

**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> LWM	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 23	<u>ORIGINAL/AMENDMENT</u> 2A	<u>CITY</u> LAWRENCE	<u>STATE</u> MA
<u>AIRPORT ELEVATION</u> 148	<u>TDZE</u> 144	<u>SUPERSEDED</u> RNAV (GPS) RWY 23	<u>ORIGINAL/AMENDMENT</u> 2	<u>DATED</u> 02/25/2021
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 12 JUNE 2025	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>MAG VAR</u> 15W
				<u>EPOCH YEAR</u> 1980
				<u>CANCEL/SUSPEND</u>

TAA

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>ALTITUDE</u>
1. 143/30 CW 233/30	NOPT	143/15 CW 233/15		3200
2. 143/15 CW 233/15		TUNUY	IF/IAF	2100
3. 233/30 CW 323/30	NOPT	TUNUY	IF/IAF	2100
4. 323/30 CW 053/30		NUBRY	IAF	2100
5. 053/30 CW 143/30		053/10 CW 143/10		3500
6. 053/10 CW 143/10		WIPNO	IAF	2100

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>
WIPNO	IAF	TUNUY	NOPT	TF	FB	1.00	143.20	6.70	2100
NUBRY	IAF	TUNUY	NOPT	TF	FB	1.00	323.36	6.70	2100
TUNUY	IF/IAF	WUMUP		TF	FB	1.00	233.28	6.51	1400
WUMUP	FAF	RW23	MAP	TF	FO	0.30	233.21	3.68	
RW23	MAP	548 MSL		CA			233.21		
548 MSL		TEWKS		DF	FO	1.00			2000

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW23

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 2000 DIRECT TEWKS AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

QUALITY
6
CHECKED

PROFILE:

1.	PT	SIDE OF COURSE	OUTBOUND	FT WITHIN	MILES OF	(IAF)									
2.	HOLD NE TUNUY, RT, 233.28 INBOUND, 2100 FT. IN LIEU OF PT (IAF), MAX 6000.														
3.	FAC:	233.21	FAF:	WUMUP	DIST FAF TO MAP:	3.68	DIST FAF TO THLD:	3.68							
4.	MIN ALT:	TUNUY 2100, WUMUP 1400													
5.	DIST TO THLD FROM OM:		MM:		IM:		150 HAT:		418 HAT:	1.13	GS ANT:				
6.	MIN GP INCPT:	1400	GP ALT AT PFAF:	WUMUP 1400					OM:		MM:			IM:	
7.	GP ANGLE:	3.10	34:1:	IS NOT CLEAR	20:1:	IS CLEAR	TCH:	54.5							
8.	MSA FROM:														

PBN REQUIREMENTS NOTE:

RNP APCH - GPS.

NOTES:

CHART NOTE: RWY 23 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART NOTE: CIRCLING RWY 32 NA AT NIGHT.
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -16°C OR ABOVE 54°C.

ADDITIONAL FLIGHT DATA:

HOLD SW, LT, 053.08 INBOUND.
CHART FAS OBST: 391 TREE (25-049052) 424358N/0710537W.
CHART VDP AT 1.20 NM TO RW23.
WAAS CHANNEL # 61022
REFERENCE PATH ID: W23A
CHART CIRCLING ICON.
LTP HAE: 13.6 M

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD - CAT C 800-2 1/4, CAT D 1100-3

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	562	1 1/8	418	562	1 1/8	418	562	1 1/8	418	562	1 1/8	418			
LNAV/VNAV DA	660	1 3/8	516	660	1 3/8	516	660	1 3/8	516	660	1 3/8	516			
LNAV MDA	660	1	516	660	1	516	660	1 3/8	516	660	1 3/8	516			
CIRCLING	740	1	592	740	1	592	920	2 1/4	772	1220	3	1072			

CHANGES - REASONS

- PBN REQUIREMENTS NOTE: CHANGED NOTE FROM "RNP APCH." TO "RNP APCH - GPS." - 8260.19J 8-6-8D(5)(A)1
- NOTES: UPDATED BARO-VNAV LOW TEMPERATURE FROM "-20" TO "-16" - UPDATED IN FIVE YEAR HISTORY.
- NOTES: REMOVED "*LNAV ONLY." FROM NOTES - NO LONGER IN CRITERIA.
- NOTES: CHANGED CHART VDP NOTE FROM "CHART VDP AT 1.20 NM TO RW 23* TO "CHART VDP AT 1.20 NM TO RW23." - CRITERIA UPDATE.
- ALTERNATE MINIMUMS CHANGED FROM " STANDARD - CAT D 1100 - 3" TO "STANDARD - CAT C 800 - 2 1/4, CAT D 1100 - 3 - NEW CAT C CONTROLLING OBSTACLE.
- MINIMUMS: LNAV/VNAV DA/VIS/HAT CHANGED FROM "717/1 5/8/573" TO "660/1 3/8/516" - TO MATCH LNAV.
- MINIMUMS: CIRCLING CAT C CMDA/VIS/HAA CHANGED FROM "840 / 2 / 692" TO "920 / 2 1/4 / 772" - NEW CAT C CONTROLLING OBSTACLE.



COORDINATED WITH:

A4A

X

ALPA

X

AOPA

X

APA

X

HAI

NBAA

X

OTHER:

ZBW ARTCC, BOS APP, KLWM ATCT, AMGR

FLIGHT CHECKED BY

CHRISTOPHER R VANDEVEER

Digitally signed by

CASIMIR L TABAKA

May 01, 2025

OFFICE

AJF

DATE

04/17/2025

DEVELOPED BY

JACOB CLARK

Digitally signed by

JACOB H CLARK

Mar 05, 2025

OFFICE

AJV-33

DATE

02/03/2025

APPROVED BY

JOHN BORDY

Digitally signed by

CASIMIR L TABAKA

May 01, 2025

OFFICE

AJV-33

DATE

TITLE

MANAGER

FAS DATA BLOCK INFORMATION

DATA FIELD	DATA
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KLWM
RUNWAY	RW23
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W23A
LTP/FTP LATITUDE	424317.3135N
LTP/FTP LONGITUDE	0710703.4390W
LTP/FTP ELLIPSOIDAL HEIGHT	+00136
FPAP LATITUDE	424207.2465N
FPAP LONGITUDE	0710818.1315W
THRESHOLD CROSSING HEIGHT (TCH)	00054.5
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.10
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1224
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	69BA8304

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K6
LTP ORTHOMETRIC HEIGHT	+00409
FPAP ORTHOMETRIC HEIGHT	+00409

