

**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 ID</u> KRNO	<u>PROCEDURE NAME</u> ILS Y RWY 17R	<u>ORIGINAL/AMENDMENT</u> 1	<u>CITY</u> RENO	<u>STATE</u> NV	
<u>AIRPORT ELEVATION</u> 4415	<u>TDZE</u> 4415	<u>SUPERSEDED</u> ILS Y RWY 16R	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>DATED</u> 05/26/2016	<u>MAG VAR</u> 13E
<u>FACILITY</u> I-RNO	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 3 NOVEMBER 2022	<u>REQUIRED EFFECTIVE DATE</u> 11/03/2022	<u>CANCEL/SUSPEND</u>	<u>EPOCH YEAR</u> 2020

TERMINAL ROUTES

FROM	FIX TYPE	TO	FIX TYPE	LEG TYPE	FO/FB	RNP	COURSE	DISTANCE	ALTITUDE
LIBGE INT/27.41 DME	IAF	ROARS/I-RNO 20.86 DME					167.12	6.55 (I-RNO)	9200
ROARS/I-RNO 20.86 DME		WALAR/I-RNO 16.86 DME					167.12	4.00 (I-RNO)	8600
WALAR/I-RNO 16.86 DME	IF	ZOMPO/I-RNO 12.75 DME					167.12	4.11 (I-RNO)	7600
ZOMPO/I-RNO 12.75 DME		DISCS/I-RNO 10.75 DME	PFAF				167.12	2.00 (I-RNO)	7400

MISSED APPROACH

MAP:
ILS: DA

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 6300 THEN CLIMBING LEFT TURN TO 11000 DIRECT FMG VORTAC AND ON FMG VORTAC R-017 TO NICER INT/FMG 13.52 DME AND HOLD, CONTINUE CLIMB-IN-HOLD TO 11000.

**MISSED APPROACH REQUIRES MINIMUM CLIMB OF 275 FEET PER NM TO 8000.

*MISSED APPROACH REQUIRES MINIMUM CLIMB OF 350 FEET PER NM TO 8000.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)
2. PROFILE STARTS AT WALAR
3. FAC: 167.12 PFAF: DISCS/I-RNO 10.75 DME DIST PFAF TO MAP: DIST PFAF TO THLD: 8.89
4. MIN ALT: WALAR/I-RNO 16.86 DME 8600, ZOMPO/I-RNO 12.75 DME 7600, DISCS/I-RNO 10.75 DME 7400
5. DIST TO THLD FROM OM: MM: IM: 150 HAT: 500 HAT: 1.34 GS ANT: 1200
6. MIN GS INCPT: 7400 GS ALT AT PFAF: DISCS/I-RNO 10.75 DME 7400 OM: MM: IM:
7. GS ANGLE: 3.10 34:1: 20:1: TCH: 59.0
8. MSA FROM: FMG VORTAC 130-250 12000, 250-350 10000, 350-130 9600



EQUIPMENT REQUIREMENTS NOTES:

DME REQUIRED.

NOTES:

CHART PROFILE NOTE: VGSI AND ILS GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
 CHART NOTE: # INOPERATIVE TABLE DOES NOT APPLY.
 CHART NOTE: ## FOR INOPERATIVE ALS, INCREASE S-ILS 17R VISIBILITY TO 1 3/8 SM.
 CHART SPEED ICON IN PLANVIEW AT LIBGE: MAX 230 KIAS.

ADDITIONAL FLIGHT DATA:

CHART AT OR ABOVE 12000 AT LIBGE.
 HOLD N, RT, 196.91 INBOUND.

MINIMUMS:

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

ALTERNATE: NA ILS: CAT A, B, C, D, E 1500-5

<u>CATEGORY:</u>	<u>A</u>			<u>B</u>			<u>C</u>			<u>D</u>			<u>E</u>		
<u>FINAL TYPE</u>	<u>DA/MDA</u>	<u>VIS</u>	<u>HAT/HAA</u>	<u>DA/MDA</u>	<u>VIS</u>	<u>HAT/HAA</u>	<u>DA/MDA</u>	<u>VIS</u>	<u>HAT/HAA</u>	<u>DA/MDA</u>	<u>VIS</u>	<u>HAT/HAA</u>	<u>DA/MDA</u>	<u>VIS</u>	<u>HAT/HAA</u>
S-ILS 17R*##	4915	5000	500	4915	5000	500	4915	5000	500	4915	5000	500	4915	5000	500
S-ILS 17R**#	5415	4	1000	5415	4	1000	5415	4	1000	5415	4	1000	5415	4	1000
S-ILS 17R#	5915	5	1500	5915	5	1500	5915	5	1500	5915	5	1500	5915	5	1500

CHANGES - REASONS

1. RAISED MINIMUM ALTITUDE FROM ROARS TO WALAR FROM 8400 TO 8600 - ADDED PRECIPITOUS TERRAIN ADJUSTMENT.
2. RAISED MINIMUM ALTITUDE FROM WALAR TO ZOMPO FROM 7500 TO 7600 - ADDED PRECIPITOUS TERRAIN ADJUSTMENT.
3. CHANGED PROCEDURE NAME FROM ILS Y RWY 16R TO ILS Y RWY 17R - MAGNETIC VARIATION CHANGED FROM 16 E TO 13 E.
4. MOVED "DME REQUIRED" NOTE FROM CHART PLANVIEW TO PBN/EQUIPMENT REQUIREMENT NOTES - IAW 8260.19I 8-6-8(A).
5. INITIAL COURSE CHANGED FROM 164.12 TO 167.12 - MAGNETIC VARIATION CHANGED FROM 16 E TO 13 E.
6. INTERMEDIATE COURSE CHANGED FROM 164.12 TO 167.12 - MAGNETIC VARIATION CHANGED FROM 16 E TO 13 E.
7. FINAL APPROACH COURSE CHANGED FROM 164.12 TO 167.12 - MAGNETIC VARIATION CHANGED FROM 16 E TO 13 E.
8. ADDED ADDITIONAL FLIGHT DATA NOTE "CHART AT/ABOVE 12000 AT LIBGE" - NEW ALTITUDE RESTRICTION FORMATTED IAW 8260.19I 8-6-10(N).
9. ADDED NOTE "CHART SPEED ICON IN PLANVIEW AT LIBGE: MAX 230 KIAS" - NEW SPEED RESTRICTION FORMATTED IAW 8260.19I 8-6-9.
10. CHANGED "CHART NOTE: + FOR INOPERATIVE MALSR, INCREASE S-ILS R16R ALL CATS VISIBILITY TO 1 3/8 MILE" TO "CHART NOTE: ## FOR INOPERATIVE ALS, INCREASE S-ILS 17R VISIBILITY TO 1 3/8 SM" - IAW 8260.3E TABLE 3-3-1.
11. CHANGED ILS VISIBILITY FROM 6 TO 5 SM - IAW 8260.3E TABLE 3-3-1.
12. CHANGED ILS * VISIBILITY FROM RVR 6000 TO 5000 - IAW 8260.3E TABLE 3-3-1.
13. CHANGED MISSED APPROACH INSTRUCTIONS FROM "CLIMB TO 6300 THEN CLIMBING LEFT TURN TO 11000 DIRECT FMG VORTAC AND ON FMG VORTAC R-017 TO NICER INT/FMG 13.52 DME AND HOLD" TO "CLIMB TO 6300 THEN CLIMBING LEFT TURN TO 11000 DIRECT FMG VORTAC AND ON FMG VORTAC R-017 TO NICER INT/FMG 13.52 DME AND HOLD, CONTINUE CLIMB-IN-HOLD TO 11000" - CLIMB-IN-HOLD REQUIRED IAW 8260.3E 16-7-1 AND FORMATTED IAW 8260.19I 8-6-6(D).
14. ILS ALTERNATE MINIMUMS CHANGED FROM "CAT A, B, C, D, E 1500-6" TO "CAT A, B, C, D, E 1500-5" - IAW 8260.3E 3-4-1.
15. CHANGED CHART PROFILE NOTE FROM "VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET})." TO "VGSI AND ILS GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET})." - IAW 8260.19I 8-6-9(M).



COORDINATED WITH:

A4A **ALPA** **AOPA** **APA** **HAI** **NBAA**

OTHER: ZOA, RNO ATCT, RNO APP CON, AMGR, WESTERN FPT.

FLIGHT CHECKED BY

GARY J VEER

OFFICE

FPO

DATE

09/01/2022

Digitally signed by

CASIMIR L TABAKA

Aug 23, 2022

DEVELOPED BY

KARLIE BUNTIN

Digitally signed by

KARLIE B BUNTIN

Jul 28, 2022

OFFICE

AJV-A432

DATE

07/07/2022

APPROVED BY

JOHNNIE BAKER

Digitally signed by

CASIMIR L TABAKA

Aug 24, 2022

OFFICE

AJV-A430

DATE

TITLE
MANAGER

