

**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> JIM HAMILTON L B OWENS	<u>AIRPORT ID</u> KCUB	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 31	<u>ORIGINAL/AMENDMENT</u> 1A	<u>CITY</u> COLUMBIA	<u>STATE</u> SC	
<u>AIRPORT ELEVATION</u> 193	<u>TDZE</u> 186	<u>SUPERSEDED</u> RNAV (GPS) RWY 31	<u>ORIGINAL/AMENDMENT</u> 1	<u>DATED</u> 01/03/2019	<u>MAG VAR</u> 6W	<u>EPOCH YEAR</u> 1995
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 3 DECEMBER 2020	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>		

TAA

FROM	FIX TYPE	TO	FIX TYPE	ALTITUDE
1. 222/30 CW 042/30	NOPT	SKITR	IF/IAF	2700
2. 042/30 CW 132/30		TTROY	IAF	2700
3. 132/30 CW 222/30		DDATA	IAF	3100

TERMINAL ROUTES

FROM	FIX TYPE	TO	FIX TYPE	LEG TYPE	FO/FB	RNP	COURSE	DISTANCE	ALTITUDE
DDATA	IAF	SKITR	NOPT	TF	FB	1.00	221.59	8.00	2700
TTROY	IAF	SKITR	NOPT	TF	FB	1.00	041.49	8.00	2700
SKITR	IF/IAF	HIDEE		TF	FB	1.00	311.54	8.00	1800
HIDEE	FAF	ZIXIG/2.00 NM TO RW31		TF	FB	0.30	311.47	2.94	
ZIXIG/2.00 NM TO RW31		RW31	MAP	TF	FO	0.30	311.47	2.00	
RW31	MAP	436 MSL		CA			311.47		
436 MSL		JSSTN		DF	FO	1.00			2700

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW31

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2700 DIRECT JSSTN AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF

(IAF)

2. HOLD SE SKITR, RT, 311.54 INBOUND, 2700 FT. IN LIEU OF PT (IF/IAF), MAX 6000.

3. FAF: 311.47FAF: HIDEEDIST FAF TO MAP: 4.94DIST FAF TO THLD: 4.94

4. MIN ALT: SKITR 2700, HIDEE 1800, ZIXIG/2.00 NM TO RW31 860*

5. DIST TO THLD FROM OM:MM:IM:150 HAT:250 HAT: 0.66GS ANT:

6. MIN GP INCPT: 1800GP ALT AT FAF : HIDEE 1800OM:MM:IM:

7. GP ANGLE: 3.0034:1: IS NOT CLEAR20:1: IS CLEARTCH: 40.0

8. MSA FROM:

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: RWY 31 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}).

ADDITIONAL FLIGHT DATA:

CHART KMMT IN PLAN AND PROFILE VIEWS.
HOLD NW, RT, 131.31 INBOUND.
CHART FAS OBST: 340 TOWER 335723N/0805926W.
DISTANCE TO THLD FROM 250 HAT: 0.66 NM.
CHART VDP AT 1.36 NM TO RW31*
*LNAV ONLY.
WAAS CHANNEL # 42742
REFERENCE PATH ID: W31A
LTP HAE: 25.4 M

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
LPV DA	436	3/4	250	436	3/4	250	436	3/4	250	436	3/4	250			
LNAV/VNAV DA	551	1	365	551	1	365	551	1	365	551	1	365			
LNAV MDA	640	1	454	640	1	454	640	1 3/8	454	640	1 3/8	454			



AIRPORT

JIM HAMILTON L B OWENS

AIRPORT ID

KCUB

PROCEDURE NAME

RNAV (GPS) RWY 31

ORIGINAL/AMENDMENT

1A

CITY

COLUMBIA

STATE

SC

CHANGES - REASONS

1. RAISED LNAV/VNAV DA/HAT FROM 494/308 TO 551/365 AND VISIBILITY FROM 7/8 TO 1 - NEW CONTROLLING OBS 340 TOWER (45-069107) 4D.
2. RAISED LNAV MDA/HAT FROM 600/414 TO 640/454 AND CAT C/D VISIBILITY FROM 1 1/8 TO 1 3/8 - NEW CONTROLLING OBS 340 TOWER (45-069107) 4D.
3. CHANGED VDP LOCATION FROM 1.23 NM TO RW31 TO 1.36 TO RW31 - DUE TO LNAV MDA/HAT 40 FT INCREASE.
4. CHANGED FAS OBS FROM 337 TOWER 335709N/0805745W TO 340 TOWER 335723N/0805926W - NEW OBS ADDED TO DATABASE SINCE LAST AMENDMENT.
5. CHANGED 'CHART: MCENTIRE JNGB, SC' TO 'CHART KMMT IN PLAN AND PROFILE VIEWS' IN ADDITIONAL FLIGHT DATA - PER 8260.19H PARA. 8-6-10U.

COORDINATED WITH:

A4A ☐ **ALPA** ☒ **AOPA** ☒ **APA** ☒ **HAL** ☐ **NBAA** ☒ **OTHER:** ZJX, CAE APCH CON, ARPT MNGR

FLIGHT CHECKED BY

ROBERT E WILLIAMS

OFFICE

FICO

DATE

9/30/2020

Digitally signed by

JOHN BORDY

Sep 09, 2020

DEVELOPED BY

RALPH DUMAR

Digitally signed by

RALPH DUMAR

Aug 25, 2020

OFFICE

AJV-A422

DATE

05/21/2020

APPROVED BY

MARLON ROBINSON

Digitally signed by

JOHN BORDY

Sep 09, 2020

OFFICE

AJV-A420

DATE

TITLE

MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KCUB
RUNWAY	RW31
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W31A
LTP/FTP LATITUDE	335801.5490N
LTP/FTP LONGITUDE	0805922.4620W
LTP/FTP ELLIPSOIDAL HEIGHT	+00254
FPAP LATITUDE	335853.2770N
FPAP LONGITUDE	0810049.7730W
THRESHOLD CROSSING HEIGHT (TCH)	00040.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1344
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	A82C8533

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K7
LTP ORTHOMETRIC HEIGHT	+00566
FPAP ORTHOMETRIC HEIGHT	+00566

