

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.

AIRPORT SPOKANE INTL	AIRPORT ID KGEg	PROCEDURE NAME RNAV (GPS) Y RWY 21	ORIGINAL/AMENDMENT 2C	CITY SPOKANE	STATE WA
AIRPORT ELEVATION 2385	TDZE 2346	SUPERSEDED RNAV (GPS) Y RWY 21	ORIGINAL/AMENDMENT 2B	DATED 08/17/2017	MAG VAR 14E
FACILITY RNAV	COORDINATES OF FACILITIES	ACTUAL EFFECTIVE DATE	REQUIRED EFFECTIVE DATE 09/13/2018	CANCEL/SUSPEND	EPOCH YEAR 2020

TERMINAL ROUTES

FROM	FIX TYPE	TO	FIX TYPE	LEG TYPE	FO/FB	RNP	COURSE	DISTANCE	ALTITUDE
HILIE		EPENE		TF	FB	2.00	281.26	20.46	9000
ZOOMR		WATRU		TF	FB	2.00	031.08	38.10	6000
WATRU		CEMOM		TF	FB	2.00	073.92	10.00	6000
CEMOM	IAF	CEBUS		TF	FB	1.00	136.12	7.27	5000
EPENE	IAF	CEBUS		TF	FB	1.00	301.79	9.21	5000
CEBUS	IF	SIGYO		TF	FB	1.00	211.67	7.34	3900
SIGYO	FAF	RW21	MAP	TF	FO	0.30	211.57	4.78	
RW21	MAP	2546 MSL		CA			211.57		
2546 MSL		IRUHO		DF	FB	1.00			
IRUHO		GANGS		TF	FO	1.00	252.07	9.77	5000

MISSED APPROACH

MAP:

LPV: DA
 LNAV/VNAV: DA
 LNAV: RW21

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 5000 DIRECT IRUHO AND ON TRACK 252.07 TO GANGS AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. PROFILE STARTS AT CEBUS

3. FAC: 211.57

FAF: SIGYO

DIST FAF TO MAP: 4.78

DIST FAF TO THLD: 4.78

4. MIN ALT: CEBUS 5000, SIGYO 3900

5. DIST TO THLD FROM OM:

MM:

IM:

150 HAT:

200 HAT: 0.53

GS ANT:

6. MIN GP INCPT: 3900

GP ALT AT FAF : SIGYO 3900

OM:

MM:

IM:

7. GP ANGLE: 3.00

34:1: IS CLEAR

20:1: IS CLEAR

TCH: 55.0

8. MSA FROM: RW21 7200

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -18°C OR ABOVE 53°C.
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT CEMOM ON V112 NORTHBOUND AND AT HILIE ON V2 EASTBOUND.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT ZOOMR ON V2-448 SOUTHWEST BOUND.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
CHART VDP AT 1.27 NM TO RW21*
*LNAV ONLY
WAAS CHANNEL #82619
REFERENCE PATH ID: W21A
CHART FAS OBST: 2500 BLDG 473735N/1173012W.
HOLD SW, RT, 056.48 INBOUND
LTP HAE: 689.5 M

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD - CAT C 1000-2 3/4, CAT D 1100-3

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
LPV DA	2546	1800	200	2546	1800	200	2546	1800	200	2546	1800	200			
LNAV/VNAV DA	2720	4500	374	2720	4500	374	2720	4500	374	2720	4500	374			
LNAV MDA	2800	2400	454	2800	2400	454	2800	4500	454	2800	4500	454			
CIRCLING	2960	1	575	2980	1	595	3300	2 3/4	915	3400	3	1015			



CHANGES - REASONS

1. INCREASED ALL TERMINAL ROUTE COURSES, MA TRACK AND HOLDING BY 4 DEGREES - AIRPORT MAG VAR CHANGED FROM 18E/2000 TO 14E/2020.
2. RAISED CIRCLING CAT B MDA/HAA FROM 2960/575 TO 2980/595, CAT C MDA/HAA FROM 2960/575 TO 3300/915, CAT D MDA/HAA FROM 2980/595 TO 3400/1015 - APPLIED NEW CIRCLING CRITERIA, RWY 8 WILL BE FLIGHT CHECKED.
3. RAISED CIRCLING CAT C VISIBILITY FROM 1 1/2 TO 2 3/4 AND CIRCLING CAT D VISIBILITY FROM 2 TO 3 - CIRCLING MDA INCREASED.
4. ADDED ALTERNATE MINIMUMS @ CAT C 1000-2 3/4, CAT D 1100-3 - CAT C CIRCLING VISIBILITY WAS INCREASED TO 2 3/4 AND CAT D CIRCLING VISIBILITY WAS INCREASED TO 3.
5. MISSED APPROACH INSTRUCTION CHANGED FROM "CLIMB TO 5000 ON TRACK 207.57 TO IRUHO AND ON TRACK 248.07 TO GANGS AND HOLD" TO "CLIMB TO 5000 DIRECT IRUHO AND ON TRACK 252.07 TO GANGS AND HOLD" - UPDATED MAG VAR.
6. CHANGED "FAC: 207.57" TO "FAC: 211.57" ON 8260-3 LINE 3 - UPDATED AIRPORT MAG VAR.
7. ADDED "20:1 IS CLEAR" TO 8260-3 LINE 7 - VERIFIED NO VISUAL SFC PENETRATIONS AND IAW 8260.19H, PARA 8-6-7G(3).
8. FAS OBSTACLE CHANGED FROM "CHART FAS OBSTACLE: 2500 RAIL BLDG 473735N/1173012W" TO "CHART FAS OBSTACLE: 2500 BLDG 473735N/1173012W" IN ADDITIONAL FLIGHT DATA - UPDATED EVALUATION.
9. ADDED "CHART CIRCLING ICON" IN ADDITIONAL FLIGHT DATA - RWY 8 WILL BE FLIGHT CHECKED USING NEW CIRCLING CRITERIA.
10. UPDATED "CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -18C OR ABOVE 53C" - USED 5 YEAR TEMPERATURE DATA, AFS HIGH/LOW CALCULATOR AND IAW 8260.19H, PARA 8-6-9S .
11. DELETED "CHART NOTE: DME/DME RNP-0.3" - IAW 8260.19H, PARA 4-6-10E AND MEMO 257 DATED 9/12/2017.
12. ADDED "RNP APCH" TO PBN REQUIREMENTS NOTES - IAW 8260.19H, PARA 8-6-8B(1) AND MEMO 257 DATED 9/12/2017.
13. UPDATED "CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE 3.00/TCH 73)" TO "CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET})" - IAW 8260.19H, PARA 8-6-9M.
14. CRC REMAINDER CHANGED FROM 1AA1FB79 TO C9DEB1A0 -P-NOTAM 4/7081 APPLIED CHANGING THRE TO TDZE.
15. RAISED LNAV CAT C/D VISIBILITY FROM RVR 2400 TO RVR 4500 - PER 8260.3 VISIBILITY TABLES.
16. CHANGED DISTANCE TO THLD FROM "200 HATH: 0.45 NM" TO "200 HAT: 0.53 NM" - PER VISCHECK TOOL.
17. CHANGED VDP FROM 1.33 NM TO 1.27 NM - PER 8260.3C FORMULA 2-6-5.
18. INCORPORATED CHANGES FROM P-NOTAM 4/7081 WHICH CHANGED FROM THRE TO TDZE - IAW 8260.19H, PARA 8-3-4C(3).
19. INCORPORATED CHANGES FROM P-NOTAM 7/7390 WHICH CHANGED LPV VISIBILITY FROM RVR 2400 TO RVR 1800 ALL CATS - IAW 8260.19H, PARA 8-3-4C(3).

PDF EDITED:

1. ADDED PAT 1 TO MISSED APPROACH: LPV, LNAV/VNAV AND LNAV.



<u>AIRPORT</u> SPOKANE INTL	<u>AIRPORT ID</u> KGEG	<u>PROCEDURE NAME</u> RNAV (GPS) Y RWY 21	<u>ORIGINAL/AMENDMENT</u> 2C	<u>CITY</u> SPOKANE	<u>STATE</u> WA
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COORDINATED WITH:

A4A ☒ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: ZSE, GEG ATC, AMGR, ATA

<u>FLIGHT CHECKED BY</u>	<u>OFFICE</u>	<u>DATE</u>
FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-333) MEMO, DEC 22, 2017.		
<u>DEVELOPED BY</u>	<u>OFFICE</u>	<u>DATE</u>
DIANE S LAIR	AJV-5433	05/25/2018
<u>APPROVED BY</u>	<u>OFFICE</u>	<u>DATE</u>
PATRICK MULQUEEN	AJV-5430	
		<u>TITLE</u>
		MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KGEK
RUNWAY	RW21
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	Y
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W21A
LTP/FTP LATITUDE	473752.3810N
LTP/FTP LONGITUDE	1173105.7570W
LTP/FTP ELLIPSOIDAL HEIGHT	+06895
FPAP LATITUDE	473636.2905N
FPAP LONGITUDE	1173300.2875W
THRESHOLD CROSSING HEIGHT (TCH)	00055.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0000
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	35.0
 CRC REMAINDER	 C9DEB1A0

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K1
LTP ORTHOMETRIC HEIGHT	+07079
FPAP ORTHOMETRIC HEIGHT	+07079



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

<u>AIRPORT</u> SPOKANE INTL	<u>AIRPORT ID</u> KGEG	<u>PROCEDURE NAME</u> RNAV (GPS) Y RWY 21	<u>AMDT NO.</u> 2C	<u>CITY</u> SPOKANE	<u>STATE</u> WA	<u>AIRPORT ELEVATION</u> 2385	<u>FACILITY</u> RNAV
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PART A: OBSTRUCTION DATA SEGMENTS

FEEDER

FROM
HILIE

TO
EPENE

RNP

DISTANCE
20.46

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>
1.AAO	473656.40N/1165928.10W	5441	250	50	4D	2000				AT1559	9000
2.TERRAIN	473703.80N/1165931.00W	5241 (5200)								AS1500	6700

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT
REMARKS:

FEEDER

FROM
ZOOMR

TO
WATRU

RNP

DISTANCE
38.10

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>
3.AAO	475339.00N/1173745.00W	3275	250	125	4E	2000				AT725	6000
4.TERRAIN	474436.00N/1174957.00W	2980 (3000)								AS1500	4500

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT
REMARKS:



FEEDER

FROM

WATRU

TO

CEMOM

RNP	DISTANCE	PAT	MAP	HAT			HMAS				
	10.00										
OBSTRUCTION	COORDINATES	ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
5.AAO	475414.70N/1173644.30W	3775	250	50	4D	2000				AT225	6000
6.TERRAIN	475414.70N/1173644.30W	3575 (3600)								AS1500	5100

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT
REMARKS:

INITIAL

FROM

CEMOM

TO

CEBUS

RNP	DISTANCE	PAT	MAP	HAT			HMAS				
	7.27										
OBSTRUCTION	COORDINATES	ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
7.AAO	474845.00N/1171806.00W	2628	250	125	4E	1000				AT1372	5000
8.TERRAIN	474924.00N/1171806.00W	2428 (2400)								AS1500	3900

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT
REMARKS:



INITIAL

FROM

EPENE

TO

CEBUS

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>			<u>HMAS</u>				
	9.21										
<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>
9.AAO	474333.00N/1171012.00W	3550	250	125	4E	1000				AT450	5000
10.TERRAIN	474333.00N/1171012.00W	3350 (3400)								AS1500	4900

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

INTERMEDIATE

FROM

CEBUS

TO

SIGYO

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>			<u>HMAS</u>				
	7.34										
<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>
11.AAO	474227.00N/1171951.00W	2825	250	125	4E	500				AT477 AC98	3900
12.TERRAIN	474227.00N/1171954.00W	2625 (2600)								AS1000	3600

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



CIRCLING

☐ ALL CATS

☒ CAT A

☒ CAT B

☒ CAT C

☒ CAT D

☐ CAT E

☐ NOT AUTHORIZED

OBSTRUCTION	COORDINATES	RADIUS	HAA	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
CATEGORY A											
16.CONTROL_TOWER (53-021567)	473649.09N/1173137.59W	1.33	575	2651	20	10	1B	300			2960
CATEGORY B											
17.TREE (53-024870)	473447.15N/1173231.42W	1.89	595	2663	20	10	1B	300			2980
CATEGORY C											
18.TOWER (53-023561)	473358.40N/1173410.90W	2.98	915	2863	500	125	5E	300		AC125	3300
CATEGORY D											
19.AAO	473304.68N/1173339.04W	3.90	1015	3084	50	20	2C	300			3400

CIRCLING REMARKS:
ORDER 8260.3, VOLUME 1, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED.

MSA

CENTER	RADIUS
RW21	25

SECTOR	OBSTRUCTION	COORDINATES	BEARING	DISTANCE	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
360-360	AAO	475521.90N/1170635.90W	029	24.1	6083	1000	20	6C	1000		AC20	7200

MSA REMARKS:

NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:

100' TREES USED FOR VEGETATION PER FPT.

TAA NOT DEVELOPED PER FPT AND ATC REQUEST.

LPV SURFACE = 34 : 1

LNAV/VNAV:
SURFACE = 23.26 : 1

BACK-UP ALTIMETER NOT REQUIRED, REDUNDANT SOURCES AVAILABLE.

1000' AIRSPACE USED IN INTERMEDIATE.

#13: OBSTACLE NO. HAS CHANGED FROM KGEGOO54 TO 53-024865.
#14: OBSTACLE NO. HAS CHANGED FROM KGEGT0067 TO 53-021567.

PART B: SUPPLEMENTAL DATA



<u>AIRPORT</u>	<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>
SPOKANE INTL	KGEG	RNAV (GPS) Y RWY 21	2C	SPOKANE	WA	2385	RNAV

PART C: GENERAL REMARKS:
PRECIPITOUS TERRAIN EVALUATION COMPLETED.



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	2.90
WIDTH OF	FINAL	SEGMENT AT 1000FT POINT	1.20
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1000FT POINT	225.57
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1000FT POINT	2329
DISTANCE FROM	THLD	TO 1500FT POINT	4.58
WIDTH OF	FINAL	SEGMENT AT 1500FT POINT	1.20
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1500FT POINT	225.57
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1500FT POINT	2329

THRESHOLD
COORDINATES
(IF STR-IN)473752.38N/1173105.76W

ARP COORDINATES473708.50N/1173206.80W

RUNWAY APCH END
AND DIST FURTHEST
FROM ARP RUNWAY 21 DISTANCE 1.00 NM

FAF
COORDINATES474113.17N/1172602.88W

FIX NAME
COORDINATES

REMARKS
NO ADDITIONAL AIRSPACE REQUIRED.



<u>AIRPORT</u>	<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>
SPOKANE INTL	KGEG	RNAV (GPS) Y RWY 21	2C	SPOKANE	WA	2385	RNAV

PART E: PREPARED BY

<u>NAME</u>	<u>OFFICE</u>	<u>DATE</u>	<u>TITLE</u>
DIANE S LAIR	AJV-5433	05/25/2018	AERONAUTICAL INFORMATION SPECIALIST

