAVE		TF	FB	1.00	313.90	10.75	4000
AMAVE	IAF	YAPEC		TF	FB	1.00	015.41	5.10	4000
WINLO	IAF	KLCUP		TF	FB	1.00	166.58	5.42	4000
ONALS	IAF	KLCUP		TF	FB	1.00	212.02	24.49	4000
KLCUP		YAPEC		TF	FB	1.00	166.54	7.67	4000
YAPEC	IF	COSRA		TF	FB	1.00	093.86	2.50	3300
COSRA		UXALE		TF	FB	1.00	093.89	2.51	2700
UXALE		ANIGE		TF	FB	1.00	123.27	2.51	1900
ANIGE	FAF	SOWAL/3.20 NM TO RW12		TF	FB	0.30	123.30	1.11	
SOWAL/3.20 NM TO RW12		RW12	MAP	TF	FO	0.30	123.30	3.20	
RW12	MAP	800 MSL		CA			123.30		800
800 MSL		AMAVE		DF	FO	1.00			4000



MISSED APPROACH

MAP:

LPV: DA  
LNAV/VNAV: DA  
LNAV: RW12

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 800 THEN CLIMBING RIGHT TURN TO 4000 DIRECT AMAVE AND HOLD, CONTINUE CLIMB-IN-HOLD TO 4000.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT	SIDE OF COURSE	OUTBOUND	FT WITHIN	MILES OF	(IAF)
2.	PROFILE STARTS AT YAPEC				
3. FAC:	123.30	FAF: ANIGE	DIST FAF TO MAP:	4.31	DIST FAF TO THLD: 4.31
4. MIN ALT:	YAPEC 4000, COSRA 3300, UXALE 2700, ANIGE 1900, SOWAL/3.20 NM TO RW12 1420*				
5. DIST TO THLD FROM OM:	MM:	IM:	150 HAT:	588 HAT: 1.26	GS ANT:
6. MIN GP INCPT:	1900	GP ALT AT FAF :	ANIGE 1900	OM:	MM:
7. GP ANGLE:	4.00	34:1:	IS NOT CLEAR	20:1:	IS CLEAR
			TCH:	50.0	
8. MSA FROM:	RW12 7500				

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: CIRCLING NA NORTHEAST OF RWY 12-30.  
CHART NOTE: CIRCLING RWY 30 NA AT NIGHT.  
CHART NOTE: RWY 12 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.  
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -6°C OR ABOVE 54°C.  
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).  
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT ONALS ON V23 NORTHBOUND.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.  
CHART VDP AT 2.10 NM TO RW12\*  
\*LNAV ONLY  
WAAS CHANNEL #65743  
REFERENCE PATH ID: W12A  
FAS OBST: 659 AAO 461014N/1225703W.  
CHART: 1129 TOWER 461057N/1225732W.  
HOLD S, RT, 003.23 INBOUND  
LTP HAE: -15.5 M



**MINIMUMS:**

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

**ALTERNATE:** NA☐

CAT A, B 1000-2, NA WHEN LOCAL WEATHER NOT AVAILABLE.

<b><u>CATEGORY:</u></b>	<b>A</b>			<b>B</b>			<b>C</b>			<b>D</b>			<b>E</b>		
<b><u>FINAL TYPE</u></b>	<b><u>DA/MDA</u></b>	<b><u>VIS</u></b>	<b><u>HAT/HAA</u></b>	<b><u>DA/MDA</u></b>	<b><u>VIS</u></b>	<b><u>HAT/HAA</u></b>	<b><u>DA/MDA</u></b>	<b><u>VIS</u></b>	<b><u>HAT/HAA</u></b>	<b><u>DA/MDA</u></b>	<b><u>VIS</u></b>	<b><u>HAT/HAA</u></b>	<b><u>DA/MDA</u></b>	<b><u>VIS</u></b>	<b><u>HAT/HAA</u></b>
LPV DA	608	1 3/4	588	608	1 3/4	588		NA			NA				
LNAV/VNAV DA	766	2	746	766	2	746		NA			NA				
LNAV MDA	980	1 1/4	960	980	1 1/2	960		NA			NA				
CIRCLING	980	1 1/4	960	980	1 1/2	960		NA			NA				



CHANGES - REASONS

1. CHANGED LOCATION OF ANIGE 1865.4 FEET NORTHWEST - WESTERN FPT CHECKLIST REQUEST.
2. CHANGED LOCATION OF COSRA 0.43 NM WEST - WESTERN FPT CHECKLIST REQUEST.
3. CHANGED LOCATION OF UXALE 788.97 FEET SOUTHEAST - WESTERN FPT CHECKLIST REQUEST.
4. CHANGED LOCATION OF YAPEC 1.08 NM SOUTHEAST - WESTERN FPT CHECKLIST REQUEST.
5. ADDED FIXES KLCUP AND SOWAL - WESTERN FPT CHECKLIST REQUEST.
6. ADDED TERMINAL ROUTE: ONALS TO KLCUP - FPT REQUESTED NEW INITIAL
7. ADDED TERMINAL ROUTE: WINLO TO KLCUP - FPT REQUESTED NEW INITIAL
8. ADDED TERMINAL ROUTE: KLCUP TO YAPEC - WESTERN FPT CHECKLIST REQUEST.
9. UPDATED TERMINAL ROUTE: YAPEC TO COSRA COURSE/DISTANCE/ALTITUDE FROM "093.26/4.00 NM/2900" TO 93.86/2.50 NM/3300". - WESTERN FPT CHECKLIST REQUEST.
10. UPDATED TERMINAL ROUTE: COSRA TO UXALE COURSE/DISTANCE FROM "093.33/1.97 NM/2900" TO "093.89/2.51 NM/2700". - BASED ON APPROACH REDESIGN AND FIX MOVE.
11. ADDED TERMINAL ROUTE: UXALE TO ANIGE - WESTERN FPT CHECKLIST REQUEST.
12. ADDED SOWAL STEPDOWN FIX. - ACHIEVE LOWER LNAV AND CIRCLING MINIMUMS.
13. UPDATED CA LEG ALTITUDE FROM "420" TO "800". - IAW 8260.58A 3-5-3B.
14. PROFILE LINE 3: CHANGED FAC FROM "123.27 TO "123.30", CHANGED FAF FROM "UXALE" TO "ANIGE", ADDED FAF TO MAP AND DIST FAF TO THLD: "4.31" - COMPUTED USING UPDATED FIX LOCATIONS.
15. PROFILE LINE 4: CHANGED COSRA FROM "2900" TO "3300", CHANGED ANIGE FROM "1580" TO "1900", ADDED SOWAL/3.20 NM TO RW12 1420 - WESTERN FPT CHECKLIST REQUEST.
16. PROFILE LINE 5: ADDED 588 HAT: 1.26 - LPV MINIMUMS ADDED TO PROCEDURE.
17. PROFILE LINE 6: ADDED MIN GP INCPT: 1900 AND GP ALT AT FAF: ANIGE 1900 - LPV MINIMUMS ADDED TO PROCEDURE.
18. PROFILE LINE 7: ADDED GP ANGLE 4.00, ADDED 20:1 IS CLEAR AND TCH: 50.0 - LPV MINIMUMS ADDED TO PROCEDURE.
19. PROFILE LINE 8: CHANGED MSA FROM 7700 TO 7500. - NEW CONTROLLING OBSTACLE.
20. REMOVED ALL NOTES REFERENCING BACK-UP ALTIMETER SETTING - LOCAL AWOS ON WMSCR, ADJUSTMENTS MOVED TO FORM 8260-9 FOR CONTINGENCY USE.
21. REMOVED CHART NOTE "DME/DME RNP-0.3 NA" AND ADDED "RNP APCH" IN PBN EQUIPMENT REQUIREMENT NOTES - UPDATE TO CURRENT CRITERIA IAW 8260.19H 8-6-8.B.(1).
22. ADDED CHART NOTE: RWY 12 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED - IAW 8260.19H 8-6-11K(3).
23. ADDED CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -6°C OR ABOVE 54°C. - LNAV/VNAV MINIMUMS ADDED TO PROCEDURE.
24. ADDITIONAL FLIGHT DATA: ADDED WAAS CHANNEL, REFERENCE ID AND LTP HAE - LPV MINIMUMS ADDED.
25. ADDITIONAL FLIGHT DATA: ADDED CHART CIRCLING ICON TO ADDITIONAL FLIGHT DATA. - APPLICATION OF NEW CIRCLING CRITERIA.
26. ADDITIONAL FLIGHT DATA: ADDED "CHART VDP AT 2.10 NM TO RW12" - IAW 8260.3D, 3-6-5.
27. ADDITIONAL FLIGHT DATA: FAS OBST CHANGED FROM "649 TREE " TO "659 AAO" - NEW OBSTACLE STUDY.
28. ADDED CHART PLANVIEW NOTE: "PROCEDURE NA FOR ARRIVALS AT ONALS ON V23 NORTHBOUND." - ENTRY ANGLE EXCEEDS 90 DEGREES.
29. ADDED LPV AND LNAV/VNAV LINES OF MINIMA - FPT REQUEST LPV AND LNAV/VNAV LINES OF MINIMA.
30. CHANGED ALTERNATE MINIMUMS FROM "CAT A/B 900-2 " TO "@CAT A/B 1000-2. NA WHEN LOCAL WEATHER NOT AVAILABLE" - IAW 8260.3D PARA 3-4-1.
31. INCREASED LNAV CAT A AND B MDA/HAT FROM "900/880" TO 980/960" - NEW OBSTACLE STUDY.
32. INCREASED CIRCLING CAT A AND B CMDA/HAA FROM "900/880" TO "980/960" - MATCH HIGHER LNAV STRAIGHT-IN MDA.
33. INCREASED CAT A AND B VISIBILITY FOR LNAV AND CIRCLING FROM "1 SM/1 1/4 SM" TO "1 1/4 SM/ 1 1/2 SM" - COMPUTED IAW 8260.3D, CHAPTER 3.
34. ADDED FAS DATA BLOCK INFORMATION. - LPV MINIMUMS ADDED.
35. ADDED NOTE: CIRCLING RWY 30 NA AT NIGHT. - UNLIT 20:1 PENETRATIONS EXIST IN CIRCLING VISUAL AREA.

11/22/2019: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 4/29/2019

1. ADDED ANIGE 1900 TO PROFILE LINE 4.

2. CHANGED CHART PROFILE NOTE FROM "VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET})." TO "VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET})."

COORDINATED WITH:

A4A ☐

ALPA ☒

AOPA ☒

APA ☐

HAI ☐

NBAA ☒

OTHER: ZSE, AMGR

FLIGHT CHECKED BY

JOEL F HAWKLEY

Digitally signed by

DONALD H LANIER

Apr 02, 2020

OFFICE

FICO

DATE

3/26/2020

DEVELOPED BY

DONALD H. LANIER (CHRISTOPHER SCHONES)

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DONALD H LANIER

Apr 02, 2020

OFFICE

AJV-A431

DATE

04/29/2019

APPROVED BY

GEORGE DAVIS

Digitally signed by

DONALD H LANIER

Apr 02, 2020

OFFICE

AJV-A430

DATE

TITLE

MANAGER

QUALITY

18

CHECKED

FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KKLS
RUNWAY	RW12
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W12A
LTP/FTP LATITUDE	460721.5265N
LTP/FTP LONGITUDE	1225414.0230W
LTP/FTP ELLIPSOIDAL HEIGHT	-00155
FPAP LATITUDE	460612.9380N
FPAP LONGITUDE	1225252.3110W
THRESHOLD CROSSING HEIGHT (TCH)	00050.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	04.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1408
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	0360F3FE

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K1
LTP ORTHOMETRIC HEIGHT	+00061
FPAP ORTHOMETRIC HEIGHT	+00061

