

**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> KTYS	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 5L	<u>ORIGINAL/AMENDMENT</u> 3	<u>CITY</u> KNOXVILLE	<u>STATE</u> TN		
<u>AIRPORT ELEVATION</u> 986	<u>TDZE</u> 953	<u>SUPERSEDED</u> RNAV (GPS) RWY 5L	<u>ORIGINAL/AMENDMENT</u> 2A	<u>DATED</u> 10/12/2017	<u>MAG VAR</u> 6W	<u>EPOCH YEAR</u> 2015
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 12 AUGUST 2021	<u>REQUIRED EFFECTIVE DATE</u> 08/12/2021	<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>
GROSS	IAF	ATOMC		TF	FB	1.00	062.16	9.71	2800
ATOMC	IF	ALKOA		TF	FB	1.00	050.71	6.11	2700
ALKOA	FAF	XEWKA/2.25 NM TO RW5L		TF	FB	0.30	050.77	3.14	
XEWKA/2.25 NM TO RW5L		RW5L	MAP	TF	FO	0.30	050.77	2.25	
RW5L	MAP	1500 MSL		CA			050.77		1500
1500 MSL		VXV VORTAC		DF	FO	1.00			4000

**MISSED APPROACH**

**MAP:**

LPV: DA  
LNAV/VNAV: DA  
LNAV: RW5L

**MISSED APPROACH INSTRUCTIONS:**

CLIMB TO 1500 THEN CLIMB TO 4000 DIRECT VXV VORTAC AND HOLD, CONTINUE CLIMB-IN-HOLD TO 4000.

**ALTERNATE MISSED APPROACH INSTRUCTIONS:**



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF

(IAF)

2. PROFILE STARTS AT ATOMC

3. FAF: 050.77FAF: ALKOA

DIST FAF TO MAP: 5.39DIST FAF TO THLD: 5.39

4. MIN ALT: ATOMC 2800, ALKOA 2700, XEWKA/2.25 NM TO RW5L 1700

5. DIST TO THLD FROM OM:MM:IM:150 HAT:200 HAT: 0.53GS ANT:

6. MIN GP INCPT: 2700GP ALT AT FAF : ALKOA 2700OM:MM:IM:

7. GP ANGLE: 3.0034:1: IS CLEAR20:1: IS CLEARTCH: 55.0

8. MSA FROM: RW05L 7900

PBN REQUIREMENTS NOTE:

RNP APCH - GPS

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -10°C OR ABOVE 54°C.  
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT GROSS ON V115 SOUTHWEST BOUND.  
CHART NOTE: \*\* RVR 1800 AUTHORIZED WITH USE OF FD OR AP OR HUD TO DA.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON  
HOLD NE, LT, 236.00 INBOUND.  
CHART FAS OBST: 1130 NAVAID (47-022839) 354844N/0840035W.  
CHART 1146 TREE (47-063619) 354701N/0840312W.  
CHART VDP AT 1.24 NM TO RW05L.  
WAAS CHANNEL # 48802  
REFERENCE PATH ID: W05A  
LTP HAE: 252.9 M

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD - CAT D 1000-3

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**	1153	2400	200	1153	2400	200	1153	2400	200	1153	2400	200			
LNAV/VNAV DA	1291	2600	338	1291	2600	338	1291	2600	338	1291	2600	338			
LNAV MDA	1380	2400	427	1380	2400	427	1380	4000	427	1380	4000	427			
CIRCLING	1500	1	514	1560	1	574	1660	2	674	1900	3	914			



**CHANGES - REASONS**

1. AIRPORT ELEVATION CHANGED FROM 979 TO 986 - NEW AIRNAV DATA DUE TO RWY EXTENSION PROJECT.
2. TCH CHANGED FROM 57.3 TO 55.0 - NEW AIRNAV DATA/MATCH S-ILS 5L PROCEDURE.
3. TERMINAL ROUTES: CHANGED FAC FROM 050.76 TO 050.77. CHANGED DISTANCE FROM ATOMC TO ALKOA FROM 6.10 NM TO 6.11 NM, FROM ALKOA TO XEWKA FROM 3.10 NM TO 3.14 NM, AND XEWKA TO RW05L FROM 2.30 NM TO 2.25 NM - UPDATED TARGETS EVALUATION BASED ON NEW AIRNAV DATA DUE TO RWY CONSTRUCTION.
4. PROFILE LINE: CHANGED 200 HAT FROM 0.45 TO 0.53, CHANGED FAF DISTANCE TO MAP AND TO THLD FROM 5.40 NM TO 5.39 NM - RUNWAY EXTENDED, NEW AIRNAV DATA.
5. ADDED 20:1 IS CLEAR TO LINE 7 - 8260.19I
6. REPLACED CHART NOTE "DME/DME RNP-0.3 NA" WITH PBN REQUIREMENTS NOTE: "RNP APCH - GPS" - 8260.19I.
7. CHANGED CRITICAL TEMPERATURE NOTE FROM "CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -10C (14F) OR ABOVE 54C (130F)" TO "CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -10C OR ABOVE 54C" - DOCUMENTATION OF DEGREES FAHRENHEIT IS NO LONGER REQUIRED. IAW 8260.19I.
8. CHANGED VDP FROM 1.31 NM TO 1.24 NM - THRESHOLD ELEVATION AND TCH CHANGED, MDA LOWERED.
9. CHANGED FAS OBSTACLE FROM 1159 TREES 354640N/0840154W TO 1130 NAVAID 354844N/0840035W - NEW TARGETS EVALUATION/MAP STUDY.
10. ADDED 1146 TREE 354701.26N/0840311.55W TO ADDITIONAL FLIGHT DATA - 7:1 OBSTACLE
11. ADDED CHART CIRCLING ICON - 8260.19I.
12. CHANGED LNAV/VNAV DA/HAT FROM 1321/368 TO 1291/338 - NEW CONTROLLING OBSTACLE.
13. CHANGED LNAV MDA/HAT FROM 1420/467 TO 1380/427 - NEW CONTROLLING OBSTACLE.
14. CIRCLING MDA/HAT CAT A CHANGED FROM 1500/519 TO 1500/514, CAT B CHANGED FROM 1620/639 TO 1560/574, CAT C CHANGED FROM 1660/679 TO 1660/674, AND CAT D CHANGED FROM 1900/919 TO 1900/914 - AIRPORT ELEVATION CHANGED AND NEW CONTROLLING OBSTACLE FOR CAT B.
15. CHANGED LNAV/VNAV VISIBILITY ALL CATS FROM RVR 4500 TO 2600 - 8260.3D TABLE 3-3-1.
16. CHANGED LNAV VISIBILITY CAT C/D FROM RVR 5000 TO 4000 - 8260.3D TABLE 3-3-1.
17. FAS DATA: CHANGED FPAP LATITUDE/LONGITUDE FROM 354918.8865N/0835902.4620W TO 354922.2965N/0835858.2960W - UPDATED TARGETS EVALUATION BASED OFF NEW AIRNAV DATA.
18. CRC REMAINDER CHANGED FROM CDBD40EB TO AE5E57C9 - DUE TO LTP, ELLIPSOIDAL HEIGHT AND FPAP, TCH AND LENGTH OFFSET FAS DATA CHANGES.

**COORDINATED WITH:**

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

*Digitally signed by*

**FLIGHT CHECKED BY**

**LONNIE EVERHART**

**OFFICE**

**DATE**

May 17, 2021

*Digitally signed by*

**DEVELOPED BY**

JON DENTON (LORRI DOWNEY)

**LONNIE EVERHART**

**OFFICE**

AJV-A432

**DATE**

01/25/2021

May 17, 2021

**APPROVED BY**

LONNIE EVERHART

*Digitally signed by*

**LONNIE EVERHART**

**OFFICE**

AJV-A430

**DATE**

**TITLE**  
MANAGER

May 17, 2021

QUALITY  
24  
CHECKED

FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KTYS
RUNWAY	RW05L
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W05A
LTP/FTP LATITUDE	354815.5865N
LTP/FTP LONGITUDE	0840019.6850W
LTP/FTP ELLIPSOIDAL HEIGHT	+02529
FPAP LATITUDE	354922.2965N
FPAP LONGITUDE	0835858.2960W
THRESHOLD CROSSING HEIGHT (TCH)	00055.0
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	AE5E57C9

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K7
LTP ORTHOMETRIC HEIGHT	+02834
FPAP ORTHOMETRIC HEIGHT	+02834

