

**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> KGSO	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 5R	<u>ORIGINAL/AMENDMENT</u> 2F	<u>CITY</u> GREENSBORO	<u>STATE</u> NC		
<u>AIRPORT ELEVATION</u> 926	<u>TDZE</u> 900	<u>SUPERSEDED</u> RNAV (GPS) RWY 5R	<u>ORIGINAL/AMENDMENT</u> 2E	<u>DATED</u> 03/26/2020	<u>MAG VAR</u> 8W	<u>EPOCH YEAR</u> 2010
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 2 NOVEMBER 2023	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>		

TAA

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>ALTITUDE</u>
1. 324/30 CW 144/30	NOPT	324/13 CW 144/13		4100
2. 324/13 CW 144/13		COSIS	IF/IAF	3000
3. 144/30 CW 234/30		144/15 CW 234/15		4200
4. 144/15 CW 234/15		CUPET	IAF	3000
5. 234/30 CW 324/30		234/7 CW 324/7		3700
6. 234/7 CW 324/7		FINIR	IAF	3000

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>
CUPET	IAF	COSIS	NOPT	TF	FB	1.00	143.85	5.00	3000
FINIR	IAF	COSIS	NOPT	TF	FB	1.00	323.93	5.00	3000
COSIS	IF/IAF	FONIT		TF	FB	1.00	053.89	6.01	2800
FONIT	FAF	RW05R	MAP	TF	FO	0.30	053.94	5.71	
RW05R	MAP	1100 MSL		CA			053.94		
1100 MSL		JELEB		DF	FO	1.00			3200



MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW05R

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3200 DIRECT JELEB AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT	SIDE OF COURSE	OUTBOUND	FT WITHIN	MILES OF	(IAF)
2. HOLD SW COSIS, RT, 053.89 INBOUND, 3000 FT. IN LIEU OF PT (IAF), MAX 6000.					
3. FAC:	053.94	FAF: FONIT	DIST FAF TO MAP: 5.71		DIST FAF TO THLD: 5.71
4. MIN ALT:	COSIS 3000, FONIT 2800				
5. DIST TO THLD FROM OM:	MM:	IM:	150 HAT:	200 HAT: 0.46	GS ANT:
6. MIN GP INCPT:	2800	GP ALT AT PFAF :	FONIT 2800	OM:	MM:
7. GP ANGLE:	3.00	34:1: IS CLEAR	20:1: IS CLEAR	TCH: 53.2	IM:
8. MSA FROM:					

PBN REQUIREMENTS NOTE:

RNP APCH - GPS.

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, PROCEDURE NA BELOW -16°C OR ABOVE 47°C.
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART NOTE: SIMULTANEOUS APPROACH AUTHORIZED.
CHART NOTE: USE OF FD OR AP REQUIRED DURING SIMULTANEOUS OPERATIONS.
CHART NOTE: LNAV PROCEDURE NA DURING SIMULTANEOUS OPERATIONS.
CHART NOTE: **1800 RVR AUTHORIZED WITH USE OF FD OR AP OR HUD TO DA.
CHART NOTE: FOR INOPERATIVE ALS, INCREASE LNAV CAT C/D VISIBILITY TO RVR 6000.

ADDITIONAL FLIGHT DATA:

HOLD NE, RT, 234.11 INBOUND.
CHART FAS OBST: 1050 TOWER 360233N/0800118W, 963 ROD 360531N/0795654W.
CHART VDP AT 1.09 NM TO RW05R.
WAAS CHANNEL # 53610
REFERENCE PATH ID: W05A
CHART CIRCLING ICON.
LTP HAE: 242.6 M



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

ALTERNATE: NA ☐ STANDARD - CAT C 800-2 1/4, CAT D 800-2 1/2

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**	1100	2400	200	1100	2400	200	1100	2400	200	1100	2400	200			
LNAV/VNAV DA	1321	4000	421	1321	4000	421	1321	4000	421	1321	4000	421			
LNAV MDA	1300	2400	400	1300	2400	400	1300	4000	400	1300	4000	400			
CIRCLING	1440	1	514	1440	1	514	1700	2 1/4	774	1700	2 1/2	774			

CHANGES - REASONS

- ADMINISTRATIVE ONLY AMENDMENT FOR MAGVAR UPDATE FROM 6W TO 8W - CHANGED ALL OF THE FOLLOWING COURSES BY ADDING 2 DEGREES: TAA SECTOR BOUNDARY DEFINITIONS, HILPT COURSE, ALL TERMINAL ROUTES COURSES, LINE 2 HOLDING COURSE, LINE 3 FAC COURSE, MISSED APPROACH COURSES AND HOLDING COURSE - THE S FILE FOR THE RWY 5L PROCEDURE SHOWS THE MAGVAR CHANGE EFFECTIVE 08/27/2009 AND AT THAT TIME THE NEW RUNWAY 5R/23L WAS BEING ACTIVATED. THE 5R/23L PROCEDURES (ILS 5R/23L, RNAV 5R/23L) ALL PUBLISHED 01/15/2009. BOTH OF THE ILS PROCEDURES HAD MAGVAR UPDATE REFLECTED ON THE CHART AT SOME POINT, BUT THE RNAV PROCEDURES DIDN'T.

- LINE 2: ADDED " , MAX 6000" - MAX ALTITUDE IN HOLDING.

- LINE 7: ADDED "20:1 IS CLEAR" - IAW 8260.19, PARA 8-6-7.G.(3).(A).

- CHANGED NOTE FROM "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -16C (4F) OR ABOVE 47C (116F)" TO "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -16C OR ABOVE 54C." - IAW 8260.19, PARA 8-6-9.R.

- DELETED NOTE DME/DME RNP-0.3 NA - IAW 8260.19, PARA 1-1-5.F.(18).

- ADDED NOTE: RNP APCH - GPS - IAW 8260.19, PARA 8-6-8.B.

- CHANGED NOTE FROM "SIMULTANEOUS APPROACH AUTHORIZED WITH ILS OR LOC RWY 5L, ILS RWY 5L (CAT II), ILS RWY 5L (CAT III)" TO "SIMULTANEOUS APPROACH AUTHORIZED" - IAW 8260.19I, PARA 8-6-11.O.(8).(A).

- CHANGED NOTE FROM "USE OF FD OR AP PROVIDING RNAV TRACK GUIDANCE REQUIRED DURING SIMULTANEOUS OPERATIONS" TO "USE OF FD OR AP REQUIRED DURING SIMULTANEOUS OPERATIONS." - IAW 8260.19I, PARA 8-6-11.O.(8).(D).

- REMOVED PROFILE NOTE "LNAV ONLY" - NO LONGER REQUIRED.

- NOTES: CHANGED CHART NOTE FROM "FOR INOPERATIVE MALSR, INCREASE LNAV CAT D VISIBILITY TO RVR 6000" TO "CHART NOTE: FOR INOPERATIVE ALS, INCREASE LNAV CAT C/D VISIBILITY TO RVR 6000" - UPDATED VERBIAGE PER 8260.19I PARA 8-6-11.

- MINIMUMS: LNAV/VNAV VIS ALL CATS CHANGED FROM 5000 TO 4000 AND LNAV VIS CAT C/D CHANGED FROM 2400/5000 TO 4000 - PER 8260.3E TABLE 3-3-1.

- ALTERNATE MINIMUMS: DELETED "NA WHEN LOCAL WEATHER NOT AVAILABLE - NOT REQUIRED, NO BACKUP ALTIMETER.

- FAS DATA BLOCK CHANGES: LTP LONGITUDE FROM 0795640.7700W TO 0795640.7695W, FPAP COORDINATES FROM 360636.5100W/0795513.1200W TO 360636.5145N/0795513.1135W, AND CRC REMAINDER FROM F86C480E TO 2B1F9F5E - CURRENT DATA AND CALCULATIONS.

COORDINATED WITH:

A4A ☒ **ALPA** ☒ **AOPA** ☒ **APA** ☒ **HAI** ☐ **NBAA** ☒ **OTHER:** GSO APP CON, GSO ATCT, AMGR

FLIGHT CHECKED BY
RYAN CARAMANICA

Digitally signed by
JASON KRETSCHMER
Aug 22, 2023

OFFICE
FPO
DATE
08/02/2023

DEVELOPED BY
STEVEN DOUGHERTY

Digitally signed by
STEVEN DOUGHERTY
Jun 27, 2023

OFFICE
AJV-A421
DATE
06/23/2023

APPROVED BY
JASON KRETSCHMER

Digitally signed by
JASON KRETSCHMER
Jul 11, 2023

OFFICE
AJV-A421
DATE

TITLE
MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KGSO
RUNWAY	RW05R
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W05A
LTP/FTP LATITUDE	360527.8080N
LTP/FTP LONGITUDE	0795640.7695W
LTP/FTP ELLIPSOIDAL HEIGHT	+02426
FPAP LATITUDE	360636.5145N
FPAP LONGITUDE	0795513.1135W
THRESHOLD CROSSING HEIGHT (TCH)	00053.2
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	2B1F9F5E

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K7
LTP ORTHOMETRIC HEIGHT	+02742
FPAP ORTHOMETRIC HEIGHT	+02742

