

**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> NORTHWEST ALABAMA RGNL	<u>AIRPORT ID</u> KMSL	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 12	<u>ORIGINAL/AMENDMENT</u> 2B	<u>CITY</u> MUSCLE SHOALS	<u>STATE</u> AL	
<u>AIRPORT ELEVATION</u> 551	<u>TDZE</u> 544	<u>SUPERSEDED</u> RNAV (GPS) RWY 11	<u>ORIGINAL/AMENDMENT</u> 2A	<u>DATED</u> 06/23/2016	<u>MAG VAR</u> 3W	<u>EPOCH YEAR</u> 2015
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 15 AUGUST 2019	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>		

**TAA**

<u><b>FROM</b></u>	<u><b>FIX TYPE</b></u>	<u><b>TO</b></u>	<u><b>FIX TYPE</b></u>	<u><b>ALTITUDE</b></u>
1. 027/30 CW 207/30	NOPT	JOBTA	IF/IAF	3000
2. 207/30 CW 027/30	PT	JOBTA	IF/IAF	3000

**TERMINAL ROUTES**

<u><b>FROM</b></u>	<u><b>FIX TYPE</b></u>	<u><b>TO</b></u>	<u><b>FIX TYPE</b></u>	<u><b>LEG TYPE</b></u>	<u><b>FO/FB</b></u>	<u><b>RNP</b></u>	<u><b>COURSE</b></u>	<u><b>DISTANCE</b></u>	<u><b>ALTITUDE</b></u>
JOBTA	IF/IAF	MIVGE		TF	FB	1.00	116.97	7.00	2300
MIVGE	FAF	WEKUB/2.20 NM TO RW12		TF	FB	0.30	117.04	3.14	
WEKUB/2.20 NM TO RW12		RW12	MAP	TF	FO	0.30	117.04	2.20	
RW12	MAP	849 MSL		CA			117.04		
849 MSL		HUPOK		DF	FO	1.00			2700

**MISSED APPROACH**

**MAP:**

LPV: DA  
LNAV/VNAV: DA  
LNAV: RW12

**MISSED APPROACH INSTRUCTIONS:**

CLIMB TO 2700 DIRECT HUPOK AND HOLD.

**ALTERNATE MISSED APPROACH INSTRUCTIONS:**



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. HOLD NW JOBTA, RT, 116.97 INBOUND, 3000 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 117.04FAF: MIVGEDIST FAF TO MAP: 5.34DIST FAF TO THLD: 5.34

4. MIN ALT: JOBTA 3000, MIVGE 2300, WEKUB/2.20 NM TO RW12 1280\*

5. DIST TO THLD FROM OM:MM:IM:150 HAT:307 HAT: 0.79GS ANT:

6. MIN GP INCPT: 2300GP ALT AT FAF : MIVGE 2300OM:MM:IM:

7. GP ANGLE: 3.0034:1: IS NOT CLEAR20:1: IS CLEARTCH: 55.8

8. MSA FROM:

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: RWY 12 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.  
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -4°C OR ABOVE 54°C.  
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED USE DECATUR ALTIMETER SETTING AND INCREASE LPV DA TO 934 FEET, LNAV/VNAV DA TO 1025 FEET AND ALL MDA 100 FEET; INCREASE LPV ALL CATS VISIBILITY 1/4 SM, LNAV/VNAV ALL CATS VISIBILITY 3/8 SM, LNAV CAT C AND D VISIBILITY 3/8 SM AND CIRCLING CAT C AND D VISIBILITY 1/2 SM.  
CHART NOTE: BARO-VNAV AND VDP NA WHEN USING DECATUR ALTIMETER SETTING.

ADDITIONAL FLIGHT DATA:

CHART COLUMBUS 2/4 MOA.  
CHART CIRCLING ICON  
CHART VDP AT 1.01 NM TO RW12\*  
\*LNAV ONLY  
WAAS CHANNEL #90518  
REFERENCE PATH ID: W12A  
CHART FAS OBST: 656 TOWER 344442N/0873716W.  
HOLD SE, RT, 297.24 INBOUND  
LTP HAE: 138.2 M

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD - CAT D 800-2 1/4, NA WHEN LOCAL WEATHER NOT AVAILABLE.

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	851	1	307	851	1	307	851	1	307	851	1	307			
LNAV/VNAV DA	942	1 1/4	398	942	1 1/4	398	942	1 1/4	398	942	1 1/4	398			
LNAV MDA	920	1	376	920	1	376	920	1	376	920	1	376			
CIRCLING	1040	1	489	1040	1	489	1280	2	729	1280	2 1/4	729			



**CHANGES - REASONS**

- 1. ALL REFERENCES TO RWY 11/29 CHANGED TO RWY 12/30. - RUNWAY NUMBERS UPDATED.
- 2. CHANGED NOTE: "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -4C (25F) OR ABOVE 54C (130F)" CHANGED TO "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -4C OR ABOVE 54C." - IAW 8260.19H 8-6-9 S.
- 3. REMOVED NOTE: "DME/DME RNP-0.3 NA" AND ADDED PBN REQUIREMENTS NOTE: RNP APCH. - IAW MEMO 257 DATED 9/12/18 IMPLEMENTATION OF FLIGHT PROCEDURES AND AIRSPACE.
- 4. REMOVED NOTE: "CIRCLING TO RWY 18 NA AT NIGHT". - PER EFPO AND AIRPORT MANAGER, OBSTACLE KMSL0003 MITIGATED.
- 5. NOTE: "HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NA" CHANGED TO "RWY 12 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED." - IAW 8260.19H 8-6-11 K(3).
- 6. CHANGED CRC REMAINDER FROM FA95BE52 TO D52BBFE7. - NEW RUNWAY DESIGNATOR.
- 7. INCORPORATED P-NOTAM 6/8838. - IAW 8260.19H 8-3-4 C.

**COORDINATED WITH:**

**A4A** ☐    **ALPA** ☒    **AOPA** ☒    **APA** ☒    **HAI** ☐    **NBAA** ☒    **OTHER:** ZME, AMGR, ATA

**FLIGHT CHECKED BY**

KEVIN RIESE

**OFFICE**

FICO

**DATE**

1/7/19

*Digitally signed by*

**ALLAN WILL**

Jan 07, 2019

**DEVELOPED BY**

TOMMY BYRNS

*Digitally signed by*

**TOMMY BYRNS**

Dec 13, 2018

**OFFICE**

AJV-5423

**DATE**

11/05/2018

*Digitally signed by*

**ALLAN WILL**

Jan 07, 2019

**APPROVED BY**

JULIE MORGAN

**OFFICE**

AJV-5420

**DATE**

**TITLE**

MANAGER



**FAS DATA BLOCK INFORMATION**

<b><u>DATA FIELD</u></b>	<b><u>DATA</u></b>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KMSL
RUNWAY	RW12
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W12A
LTP/FTP LATITUDE	344456.4270N
LTP/FTP LONGITUDE	0873701.2430W
LTP/FTP ELLIPSOIDAL HEIGHT	+01382
FPAP LATITUDE	344419.9740N
FPAP LONGITUDE	0873522.5530W
THRESHOLD CROSSING HEIGHT (TCH)	00055.8
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0712
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	D52BBFE7

**ADDITIONAL PATH POINT RECORD INFORMATION**

ICAO CODE	K7
LTP ORTHOMETRIC HEIGHT	+01652
FPAP ORTHOMETRIC HEIGHT	+01652

