

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
ILS STANDARD INSTRUMENT APPROACH PROCEDURE
TITLE 14 CFR PART 97.29**

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> GSP	<u>PROCEDURE NAME</u> ILS OR LOC RWY 22	<u>ORIGINAL/AMENDMENT</u> 7	<u>CITY</u> GREER	<u>STATE</u> SC
<u>AIRPORT ELEVATION</u> 964	<u>TDZE</u> 964	<u>SUPERSEDED</u> ILS OR LOC RWY 22	<u>ORIGINAL/AMENDMENT</u> 6	<u>DATED</u> 12/05/2019
<u>FACILITY</u> I-LMJ	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u>	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>MAG VAR</u> 6W
				<u>EPOCH YEAR</u> 2000
				<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>
RAYCE INT/SPA 10.34 DME	IF/IAF	LYMEN INT					218.22 (I-LMJ)	4.43	2300

MISSED APPROACH

MAP:

ILS: DA
LOC: 4.00 NM AFTER LYMEN INT

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2000 THEN CLIMBING LEFT TURN TO 3000 DIRECT SPA VORTAC AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT	SIDE OF COURSE	OUTBOUND	FT WITHIN	MILES OF (IAF)	
2. HOLD NE RAYCE INT/SPA 10.34 DME, LT, 218.22 INBOUND, 3000 FT. IN LIEU OF PT (IAF), MAX 5400.					
3. FAC: 218.22	FAF: LYMEN INT	PFAF: LYMEN INT		DIST FAF TO MAP: 4.00	DIST FAF TO THLD: 4.00
4. MIN ALT: RAYCE INT/SPA 10.34 DME 3000, LYMEN INT 2300, WIVET INT 1660					
5. DIST TO THLD FROM OM:	MM:	IM:	150 HAT:	GS ANT: 1211	
6. MIN GS INCPT: 2300	GS ALT AT PFAF: LYMEN INT 2300			OM:	MM: IM:
7. GS ANGLE: 3.00	34:1:	20:1:	TCH: 61.1		
8. MSA FROM: SPA VORTAC 086-266 3000, 266-086 4700					

EQUIPMENT REQUIREMENTS NOTES:

RADAR REQUIRED FOR PROCEDURE ENTRY.

NOTES:

CHART PROFILE NOTE: VGSI AND ILS GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE GMU ALTIMETER SETTING: INCREASE S-ILS 22 DA TO 1193 FEET; INCREASE ALL MDAS 40 FEET AND VISIBILITY S-LOC 22 CATS C AND D TO RVR 3500 AND CIRCLING CAT D 1/4 SM.
CHART NOTE: FOR INOPERATIVE ALS, INCREASE S-LOC 22 CAT C/D VISIBILITY TO RVR 5500.

ADDITIONAL FLIGHT DATA:

HOLD S, RT, 014.00 INBOUND.
CHART FAS OBST: 1060 TOWER (45-021101) 345618N/0821127W.

QUALITY
10
CHECKED

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

ALTERNATE: NA ☐ ILS: STANDARD - NA WHEN LOCAL WEATHER NOT AVAILABLE., NA WHEN CONTROL TOWER CLOSED.; LOC: STANDARD - CAT D 800-2 1/4, NA WHEN LOCAL WEATHER NOT AVAILABLE., NA WHEN CONTROL TOWER CLOSED.

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
S-ILS 22	1164	2400	200	1164	2400	200	1164	2400	200	1164	2400	200			
S-LOC 22	1320	2400	356	1320	2400	356	1320	3000	356	1320	3000	356			
CIRCLING	1440	1	476	1440	1	476	1480	1 1/2	516	1700	2 1/4	736			

CHANGES - REASONS

- BASIC INFORMATION CHANGED AIRPORT ID FROM “GREENVILLE SPARTANBURG INTL” TO “GMU” -NEW DOCUMENTATION REQUIREMENT.
- TERMINAL ROUTES FIX FROM POINT MAKEUP CHANGED FROM “RAYCE INT/SPA 9.41 DME” TO “RAYCE INT/SPA 10.36 DME” – SPA VORTAC RELOCATED 7.97 NM SOUTHWEST
- TERMINAL ROUTES RAYCE INT FIX TYPE CHANGED FROM IF TO IF/IAF – CHANGED DUE TO REMOVAL OF SPA VORTAC INITIAL AND THE HIL AT RAYCE INT BEING THE INITIAL.
- TERMINAL ROUTES REMOVED INITIAL SPA VORTAC TO RAYCE INT/SPA 9.41 DME – PER ATC REQUEST DUE TO NEW LOCATION OF SPA VORTAC REQUIRING DRASTIC CHANGES TO GROUND TRACK AND LEG LENGTHS IF RETAINED DUE TO NEW TURN ANGLES
- PROFILE LINE 4 CHANGED FROM “RAYCE INT/SPA 10.36 DME 3000, LYMEN INT 2300, WIVET INT 1660*” TO “RAYCE INT/SPA 10.36 DME 3000, LYMEN INT 2300, WIVET INT 1660” – ASTERISK NO LONGER REQUIRED
- PROFILE LINE 8 CHANGED FROM “SPA VORTAC 086-266 3600, 266-086 5200” TO “SPA VORTAC 086-266 3000, 266-086 4700” – MSA RE-EVALUATED AND VALUES UPDATED IAW 8260.3F 2-3-2 DUE TO SPA VORTAC RELOCATING 7.97 NM SW, MSA SECTORS RETAINED PER ATC REQUEST.
- EQUIPMENT REQUIREMENTS NOTES ADDED “RADAR REQUIRED FOR PROCEDURE ENTRY” – IAW 8260.19J 8-6-10(G) PER ATC REQUEST DUE TO LACK OF CONNECTION TO ENROUTE STRUCTURE.
- NOTES REMOVED “PROCEDURE NA FOR ARRIVAL ON SPA VORTAC AIRWAY RADIALS 231 CW 269” – NO LONGER REQUIRED DUE TO FEEDER FROM SPA VORTAC BEING REMOVED FROM IAP PER ATC REQUEST.
- NOTES CHANGED FROM “WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE GREENVILLE DOWNTOWN ALTIMETER SETTING: INCREASE DA TO 1193 FEET; INCREASE ALL MDAS 40 FEET AND VISIBILITY S-LOC 22 CATS C AND D TO RVR 3500 AND CIRCLING CAT D 1/4 SM” TO “WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE GMU ALTIMETER SETTING: INCREASE S-ILS 22 DA TO 1193 FEET; INCREASE ALL MDAS 40 FEET AND VISIBILITY S-LOC 22 CATS C AND D TO RVR 3500 AND CIRCLING CAT D 1/4 SM” - IAW 8260.19J 8-6-10.
- NOTES REMOVED “*LOC ONLY” – NO LONGER REQUIRED.
- ADDITIONAL FLIGHT DATA REMOVED “CHART CIRCLING ICON” – NO LONGER REQUIRED.
- ADDITIONAL FLIGHT DATA REMOVED “1144 AAO 345715N/0820958W” – NEW SURVEY AND EVALUATION, 7:1 RELIEF NO LONGER REQUIRED.
- ADDITIONAL FLIGHT DATA CHANGED FROM “FAS OBST: 1060 TOWER 345618N/0821127W” TO “CHART FAS OBST: 1060 TOWER 345618N/0821127W” – IAW 8260.19J 8-6-11

COORDINATED WITH:

A4A ☒ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: ZTL, GSP APP CON, GSP ATCT, AMGR

FLIGHT CHECKED BY

OFFICE DATE

DEVELOPED BY
CHARLES HIRST

Digitally signed by
CHARLES HIRST
Apr 25, 2025

OFFICE DATE
AJV-A431 04/03/2025

APPROVED BY
ROBERT G HAMILTON

OFFICE DATE TITLE
AJV-A431 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>
GSP	ILS OR LOC RWY 22	7	GREER	SC	964	I-LMJ

PART A: OBSTRUCTION DATA SEGMENTS

INTERMEDIATE

FROM
RAYCE INT/SPA 10.34 DME (IF/IAF)

TO
LYMEN INT

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>	<u>HMAS</u>
	4.43				

<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>
TOWER (45-000914)	350336.00N/0821123.00W	1495	50	20	2C	500				AT305	2300
TERRAIN	350154.00N/0820909.00W	1145 (1100)								AS1000	2100

COMPUTATIONS

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

SEGMENT REMARKS:

FINAL: ILS

FROM
LYMEN INT

TO
RW22

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>	<u>HMAS</u>
	4.00		DA	200	

<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				1164

COMPUTATIONS

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

SEGMENT REMARKS:



FINAL: LOC

FROM

LYMEN INT

TO

WIVET INT

RNP	DISTANCE	PAT	MAP		HAT	HMAS					
	2.01										
OBSTRUCTION	COORDINATES	ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
AAO	345821.00N/0821006.00W	1155	215	8	4B	250				RA40 DG215	1660

COMPUTATIONS

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

SEGMENT REMARKS:

FINAL: LOC STEPDOWN

FROM

WIVET INT

TO

4.00 NM AFTER LYMEN INT

RNP	DISTANCE	PAT	MAP		HAT	HMAS					
	1.99		4.00 NM AFTER LYMEN INT		356						
OBSTRUCTION	COORDINATES	ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
TOWER (45-021101)	345618.30N/0821127.38W	1060	50	20	2C	250					1320

COMPUTATIONS

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

SEGMENT REMARKS:



HOLD-IN-LIEU OF PT

FROM

RAYCE INT/SPA 10.34 DME

TO

P-4

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u> P-4	<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>
TOWER (45-000562)	350409.20N/0820617.70W	1420	250	50	4D	1000				AT580	3000
TERRAIN	350409.00N/0820624.00W	1174 (1200)								AS1500	2700

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

MISSED APPROACH: ILS

FROM

DA

TO

SPA VORTAC

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>				<u>HAT</u>	<u>HMAS</u> 992			
<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				3000
TOWER (45-000972)	345630.28N/0820604.47W	1295	50	20	2C	1000					2300
TERRAIN	344954.00N/0821745.00W	1030 (1000)								AS1500	2500

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



MISSSED APPROACH: LOC

FROM

4.00 NM AFTER LYMEN INT

TO

SPA VORTAC

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>			<u>HAT</u>			<u>HMAS</u>		
									1070		
<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				3000
TOWER (45-000972)	345630.28N/0820604.47W	1295	50	20	2C	1000					2300
TERRAIN	344954.00N/0821745.00W	1030 (1000)								AS1500	2500

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

OBSTRUCTION	COORDINATES	RADIUS	HAA	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
CATEGORY A											
WATER_TOWER (45-064680)	345420.42N/0821344.89W	1.30	476	1121	20	10	1B	300			1440
CATEGORY B											
WATER_TOWER (45-064680)	345420.42N/0821344.89W	1.84	476	1121	20	10	1B	300			1440
CATEGORY C											
TOWER (45-071709)	345538.10N/0821459.13W	2.89	516	1180	20	3	1A	300			1480
CATEGORY D											
AAO	345654.00N/0821530.00W	3.79	736	1382	215	8	4B	300			1700

CIRCLING REMARKS:

MSA

CENTER

SPA VORTAC

RADIUS

25



SECTOR	OBSTRUCTION	COORDINATES	BEARING	DISTANCE	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
086-266	TOWER (45-000600)	343418.00N/0820643.00W	206	21.2	1988	500	50	5D	1000			3000
266-086	TOWER (45-000287)	351012.71N/0821725.80W	322	22.4	3675	250	50	4D	1000			4700

MSA REMARKS:

NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:

WAIVERS:1

ORDER 8260.3F TABLE 10-1-1; MAXIMUM TCH EXCEEDS 60 FEET.

PART B: SUPPLEMENTAL DATA

COMMUNICATIONS WITH

ZTL ARTCC, GSP APP CON, GSP TOWER

<u>WX SERVICE</u>	<u>LOCATION</u>	<u>HRS OPERATION</u>	<u>ALTIMETER SOURCE</u>	<u>DISTANCE</u>	<u>WMSCR</u>	<u>ADJUSTMENTS</u>
ASOS	GSP	24	GSP	0.69	Y	0
<u>BACK-UP WX SERVICE</u>	<u>LOCATION</u>	<u>HRS OPERATION</u>	<u>ALTIMETER SOURCE</u>	<u>DISTANCE</u>	<u>WMSCR</u>	<u>ADJUSTMENTS</u>
ASOS	GMU	24	GMU	7.07	Y	29

WX REMARKS:

RASS PRESSURE PATTERNS THE SAME

KGSP 964, KGMU 1048

RA = 28.1.

<u>PRIMARY NAVAID</u>	<u>MONITOR POINT</u>	<u>HRS OPERATION</u>	<u>CAT</u>
I-LMJ	KGSP ATCT	WHEN TOWER OPEN	1
		WHEN TOWER CLOSED	3

<u>APPROACH AND RUNWAY LIGHTING SYSTEM</u>	<u>RUNWAY MARKINGS</u>	<u>RUNWAY VISUAL RANGE</u>
RW04 - ALSF-2, HIRL (PCL), C/LINE, TDZ, PAPI-4L	PIR-G	APPROACH, MIDPOINT, ROLL OUT
RW22 - MALSR (PCL), C/LINE (PCL), HIRL (PCL), PAPI-4R	PIR-G	APPROACH, MIDPOINT, ROLL OUT

<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>
3.00	963.6	61.1	955.8	1211	3.00	76.3

FINAL APPROACH COURSE AIMING

RUNWAY THRESHOLD	<div>X</div>	FT FROM THRESHOLD	DISPLACED THRESHOLD DISTANCE
ON CENTERLINE	<div>X</div>	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:

VDP NOT ESTABLISHED - FINAL FACILITY DOES NOT HAVE DME.

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

AVERAGE VEGETATION ASSUMED TO BE 100 FEET PER FPT.

ALTERNATE MISSED APPROACH NOT DEVELOPED PER ATC REQUEST.

ATC REQUEST TO KEEP THE BACK-UP ALTIMETER SETTING NOTE CHARTED ON PROCEDURE.
ORDER 8260.3, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED.

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	3.06
WIDTH OF	FINAL	SEGMENT AT 1000FT POINT	0.88
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1000FT POINT	212.22
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1000FT POINT	1000
DISTANCE FROM	THLD	TO 1500FT POINT	7.83
WIDTH OF	INTERMEDIATE	SEGMENT AT 1500FT POINT	3.83
TRUE COURSE OF	INTERMEDIATE	SEGMENT CONTAINING 1500FT POINT	212.22
HIGH TERRAIN IN	INTERMEDIATE	SEGMENT CONTAINING 1500FT POINT	1100

THRESHOLD COORDINATES (IF STR-IN)	345430.44N/0821232.69W
ARP COORDINATES	345344.42N/0821307.89W
RUNWAY APCH END AND DIST FURTHEST FROM ARP	RUNWAY 22 DISTANCE 0.91 NM
FAF COORDINATES	345754.02N/0820956.82W
FIX NAME COORDINATES	

REMARKS

PART E: PREPARED BY

NAME	OFFICE	DATE	TITLE
CHARLES HIRST	AJV-A431	04/03/2025	AERONAUTICAL INFORMATION SPECIALIST

