

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>	<u>AIRPORT ID</u>	<u>PROCEDURE NAME</u>	<u>ORIGINAL/AMENDMENT</u>	<u>CITY</u>	<u>STATE</u>	
SEATTLE-TACOMA INTL	KSEA	ILS OR LOC RWY 16L ILS RWY 16L SA CAT I, ILS RWY 16L CAT II, ILS RWY 16L CAT III	8	SEATTLE	WA	
<u>AIRPORT ELEVATION</u>	<u>TDZE</u>	<u>SUPERSEDED</u>	<u>ORIGINAL/AMENDMENT</u>	<u>DATED</u>	<u>MAG VAR</u>	<u>EPOCH YEAR</u>
432	432	ILS OR LOC RWY 16L ILS RWY 16L SA CAT I, ILS RWY 16L CAT II, ILS RWY 16L CAT III	7A	10/12/2017	16E	2020
<u>FACILITY</u>	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u>	<u>REQUIRED EFFECTIVE DATE</u>	<u>CANCEL/SUSPEND</u>		
I-SNQ		28 FEBRUARY 2019	ROUTINE			

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>
PAE VOR/DME		ZEDKI/I-SNQ 22.25 DME/RADAR					168.97	6.99	7000
ZEDKI/I-SNQ 22.25 DME/RADAR	IAF	WUMUL/I-SNQ 19.10 DME/RADAR					164.34	3.14 (I-SNQ)	6000
WUMUL/I-SNQ 19.10 DME/RADAR	IAF	KENMO/I-SNQ 15.94 DME/RADAR					164.34	3.16 (I-SNQ)	5000
KENMO/I-SNQ 15.94 DME/RADAR	IAF	HELZR/I-SNQ 12.82 DME/RADAR					164.34	3.12 (I-SNQ)	4000
GRIFY	IAF	HELZR/I-SNQ 12.82 DME/RADAR		TF	FB	1.00	135.86	8.25	4000
HELZR/I-SNQ 12.82 DME/RADAR	IF	KARFO/I-SNQ 10.30 DME/RADAR					164.34	2.52 (I-SNQ)	3200
KARFO/I-SNQ 10.30 DME/RADAR		DGLAS/I-SNQ 6.20 DME/RADAR					164.34	4.10 (I-SNQ)	1900

MISSED APPROACH

MAP:

ILS: DA

LOC: 4.43 NM AFTER DGLAS/I-SNQ 6.20 DME/RADAR OR AT I-SNQ 1.77 DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 900 ON HEADING 165 THEN ON SEA VORTAC R-161 TO CROSS TEBNE/SEA 2.40 DME/RADAR AT OR BELOW 2000 THEN CLIMB TO 5000 ON SEA VORTAC R-161 TO MILLT/SEA 11.00 DME/RADAR AND HOLD, CONTINUE CLIMB-IN-HOLD TO 5000.

ALTERNATE MISSED APPROACH INSTRUCTIONS (DO NOT CHART):

(SIMULTANEOUS OPERATIONS NA) CLIMB TO 900 THEN CLIMBING RIGHT TURN TO 5000 ON HEADING 169 AND OLM VORTAC R-048 TO PEYOY/OLM 20.00 DME AND HOLD. (DME REQUIRED)



PROFILE:

1. PT	SIDE OF COURSE	OUTBOUND	FT WITHIN	MILES OF (IAF)
2. PROFILE STARTS AT ZEDKI				
3. FAC:	164.34	FAF: DGLAS/I-SNQ 6.20 DME/RADAR	DIST FAF TO MAP: 4.43	DIST FAF TO THLD: 4.43
4. MIN ALT:	ZEDKI/I-SNQ 22.25 DME/RADAR 7000, WUMUL/I-SNQ 19.10 DME/RADAR 6000, KENMO/I-SNQ 15.94 DME/RADAR 5000, HELZR/I-SNQ 12.82 DME/RADAR 4000, KARFO/I-SNQ 10.30 DME/RADAR 3200, DGLAS/I-SNQ 6.20 DME/RADAR 1900			
5. DIST TO THLD FROM OM:	MM:	IM:	100 HAT: 842	150 HAT: 1796 GS ANT: 1089
6. MIN GS INCPT:	1900	GS ALT AT FAF :	DGLAS/I-SNQ 6.20 DME/RADAR 1900	OM: MM: IM:
7. GP ANGLE:	3.00	34:1:	20:1:	TCH: 55.6
8. MSA FROM:	SEA VORTAC 360-160 6400, 160-250 2200, 250-360 3400			

EQUIPMENT REQUIREMENTS NOTES:

FROM GRIFY: RNAV 1-GPS REQUIRED.
DME OR RADAR REQUIRED.

NOTES:

SA CAT I ILS - SPECIAL AIRCREW AND AIRCRAFT CERTIFICATION REQUIRED; S-ILS 16L: CAT A, B, C, D RA 248, RVR 1400, HAT 150, DA 582 MSL.
CAT II ILS - SPECIAL AIRCREW AND AIRCRAFT CERTIFICATION REQUIRED; S-ILS 16L: CAT A, B, C, D RA 176, RVR 1200, HAT 100, DA 532 MSL.
CAT III ILS - SPECIAL AIRCREW AND AIRCRAFT CERTIFICATION REQUIRED; S-ILS 16L: CAT A, B, C, D RVR 300
SA CAT I CHART NOTE: REQUIRES SPECIFIC OPSPEC, MSPEC, OR LOA APPROVAL AND USE OF HUD TO DH.
CAT II RVR 1000 CHART NOTE: RVR 1000 AUTHORIZED WITH SPECIFIC OPSPEC, MSPEC, OR LOA APPROVAL AND USE OF AUTOLAND OR HUD TO TOUCHDOWN.
CHART PROFILE NOTE: VGSI AND ILS GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART NOTE: SIMULTANEOUS APPROACH AUTHORIZED WITH RWY 16R.

ADDITIONAL FLIGHT DATA:

CHART KBFI IN PLAN AND PROFILE VIEWS.
CHART MANDATORY 6000 AT GRIFY.
CHART: 696 ATC TOWER 472721N/1221805W
CHART SPEED ICON IN PLANVIEW AT GRIFY: MAX 210 KIAS.
CHART CIRCLING ICON.
CHART IN PLANVIEW: PEYOY/OLM 20.00 DME
CHART VDP AT 2.93 DME*
DISTANCE VDP TO THLD 1.16 NM
* LOC ONLY
CHART FAS OBST: 542 TREE 472940N/1221851W.
CHART IN PLANVIEW: ALTERNATE MA HOLDING, HOLD NE PEYOY/OLM 20.00 DME, RT, 228.00 INBOUND.
HOLD S, RT, 340.66 INBOUND



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

ALTERNATE: NA ☐ ILS: STANDARD; LOC: STANDARD

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 16L	697	2000	265	632	1800	200	632	1800	200	632	1800	200			
S-LOC 16L	880	2400	448	880	2400	448	880	4500	448	880	4500	448			
CIRCLING	1000	1	568	1000	1	568	1000	1 1/2	568	1000	2	568			

CHANGES - REASONS

- AIRPORT ELEVATION DECREASED FROM 433 FT TO 432 FT - UPDATED AIRPORT SURVEY SINCE PRIOR PROCEDURE FULL AMENDMENT.
- TOUCHDOWN ZONE ELEVATION DECREASED FROM 433 FT TO 432 FT - UPDATED AIRPORT SURVEY SINCE PRIOR PROCEDURE FULL AMENDMENT.
- CHANGED FEEDER FROM "PAE VOR/DME TO KENMO/I-SNQ 15.94 DME/RADAR" TO "PAE VOR/DME TO ZEDKI/I-SNQ 22.25 DME/RADAR" - ATC REQUEST TO ADD ZEDKI 7000 FT INITIAL APPROACH FIX FOR SIMULTANEOUS OPERATIONS.
- ADDED INITIAL APPROACH SEGMENT "ZEDKI/I-SNQ 22.25 DME/RADAR TO WUMUL/I-SNQ 19.10 DME/RADAR" - ATC REQUEST TO ADD WUMUL 6000 FT INITIAL APPROACH FIX FOR SIMULTANEOUS OPERATIONS.
- CHANGED ALTERNATE MISSED APPROACH FROM "(SIMULTANEOUS OPERATIONS NA) CLIMB TO 2000 ON HEADING 163 THEN CLIMBING RIGHT TURN DIRECT TCM VORTAC AND HOLD, CONTINUE CLIMB-IN-HOLD TO 5000" TO "(SIMULTANEOUS OPERATIONS NA) CLIMB TO 900 ON HEADING 163 THEN CLIMBING RIGHT TURN ON OLM VORTAC R-048 TO 5000 DIRECT PEYOY/OLM 20.00 DME AND HOLD." - ATC REQUEST DUE TO DECOMMISSIONING OF TCM VORTAC.
- CHANGED LINE 2 FROM "PROFILE STARTS AT HELZR" TO "PROFILE STARTS AT ZEDKI" - ATC REQUEST TO ADD ZEDKI 7000 FT INITIAL APPROACH FIX FOR SIMULTANEOUS OPERATIONS.
- ADDED "ZEDKI/I-SNQ 22.25 DME/RADAR 7000 AND WUMUL/I-SNQ 19.10 DME/RADAR 6000" TO LINE 4 MIN ALT - ATC REQUEST TO ADD ZEDKI 7000 FT AND WUMUL 6000 FT INITIAL APPROACH FIXES FOR SIMULTANEOUS OPERATIONS.
- REMOVED IM DISTANCE FROM LINE 5 - INNER MARKER DECOMMISSIONED.
- DECREASED 100 FT HAT FROM 851 FT TO 842 FT ON LINE 5 - TDZE DECREASED FROM 433 FT TO 432 FT.
- DECREASED 150 FT HAT FROM 1805 FT TO 1796 FT ON LINE 5 - TDZE DECREASED FROM 433 FT TO 432 FT.
- TCH INCREASED FROM 55.4 FT TO 55.6 FT - PROCEDURE TCH FIGURES UPDATED IAW 8240.47D.
- ADDED "EQUIPMENT REQUIREMENT NOTE: DME REQUIRED" - IAW CURRENT 8260.19.
- DECREASED SA CAT I DA FROM 583 FT TO 582 FT - UPDATED AIRPORT SURVEY SINCE PRIOR PROCEDURE FULL AMENDMENT.
- DECREASED CAT II DA FROM 533 FT TO 532 FT - UPDATED AIRPORT SURVEY SINCE PRIOR PROCEDURE FULL AMENDMENT.
- CHANGED ADDITIONAL FLIGHT DATA FROM "CHART IN PLANVIEW: TCM VORTAC" TO "CHART IN PLANVIEW: PEYOY/OLM 20.00 DME" - ATC REQUEST DUE TO DECOMMISSIONING OF TCM VORTAC.
- INCREASED VDP DISTANCE FROM 2.92 NM TO 2.93 NM - TCH INCREASED FROM 55.4 FT TO 55.6 FT.
- INCREASED VDP TO THLD DISTANCE FROM 1.15 NM TO 1.16 NM - TCH INCREASED FROM 55.4 FT TO 55.6 FT.
- CHANGED CHART FAS OBSTACLE FROM "514 TREE 472836N/1221818W" TO "542 TREE 472940N/1221851W" - NEW CONTROLLING OBSTACLE IN FINAL.
- CHANGED ADDITIONAL FLIGHT DATA FROM "CHART IN PLANVIEW: ALTERNATE MA HOLDING, HOLD E TCM VORTAC, RT, 261.00 INBOUND" TO "CHART IN PLANVIEW: ALTERNATE MA HOLDING, HOLD NE PEYOY/OLM 20.00 DME, RT, 228.33 INBOUND" - ATC REQUEST DUE TO DECOMMISSIONING OF TCM VORTAC.
- INCREASED S-ILS 16L CAT A HAT FROM 264 FT TO 265 FT - UPDATED AIRPORT SURVEY SINCE PRIOR PROCEDURE FULL AMENDMENT.
- DECREASED S-ILS 16L CATS B/C/D HAT FROM 633 FT TO 632 FT - UPDATED AIRPORT SURVEY SINCE PRIOR PROCEDURE FULL AMENDMENT.
- INCREASED S-LOC 16L CATS A/B/C/D HAT FROM 447 FT TO 448 FT - UPDATED AIRPORT SURVEY SINCE PRIOR PROCEDURE FULL AMENDMENT.
- INCREASED CIRCLING CATS A/B/C/D HAA FROM 567 FT TO 568 FT - UPDATED AIRPORT SURVEY SINCE PRIOR PROCEDURE FULL AMENDMENT.
- REMOVED CHART NOTE AND CHART PLANVIEW NOTE "DME OR RADAR REQUIRED" - MOVED TO EQUIPMENT REQUIREMENT NOTES IAW CURRENT 8260.19.
- REMOVED CHART NOTE: FOR INOPERATIVE ALS, INCREASE S-ILS 16L CAT A VISIBILITY TO RVR 4500, AND CATS B, C, D TO RVR 4000 - IAW CURRENT 8260.3 INOPERATIVE TABLE.

12/17/18: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 07/09/18.

- CHANGED ALTERNATE MISSED APPROACH INSTRUCTIONS TO "(SIMULTANEOUS OPERATIONS NA) CLIMB TO 900 THEN CLIMBING RIGHT TURN TO 5000 ON HEADING 169 AND OLM VORTAC R-048 TO PEYOY/OLM 20.00 DME AND HOLD. (DME REQUIRED)" PER FICO REQUEST.



AIRPORT

SEATTLE-TACOMA INTL

AIRPORT ID

KSEA

PROCEDURE NAME

ILS OR LOC RWY 16L
ILS RWY 16L SA CAT I,
ILS RWY 16L CAT II,
ILS RWY 16L CAT III

ORIGINAL/AMENDMENT

8

CITY

SEATTLE

STATE

WA

COORDINATED WITH:

A4A ☒ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: ZSE, SEA APCH, SEA ATCT, AMGR, FPT, ATA

FLIGHT CHECKED BY

GARY JOHN VEER

Digitally signed by

JACOB POWERS

Jan 08, 2019

OFFICE

FIOG

DATE

12/12/2018

DEVELOPED BY

DUSTIN DAVIDSON

Digitally signed by

DUSTIN DAVIDSON

Dec 17, 2018

OFFICE

AJV-5422

DATE

07/09/2018

APPROVED BY

JULIE MORGAN

Digitally signed by

JACOB POWERS

Jan 08, 2019

OFFICE

AJV-5420

DATE

TITLE

MANAGER