

FEDERAL AVIATION ADMINISTRATION  
FLIGHT STANDARDS SERVICE  
ILS STANDARD INSTRUMENT APPROACH PROCEDURE

TITLE 14 CFR PART 97.29

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> LAURENCE G HANSCOM FLD	<u>AIRPORT ID</u> KBED	<u>PROCEDURE NAME</u> ILS OR LOC RWY 29	<u>ORIGINAL/AMENDMENT</u> 9B	<u>CITY</u> BEDFORD	<u>STATE</u> MA	
<u>AIRPORT ELEVATION</u> 132	<u>TDZE</u> 128	<u>SUPERSEDED</u> ILS OR LOC RWY 29	<u>ORIGINAL/AMENDMENT</u> 9A	<u>DATED</u> 11/07/2019	<u>MAG VAR</u> 16W	<u>EPOCH YEAR</u> 1995
<u>FACILITY</u> I-ULJ	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u>	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<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>
MORIS/I-ULJ 10.84 DME/RADAR	IF	JAYSE/I-ULJ 4.81 DME/RADAR					293.14	6.02 (I-ULJ)	1800

**MISSED APPROACH**

**MAP:**

ILS: DA

LOC: 5.09 NM AFTER JAYSE/I-ULJ 4.81 DME/RADAR OR AT I-ULJ 0.28 DME

**MISSED APPROACH INSTRUCTIONS:**

CLIMB TO 1000 THEN CLIMBING RIGHT TURN TO 2000 ON GDM VOR/DME R-111 TO SOSYO/GDM 28.00 DME/RADAR AND HOLD.

**ALTERNATE MISSED APPROACH INSTRUCTIONS:**

**PROFILE:**

- PT      SIDE OF COURSE      OUTBOUND      FT WITHIN      MILES OF (IAF)
- PROFILE STARTS AT MORIS
- FAC:** 293.14      **FAF:** JAYSE/I-ULJ 4.81 DME/RADAR      **DIST FAF TO MAP:** 5.09      **DIST FAF TO THLD:** 5.09
- MIN ALT:** MORIS/I-ULJ 10.84 DME/RADAR 1800, JAYSE/I-ULJ 4.81 DME/RADAR 1800, ROGGR/I-ULJ 2.32 DME/RADAR 1000\*
- DIST TO THLD FROM OM:**      **MM:**      **IM:**      **150 HAT:**      **GS ANT:** 961
- MIN GS INCPT:** 1800      **GS ALT AT FAF :** JAYSE/I-ULJ 4.81 DME/RADAR 1800      **OM:**      **MM:**      **IM:**
- GP ANGLE:** 3.00      **34:1:**      **20:1:**      **TCH:** 54.7
- MSA FROM:** BOS VOR/DME 215-305 2500, 305-215 2000

**EQUIPMENT REQUIREMENTS NOTES:**

RADAR REQUIRED FOR PROCEDURE ENTRY.  
DME OR RADAR REQUIRED

**NOTES:**

CHART NOTE: FOR INOPERATIVE ALS, INCREASE S-LOC 29 CATS C AND D VISIBILITY TO 1 3/8 SM.



**ADDITIONAL FLIGHT DATA:**

CHART IN PROFILE VIEW: I-ULJ DME ANTENNA.

CHART CIRCLING ICON.

CHART R-4102 A/B

CHART VDP AT 1.11 DME\*

DISTANCE VDP TO THLD 1.39 NM

\* LOC ONLY

CHART FAS OBST: 356 TREE 422803N/0711409W.

HOLD E, RT, 291.00 INBOUND

**MINIMUMS:**

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

**ALTERNATE:** NA☐

ILS: STANDARD - NA WHEN CONTROL TOWER CLOSED.; LOC: STANDARD - CAT C 800-2 1/4, CAT D 800-2 1/2, NA WHEN CONTROL TOWER CLOSED.

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
S-ILS 29	328	1/2	200	328	1/2	200	328	1/2	200	328	1/2	200			
S-LOC 29	620	1/2	492	620	1/2	492	620	1	492	620	1	492			
CIRCLING	720	1	588	720	1	588	880	2 1/4	748	920	2 1/2	788			

**CHANGES - REASONS**

1. ADDED CIRCLING MINIMUMS TO PROCEDURE - BOSTON TRACON UTILIZES PROCEDURES AT KBFD TO DE-CONFLICT KBOS TRAFFIC WITH THE STRAIGHT-IN PROCEDURES AT KBED.

2. ADDED CIRCLING ICON - ADDED CIRCLING MINIMUMS TO PROCEDURE.

**COORDINATED WITH:****A4A** ☒ **ALPA** ☒ **AOPA** ☒ **APA** ☐ **HAI** ☐ **NBAA** ☒ **OTHER:** ZBW, BOS APP CON, BED ATCT, BED AMGR**FLIGHT CHECKED BY**PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, OCTOBER 3, 2018, SUBJECT:  
FLIGHT INSPECTION REVIEW NOT REQUIRED**DEVELOPED BY**

MIKE MELSSEN

Digitally signed by

**MIKE MELSSEN**

Oct 22, 2019

**APPROVED BY**

GEORGE DAVIS

Digitally signed by

**WARDELL HENNING**

Oct 28, 2019

**OFFICE**Digitally signed by **DATE****WARDELL HENNING**

Oct 28, 2019

**OFFICE**

AJV-A432

**DATE**

10/22/2019

**OFFICE**

AJV-A430

**DATE****TITLE**

MANAGER

FEDERAL AVIATION ADMINISTRATION  
FLIGHT STANDARDS SERVICE  
STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD

AIRPORT	AIRPORT ID	PROCEDURE NAME	AMDT NO.	CITY	STATE	AIRPORT ELEVATION	FACILITY
LAURENCE G HANSCOM FLD	KBED	ILS OR LOC RWY 29	9B	BEDFORD	MA	132	I-ULJ

PART A: OBSTRUCTION DATA SEGMENTS

INTERMEDIATE

FROM  
MORIS/I-ULJ 10.84 DME/RADAR

TO  
JAYSE/I-ULJ 4.81 DME/RADAR

<u>RNP</u>	<u>DISTANCE</u> 6.02	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>			<u>HMAS</u>				
<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
1.TOWER (25-000028)	422551.86N/0710517.31W	531	20	10	1B	500					1100
2.TERRAIN	422654.00N/0710515.00W	325 (300)								AS1500	1800

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

FINAL: ILS

FROM  
JAYSE/I-ULJ 4.81 DME/RADAR

TO  
RW29

RNP	DISTANCE 5.09	PAT	MAP DA	HAT 200	HMAS						
OBSTRUCTION	COORDINATES	ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
							ASC				328

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



FINAL: LOC

FROM

JAYSE/I-ULJ 4.81 DME/RADAR

TO

ROGGR/I-ULJ 2.32 DME/RADAR

RNP	DISTANCE	PAT	MAP	HAT	HMAS							
	2.49											
OBSTRUCTION	COORDINATES	ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT	
3.TOWER (25-020082)	422719.00N/0711046.00W	620	250	50	4D	250				RA49 AC50 DG31	1000	

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

FINAL: LOC STEPDOWN

FROM

ROGGR/I-ULJ 2.32 DME/RADAR

TO

5.09 NM AFTER JAYSE/I-ULJ 4.81 DME/RADAR OR AT I-ULJ 0.28 DME

RNP	DISTANCE	PAT	MAP	HAT	HMAS							
	2.60		5.09 NM AFTER JAYSE/I-ULJ 4.81 DME/RADAR OR AT I-ULJ 0.28 DME	492								
OBSTRUCTION	COORDINATES	ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT	
4.TREE (25-032293)	422803.06N/0711409.02W	356	20	3	1A	250					620	

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



MISSED APPROACH : ILS

FROM  
DA

TO  
SOSYO/GDM 28.00 DME/RADAR

RNP	DISTANCE	PAT	MAP	HAT			HMAS 155					
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
								ASC				2000
5.AAO	422840.32N/0712341.79W		565	50	20	2C	1000					1600
6.TERRAIN	422840.32N/0712341.79W		365 (400)								AS1500	1900

COMPUTATIONS	ALT	KIAS	KTAS	HAA	VKTW	TR	BA	DTA	COURSE CHANGE	DVEB	VEB OCS	RF CENTER FIX/DISTANCE
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SEGMENT REMARKS:

MISSED APPROACH : LOC

FROM  
5.09 NM AFTER JAYSE/I-ULJ 4.81 DME/RADAR OR AT I-ULJ 0.28 DME

TO  
SOSYO/GDM 28.00 DME/RADAR

RNP	DISTANCE	PAT	MAP	HAT			HMAS					
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
								ASC				2000
5.AAO	422840.32N/0712341.79W		565	50	20	2C	1000					1600
6.TERRAIN	422840.32N/0712341.79W		365 (400)								AS1500	1900

COMPUTATIONS	ALT	KIAS	KTAS	HAA	VKTW	TR	BA	DTA	COURSE CHANGE	DVEB	VEB OCS	RF CENTER FIX/DISTANCE
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SEGMENT REMARKS:



CIRCLING

☐ ALL CATS

☒ CAT A

☒ CAT B

☒ CAT C

☒ CAT D

☐ CAT E

☐ NOT AUTHORIZED

OBSTRUCTION	COORDINATES	RADIUS	HAA	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
CATEGORY A											
7.ANTENNA (25-034382)	422724.08N/0711559.43W	1.30	588	414	20	10	1B	300			720
CATEGORY B											
8.TREE (25-051223)	422603.61N/0711810.45W	1.81	588	420	20	10	1B	300			720
CATEGORY C											
9.TOWER (25-022505)	422923.66N/0711312.00W	2.84	748	566	20	3	1A	300			880
CATEGORY D											
10.TOWER (25-025110)	422927.04N/0711255.00W	3.71	788	570	250	50	4D	300		AC50	920

CIRCLING REMARKS:

MSA

CENTER  
BOS VOR/DME

RADIUS  
25

SECTOR	OBSTRUCTION	COORDINATES	BEARING	DISTANCE	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
215-305	TOWER (25-000619)	422302.73N/0712935.33W	290	22.4	1462	50	3	2A	1000			2500
305-215	TOWER (25-000538)	421449.10N/0710253.50W	218	22.5	990	250	50	4D	1000			2000

MSA REMARKS:

NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:



PART B: SUPPLEMENTAL DATA

COMMUNICATIONS WITH  
BOS APP CON, BED TOWER, ZBW ARTCC

<u>WX SERVICE</u> ASOS	<u>LOCATION</u> KBED	<u>HRS OPERATION</u> 24	<u>ALTIMETER SOURCE</u> KBED	<u>DISTANCE</u> 0	<u>SERVICE-A</u> Y	<u>ADJUSTMENTS</u> 0
<u>BACK-UP WX SERVICE</u> ASOS	<u>LOCATION</u> KBOS	<u>HRS OPERATION</u> 24	<u>ALTIMETER SOURCE</u> KBOS	<u>DISTANCE</u> 14.08	<u>SERVICE-A</u> Y	<u>ADJUSTMENTS</u> 49

WX REMARKS:

<u>PRIMARY NAVAID</u> I-ULJ	<u>MONITOR POINT</u> BED ATCT	<u>HRS OPERATION</u> TWR OPEN TWR CLSD	<u>CAT</u> 1 3
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<u>APPROACH AND RUNWAY LIGHTING SYSTEM</u>	<u>RUNWAY MARKINGS</u>	<u>RUNWAY VISUAL RANGE</u>
RW05 - MIRL (PCL), REIL, VASI-4L	NPI-G	
RW23 - MIRL (PCL), REIL, VASI-4R	NPI-G	
RW11 - MALSR (PCL), HIRL (PCL), PAPI-4L	PIR-G	APPROACH
RW29 - MALSR (PCL), HIRL (PCL), PAPI-4R	PIR-G	ROLL OUT

<u>GLIDESLOPE ANGLE</u> 3.00	<u>ELEV RWY THRESHOLD</u> 123	<u>TCH</u> 54.7	<u>ELEV GS ANTENNA</u> 120.2	<u>DISTANCE FROM RWY</u> 961	<u>VGSI ANGLE</u> 3.00	<u>TCH</u> 52.0
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FINAL APPROACH COURSE AIMING

RUNWAY THRESHOLD	<input checked="" type="checkbox"/>	FT FROM THRESHOLD	DISPLACED THRESHOLD DISTANCE
ON CENTERLINE	<input checked="" type="checkbox"/>	FT FROM CENTERLINE	

CRITICAL TEMPERATURES

<u>CRITICAL LOW</u>	<u>CRITICAL HIGH</u>	<u>ACT</u>	<u>APT ISA</u>
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CRITICAL TEMPERATURE REMARKS:

"VISUAL PORTION OF FINAL" PENETRATIONS

HELICOPTER 'VISUAL PORTION OF FINAL' PENETRATIONS







AIRPORT	AIRPORT ID	PROCEDURE NAME	AMDT NO.	CITY	STATE	AIRPORT ELEVATION	FACILITY
LAURENCE G HANSCOM FLD	KBED	ILS OR LOC RWY 29	9B	BEDFORD	MA	132	I-ULJ

PART D: AIRSPACE

DOCKET #

ALL DISTANCES TO 1/100NM; ELEVATION TO NEAREST 100 FEET; COORDINATES TO 1/100 SECOND; DEG TO 1/100 DEGREE

DISTANCE FROM	THLD	TO 1000FT POINT	3.52
WIDTH OF	FINAL	SEGMENT AT 1000FT POINT	0.98
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1000FT POINT	277.14
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1000FT POINT	345
DISTANCE FROM	THLD	TO 1500FT POINT	5.09
WIDTH OF	FINAL	SEGMENT AT 1500FT POINT	1.32
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1500FT POINT	277.14
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1500FT POINT	375

THRESHOLD COORDINATES (IF STR-IN)

422809.97N/0711628.42W

ARP COORDINATES

422811.80N/0711720.40W

RUNWAY APCH END AND DIST FURTHEST FROM ARP

RUNWAY 29 DISTANCE 0.64 NM

FAF COORDINATES

422731.76N/0710938.69W

FIX NAME COORDINATES

REMARKS

QUALITY

18

CHECKED

FAA Form 8260-9 / (11/16) Supersedes Previous Edition

Electronic Version

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<div> <div>AIRPORT</div> <div>LAURENCE G HANSCOM FLD</div> </div>		<div> <div>AIRPORT ID</div> <div>KBED</div> </div>	<div> <div>PROCEDURE NAME</div> <div>ILS OR LOC RWY 29</div> </div>	<div> <div>AMDT NO.</div> <div>9B</div> </div>	<div> <div>CITY</div> <div>BEDFORD</div> </div>	<div> <div>STATE</div> <div>MA</div> </div>	<div> <div>AIRPORT ELEVATION</div> <div>132</div> </div>	<div> <div>FACILITY</div> <div>I-ULJ</div> </div>
PART E: PREPARED BY								
<div> <div>NAME</div> <div>MIKE MELSSEN</div> </div>				<div> <div>OFFICE</div> <div>AJV-A432</div> </div>	<div> <div>DATE</div> <div>10/22/2019</div> </div>	<div> <div>TITLE</div> <div>AERONAUTICAL INFORMATION SPECIALIST</div> </div>		

