

**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 23R	<u>ORIGINAL/AMENDMENT</u> 3	<u>CITY</u> KNOXVILLE	<u>STATE</u> TN	
<u>AIRPORT ELEVATION</u> 986	<u>TDZE</u> 984	<u>SUPERSEDED</u> RNAV (GPS) RWY 23R	<u>ORIGINAL/AMENDMENT</u> 2A	<u>DATED</u> 10/12/2017	<u>MAG VAR</u> 6W
<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>	<u>EPOCH YEAR</u> 2015

TERMINAL ROUTES

FROM	FIX TYPE	TO	FIX TYPE	LEG TYPE	FO/FB	RNP	COURSE	DISTANCE	ALTITUDE
NEYLN	IF/IAF	AWOKI		TF	FB	1.00	230.91	5.70	2800
AWOKI	FAF	XIVZU/2.46 NM TO RW23R		TF	FB	0.30	230.87	3.08	
XIVZU/2.46 NM TO RW23R		RW23R	MAP	TF	FO	0.30	230.87	2.46	
RW23R	MAP	1600 MSL		CA			230.87		1600
1600 MSL		GROSS		DF	FO	1.00			3000

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW23R

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 1600 THEN CLIMB TO 3000 DIRECT GROSS AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



CHANGES - REASONS

1. AIRPORT ELEVATION CHANGED FROM 979 TO 986 - NEW AIRNAV DATA DUE TO RWY CONSTRUCTION.
2. TDZE CHANGED FROM 979 TO 984 - NEW AIRNAV DATA DUE TO RWY CONSTRUCTION.
3. TCH CHANGED FROM 55.8 TO 53.00 - MATCH S-ILS 23R PROCEDURE.
4. TERMINAL ROUTES: CHANGED THE DISTANCE IN THE INTERMEDIATE SEGMENT FROM NEYLN TO AWOKI FROM 5.69 NM TO 5.70 NM, CHANGED DISTANCE FROM AWOKI TO XIVZU FROM 3.05 TO 3.08, CHANGED DISTANCE FROM XIVZU TO RW23R FROM 2.50 TO 2.46, AND CHANGED THE DISTANCE IN THE LPV FINAL SEGMENT FROM AWOKI TO DA FROM 5.55 NM TO 5.54 NM - PFAF AND STEPDOWN FIX MOVED.
5. PROFILE LINE: CHANGED 200 HAT FROM 0.45 TO 0.46., CHANGED FAF DISTANCE TO MAP AND TO THLD FROM 5.55 NM TO 5.54 NM - UPDATED TARGETS EVALUATION DUE TO RWY EXTENSION PROJECT.
6. ADDED 20:1 IS CLEAR TO LINE 7 - 8260.19I.
7. REPLACED CHART NOTE "DME/DME RNP-0.3 NA" WITH PBN REQUIREMENTS NOTE: "RNP APCH - GPS" - 8260.19I.
8. 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
9. CHANGED VDP FROM 1.52 NM TO 1.44 NM - THRESHOLD ELEVATION AND TCH CHANGED, MDA LOWERED.
10. CHANGED FAS OBSTACLE FROM 1259 TREES 355105N/0835729W TO 1235 TREE 355108N/0835728W - NEW FINAL CONTROLLER.
11. ADDED CHART 1429 TOWER 355241N/0835728W TO ADDITIONAL FLIGHT DATA - NEW 7:1 OBSTACLE.
12. CHANGED LPV DA/HAT FROM 1181/200 TO 1184/200 - NEW TARGETS EVALUATION, THRESHOLD ELEVATION CHANGED TO TDZE ELEVATION.
13. CHANGED LNAV/VNAV DA/HAT FROM 1535/554 TO 1529/545 - NEW CONTROLLING OBSTACLE/MAP STUDY.
14. CHANGED LNAV MDA/HAT FROM 1520/539 TO 1500/516 - NEW CONTROLLING OBSTACLE.
15. CIRCLING MDA/HAT CAT A CHANGED FROM 1520/539 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 - NEW CONTROLLING OBSTACLES CAT A/B AND UPDATE FROM THRESHOLD TO TDZE.
16. CHANGED LNAV/VNAV VISIBILITY ALL CATS FROM 1 3/8 NM TO 1 1/8 NM - 8260.3D TABLE 3-3-1.
17. CHANGED LNAV VISIBILITY CAT C/D FROM 5000 RVR TO 5500 - 8260.3D TABLE 3-3-1.
18. FAS DATA: CHANGED FPAP LATITUDE/LONGITUDE FROM 354815.4530N/0840019.8280W TO 354812.1463N/0840023.8812W - UPDATED TARGETS EVALUATION BASED ON NEW AIRNAV DATA.
19. CRC REMAINDER CHANGED FROM 784A86D9 TO C6D928E8 - DUE TO LTP, ELLIPSOIDAL HEIGHT AND FPAP, TCH AND LENGTH OFFSET FAS DATA CHANGES.
20. ADDED "MAX 6000" TO HOLD-IN-LIEU ON LINE 2 - IAW 8260.19I.
21. ADDED CHART CIRCLING ICON - 8260.19I.
22. ADDED CHART NOTE: FOR INOPERATIVE ALS, INCREASE LNAV CAT C/D VISIBILITY TO 1 3/8 SM - 8260.3D TABLE 3-3-1.

COORDINATED WITH:

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

FLIGHT CHECKED BY

PENDING

Digitally signed by
DONALD H LANIER

May 13, 2021

OFFICE

FICO

DATE

DEVELOPED BY

JON DENTON (LORRI DOWNEY)

Digitally signed by
DONALD H LANIER

OFFICE

AJV-A432

DATE

01/25/2021

APPROVED BY

LONNIE EVERHART

Digitally signed by
DONALD H LANIER

Digitally signed by
DONALD H LANIER

May 13, 2021

OFFICE

AJV-A430

DATE

TITLE
MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KTYS
RUNWAY	RW23R
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W23A
LTP/FTP LATITUDE	354918.7520N
LTP/FTP LONGITUDE	0835902.6220W
LTP/FTP ELLIPSOIDAL HEIGHT	+02694
FPAP LATITUDE	354812.1460N
FPAP LONGITUDE	0840023.8810W
THRESHOLD CROSSING HEIGHT (TCH)	00053.0
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	C6D928E8

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K7
LTP ORTHOMETRIC HEIGHT	+03000
FPAP ORTHOMETRIC HEIGHT	+03000

