

**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>AIRPORT ID</u> BLI	<u>PROCEDURE NAME</u> RNAV (RNP) Z RWY 16	<u>ORIGINAL/AMENDMENT</u> 2	<u>CITY</u> BELLINGHAM	<u>STATE</u> WA		
<u>AIRPORT ELEVATION</u> 171	<u>TDZE</u> 163	<u>SUPERSEDED</u> RNAV (RNP) Z RWY 16	<u>ORIGINAL/AMENDMENT</u> 1A	<u>DATED</u> 08/15/2019	<u>MAG VAR</u> 16E	<u>EPOCH YEAR</u> 2020
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u>	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>		

TERMINAL ROUTES

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>LEG TYPE</u>	<u>FO/FB</u>	<u>RNP</u>	<u>COURSE</u>	<u>DISTANCE</u>	<u>ALTITUDE</u>
UCAKI	IAF	CAFFS		TF	FB	1.00	352.51	3.29	2400
TECUV	IAF	APDON		TF	FB	1.00	053.99	9.35	2000
CAFFS	IF	CUSEL		TF	FB	1.00	352.70	3.25	2000
CUSEL		HONUUV		RF	FB	1.00	(2.01 NM RADIUS CW (CFFVP))	2.40	2000
HONUUV		WUGUT		RF	FB	1.00	(2.01 NM RADIUS CW (CFFVP))	3.60	2000
SECOG	IF	WUGUT		TF	FB	1.00	163.86	6.00	2000
APDON	IF	HONUUV		TF	FB	1.00	061.08	5.92	2000
WUGUT	PFAF	RW16	MAP	TF	FO	0.30	163.84	5.61	
RW16	MAP	700 MSL		CA			163.84		700
700 MSL		TECUV		DF	FO	1.00			2000

MISSED APPROACH

MAP:

RNP: DA

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 700 THEN CLIMBING RIGHT TURN TO 2000 DIRECT TECUV AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

- PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)
- PROFILE STARTS AT WUGUT
- FAC: 163.84 PFAF: WUGUT DIST FAF TO MAP: DIST FAF TO THLD:
- MIN ALT: WUGUT 2000
- DIST TO THLD FROM PFAF: 5.61 MM: IM: 150 HAT: 333 HAT: 0.88 GS ANT: IM:
- MIN GP INCPT: 2000 GP ALT AT PFAF: WUGUT 2000 OM: MM:
- GP ANGLE: 3.00 34:1: IS CLEAR 20:1: IS CLEAR TCH: 51.4
- MSA FROM: RW16 12000



PBN REQUIREMENTS NOTE:

RNP AR APCH.

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, PROCEDURE NA BELOW -10°C OR ABOVE 54°C.
CHART AT OR ABOVE 4000 AT UCAKI.
CHART PROFILE NOTE: SEE PLANVIEW FOR MULTIPLE IF LOCATIONS.
CHART PLANVIEW NOTE ADJACENT TO IAF UCAKI: RF REQUIRED.
CHART PLANVIEW NOTE ADJACENT TO IAF TECUV: RF REQUIRED.
CHART SPEED ICON IN PLANVIEW AT CUSEL: MAX 200 KIAS.
CHART SPEED ICON IN PLANVIEW AT HONUV: MAX 200 KIAS.

ADDITIONAL FLIGHT DATA:

HOLD NW, RT, 135.90 INBOUND.

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD

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 0.30 DA	496	2600	333	496	2600	333	496	2600	333	496	2600	333			

CHANGES - REASONS

1. TERMINAL ROUTES: CHANGED "UCAKI TO CUSEL" SEGMENT TO "UCAKI TO CAFFS" – CAFFS ADDED PER ATC REQUEST PER CRITERIA.
2. TERMINAL ROUTES: ADDED CAFFS TO CUSEL SEGMENT – PER ATC REQUEST.
3. TERMINAL ROUTES: CHANGED SECOFG TO WUGUT COURSE FROM "163.85" TO "163.86" – WUGUT MOVED S 18.6 FEET.
4. TERMINAL ROUTES: CHANGED WUGUT TO RW16 COURSE FROM "163.85" TO "163.84" - WUGUT MOVED S 18.6 FEET.
5. PROFILE LINE 3: CHANGED FAC FROM "163.85" TO "163.84" - WUGUT MOVED S 18.6 FEET.
6. PROFILE LINE 5: CHANGED "DIST TO THLD FROM OM" TO "DIST TO THLD FROM PFAF", CHANGED "320 HAT: 0.84" TO "333 HAT: 0.88" – CURRENT DOCUMENTATION STANDARDS, REMOVED .27 MINIMUMS.
7. NOTES: ADDED "CHART AT OR ABOVE 4000 AT UCAKI" – UCAKI TRANSITION CONNECTED TO RNAV STAR.
8. NOTES: REMOVED "CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT TECUV ON V495 SOUTHWEST BOUND" – AIRWAY NO LONGER PUBLISHED.
9. NOTES: CHANGED "CHART SPEED ICON IN PLANVIEW AT CUSEL: MAX 180 KIAS" TO "CHART SPEED ICON IN PLANVIEW AT CUSEL: MAX 200 KIAS" – PROCEDURE REDESIGNED PER ATC REQUEST.
10. NOTES: CHANGED "CHART SPEED ICON IN PLANVIEW AT HONUV: MAX 180 KIAS" TO "CHART SPEED ICON IN PLANVIEW AT HONUV: MAX 200 KIAS" PROCEDURE REDEIGNED PER ATC REQUEST.
11. NOTES: REMOVED "CHART NOTE: FOR INOPERATIVE ALS, INCREASE RNP 0.27 ALL CATS VISIBILITY TO RVR 4500, INCREASE RNP 0.30 ALL CATS VISIBILITY TO RVR 6000" – REMOVED MINIMA SET.
12. ADDITIONAL FLIGHT DATA: REMOVED "ROUTE TYPE: A, H, ROUTE TYPE QUALIFIER 1: F, ROUTE TYPE QUALIFIER 2: S" – CURRENT DOCUMENTATION STANDARDS.
13. MINIMUMS: REMOVED "RNP 0.27 DA SET" – PER ATC REQUEST.
14. MINIMUMS: LOWERED RNP 0.30 DA/HAT/VISIBILITY FROM "580/414/4500" TO "496/333/2600" – NEW OBSTACLE EVALUATION.



COORDINATED WITH:

A4A

☐

ALPA

☒

AOPA

☒

APA

☒

HAI

☐

NBAA

☒

OTHER: YYJ APP CON, ZSE, BLI ATCT, AMGR, WFPT

FLIGHT CHECKED BY

OFFICE

DATE

DEVELOPED BY

CASIMIR L. TABAKA (ROBERT A. SWINSON)

OFFICE

AJV-A432

DATE

05/30/2025

APPROVED BY

CASIMIR L. TABAKA

OFFICE

AJV-A432

DATE

TITLE

MANAGER



**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD**

<u>AIRPORT ID</u>	<u>PROCEDURE NAME</u>	<u>AMDT NO.</u>	<u>CITY</u>	<u>STATE</u>	<u>AIRPORT ELEVATION</u>	<u>FACILITY</u>
BLI	RNAV (RNP) Z RWY 16	2	BELLINGHAM	WA	171	RNAV

PART A: OBSTRUCTION DATA SEGMENTS

INITIAL

FROM
UCAKI

TO
CAFFS

RNP
1.00

DISTANCE
3.29

PAT

MAP

HAT

HMAS

<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
AAO	485139.00N/1223721.00W	581	215	8	4B	1000				AC8 AT811	2400
TERRAIN	485033.00N/1224109.00W	295 (300)								AS1500	1800

COMPUTATIONS

ALT KIAS KTAS HAA VKTW TR BA DTA COURSE CHANGE DVEB VEB OCS RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

INITIAL

FROM
TECUV

TO
APDON

RNP
1.00

DISTANCE
9.35

PAT

MAP

HAT

HMAS

<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
REFINERY (53-000262)	485307.00N/1224418.00W	408	100	20	3C	1000				AC20 AT572	2000
TERRAIN	485330.00N/1224721.00W	170 (200)								AS1500	1700

COMPUTATIONS

ALT KIAS KTAS HAA VKTW TR BA DTA COURSE CHANGE DVEB VEB OCS RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

QUALITY
37
CHECKED

INTERMEDIATE

FROM

CAFFS

TO

CUSEL

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>		<u>HAT</u>					<u>HMAS</u>	
1.00	3.25										
<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
AAO	485148.00N/1223730.00W	584	215	8	4B	500				AC8 AT908	2000
TERRAIN	485148.00N/1223730.00W	383 (400)								AS1500	1900

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

INTERMEDIATE: STEPDOWN

FROM

CUSEL

TO

HONUV

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>		<u>HAT</u>					<u>HMAS</u>	
1.00	2.40										
<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
AAO	485309.00N/1223845.00W	575	215	8	4B	500				AC8 AT917	2000
TERRAIN	485406.00N/1223848.00W	196 (200)								AS1500	1700

COMPUTATIONS

RF SEGMENT

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

CUSEL-HONUV

3500

200

216.19

3329.18

38.38

2.01

25.17

0.00

0.00

(CFFVP)/2.4 NM

SEGMENT REMARKS:



INTERMEDIATE: STEPDOWN

FROM

HONUJ

TO

WUGUT

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>	<u>HMAS</u>
1.00	3.60				

<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
AAO	485742.00N/1223609.00W	315	215	8	4B	500				AC8 AT1177	2000
TERRAIN	485727.00N/1223542.00W	108 (100)								AS1500	1600

COMPUTATIONS

<u>RF SEGMENT</u>	<u>ALT</u>	<u>KIAS</u>	<u>KTAS</u>	<u>HAA</u>	<u>VKTW</u>	<u>TR</u>	<u>BA</u>	<u>DTA</u>	<u>COURSE CHANGE</u>	<u>DVEB</u>	<u>VEB OCS</u>	<u>RF CENTER FIX/DISTANCE</u>
HONUJ-WUGUT	2900	200	214.23	2728.82	22.37	2.01	22.09	0.00	0.00			(CFFVP)/3.6 NM

SEGMENT REMARKS:

INTERMEDIATE

FROM

SECOG

TO

WUGUT

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>	<u>HMAS</u>
1.00	6.00				

<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
AAO	490039.00N/1222915.00W	519	215	8	4B	500				AC8 AT973	2000
TERRAIN	485942.00N/1223312.00W	272 (300)								AS1500	1800

COMPUTATIONS

<u>ALT</u>	<u>KIAS</u>	<u>KTAS</u>	<u>HAA</u>	<u>VKTW</u>	<u>TR</u>	<u>BA</u>	<u>DTA</u>	<u>COURSE CHANGE</u>	<u>DVEB</u>	<u>VEB OCS</u>	<u>RF CENTER FIX/DISTANCE</u>
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SEGMENT REMARKS:



INTERMEDIATE

FROM

APDON

TO

HONUV

RNP

1.00

DISTANCE

5.92

PAT

MAP

HAT

HMAS

OBSTRUCTION	COORDINATES	ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
AAO	485312.00N/1223854.00W	571	215	8	4B	500				AC8 AT921	2000
TERRAIN	485312.00N/1223854.00W	370 (400)								AS1500	1900

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

FINAL

FROM

WUGUT

TO

RW16

RNP

0.30

DISTANCE

5.61

PAT

MAP

DA

HAT

333

HMAS

OBSTRUCTION	COORDINATES	ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
TREE (53-077432)	484846.77N/1223217.23W	236	20	3	1A		21.15:1			AC3	496

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



MISSSED APPROACH: LEVEL SURFACE

FROM

DA

TO

TECUV

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>				<u>HAT</u>	<u>HMAS</u>			
0.30-1.00											335
<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
							ASC				2000
AAO	485030.00N/1224106.00W	496	215	8	4B	1000					1500
TERRAIN	485033.00N/1224109.00W	295 (300)								AS1500	1800

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

CIRCLING

☐ ALL CATS

☐ CAT A

☐ CAT B

☐ CAT C

☐ CAT D

☐ CAT E

☒ NOT AUTHORIZED

MSA

CENTER

RW16

RADIUS

25

<u>SECTOR</u>	<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>BEARING</u>	<u>DISTANCE</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
360-360	AAO	484636.00N/1214915.00W	077	28.5	10971	215	8	4B	1000			12000

MSA REMARKS:

NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:



PART B: SUPPLEMENTAL DATA

COMMUNICATIONS WITH

ZSE ARTCC, BLI TOWER, VICTORIA APP CON

WX SERVICE	LOCATION	HRS OPERATION	ALTIMETER SOURCE	DISTANCE	WMSCR	ADJUSTMENTS
ASOS	BLI	24	BLI		Y	0
BACK-UP WX SERVICE	LOCATION	HRS OPERATION	ALTIMETER SOURCE	DISTANCE	WMSCR	ADJUSTMENTS
ASOS	FHR	24	FHR	25.24	Y	67

WX REMARKS:

BACK-UP ALTIMETER IS AUTOMATICALLY PULLED FROM AIRNAV. NOT USED FOR RNP PROCEDURES.

PRIMARY NAVAID	MONITOR POINT	HRS OPERATION	CAT
APPROACH AND RUNWAY LIGHTING SYSTEM		RUNWAY MARKINGS	RUNWAY VISUAL RANGE
RW34 - REIL (PCL), HIRL (PCL), PAPI-4L		NPI-G	ROLL OUT
RW16 - MALSR (PCL), HIRL (PCL), PAPI-4L		PIR-G	APPROACH

GLIDESLOPE ANGLE	ELEV RWY THRESHOLD	TCH	ELEV GS ANTENNA	DISTANCE FROM RWY	VGSI ANGLE	TCH
3.00	163.4	51.4			3.00	50.0

FINAL APPROACH COURSE AIMING

RUNWAY THRESHOLD	X	FT FROM THRESHOLD	DISPLACED THRESHOLD DISTANCE
ON CENTERLINE	X	FT FROM CENTERLINE	

CRITICAL TEMPERATURES

CRITICAL LOW	CRITICAL HIGH	ACT	APT ISA
-10C	+54C	-10C	+14.66C

CRITICAL TEMPERATURE REMARKS:

AVERAGE COLD TEMPERATURE DERIVED FROM 5-YEAR HISTORY (2020-2024).
CRITICAL LOW TEMPERATURE BASED ON ACT.
DESCENT RATE (FPM): STANDARD TEMP 957 HIGH TEMP 1262.

"VISUAL PORTION OF FINAL" PENETRATIONS



HELICOPTER 'VISUAL PORTION OF FINAL' PENETRATIONS

and/or

5280-FT "PROCEED VFR" SEGMENT LEVEL SURFACE AREA PENETRATIONS

PENETRATIONS REMARKS:

PART C: GENERAL REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.
40 FT VEGETATION USED PER FPT.

PART D: AIRSPACE

DOCKET #

ALL DISTANCES TO 1/100NM; ELEVATION TO NEAREST 100 FEET; COORDINATES TO 1/100 SECOND; DEG TO 1/100 DEGREE

DISTANCE FROM	THLD	TO 1000FT POINT	3.09
WIDTH OF	FINAL	SEGMENT AT 1000FT POINT	1.20
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1000FT POINT	179.84
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1000FT POINT	200
DISTANCE FROM	THLD	TO 1500FT POINT	4.66
WIDTH OF	FINAL	SEGMENT AT 1500FT POINT	1.20
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1500FT POINT	179.84
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1500FT POINT	200

THRESHOLD COORDINATES (IF STR-IN)	484806.74N/1223215.20W
ARP COORDINATES	484733.70N/1223215.10W
RUNWAY APCH END AND DIST FURTHEST FROM ARP	RUNWAY 34 DISTANCE 0.55 NM
FAF COORDINATES	485342.83N/1223216.61W
FIX NAME COORDINATES	

REMARKS

PART E: PREPARED BY

NAME	OFFICE	DATE	TITLE
CASIMIR L. TABAKA (ROBERT A. SWINSON)	AJV-A432	05/30/2025	AERONAUTICAL INFORMATION SPECIALIST

