

**FEDERAL AVIATION ADMINISTRATION  
FLIGHT STANDARDS SERVICE  
RNAV (RNP) 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> KRNO	<u>PROCEDURE NAME</u> RNAV (RNP) Z RWY 35R	<u>ORIGINAL/AMENDMENT</u> 1	<u>CITY</u> RENO	<u>STATE</u> NV	
<u>AIRPORT ELEVATION</u> 4415	<u>TDZE</u> 4408	<u>SUPERSEDED</u> RNAV (RNP) Z RWY 34R	<u>ORIGINAL/AMENDMENT</u> ORIG-A	<u>DATED</u> 02/09/2012	<u>MAG VAR</u> 13E
<u>FACILITY</u> RNAV	<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
TARVR	IAF	SPOON		TF	FB	1.00	347.09	17.49	11000
SPOON		MASUE		TF	FB	1.00	347.15	5.72	8200
SPOON	IAF	MASUE		TF	FB	1.00	347.15	5.72	8200
MASUE	IF	LANBE		TF	FB	0.30	347.10	7.70	7000
LANBE		TULVE	PFAF	TF	FB	0.30	349.35	2.97	6900
TULVE	PFAF	RW35R	MAP	TF	FO	0.30	347.11	6.50	
RW35R	MAP	HOGBO		TF	FB	1.00	347.11	9.05	
HOGBO		TAKLE		TF	FO	1.00	345.22	3.42	11000

**MISSED APPROACH**

**MAP:**  
RNP: DA

**MISSED APPROACH INSTRUCTIONS:**

CLIMB TO 11000 ON TRACK 347.11 TO HOGBO AND ON TRACK 345.22 TO TAKLE AND HOLD, CONTINUE CLIMB-IN-HOLD TO 11000.  
\*MISSED APPROACH REQUIRES MINIMUM CLIMB OF 301 FEET PER NM TO 7150.

**ALTERNATE MISSED APPROACH INSTRUCTIONS:**



**PROFILE:**

1. **PT**       **SIDE OF COURSE**       **OUTBOUND**       **FT WITHIN**       **MILES OF**    (IAF)

2. PROFILE STARTS AT MASUE

3. **FAC:** 347.11       **PFAF:** TULVE       **DIST PFAF TO MAP:**       **DIST PFAF TO THLD:**

4. **MIN ALT:** MASUE 8200, LANBE 7000, TULVE 6900

5. **DIST TO THLD FROM PFAF:** 6.50       **MM:**       **IM:**       **150 HAT:**       **354 HAT:** 0.75       **GS ANT:**

6. **MIN GP INCPT:** 6900       **GP ALT AT PFAF:** TULVE 6900       **OM:**       **MM:**       **IM:**

7. **GP ANGLE:** 3.50       **34:1:** IS NOT CLEAR       **20:1:** IS CLEAR       **TCH:** 75.0

8. **MSA FROM:** RW35R 12000

**PBN REQUIREMENTS NOTE:**

RNP AR APCH - GPS.

**NOTES:**

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, PROCEDURE NA BELOW -9°C OR ABOVE 34°C.  
 CHART PLANVIEW NOTE AT TARVR: (RNP 0.30).  
 CHART PLANVIEW NOTE AT SPOON: (RNP 0.30).  
 CHART SPEED ICON IN PLANVIEW AT SPOON: MAX 230 KIAS.

**ADDITIONAL FLIGHT DATA:**

HOLD N, RT, 167.12 INBOUND.  
 CHART MANDATORY 14000 AT TARVR.

**MINIMUMS:**

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

**ALTERNATE:** NA        CAT A, B, C, D 1000-2 1/2

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
AUTHORIZATION REQUIRED																
RNP 0.11 DA*	4762	1	354	4762	1	354	4762	1	354	4762	1	354				
RNP 0.30 DA	5349	2 1/2	941	5349	2 1/2	941	5349	2 1/2	941	5349	2 1/2	941				



**CHANGES - REASONS**

RNAV (RNP) Z RWY 35R

1. PROCEDURE NAME CHANGED FROM RNAV (RNP) Z RWY 34R TO RWY 35R - MAGVAR UPDATE.
2. ALL REFERENCE OF RWY 34 CHANGED TO RWY 35 - MAGVAR UPDATE.
3. TERMINAL ROUTES: REMOVED INITIAL SEGMENT FMG TO TIPYO, TIPYO TO JOPKO, COLOM TO JOPKO, JOPKO TO JIVOR, SPOOK TO JIVOR, JIVOR TO SPOON - PER FPT/ATC REQUEST.
4. TERMINAL ROUTES: ADDED INITIAL SEGMENT TARVR TO MASUE - PER FPT/ATC REQUEST.
5. TERMINAL ROUTES: SPOON TO MASUE COURSE CHANGED FROM 344.15 TO 347.15, ALTITUDE CHANGED FROM 8100 TO 8200 - DUE TO MAGVAR UPDATE AND FPT/ACT REQUEST.
6. TERMINAL ROUTES: REMOVED INTERMEDIATE SEGMENT MASUE TO PUNTE TO WAMIK TO TULVE - PER ATC/FPT REQUEST.
7. TERMINAL ROUTES: ADDED INTERMEDIATE SEGMENT MASUE TO LANBE TO TULVE - PER AT/FPT REQUEST.
8. TERMINAL ROUTES: CHANGED FINAL SEGMENT TULVE TO RW35R COURSE/DISTANCE FROM 344.11/7.19 TO 347.11/6.50 - MAGVAR UPDATE/MOVED FIX TULVE PER ATC/FPT REQUEST.
9. TERMINAL ROUTES: CHANGED RW35R TO HOBGO COURSE/DISTANCE FROM 344.11/8.90 TO 347.11/9.05 - MAGVAR UPDATE/FIX HOBGO MOVED PER RWY 17L FINAL UPDATE.
10. TERMINAL ROUTES: CHANGED HOBGO TO TAKLE COURSE/DISTANCE FROM 342.27/3.57 TO 345.22/3.42 AND ALTITUDE FROM 10000 TO 11000 - HOBGO FIX MOVED PER RWY 17L FINAL UPDATE AND ALTITUDE PER FPT/ACT REQUEST.
11. MISSED APPROACH INSTRUCTIONS CHANGED FROM CLIMB TO 10000 VIA 344.11 TRACK TO HOBGO AND 342.27 TRACK TO TAKLE AND HOLD, CONTINUE CLIMB-IN-HOLD TO 10000 TO CLIMB TO 11000 ON TRACK 347.11 TO HOBGO AND ON TRACK 345.22 TO TAKLE AND HOLD, CONTINUE CLIMB-IN-HOLD TO 11000 - PER MAGVAR UPDATE/HOBGO FIX LOCATION UPDATE AND ATC/FPT REQUEST.
12. MISSED APPROACH INSTRUCTIONS: ADDED MISSED APPROACH REQUIRES MINIMUM CLIMB OF 301 FEET PER NM TO 7150 - PER ATC/FPT REQUEST TO PROVIDE LOWER LINE OF MINIMUMS ON RNP VALUE OF 0.11
13. PROFILE LINE 3: FAC CHANGED FROM 344.11 TO 347.11 AND ADDED PFAF: TULVE - MAGVAR UPDATE AND CURRENT CRITERIA.
14. PROFILE LINE 4: MASUE ALTITUDE CHANGED FROM 8100 TO 8200, REMOVED FIX PUNTE AND WAMIK AND ADDED FIX LANBE AT 7000 AND FIX TULVE AT 6900 - PER ATC/FPT UPDATES.
15. PROFILE LINE 5: CHANGED DIST TO THLD FROM 7.19 TO 6.50 AND HAT/DISTANCE CHANGED FROM 765 HAT/2.23 NM TO 354 HAT/0.75 NM - NEW RNP 0.11 WITH HAT OF 354
16. PROFILE LINE 6: MIN INCTP ALT CHANGED FORM 6800 TO 6900 AND ALT AT TULVE CHANGED FROM 6800 TO 6900 - PER ATC/FPT REQUEST.
17. PROFILE LINE 7: ANGLE/TCH CHANGED FROM 3.00/55.0# TO TO 3.50/75.0 - MATCH VGSI PER ATC/FPT REQUEST AND # NO LONGER REQUIRED.
18. PBN REQUIREMENT NOTES: REMOVED GPS REQUIRED AND ADDED RNP AR APCH- GPS - PER CURRENT CRITERIA.
19. NOTES: CHANGED FOR UNCOMPENSATED BARO-VNAV SYSTEMS, PROCEDURE NA BELOW -13C (8F) OR ABOVE 40C (105F). TO CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, PROCEDURE NA BELOW -9°C OR ABOVE 34°C - NEW 5 YEAR CRITICAL LOW DATA AND UPDATED TO CURRENT CRITERIA.
20. REMOVED CHART PLANVIEW NOTES PROCEDURE NA FOR ARRIVALS AT COLOM VIA V6 SOUTHWEST BOUND AND V332 NORTHWEST BOUND. PROCEDURE NA FOR ARRIVALS ON FMG VORTAC AIRWAY RADIALS 167 CW 241 - FMG REMOVED FROM PROCEDURE.
21. NOTES: REMOVED CHART PLANVIEW NOTE AT FMG VORTAC, COLOM AND SPOOK: RF REQUIRED - FMG, COLOM AND SPOOK REMOVED FROM PROCEDURE.
22. NOTES: REMOVED CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT - VGSI IS NOW COINCIDENT.
23. REMOVED RNP 0.15 LINE A MIN AND ADDED RNP 0.11 LINE OF MIN - PER ATC/FPT REQUEST.
24. RNP 0.30 LINE OF MIN DA/HAT CHANGED FROM 5344/936 TO 5349/941 AND VIS CHANGED FROM 4 SM TO 2 1/2 SM - NEW CONTROLLING OBSTACLE ON FINAL/UPDATE TO CURRENT CRITERIA.
25. ADDITIONAL FLIGHT DATA: HOLDING COURSE CHANGED FROM 164.12 TO 167.12 - MAGVAR UPDATE.
26. CHART FAS OBSTACLES REMOVED - APV FINALS DO NOT REQUIRE CHARTING OF FAS OBSTACLES.
27. ADDED CHART MANDATORY 14000 AT TARVR - PER ATC/FPT REQUEST.
28. LINE 7 ADDED 20:1 IS CLEAR - PER CURRENT CRITERIA.
29. ADDITIONAL FLIGHT DATA REMOVED ENTRIES ROUTE TYPE: A, R AND ROUTE TYPE QUALIFIER 1: P AND ROUTE TYPE QUALIFIER 2: S AND #TCH 4463.4 MSL (DO NOT CHART) - NO LONGER REQUIRED.
30. ADDED ALTERNATE MINIMUMS - PER CURRENT CRITERIA.
31. ADDED CHART PLANVIEW NOTE AT TARVR: (RNP 0.30) AND CHART PLAVIEW NOTE AT SPOON: (RNP 0.30) - PER CURRENT CRITERIA.
32. ADDED NOTE CHART SPEED ICON IN PLANVIEW AT SPOON: MAX 230 KIAS - PER CURRENT CRITERIA.
33. UPDATED MAG VAR FROM 16E/1985 TO 13E/2020 - PER FPT REQUEST.

**COORDINATED WITH:**

A4A  ALPA  AOPA  APA  HAI  NBAA  OTHER: ZOA, RNO APP CON, RNO ATCT, AMGR

**FLIGHT CHECKED BY**  
PENDING

*Digitally signed by*  
**CASIMIR L TABAKA**

**OFFICE**

**DATE**

Sep 07, 2022

**OFFICE**  
AJV-A431

**DATE**  
08/01/2022

**DEVELOPED BY**  
TARA MARTINELLI

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**TYLER D MITCHELL**

Aug 24, 2022

**APPROVED BY**  
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**CASIMIR L TABAKA**

Sep 07, 2022

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**DATE**

**TITLE**  
MANAGER

