

RNAV - STANDARD INSTRUMENT APPROACH PROCEDURE TITLE 14 CFR PART 97.33				Bearings, headings, courses, 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 in feet RVR.								
TERMINAL ROUTES								MISSED APPROACH				
FROM		TO		COURSE AND DISTANCE		ALTITUDE		LPV: DA LNAV/VNAV: DA LNAV: RW18 CLIMB TO 3000 DIRECT PAMGE AND HOLD. ADDITIONAL FLIGHT DATA: HOLD S, RT, 004.37 INBOUND. CHART FAS OBST: 698 COMMUNICATION TWR 344556N/0873701W CHART 598 TREE 344521N/0873700W. CHART: 1015 TOWER 345009N/0873729W DISTANCE TO THLD FROM 250 HATH: 0.58 NM. WAAS CHANNEL # 56435 REFERENCE PATH ID: W18A CHART COLUMBUS 2/4 MOA. CHART CIRCLING ICON LTP HAE: 137.4 M				
TUBYO (IF/IAF)		SOSBE (FB)		184.37 / 7.00		2300						
SOSBE (FAF)		VEGUY/2.20 NM TO RW18 (FB)		184.37 / 2.89								
VEGUY/2.20 NM TO RW18		RW18 (MAP) (FO)		184.37 / 2.20								
RW18 (MAP)		789 MSL		184.37		3000						
789 MSL		PAMGE (FO)										
1. PT <u> </u> SIDE OF COURSE <u> </u> OUTBOUND <u> </u> FT WITHIN <u> </u> MILES OF <u> </u> (IAF) 2. HOLD N TUBYO, RT, 184.37 INBOUND, 3000 FT. IN LIEU OF PT (IAF) 3. FAC: 184.37 FAF: SOSBE DIST FAF TO MAP: 5.09 THLD: 5.09 4. MIN. ALT: TUBYO 3000, SOSBE 2300, VEGUY/2.20 NM TO RW18 1320* 5. DIST TO THLD FROM OM: MM: IM: 150 HAT: 100 HAT: GS ANT: 6. MIN GS INCPT: 2300 GS ALT AT: SOSBE 2300 OM: MM: IM: 7. GS ANGLE: 3.15 TCH: 57.0 34:1 IS NOT CLEAR 8. MSA FROM:								MAG VAR: 3W EPOCH YEAR: 2015				
MINIMUMS												
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT						ALTERNATE: N A		STANDARD @				
CATEGORY =====>		A		B		C		D		E		
	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA
LPV DA	789	1	250	789	1	250	789	1	250		NA	
LNAV/VNAV DA	974	1 3/8	435	974	1 3/8	435	974	1 3/8	435		NA	
LNAV MDA	960	1	421	960	1	421	960	1 1/4	421		NA	
CIRCLING	1040	1	489	1040	1	489	1280	2	729		NA	
NOTES: CHART NOTE: BARO-VNAV NA WHEN USING DECATUR ALTIMETER SETTING. CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -4C (25F) OR ABOVE 54C (130F). CHART NOTE: DME/DME RNP-0.3 NA. CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT. (SEE FORM 8260-10)												
CITY AND STATE		ELEVATION: 551 THRE: 539		FACILITY IDENTIFIER: RNAV		PROCEDURE NO./AMDT NO./EFFECTIVE DATE:		SUP:				
MUSCLE SHOALS, AL		AIRPORT NAME:		NORTHWEST ALABAMA RGNL		RNAV (GPS) RWY 18, AMDT 1		AMDT: ORIG-A				
						3 APRIL 2014		DATED 11/15/2012				



US DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION
RNAV - STANDARD
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NOTES, (CONT.):

*RNAV ONLY

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

CHART NOTE: RWY 18 STRAIGHT-IN AND CIRCLING MINIMUMS NA AT NIGHT.

CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE DECATUR ALTIMETER SETTING AND INCREASE

LPV DA TO 872, RNAV/VNAV DA TO 1057 AND ALL MDA 100 FEET, INCREASE RNAV/VNAV ALL CATS VISIBILITY
AND RNAV CAT C VISIBILITY 1/4 MILE, INCREASE CIRCLING CAT C VISIBILITY 1/2 MILE.

TAA

	FROM	TO	ALT
1.	094/30 CW 274/30 (NOPT)	094/15 CW 274/15	3200
2.	094/15 CW 274/15	TUBYO (IF/IAF) (FB)	3000
3.	274/30 CW 094/30	274/15 CW 094/15	3200
4.	274/15 CW 094/15	TUBYO (IF/IAF) (FO)	3000



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FLIGHT STANDARDS SERVICE - FAR PART 97.33

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FAS DATA BLOCK INFORMATIONDATA FIELDDATA

OPERATION TYPE 0
SBAS SERVICE PROVIDER IDENTIFIER 0
AIRPORT IDENTIFIER KMSL
RUNWAY RW18
APPROACH PERFORMANCE DESIGNATOR 0
ROUTE INDICATOR
REFERENCE PATH DATA SELECTOR 0
REFERENCE PATH IDENTIFIER (APPROACH ID) W18A
LTP/FTP LATITUDE 344503.2695N
LTP/FTP LONGITUDE 0873656.6040W
LTP/FTP ELLIPSOIDAL HEIGHT +01374
FPAP LATITUDE 344334.0475N
FPAP LONGITUDE 0873659.1875W
THRESHOLD CROSSING HEIGHT (TCH) 00057.0
TCH UNITS SELECTOR (METERS OR FEET USED) F
GLIDEPATH ANGLE (GPA) 03.15
COURSE WIDTH AT THRESHOLD 106.75
LENGTH OFFSET 1528
HORIZONTAL ALERT LIMIT (HAL) 40.0
VERTICAL ALERT LIMIT (VAL) 50.0

CRC REMAINDER

AE2E54CF

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE K7
LTP ORTHOMETRIC HEIGHT +01644
FPAP ORTHOMETRIC HEIGHT +01644

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ARINC PACKET - 424-18 - RNAV (GPS)

	1	2	3	4	5	6	7	8	9	0	1	2	3
WP	123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012												
	SUSAEENRT	PAMGE K70	W	N34313992W087371982				W0026	NAR		PAMGE		
	SUSAEENRT	SOSBE K70	W	N34500936W087364773				W0027	NAR		SOSBE		
	SUSAEENRT	TUBYO K70	W	N34570993W087363550				W0027	NAR		TUBYO		
	SUSAEENRT	VEGUY K70	W	N34471545W087365284				W0027	NAR		VEGUY		

	1	2	3	4	5	6	7	8	9	0	1	2	3
AIRPORT	123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012												
	SUSAP KMSLK7AMSL	0	066YHN34444310W087363680W003000551				1800018000C	MNAR		NORTHWEST ALABAMA	RGNL		

	1	2	3	4	5	6	7	8	9	0	1	2	3
SEGMENT	123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012												
	SUSAP KMSLK7FR18	ATUBYO	010TUBYOK7EA0EE	AR	HF		18440040		+ 03000	18000		A JS	
	SUSAP KMSLK7FR18	R	010TUBYOK7EA0E	I	IF				+ 03000	18000		A JS	
	SUSAP KMSLK7FR18	R	020SOSBEK7EA1E	F	051TF		18440070		+ 02300			A JS	
	SUSAP KMSLK7FR18	R	020SOSBEK7EA2WALPV		ALNAV/VNAV ALNAV							JS	
	SUSAP KMSLK7FR18	R	021VEGUYK7EA0E	S	031TF		18440029		V 0132001332		-315	A JS	
	SUSAP KMSLK7FR18	R	030RW18 K7PGOGY	M	031TF		18440022		00596		-315	A JS	
	SUSAP KMSLK7FR18	R	040	0	M	CA	1844		+ 00789			A JS	
	SUSAP KMSLK7FR18	R	050PAMGEK7EA0EY		DF				+ 03000			A JS	
	SUSAP KMSLK7FR18	R	060PAMGEK7EA0EE	R	HM		00440040		+ 03000			A JS	

	1	2	3	4	5	6	7	8	9	0	1	2	3
RUNWAY	123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012												
	SUSAP KMSLK7GRW18	0040001844	N34450327W087365660+0000				+0137400539000057100R						

	1	2	3	4	5	6	7	8	9	0	1	2	3
PP	123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012												
	SUSAP KMSLK7PR18	RW18	001 0000W18A0N3445032695W08736566040+013740315N3443340475W08736591875106751528000570F400500AE2E54CF										
	SUSAP KMSLK7PR18	RW18	002E +01644+01644LPV		56435								

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ARINC SUMMARY - 424-18 - RNAV (GPS)

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG (TRUE)	DISTANCE	ALTITUDE	SPEED
	TUBYO	TUBYO	010	IAF	HF	R	FO		184.4 (181.4T)	004.0	AA 03000	
		TUBYO	010	FACF	IF		FB				AA 03000	
		SOSBE	020	FAF	TF		FB	0.5	184.4 (181.4T)	007.0	AA 02300	
		VEGUY	021	SDF	TF		FB	0.3	184.4 (181.4T)	002.9	AA 01320 GS 01332	
		RW18	030	MAP	TF		FO	0.3	184.4 (181.4T)	002.2	AT 00596	

MISSED APPROACH	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG (TRUE)	DISTANCE	ALTITUDE	SPEED
		040		CA		FB		184.4 (181.4T)		AA 00789	
	PAMGE	050		DF		FO				AA 03000	
	PAMGE	060		HM	R	FO		004.4 (001.4T)	004.0	AA 03000	

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	PAMGE	N343139.92	W0873719.82	N3431.665	W08737.330
	SOSBE	N345009.36	W0873647.73	N3450.156	W08736.796
	TUBYO	N345709.93	W0873635.50	N3457.166	W08736.592
	VEGUY	N344715.45	W0873652.84	N3447.258	W08736.881
	RW18	N344503.27	W0873656.60	N3445.055	W08736.943

RUNWAY DATA	RWY	THRESHOLD ELEVATION	TCH
	RW18	00539	57

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