



Informational Handout: Reno/Tahoe International Airport Reno, Nevada (KRNO)

Regarding All Flight Procedures at Reno/Tahoe International Airport (KRNO)

Project Background

The Federal Aviation Administration (FAA) is proposing to amend 4 arrival procedures and 14 approach procedures; cancel 4 arrival procedures and 3 departure procedures; and establish 3 new arrival procedures, 1 new departure procedure, and 2 new approach procedures in conjunction with a required magnetic variation (MagVar) and criteria update at KRNO. All procedures at KRNO would be subject to the MagVar and criteria updates, and the runway (RWY) numbers and references to them would be updated accordingly.

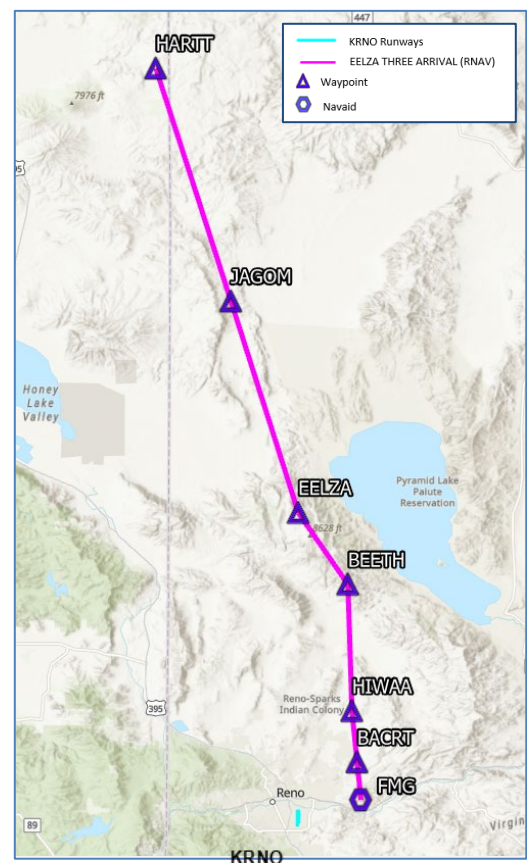
Purpose of Changes

The changes would satisfy FAA regulatory requirements and would update all of the procedures to current MagVar values (from 16° east to 13° east) at KRNO. The update would cause the RWYs to be renumbered from RWYs 16 left (L)/right (R) and RWYs 34L/R to RWYs 17L/R and RWYs 35L/R. The additional amendment, cancellation, and establishment of procedures would enhance operational safety and efficiency by modernizing procedures, improving connectivity between arrival and approach procedures, and amending altitudes to assist in ensuring separation per Air Traffic Control (ATC) request.

Project Description

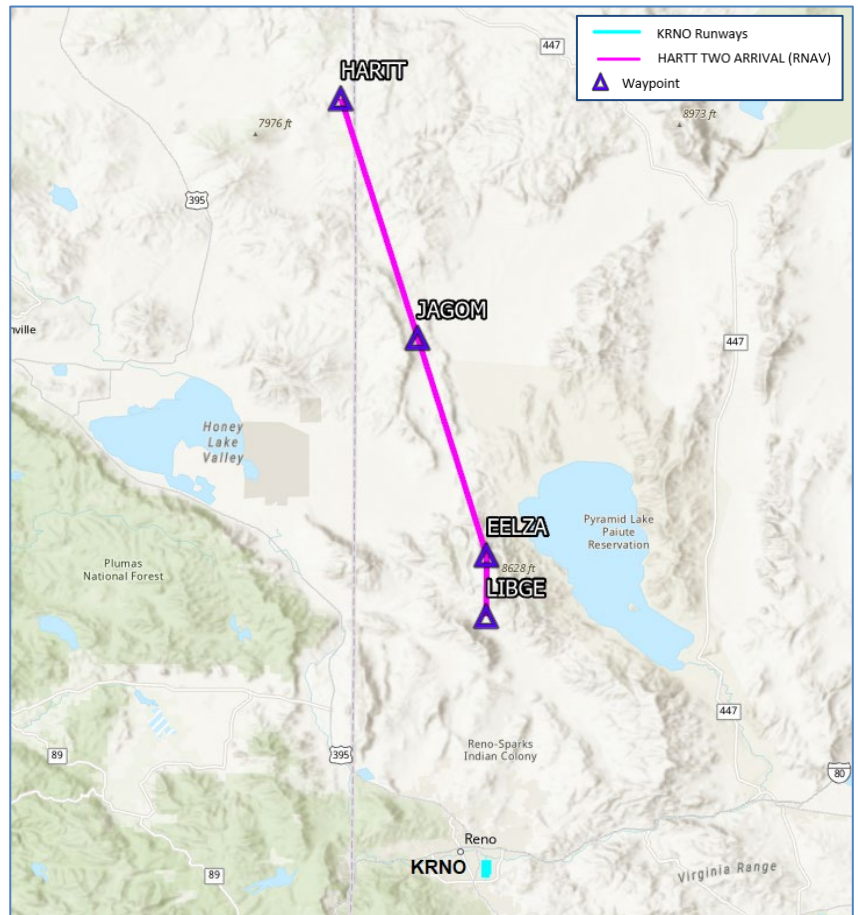
EELZA THREE ARRIVAL (RNAV) (amended)

- Mustang very high frequency omnidirectional range/tactical air navigation (VORTAC) (FMG) would become the new terminus.
- Altitude restriction at FMG would be changed from at or below (AOB) 11,000 feet (ft) mean sea level (MSL) to AT 10,000 ft MSL.
- Assigned heading of 167.15° after FMG would be added.



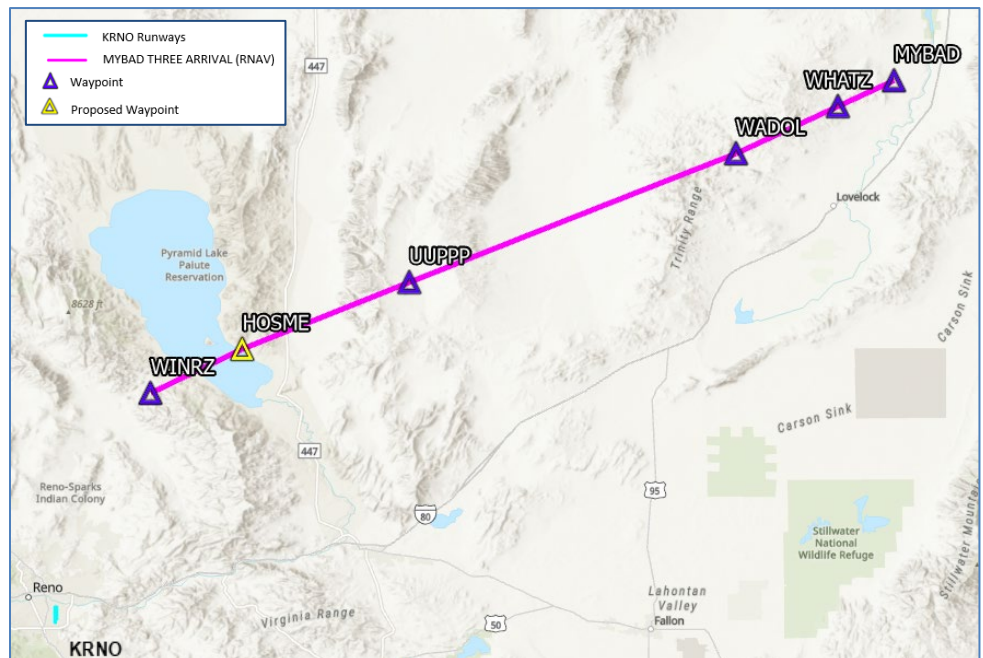
HARTT TWO ARRIVAL (RNAV)
(amended)

- Altitude restriction at LIBGE waypoint (WP) would be changed from at or above (AOA) 12,000 ft MSL to AT 12,000 ft MSL.
- Assigned heading after LIBGE WP would be changed from 160° to 167.09°.



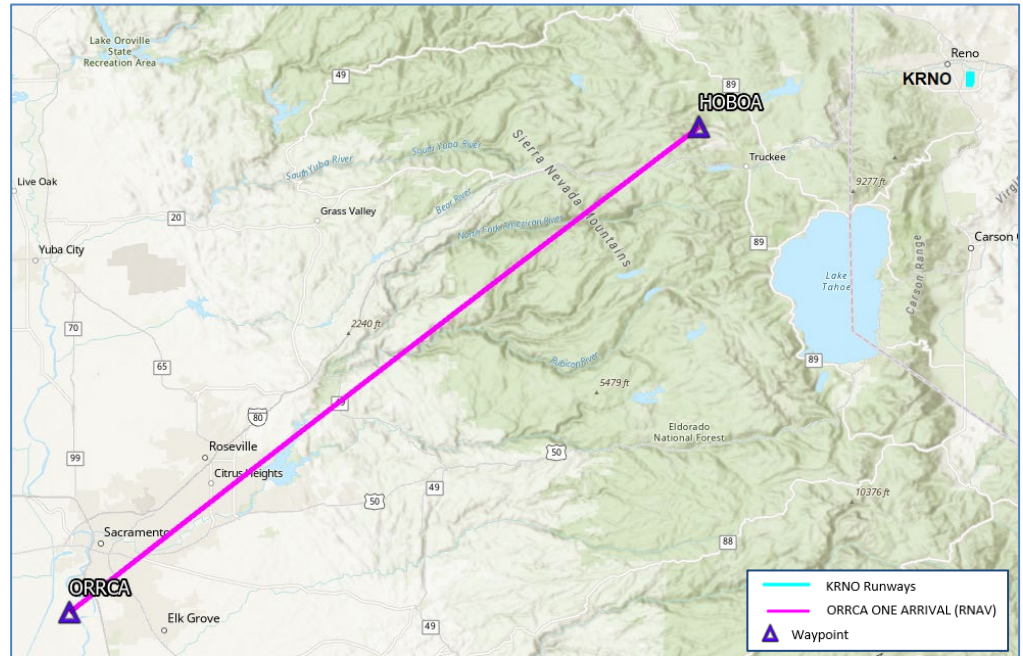
MYBAD THREE ARRIVAL
(RNAV) (amended)

- Would relocate HOSME WP approximately (~) 0.03 nautical miles (NM) northeast along the original flight track.
- Altitude restriction at WINRZ WP would be changed from AOA 11,000 ft MSL to AT 11,000 ft MSL.



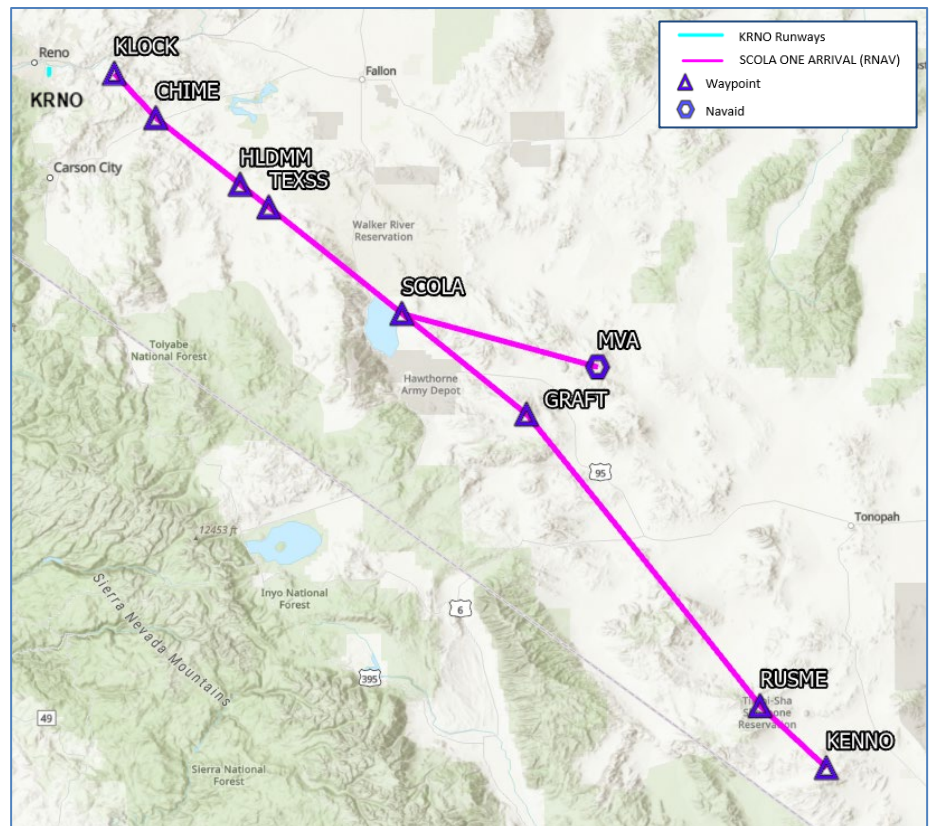
ORRCA ONE ARRIVAL (RNAV)
(new)

- Would overlay conventional SIERRA THREE ARRIVAL, which would be cancelled.
- ORRCA WP is collocated with Sacramento VORTAC (SAC) from SIERRA THREE ARRIVAL.
- Would have an altitude restriction at HOBOWA WP of AT 16,000 ft MSL.
- Procedure would terminate at HOBOWA WP.



SCOLA ONE ARRIVAL (RNAV) *(new)*

- Would overlay the conventional KENNO TWO ARRIVAL, which would be cancelled.
- Transition from Mina VORTAC (MVA) to SCOLA WP would be added with a minimum enroute altitude (MEA) of 11,400 ft MSL.
- HLDMM WP would be relocated ~4.1 NM southeast along the original flight track.
- TEXSS WP would be relocated ~0.02 NM southeast along the original flight track.
- MEA from KENNO WP to RUSME WP would be decreased from FL240¹ to 11,600 ft MSL.
- MEA from RUSME WP to GRAFT WP would be decreased from FL200 to 11,600 ft MSL.
- MEA from GRAFT WP to SCOLA WP would be decreased from FL200 to 11,400 ft MSL.
- Procedure would terminate at KLOCK WP.



¹ Flight level (FL) is an aircraft's altitude—in hundreds of feet—at standard air pressure and therefore is not necessarily the same as the aircraft's actual altitude, either above sea level or above ground level.

TARVR ONE ARRIVAL (RNAV) (new)

- TARVR ONE ARRIVAL (RNAV) would generally combine and overlay the conventional TARVR ONE ARRIVAL and the RUSME TWO ARRIVAL (RNAV). The TARVR ONE ARRIVAL and the RUSME TWO ARRIVAL (RNAV) would be cancelled.

From the southwest

- ORRCA transition overlays the Sacramento transition from the cancelled TARVR procedure. KRKWD WP would be added.
- MEA from ORRCA to TARVR would decrease from 16,000 ft MSL to 13,000 ft MSL.

From the south

- New SLEAT transition would be added for aircraft inbound from the south. The MEAs would be 13,200 ft MSL from SLEAT WP to new NEUPS WP and 12,200 ft MSL from NEUPS WP to TARVR WP.

From the southeast

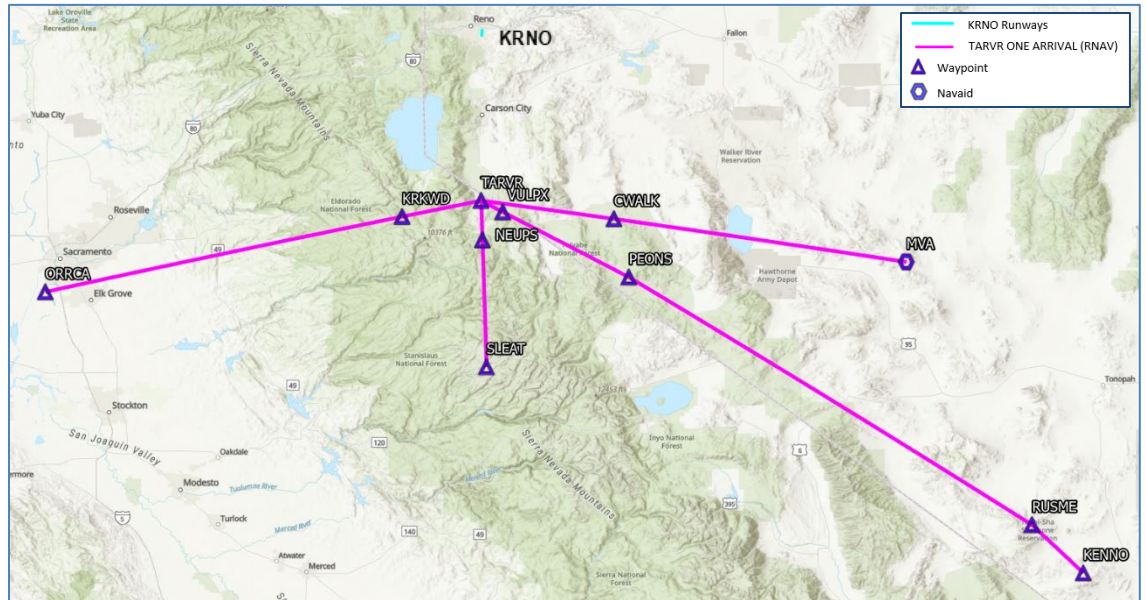
- SNKIS WP would be renamed VULPX WP.
- Transition from KENNO WP to TARVR WP would overlay the cancelled RUSME procedure.
- MEA from KENNO WP to RUSME WP would decrease from FL240 to 13,200 ft MSL.
- MEA from RUSME WP to PEONS WP would decrease from 16,000 ft MSL to 13,200 ft MSL.
- Altitude restriction of between FL200 and FL230 would be added at PEONS WP.
- MEA from PEONS WP to VULPX WP would decrease from 14,000 ft MSL to 13,200 ft MSL.
- Altitude restriction at VULPX WP would be increased from AOB FL190 to between 15,000 ft MSL and FL190.
- MEA from VULPX WP to TARVR WP would decrease from 14,000 ft MSL to 12,800 ft MSL.

From the east-southeast

- Mina transition from the cancelled TARVR procedure would be added.
- MEA from MVA to TARVR would be 12,700 ft MSL.
- New CWALK WP would be added with an altitude restriction of between FL200 and FL230.

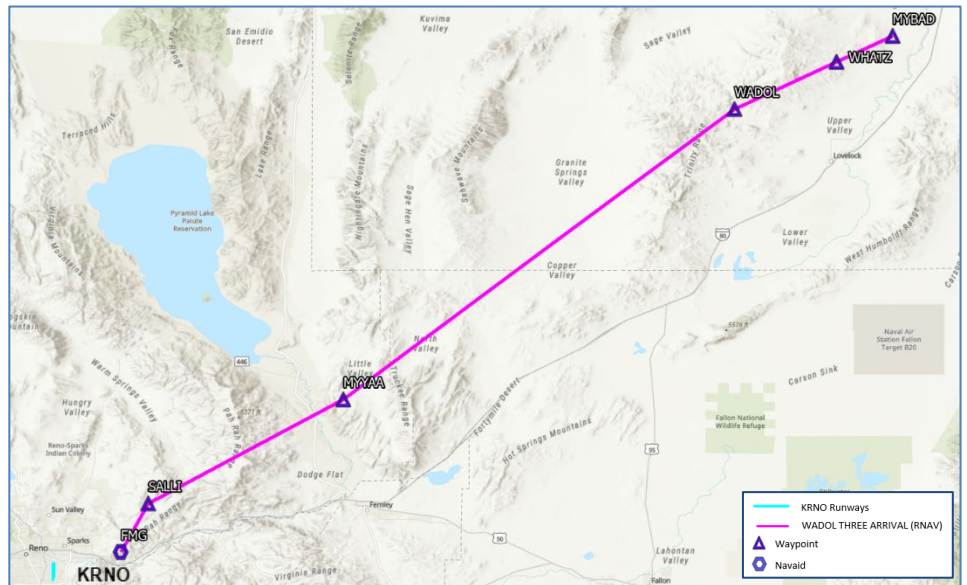
From all transitions

- Altitude restriction at TARVR WP would change from AOA 14,000 ft MSL to AT 14,000 ft MSL.
- Procedure would terminate at TARVR WP with an assigned heading of 347.09°.
- SPOON WP would be removed.



WADOL THREE ARRIVAL (RNAV) (amended)

- Altitude restriction at FMG decreased from AOB 11,000 ft MSL to AT 10,000 ft MSL.
- Procedure would terminate at FMG with an assigned heading of 167.15°.



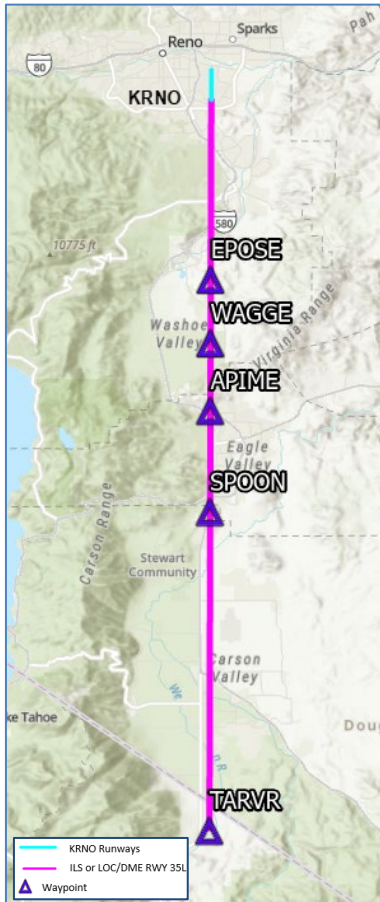
ALPYN ONE DEPARTURE (RNAV)

- New departure procedure for RWYs 35L/R.
- Aircraft would climb direct NSTAR WP, then on a track of 074° for 6.93 NM to cross ALPYN WP AT 9,000 ft MSL.
- Aircraft would then turn right direct RYANN WP (heading 131.59°), climbing to cross the WP AOA 15,000 ft MSL.
- Aircraft would continue direct YERIN (HDG 122.64°) to cross the WP AOA 16,000 ft MSL, then as directed by ATC.



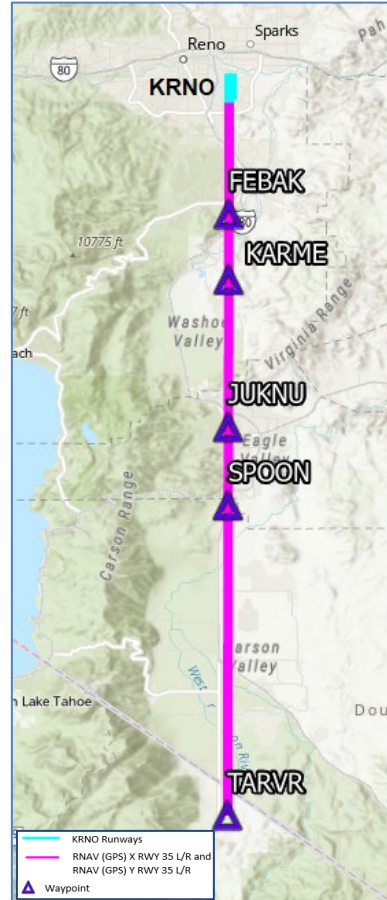
ILS or LOC/DME RWY 35L (amended)

- New initial segment from TARVR WP to SPOON WP would be added for connectivity to arrival procedures.



RNAV (GPS) X RWY 35L/R and RNAV (GPS) Y RWY 35L/R (amended)

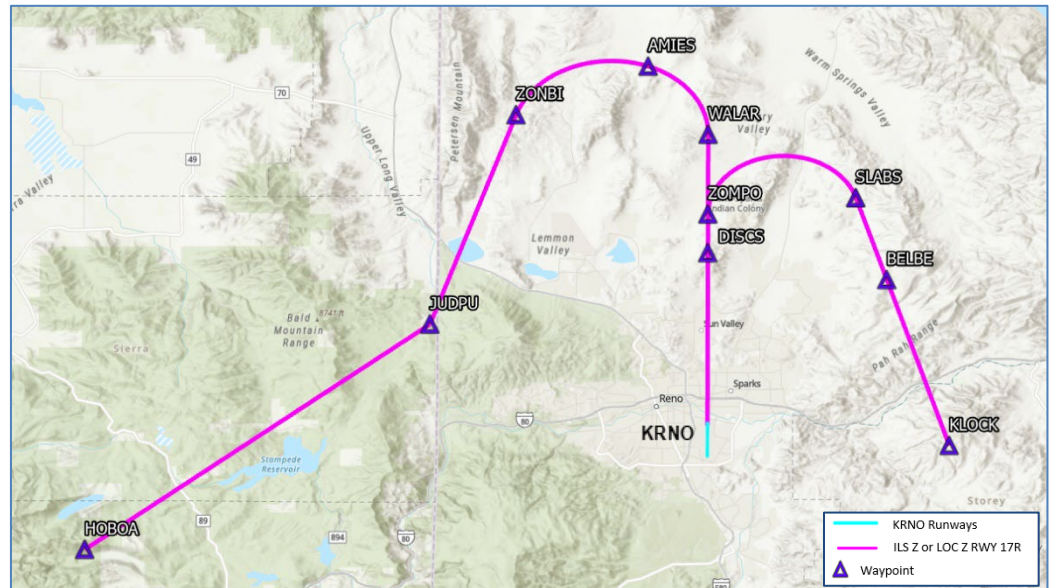
- New initial segment from TARVR to SPOON would be added with an altitude of AT 11,500 ft MSL.



- Altitude restrictions would be added at:
 - TARVR WP AT 14,000 ft MSL.
 - SPOON WP AOA 11,500 ft MSL.

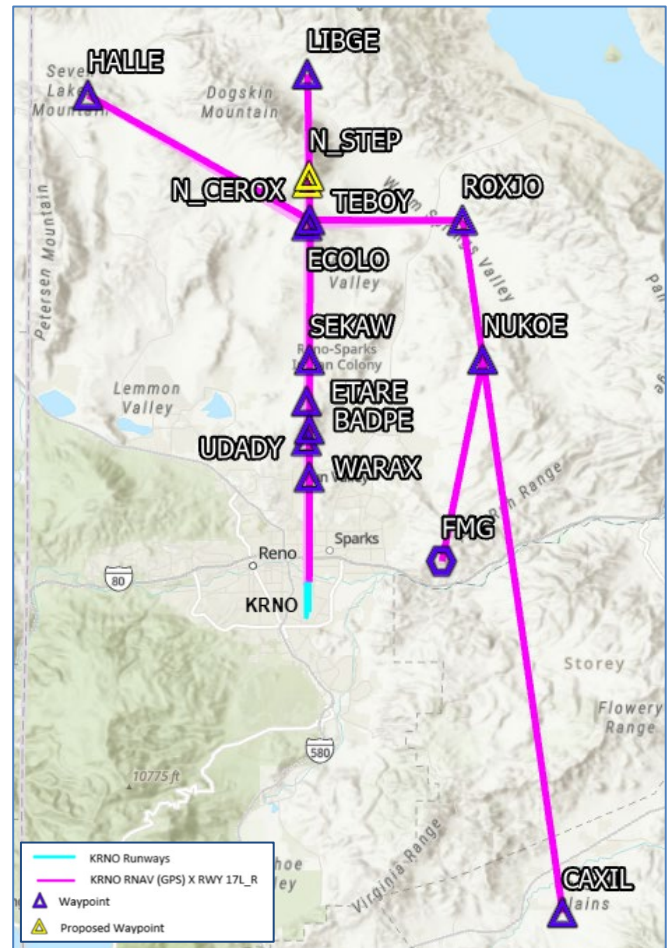
ILS Z or LOC Z RWY 17R (amended)

- JUDPU WP would be relocate 1.75 NM southwest along the original flight track.
- ZONBI WP would move 0.40 NM north-northeast along the original flight track.



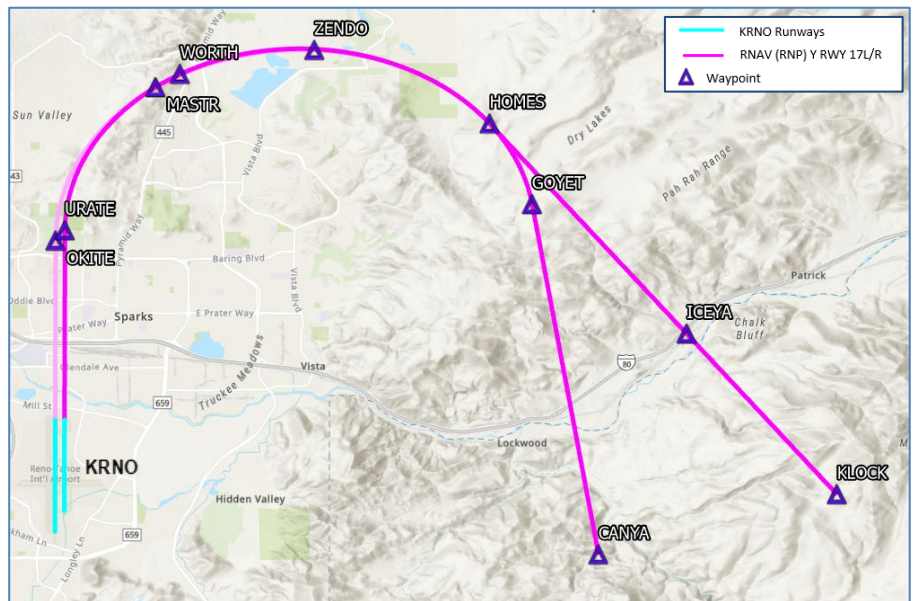
RNAV (GPS) X RWY 17L/R (amended)

- New initial segments from HALLE WP and LIBGE WP to TEBOY WP would be added.
- N_STEP WP would be added to new initial segment from LIBGE.
- New initial segments from HALLE WP and LIBGE WP to ECOLO WP would be added.
- N_CEROX WP would be added to new initial segment from LIBGE WP.
- Initial segments from PYRAM WP and FITUN WP would be removed.
- Feeder from TRUCK WP would be removed.
- Feeder from FMG would be amended to direct NUKOE WP instead of direct ROXJO WP.
- Feeder from CAXIL WP would be amended to direct NUKOE WP instead of direct ROXJO WP.



RNAV (RNP) Y RWY 17L/R (amended)

- HOMES WP and GOYET WP would be relocated ~2 ft west-southwest along the original flight track.
- ICEYA WP would be relocated ~0.01 NM northwest along the original flight track.
- CANYA WP would be relocated ~0.63 NM southeast along the original flight track with an altitude restriction of AT 10,000 ft MSL.
- Altitude restriction would be added at KLOCK of AT 10,000 ft MSL.



RNAV (RNP) Z RWY 17L/R
(amended)

Feeder from the south

- New initial segment from AVVYY WP to OQIKO/HMWUD WP would be added with the following altitude restrictions:

- AVVYY WP would be AOA 12,000 ft MSL.

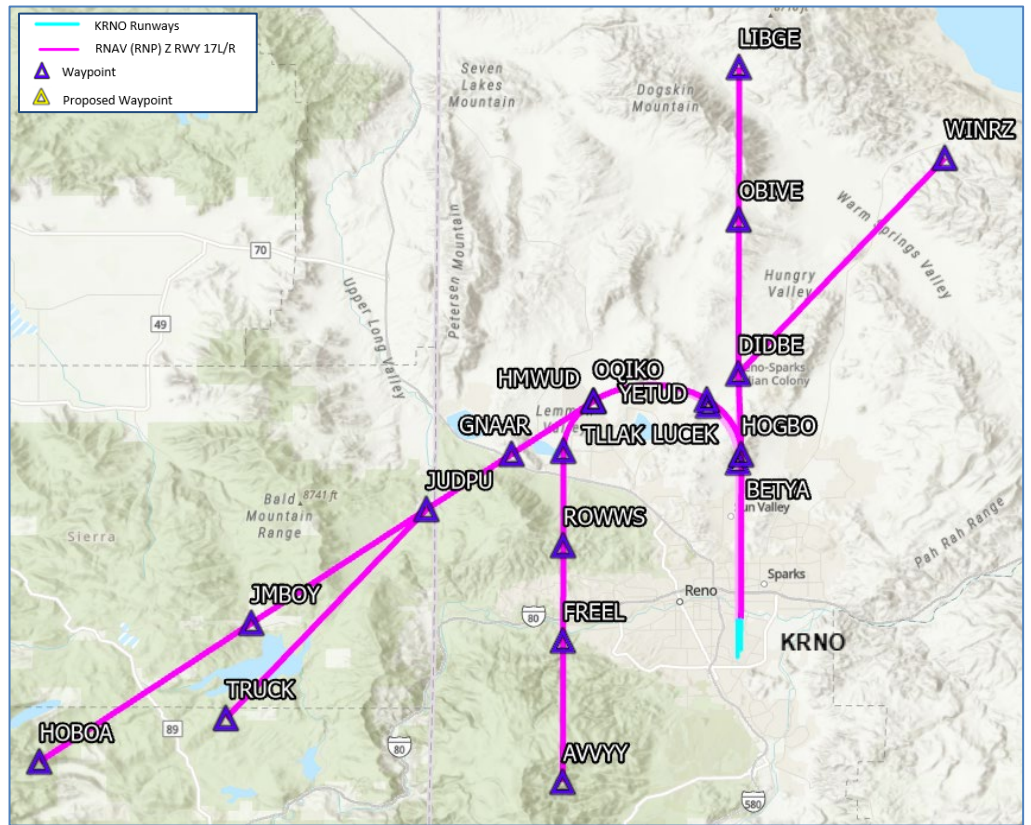
- FREEL WP would be AOA 11,200 ft MSL.

- ROWWS WP would be AOA 11,000 ft MSL.

- TLLAK WP would be AOA 9,100 ft MSL.

- OQIKO WP would be moved 13 ft northeast along the original flight track.

- HMWUD WP would be collocated with OQIKO.



Feeder from the southwest

- TRUCK WP to relocated JUDPU WP:

- Altitude restriction at TRUCK WP would increase from AOA 10,500 ft MSL to AOA 11,100 ft MSL.

- JUDPU WP would be relocated 1.75 NM southwest along the original flight track and become the new IAF.

- New intermediate fix (IF), GNAAR, would be added with an altitude restriction of AOA 10,000 ft MSL.

- Would join south feeder at OQIKO/HMWUD WP.

Feeder from the west-southwest

- HOBBOA WP to new JUDPU WP:

- Altitude restriction at HOBBOA WP would increase from AOA 10,500 ft MSL to AOA 11,200 ft MSL.

- New step-down fix (SDF), SNDIT, would be added with an altitude restriction of AOA 11,100 ft MSL.

- Would join TRUCK feeder at JUDPU WP.

Feeder from the north

- A crossing restriction would be added at LIBGE of AT 12,000 ft MSL.

Feeder from the northeast

- A crossing restriction would be added at WINRZ of AT 11,000 ft MSL.



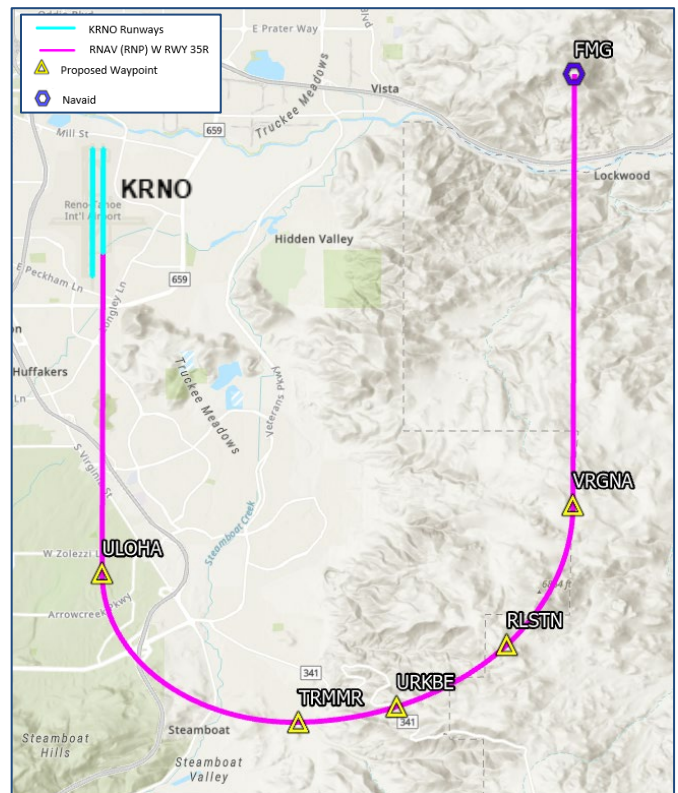
RNAV (RNP) W RWY 35L (new)

- Approach would begin at FMG IF AT 10,000 ft MSL.
- From there, aircraft would proceed southeast 6.26 NM to VCITY WP AOA 8,900 ft MSL.
- Then via a radius-to-fix (RF) right turn, aircraft would cross WSHOE WP AOA 7,900 ft MSL, RSNAK WP AOA 7,800 ft MSL, DONER WP AOA 7,700 ft MSL, and finally GRZLI precise final approach fix (PFAF) AOA 7,300 ft MSL.
- Aircraft would continue in the right turn and roll out lined up with RWY 35L over LDYBG WP AOA 6,155 ft MSL (~1,455 ft AGL).
- From LDYBG WP, aircraft would continue to RWY 35L to land or execute a missed approach at the missed approach point (MAP).
- Glide path angle (GPA) would be 3.50°.



RNAV (RNP) W RWY 35R (new)

- Approach would begin at FMG IF AT 10,000 ft MSL.
- From there, aircraft would proceed southeast 6.07 NM to VRGNA WP AOA 8,900 ft MSL.
- Then via an RF right turn, aircraft would cross RLSTN WP AOA 7,900 ft MSL, URKBE WP AOA 7,600 ft MSL, and finally TRMMR PFAF AOA 7,400 ft MSL.
- Aircraft would continue in the right turn and roll out lined up with RWY 35R over ULOHA WP AOA 6,156 ft MSL.
- From ULOHA WP aircraft would continue to RWY 35R to land or execute a missed approach at the MAP.
- GPA would be 3.50°.



RNAV (RNP) Z RWY 35L/R (amended)

- Initial teardrop segment from FMG would be removed.
- Initial segments from SPOOK WP and COLOM WP would be removed.
- New initial segment from TARVR WP to SPOON WP would be added with altitude restrictions of AT 14,000 ft MSL at TARVR WP and AOA 11,000 ft MSL at SPOON WP.
- Altitude restriction at MASUE WP would increase from AOA 8,100 ft MSL (~3,100 ft AGL) to AOA 8,200 ft MSL.
- LANBE WP would be relocated ~1.00 NM north along the original flight track.
- TULVE PFAF would be relocated ~0.7 NM north along the original flight track and the altitude restriction would increase from 6,800 ft MSL to 6,900 ft MSL.
- GPA would increase from 3.00° to 3.50°.



Next Steps

Please refer to the Instrument Flight Procedures (IFP) Information Gateway to receive the most up-to-date publication date information at https://www.faa.gov/air_traffic/flight_info/aeronav/procedures/.

Noise Inquires or Concerns

- FAA Noise Portal: <https://noise.faa.gov/noise/pages/noise.html>
- FAA Regional Ombudsman: 9-awp-noise@faa.gov
- FAA Noise Hotline: 424-405-8020