

**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><b>AIRPORT ID</b></u> KBFI	<u><b>PROCEDURE NAME</b></u> ILS OR LOC RWY 14R	<u><b>ORIGINAL/AMENDMENT</b></u> 32	<u><b>CITY</b></u> SEATTLE	<u><b>STATE</b></u> WA		
<u><b>AIRPORT ELEVATION</b></u> 22	<u><b>TDZE</b></u> 18	<u><b>SUPERSEDED</b></u> ILS OR LOC RWY 14R	<u><b>ORIGINAL/AMENDMENT</b></u> 31B	<u><b>DATED</b></u> 11/05/2020	<u><b>MAG VAR</b></u> 15E	<u><b>EPOCH YEAR</b></u> 2020
<u><b>FACILITY</b></u> I-BFI	<u><b>COORDINATES OF FACILITIES</b></u>	<u><b>ACTUAL EFFECTIVE DATE</b></u> 29 DECEMBER 2022	<u><b>REQUIRED EFFECTIVE DATE</b></u> ROUTINE	<u><b>CANCEL/SUSPEND</b></u>		

**TERMINAL ROUTES**

<u><b>FROM</b></u>	<u><b>FIX TYPE</b></u>	<u><b>TO</b></u>	<u><b>FIX TYPE</b></u>	<u><b>LEG TYPE</b></u>	<u><b>FO/FB</b></u>	<u><b>RNP</b></u>	<u><b>COURSE</b></u>	<u><b>DISTANCE</b></u>	<u><b>ALTITUDE</b></u>
SEA VORTAC		ISOGE/12.00 DME/RADAR					322.23	16.08	2200
ISOGE/12.00 DME/RADAR	IF/IAF	TOGAE/6.58 DME/RADAR					135.20	5.42 (I-BFI)	1600

**MISSED APPROACH**

**MAP:**

ILS: DA  
 LOC: I-BFI 1.73 DME

**MISSED APPROACH INSTRUCTIONS:**

CLIMB ON I-BFI SE COURSE TO CROSS OCEZE/I-BFI 3.90 DME/RADAR AT OR BELOW 1500 THEN CLIMB ON I-BFI SE COURSE TO I-BFI 9.00 DME THEN RIGHT TURN ON HEADING 206 AND ON SEA R-168 TO 5000 TO CIDUG/SEA 25.84 DME AND HOLD.

**ALTERNATE MISSED APPROACH INSTRUCTIONS:**

**PROFILE:**

1. PT      **SIDE OF COURSE**      **OUTBOUND**      **FT WITHIN**      **MILES OF**      (IAF)
2. HOLD NW ISOGE, RT, 135.20 INBOUND, 2200 FT. IN LIEU OF PT (IF/IAF), MAX 6000.
3. **FAC:** 135.20      **FAF:** TOGAE/6.58 DME/RADAR      **DIST FAF TO MAP:**      **DIST FAF TO THLD:** 4.85
4. **MIN ALT:** ISOGE/12.00 DME/RADAR 2200, TOGAE/6.58 DME/RADAR 1600, SOTEE/4.94 DME/RADAR 1080
5. **DIST TO THLD FROM OM:**      **MM:**      **IM:**      **150 HAT:**      **GS ANT:** 750
6. **MIN GS INCPT:** 1600      **GS ALT AT PFAF :** TOGAE/6.58 DME/RADAR 1600      **OM:**      **MM:**      **IM:**
7. **GP ANGLE:** 3.00      **34:1:**      **20:1:**      **TCH:** 38.8
8. **MSA FROM:** SEA VORTAC 010-160 6400, 160-250 2200, 250-010 3400

**EQUIPMENT REQUIREMENTS NOTES:**

DME AND RADAR REQUIRED



**NOTES:**

CHART NOTE: CIRCLING NA FOR CATS C AND D NE OF RWY 14L-32R.

CHART NOTE: CIRCLING RWY 32R NA AT NIGHT.

CHART NOTE: RWY 14R HELICOPTER VISIBILITY REDUCTION BELOW RVR 4000 NOT AUTHORIZED.

CHART PROFILE NOTE: USE I-BFI DME WHEN ON THE LOCALIZER COURSE.

CHART PROFILE NOTE: VGSI AND ILS GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).

CHART NOTE: S-ILS 14R# MINIMUMS NA WHEN VGSI INOP.

CHART PLANVIEW NOTE: A DESCENT TO AT OR BELOW 1500 MAY BE REQUIRED WHEN EXECUTING AN EARLY MISSED APPROACH.

CHART NOTE: FOR INOPERATIVE ALS, INCREASE S-ILS 14R ALL CATS TO RVR 4500.

**ADDITIONAL FLIGHT DATA:**

CHART MAXIMUM 1500 AT OCEZE.

CHART SEA VORTAC 16.08 DME AT ISOGE

HOLD N, RT, 167.67 INBOUND.

CHART FAS OBST: 341 CRANE (53-065232) 473513N/1222043W.

CHART VDP AT 3.38 DME

DISTANCE VDP TO THLD 1.65 NM.

CHART CIRCLING ICON.

**MINIMUMS:**

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

**ALTERNATE:** NA ☐ ILS: STANDARD; LOC: STANDARD - CAT B 900-2, CAT C 1000-2 3/4, CAT D 1000-3

<b>CATEGORY:</b>	<b>A</b>			<b>B</b>			<b>C</b>			<b>D</b>			<b>E</b>		
<b>FINAL TYPE</b>	<b>DA/MDA</b>	<b>VIS</b>	<b>HAT/HAA</b>	<b>DA/MDA</b>	<b>VIS</b>	<b>HAT/HAA</b>	<b>DA/MDA</b>	<b>VIS</b>	<b>HAT/HAA</b>	<b>DA/MDA</b>	<b>VIS</b>	<b>HAT/HAA</b>	<b>DA/MDA</b>	<b>VIS</b>	<b>HAT/HAA</b>
S-ILS 14R#	308	4000	290	308	4000	290	308	4000	290	308	4000	290			
S-LOC 14R	600	4000	582	600	4000	582	600	1 3/8	582	600	1 3/8	582			
CIRCLING	760	1	738	880	1 1/4	858	960	2 3/4	938	960	3	938			



**CHANGES - REASONS**

1. INCORPORATED P-NOTAMS FOR AMDT 31A, AND 31B.
2. REMOVED \*LOC ONLY AND ASSOCIATED \* SYMBOL - 8260.19I, 1-1-5, F(12).
3. FEEDER ROUTE UPDATED FROM "ISOGE/I-BFI 9.00 DME/RADAR, 324.74, 13.15" TO "ISOGE/ 12.00 DME/RADAR, 322.23, 16.08" - ISOGE RELOCATED PER FPT REQUEST TO DECONFLICT BFI AND SEA TRAFFIC.
4. INTERMEDIATE SEGMENT DISTANCE UPDATED FROM "2.42" TO "5.42" - ISOGE RELOCATED.
5. MINIMUM ALTITUDES UPDATED FROM "ISOGE 2200, TOGAE 1600, SOTEE/I-BFI 4.73 DME/RADAR 1080\*" TO "ISOGE/12.00 DME/RADAR 2200, TOGAE/6.58 DME/RADAR 1600, SOTEE/4.94 DME/RADAR 1080" - ISOGE RELOCATED AND SOTEE RELOCATED; RECALCULATION WITH REDESIGNED PROCEDURE.
6. UPDATED ALS INOP NOTE FROM "CHART NOTE: FOR INOPERATIVE ALS, INCREASE S-LOC 14R VISIBILITY CAT A/B TO RVR 5500, INCREASE CAT C/D VISIBILITY TO 1 5/8 SM." TO "CHART NOTE: FOR INOPERATIVE ALS, INCREASE S-ILS 14R ALL CATS TO RVR 4500" - UPDATED VISIBILITY VALUES 8260.3E, TABLE 3-3-1.
7. MOVED AND UPDATED "CHART PLANVIEW NOTE: DME AND RADAR REQUIRED." FROM NOTES AND ADDITIONAL FLIGHT DATA TO EQUIPMENT REQUIREMENTS NOTES "DME AND RADAR REQUIRED" - 8260.19I, 8-6-8.
8. UPDATED "CHART SEA R-325/13.15 DME AT ISOGE." TO "CHART SEA VORTAC 16.08 DME AT ISOGE" - ISOGE RELOCATED.
9. UPDATED CHART FAS OBST FROM "325 CRANE 473448N/1222043W." TO "CHART FAS OBST: 341 CRANE (53-065232) 473513N/1222043W." - 8260.19I, 8-6-10, C.
10. UPDATED "CHART VDP AT 3.37 DME. DISTANCE VDP TO THLD 1.64 NM." TO "CHART VDP AT 3.35 DME. DISTANCE VDP TO THLD 1.65 NM." - MDA RAISED FROM 580 TO 600.
11. UPDATED ALTERNATE MINIMUMS FROM "ILS: NA WHEN CONTROL TOWER CLOSED. CAT A 800-2, CAT B 900-2, CAT C 1000-2 3/4, CAT D 1000-3; LOC: NA WHEN CONTROL TOWER CLOSED. CAT B 900-2, CAT C 1000-2 3/4, CAT D 1000-3" TO "ILS: STANDARD; LOC: STANDARD - CAT B 900-2, CAT C 1000-2 3/4, CAT D 1000-3." - 8260.3E, 3-4-1.
12. MISSED APPROACH INSTRUCTIONS UPDATED FROM "CLIMB ON I-BFI SE COURSE TO CROSS OCEZE/I-BFI 3.90 DME/RADAR AT OR BELOW 1500, THEN CLIMB TO 6400 ON I-BFI SOUTHEAST COURSE AND SEA R-104 TO BLAKO/SEA 11.81 DME AND HOLD, CONTINUE CLIMB-IN-HOLD TO 6400." TO "CLIMB ON I-BFI SE COURSE TO CROSS OCEZE/I-BFI 3.90 DME/RADAR AT OR BELOW 1500 THEN CLIMB ON I-BFI SE COURSE TO I-BFI 9.00 DME THEN RIGHT TURN ON HEADING 206 AND ON SEA R-168 TO 5000 TO CIDUG/SEA 25.84 DME AND HOLD." - MISSED APPROACH HAD PENETRATION IN CLIMB IN HOLD PATTERN THAT REQUIRED A CLIMB GRADIENT. MISSED APPROACH CHANGED PER FPT/ATC REQUEST.
13. UPDATED "CHART NOTE: RWY 14R HELICOPTER VISIBILITY BELOW 3/4 SM NOT AUTHORIZED." TO "CHART NOTE: RWY 14R HELICOPTER VISIBILITY REDUCTION BELOW RVR 4000 NOT AUTHORIZED" - UPDATED VISIBILITY VALUES 8260.3E, TABLE 3-3-1.
14. REMOVED "I-BFI" FROM DME FIX IDENTIFIERS - 8260.19I, 8-2-6, C.
15. UPDATED "CHART NOTE: CIRCLING NA FOR C AND D NE OF RWY 14L-32R." TO "CHART NOTE: CIRCLING NA FOR CATS C AND D NE OF RWY 14L-32R." - 8260.19I, 8-6-11, O(5)(D).
16. MISSED HOLDING PATTERN CHANGED FROM "HOLD E, RT, 284.46 INBOUND." TO "HOLD N, RT, 167.67 INBOUND." - MISSED APPROACH HOLD FIX CHANGED PER FPT/ATC REQUEST.
17. UPDATED S-LOC 14R DA/HAT FROM "580/562" TO "600/582" - NEW SURVEY IDENTIFIED NEW CONTROLLING OBSTACLE.

**COORDINATED WITH:**

**A4A** ☒ **ALPA** ☒ **AOPA** ☒ **APA** ☐ **HAI** ☐ **NBAA** ☒ **OTHER:** ARPT MGR, BFI ATCT, SEA APP CON

**FLIGHT CHECKED BY**

*Digitally signed by*  
**JASON KRETSCHMER**  
Aug 29, 2022

**OFFICE**

FPO

**DATE**

08/11/2022

GARY J VEER

**DEVELOPED BY**

*Digitally signed by*  
**JASON KRETSCHMER**

**OFFICE**

AJV-A421

**DATE**

01/13/2022

JASON KRETSCHMER (HENRY A BRADSHAW)

**APPROVED BY**

Jun 08, 2022  
*Digitally signed by*  
**JASON KRETSCHMER**  
Jun 08, 2022

**OFFICE**

AJV-A420

**DATE**

**TITLE**  
MANAGER

MARLON ROBINSON

