

**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 ID</u> 40G	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 19	<u>ORIGINAL/AMENDMENT</u> ORIG-C	<u>CITY</u> GRAND CANYON	<u>STATE</u> AZ		
<u>AIRPORT ELEVATION</u> 5999	<u>TDZE</u> 5996	<u>SUPERSEDED</u> GPS RWY 19	<u>ORIGINAL/AMENDMENT</u> ORIG-B	<u>DATED</u> 07/19/2018	<u>MAG VAR</u> 13E	<u>EPOCH YEAR</u> 1995
<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>
GCN VOR/DME	IAF	EHGUY		TF	FB	1.00	144.87	9.61	8500
EHGUY	IF	VALEQ		TF	FB	1.00	188.12	5.00	7900
VALEQ	FAF	RW19	MAP	TF	FO	0.30	188.10	5.00	
RW19	MAP	7000 MSL		CA			188.10		7000
7000 MSL		GCN VOR/DME		DF	FO	1.00			10000

MISSED APPROACH

MAP:

LNAV: RW19

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 7000 THEN CLIMBING RIGHT TURN TO 10000 DIRECT GCN VOR/DME AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)
2. PROFILE STARTS AT EHGUY
3. FAC: 188.10 FAF: VALEQ DIST FAF TO MAP: 5.00 DIST FAF TO THLD: 5.00
4. MIN ALT: EHGUY 8500, VALEQ 7900
5. DIST TO THLD FROM OM: MM: IM: 150 HAT: GS ANT:
6. MIN GP INCPT: GP ALT AT FAF : OM: MM: IM:
7. GP ANGLE: 34:1: IS NOT CLEAR 20:1: IS NOT CLEAR TCH:
8. MSA FROM: RW19 13100

QUALITY
10
CHECKED

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: PROCEDURE NA AT NIGHT.

CHART NOTE: RWY 19 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED.

CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON GCN VOR/DME AIRWAY RADIALS 062 CW 080.

CHART NOTE: USE GRAND CANYON NATIONAL PARK ALTIMETER SETTING; WHEN NOT RECEIVED, PROCEDURE NA.

ADDITIONAL FLIGHT DATA:

CHART GRAND CANYON NATIONAL PARK ASOS.

HOLD S, LT, 016.00 INBOUND.

FAS OBST: 6181 AAO 354300N/1120615W.

6326 AAO 354336N/1120436W.

CHART CIRCLING ICON.

VALEQ TO RW19: 3.50/50.

MINIMUMS:

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

ALTERNATE: NA ☒

<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	6560	1	564	6560	1	564	6560	1 5/8	564		NA				
CIRCLING	6620	1	621	6640	1	641	6640	1 3/4	641		NA				



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

<u>AIRPORT ID</u> 40G	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 19	<u>AMDT NO.</u> ORIG-C	<u>CITY</u> GRAND CANYON	<u>STATE</u> AZ	<u>AIRPORT ELEVATION</u> 5999	<u>FACILITY</u> RNAV
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PART A: OBSTRUCTION DATA SEGMENTS

INITIAL

FROM GCN VOR/DME TO EHGYU

<u>RNP</u>	<u>DISTANCE</u> 9.61	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>	<u>HMAS</u>							
<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	354912.00N/1120524.00W		7248	50	20	2C	1000					8300
TERRAIN	354912.00N/1120524.00W		7047 (7000)								AS1500	8500

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: LNAV

FROM EHGYU TO VALEQ

<u>RNP</u>	<u>DISTANCE</u> 5.00	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>	<u>HMAS</u>							
<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	354912.00N/1120524.00W		7248	50	20	2C	500				AC98	7900
TERRAIN	354839.00N/1120536.00W		6322 (6300)								AS1000	7300

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:



FINAL: LNAV

FROM

VALEQ

TO

RW19

RNP	DISTANCE	PAT	MAP	HAT			HMAS					
	5.00		RW19	564								
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
AAO	354300.00N/1120615.00W		6181	50	20	2C	250				RA124	6560

COMPUTATIONS

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

MISSED APPROACH : LNAV

FROM

RW19

TO

GCN VOR/DME

RNP	DISTANCE	PAT	MAP	HAT			HMAS					
							6336					
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
								ASC				10000
AAO	354912.00N/1120530.00W		7244	164	98	4E	1000				SA-102	8200
TERRAIN	354909.00N/1120545.00W		6696 (6700)								AS1500	8200

COMPUTATIONS

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



AIRPORT ID

40G

PROCEDURE NAME

RNAV (GPS) RWY 19

AMDT NO.

ORIG-C

CITY

GRAND CANYON

STATE

AZ

AIRPORT ELEVATION

5999

FACILITY

RNAV

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											
TOWER (04-020305)	353854.05N/1120829.40W	1.42	621	6149	20	3	1A	300		RA124 XP47	6620
CATEGORY B											
TREE	353728.00N/1120729.00W	2.04	641	6199	50	20	2C	300		RA124	6640
CATEGORY C											
AAO	353728.00N/1120729.00W	3.23	641	6199	50	20	2C	300		RA124	6640

CIRCLING REMARKS:
XP47 - RETAIN PUBLISHED MINIMUMS

MSA

CENTER	RADIUS
RW19	25

SECTOR	OBSTRUCTION	COORDINATES	BEARING	DISTANCE	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
360-360	AAO	352118.00N/1114100.00W	115	28.9	11929	164	98	4E	1000		XP171	13100

MSA REMARKS:
XP171 - RETAIN PUBLISHED MINIMUM

NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:
100 FT VEGETATION USED PER FPT



PART B: SUPPLEMENTAL DATA

COMMUNICATIONS WITH

<u>WX SERVICE</u> ASOS	<u>LOCATION</u> KGCN	<u>HRS OPERATION</u> 24	<u>ALTIMETER SOURCE</u> KGCN	<u>DISTANCE</u> 18.282	<u>SERVICE-A</u> Y	<u>ADJUSTMENTS</u> 124
<u>BACK-UP WX SERVICE</u>	<u>LOCATION</u>	<u>HRS OPERATION</u>	<u>ALTIMETER SOURCE</u>	<u>DISTANCE</u>	<u>SERVICE-A</u>	<u>ADJUSTMENTS</u>

WX REMARKS:
RASS PRESSURE PATTERNS THE SAME
K40G 5999, KGCN 6579
RA = 123.3.

<u>PRIMARY NAVAID</u>	<u>MONITOR POINT</u>	<u>HRS OPERATION</u>	<u>CAT</u>
<u>APPROACH AND RUNWAY LIGHTING SYSTEM</u>		<u>RUNWAY MARKINGS</u>	<u>RUNWAY VISUAL RANGE</u>
RW01		NPI-F	
RW19		NPI-G	

<u>GLIDESLOPE ANGLE</u>	<u>ELEV RWY THRESHOLD</u>	<u>TCH</u>	<u>ELEV GS ANTENNA</u>	<u>DISTANCE FROM RWY</u>	<u>VGSI ANGLE</u>	<u>TCH</u>
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FINAL APPROACH COURSE AIMING

RUNWAY THRESHOLD	<input checked="" type="checkbox"/>	FT FROM THRESHOLD	DISPLACED THRESHOLD DISTANCE
ON CENTERLINE	<input checked="" type="checkbox"/>	FT FROM CENTERLINE	

CRITICAL TEMPERATURES

<u>CRITICAL LOW</u>	<u>CRITICAL HIGH</u>	<u>ACT</u>	<u>APT ISA</u>
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CRITICAL TEMPERATURE REMARKS:

"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.

VDP NOT ESTABLISHED - REMOTE PRIMARY ALTIMETER SOURCE AND ASSUMED 20:1/34:1 PENETRATIONS

ORDER 8260.3 CHAPTER 2 APPLIED TO 6326 AAO 354336.00N/1120436.00W.

ORDER 8260.3, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED.



<div>AIRPORT ID</div> <div>40G</div>	<div>PROCEDURE NAME</div> <div>RNAV (GPS) RWY 19</div>	<div>AMDT NO.</div> <div>ORIG-C</div>	<div>CITY</div> <div>GRAND CANYON</div>	<div>STATE</div> <div>AZ</div>	<div>AIRPORT ELEVATION</div> <div>5999</div>	<div>FACILITY</div> <div>RNAV</div>
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	3.33			
WIDTH OF	FINAL	SEGMENT AT 1000FT POINT	1.20			
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1000FT POINT	201.10			
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1000FT POINT	6000			
DISTANCE FROM	THLD	TO 1500FT POINT	5.00			
WIDTH OF	INTERMEDIATE	SEGMENT AT 1500FT POINT	2.13			
TRUE COURSE OF	INTERMEDIATE	SEGMENT CONTAINING 1500FT POINT	201.12			
HIGH TERRAIN IN	INTERMEDIATE	SEGMENT CONTAINING 1500FT POINT	6300			
THRESHOLD COORDINATES (IF STR-IN)	353921.41N/1120843.98W					
ARP COORDINATES	353902.33N/1120853.00W					
RUNWAY APCH END AND DIST FURTHEST FROM ARP	RUNWAY 1 DISTANCE 0.35 NM					
FAF COORDINATES	354401.73N/1120631.44W					
FIX NAME COORDINATES						
REMARKS						

QUALITY
10
CHECKED

FAA Form 8260-9 / (11/16) Supersedes Previous Edition

Electronic Version

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PART E: PREPARED BY

<u>NAME</u> WARDELL HENNING (KELLY CARLSON)	<u>OFFICE</u> AJV-A432	<u>DATE</u> 09/01/2020	<u>TITLE</u> AERONAUTICAL INFORMATION SPECIALIST
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