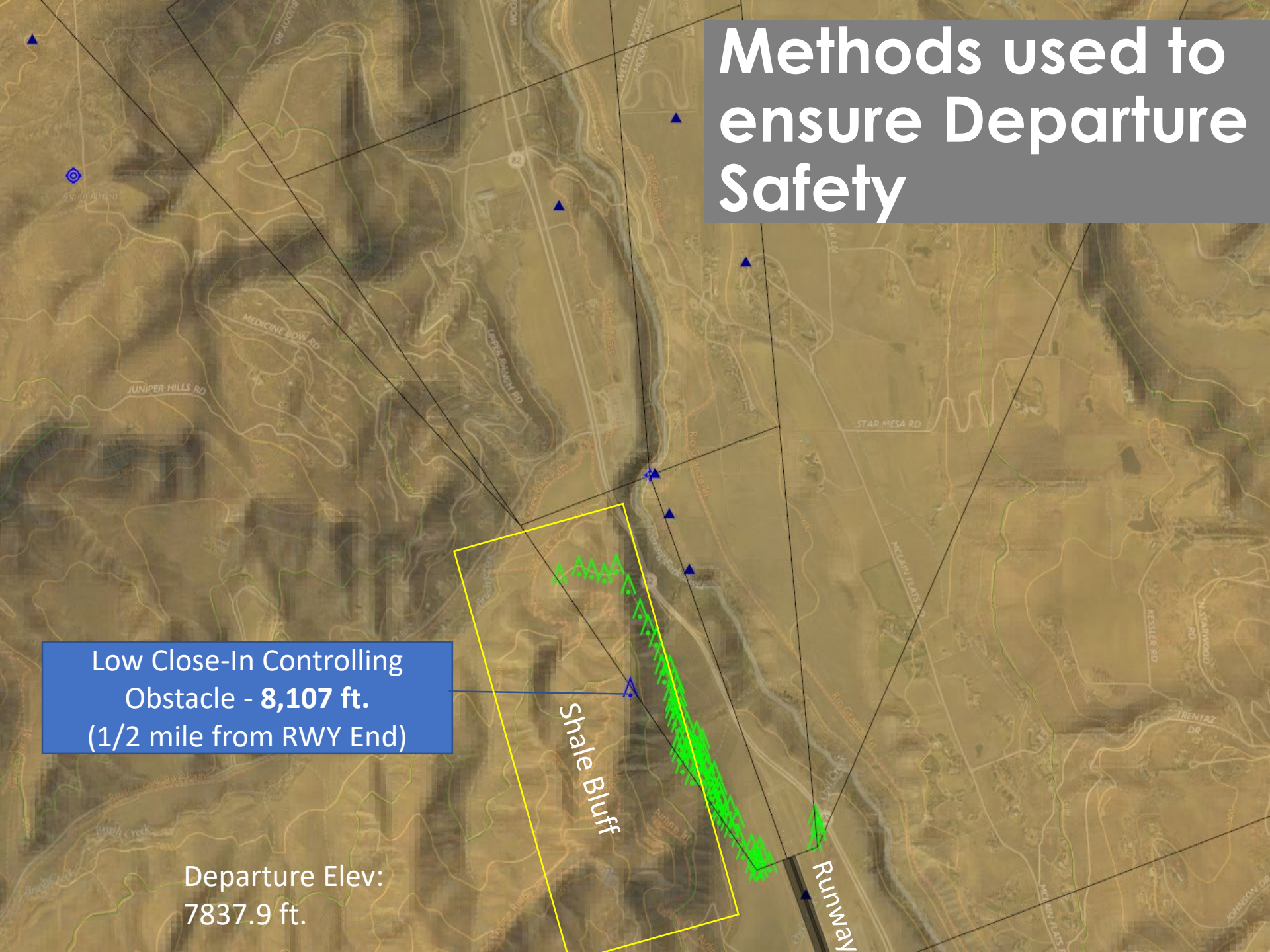
Airspace & Flight Procedure Safety Review

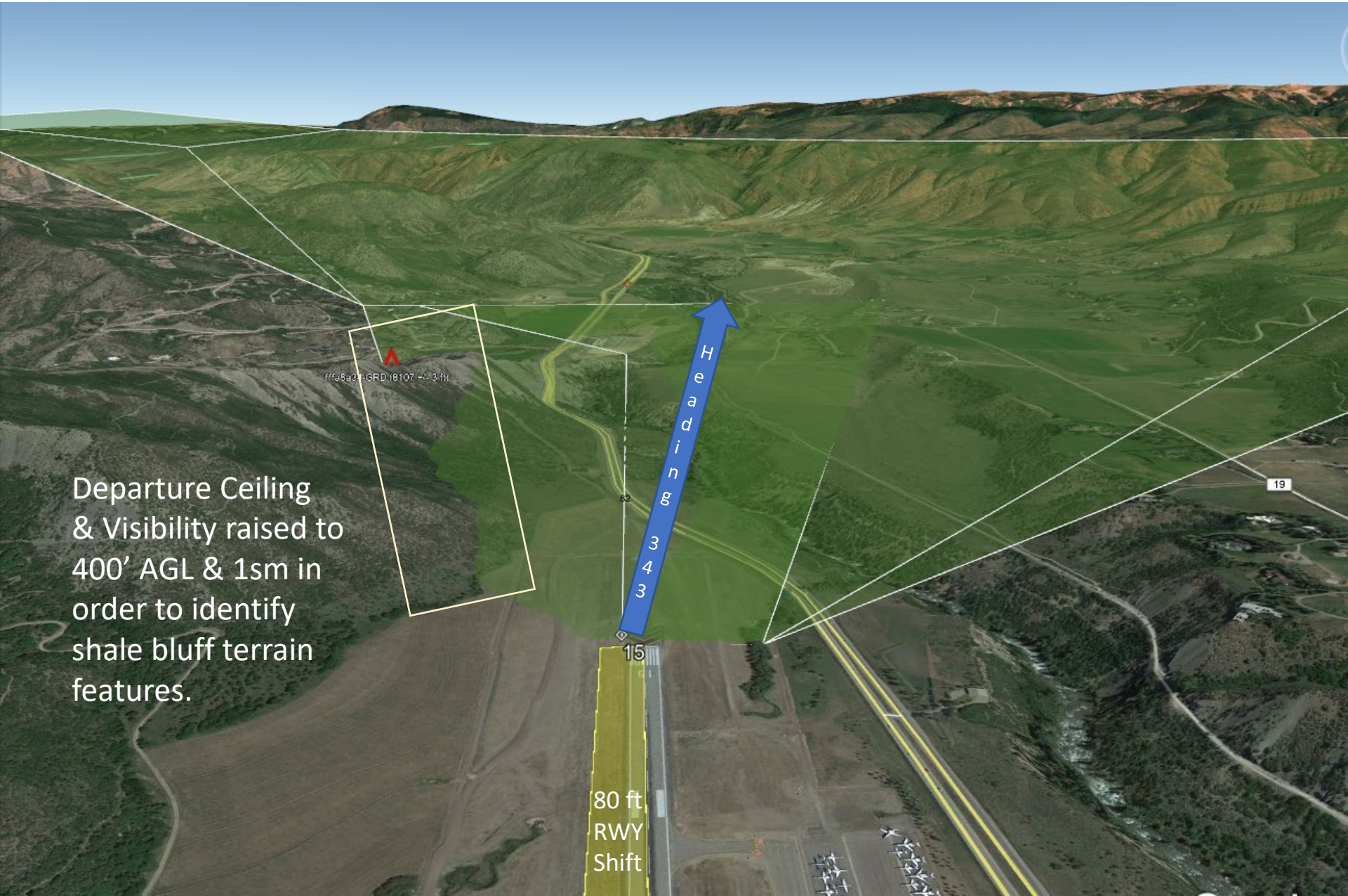
Aspen Pitkin County Airport

January 23rd, 2020

Methods used to ensure Departure Safety



RWY 33 Departure Viewpoint



Departure Ceiling & Visibility raised to 400’ AGL & 1sm in order to identify shale bluff terrain features.

Approach to Landing Safety

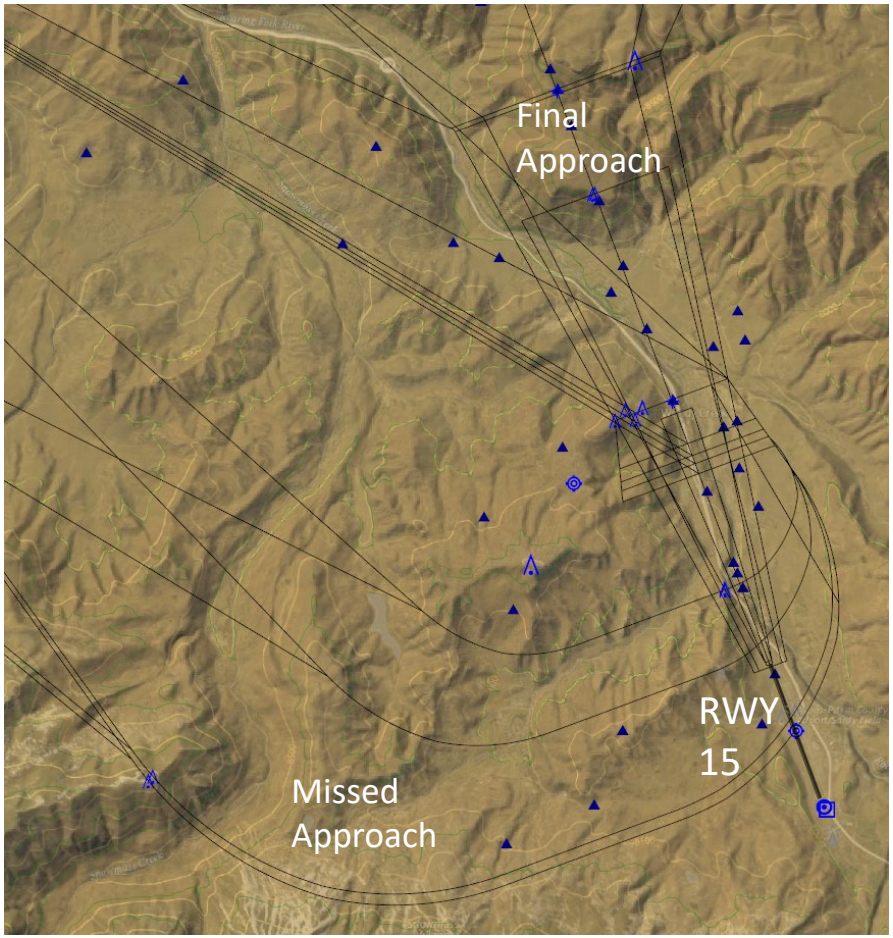
The FAA utilizes three unique methods to keep aircraft safe while flying an approach to Aspen's RWY 15

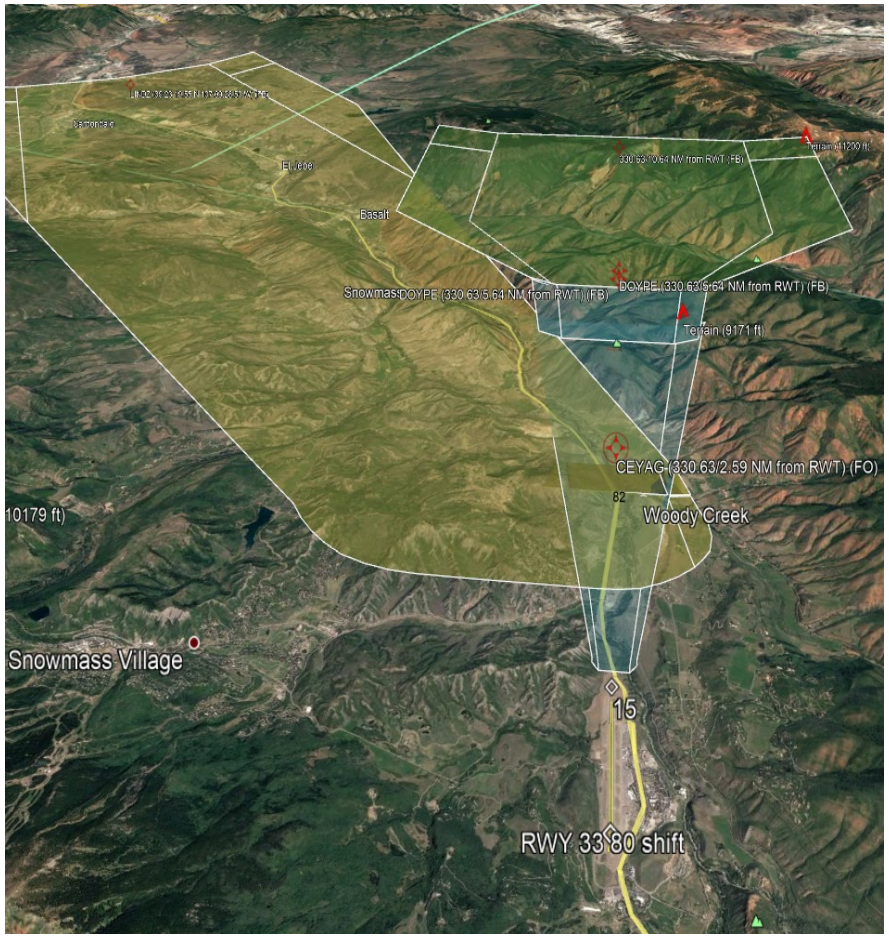
- Obstacle Protection Surfaces (Determines the DA/MDA)
- Visual Surface Assessment
- Vertically Guided Surface (VGS)

The following images depict the three FAA Approach safety areas in relation to the ASE runway with an 80 ft shift applied.

#1: Obstacle Clearance Surface (OCS)

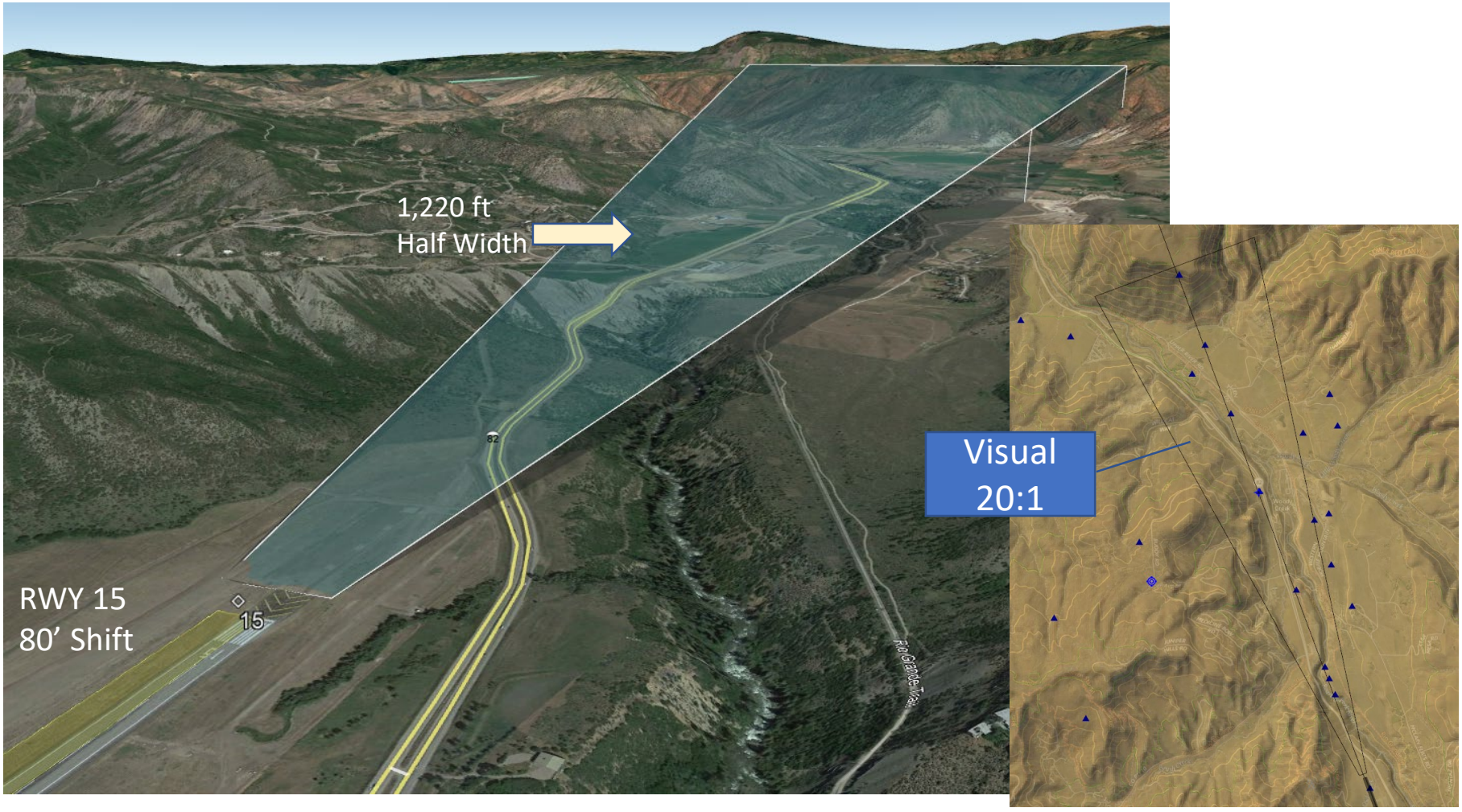
Determines the altitude that the pilot must have the runway environment in sight by before proceeding to the runway for landing. *(Public LOC: 2,400-3 & Special LOC: 1080-2 ¾)*





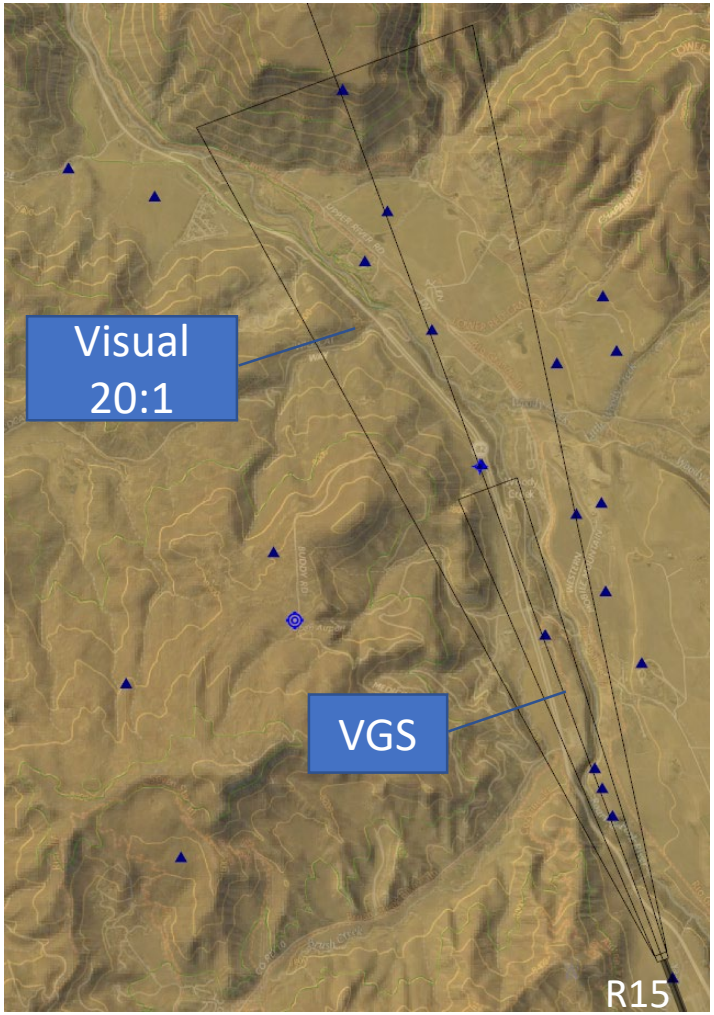
#2: Visual 20:1 Surface

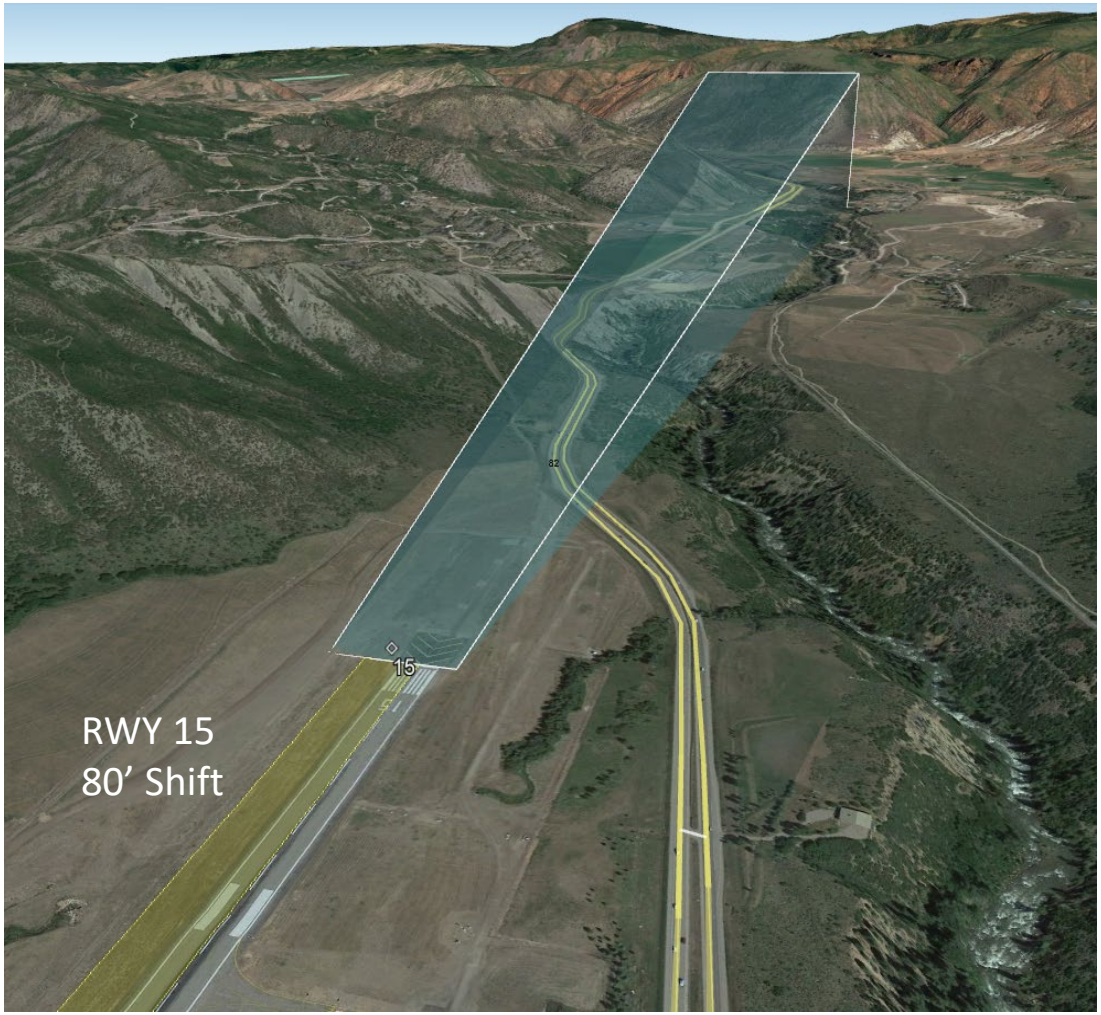
Protects the aircraft from the DA/MDA to runway end. Ensures adverse obstacles are not present in the visual area and allows for night operations.

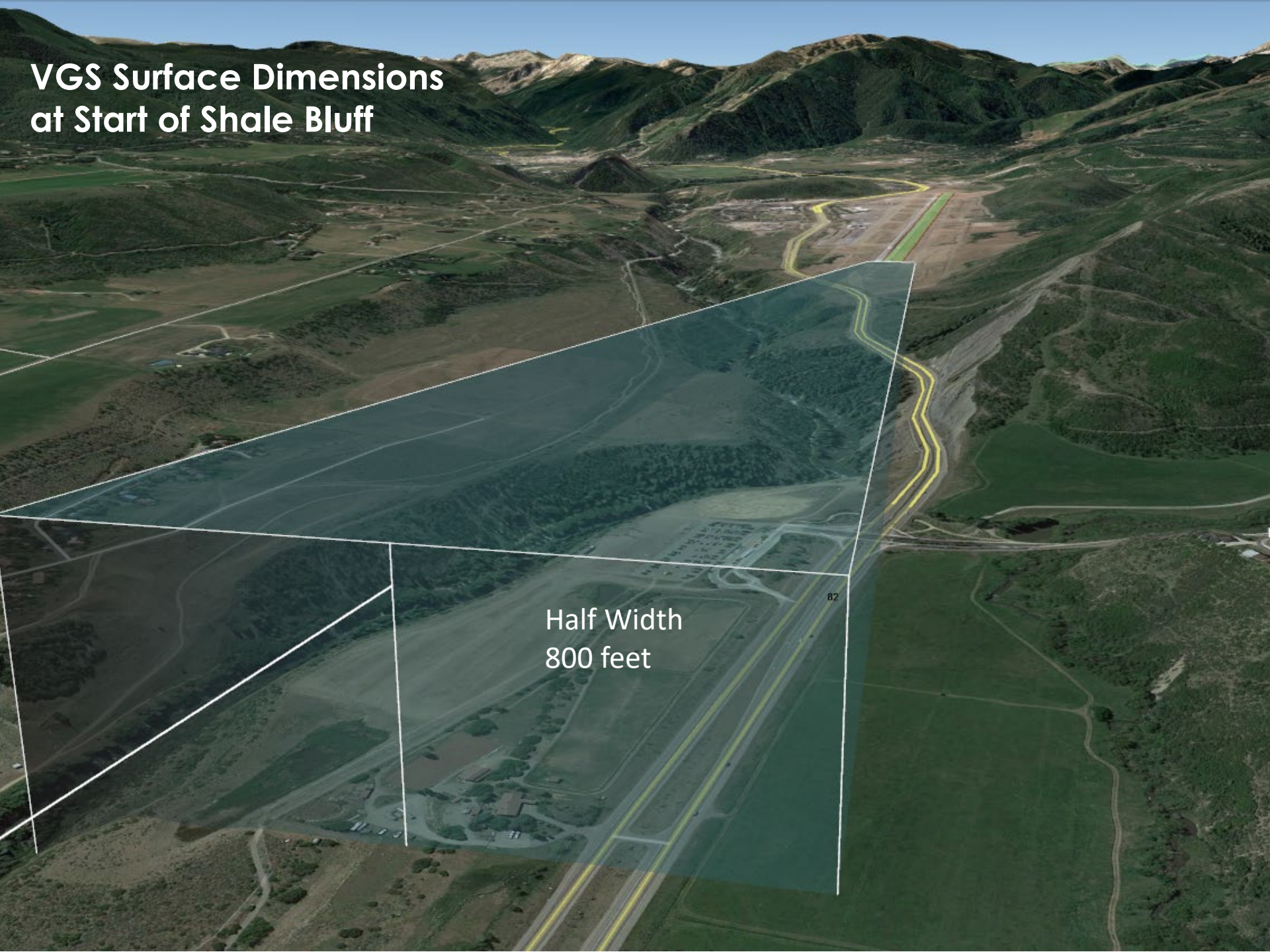


#3: Vertically Guided Surface (VGS)

Protects the aircraft while on the Visual Glidepath to the runway threshold.

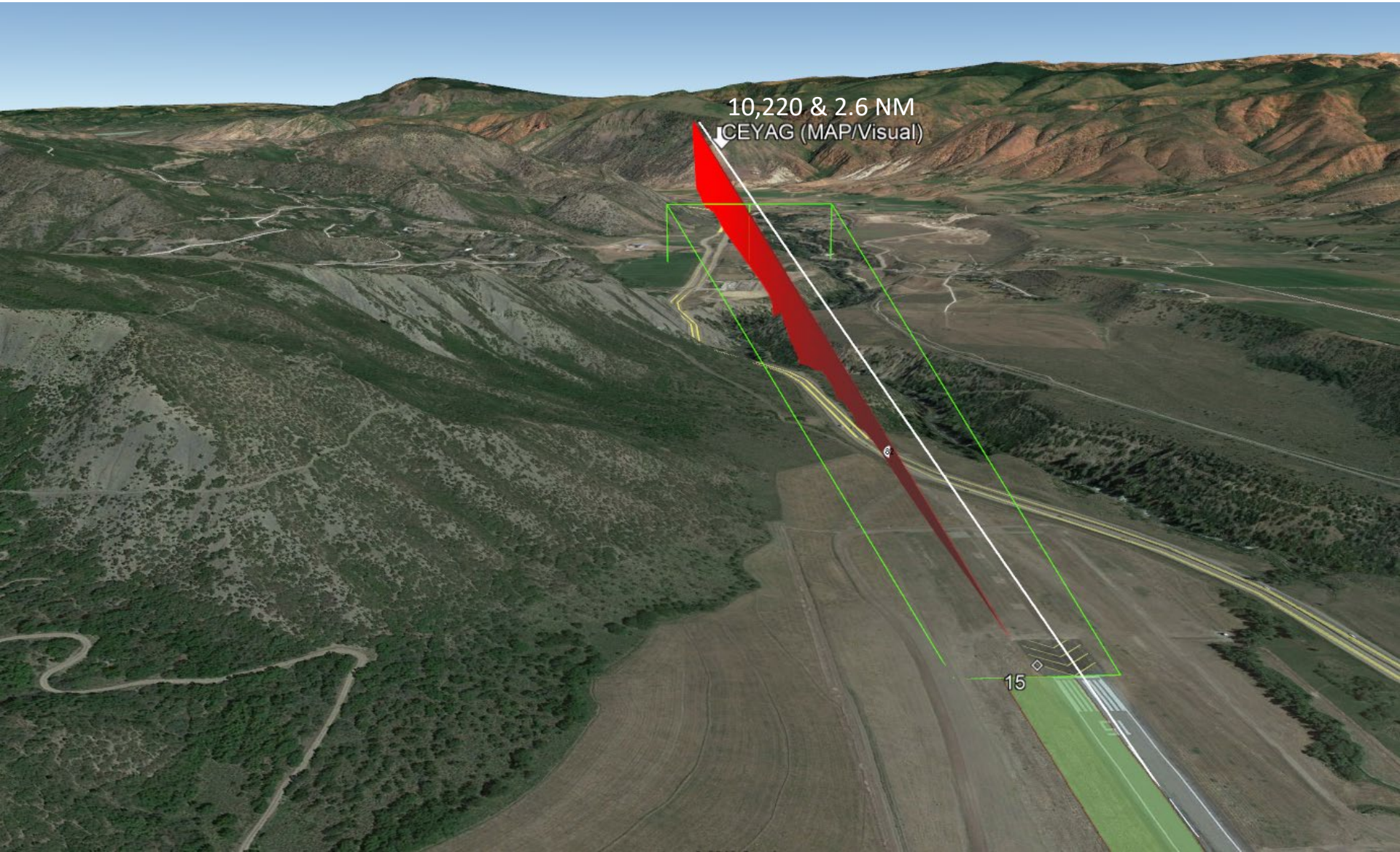





VGS Surface Dimensions
at Start of Shale Bluff
Half Width
800 feet


Dist To
RWY 15
Centerline Dist &
Altitude @ 3.50° GPA
2,900’
4,300’
5,600’
Dist: 1270’/1350’
AC ALT: 7,790’
Dist: 1130’/1050’
AC ALT: 7,870’
Dist: 930’/850’
AC ALT: 7,870’
Shale Bluff
Terrain Elev:
8,065’
7,860’
7,680’
80’ Shift
Existing RWY 15
Average Half Wingspan:
47’ (E175) to 58’ (A319)
© 2019 Google

Approach Profile & Visual Identification Point



Future Fleet Considerations

- CRJ 700's in the US regional fleet have an average age of **15 years**.
- Average aircraft replacement occurs around ~20 years old.
- United & Delta have drastically purged CRJ's from their regional fleets in favor of the newer Embraer.
- No action on the runway could eventually result in use of an E-175 replacement carrying less passengers.
- In the next 5-10 years, the regional jet fleet mix will change to include new mid-segment narrowbody aircraft such as the E-175/190-E2 and A-220.

Potential Fleet Mix at ASE to Optimize Efficiency

Shoulder Seasons & Summer

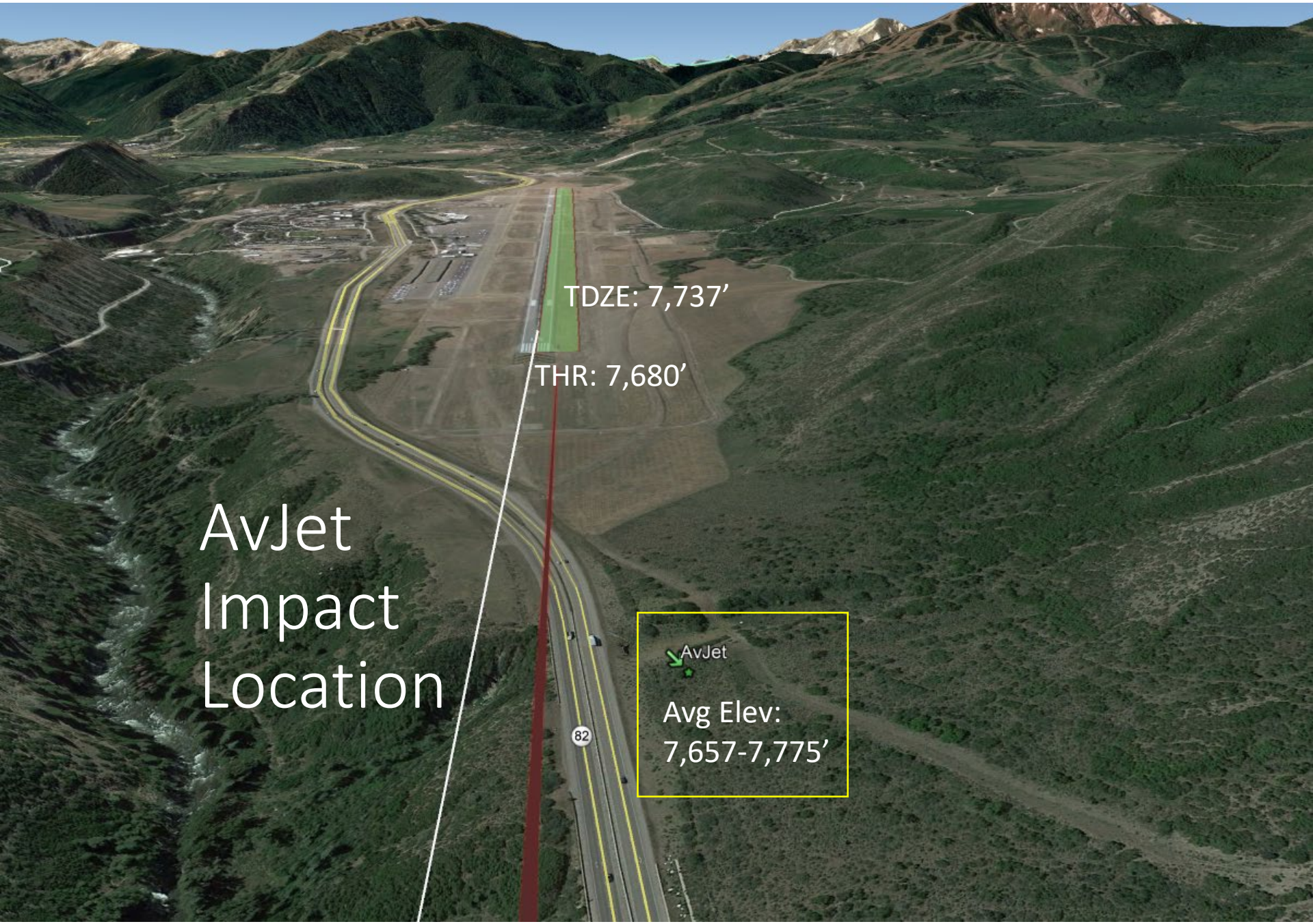
- ✓ Utilize 76 seat E-175 regional aircraft for periods when passenger demand is low.
- ✓ Great for fall/spring shoulder seasons.
- ➢ Summer use in high temps could result in weight restrictions (reduced pax) depending on destination. DEN is least affected

Peak Seasons (Winter Ski & Festivals)

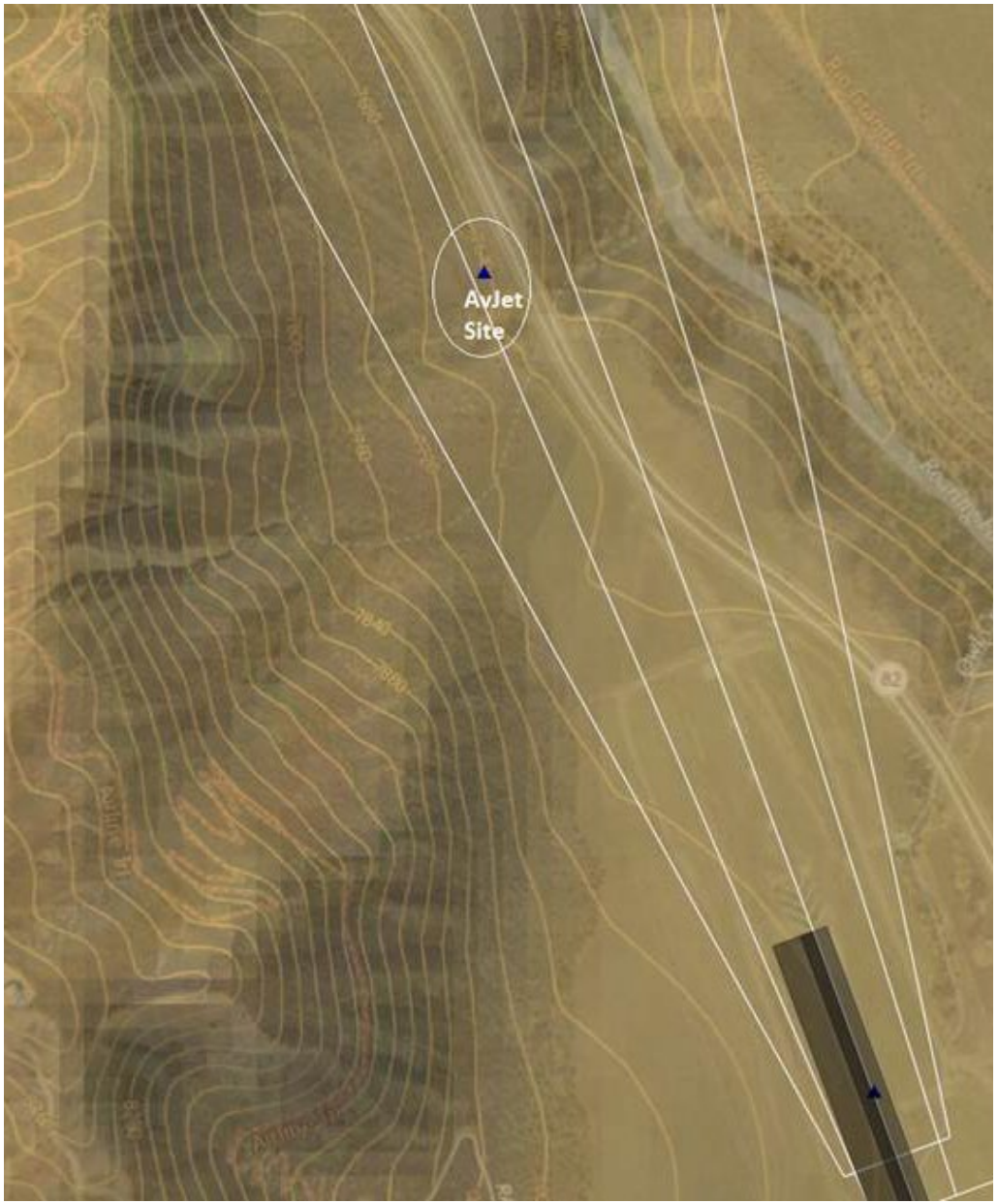
- ✓ Utilize mid-segment narrowbody aircraft that are both powerful enough to prevent weight restrictions while offering the most efficiency per passenger.
- ✓ Allows more distant routes to be served.
- ✓ One aircraft could potentially replace two RJ flights. (i.e. less Denver roundtrips)

E190/195 (97-120 seats)

Additional Slides

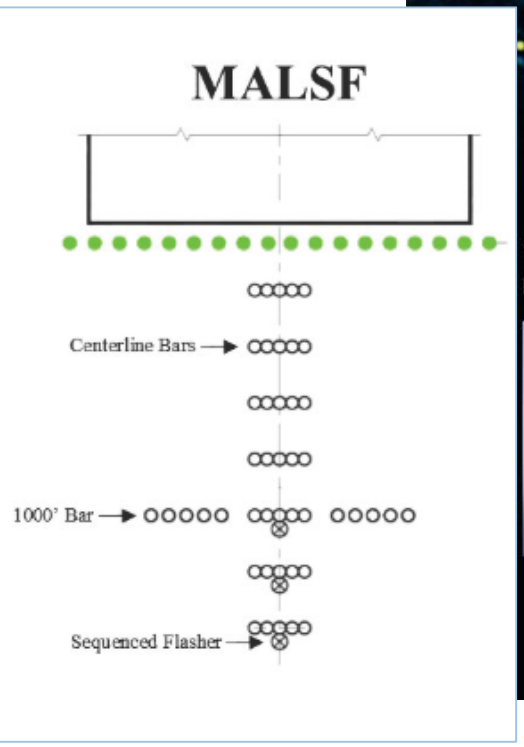

TDZE: 7,737’
THR: 7,680’
AvJet
Impact
Location
AvJet
Avg Elev:
7,657-7,775’
82

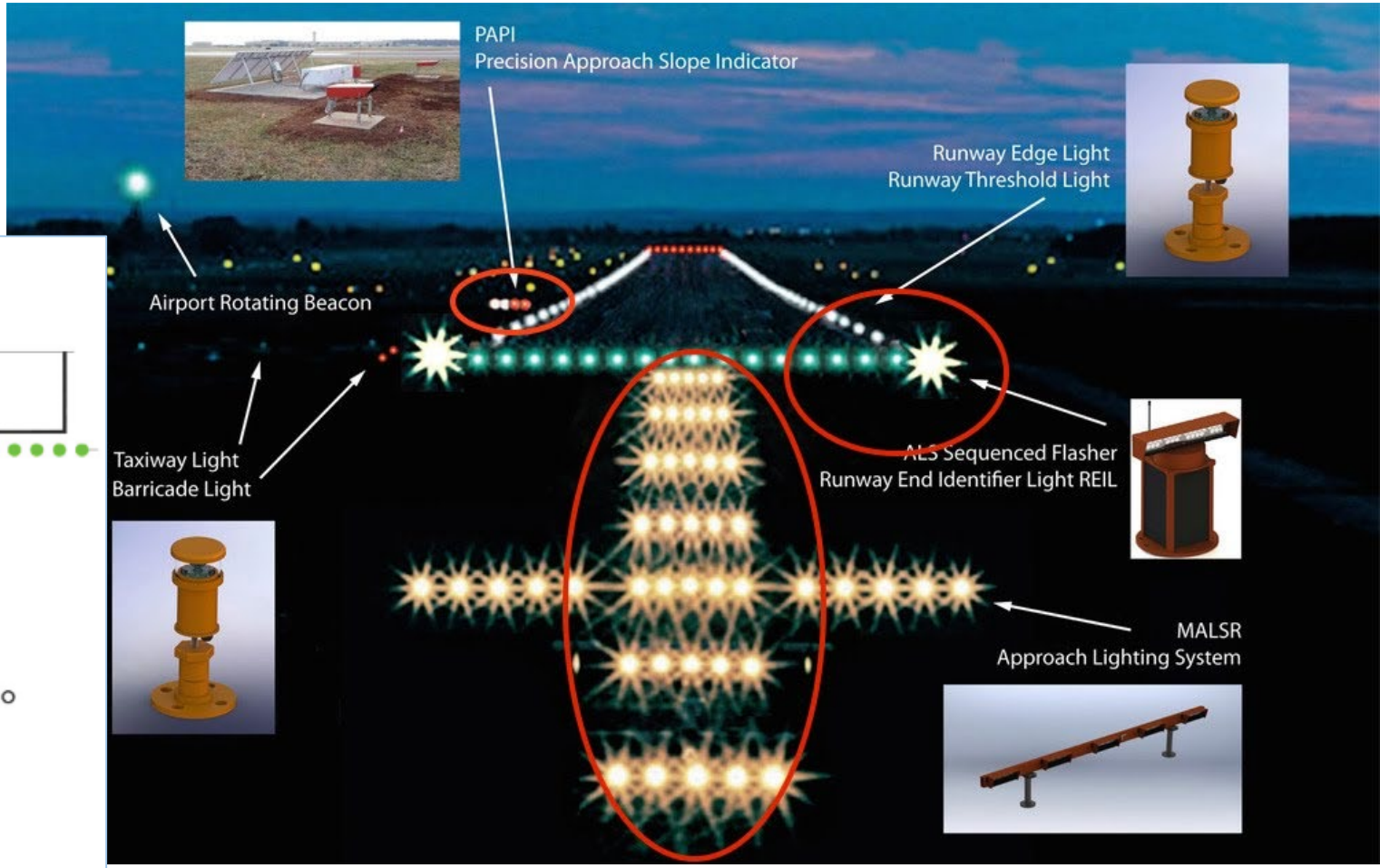
AvJet Location Overview



ASE Runway Lighting Enhancements

Aspen has a Medium-intensity Approach Lighting System with Sequenced Flashing lights (MALSF). This helps pilots visually identify the runway environment and helps alight the aircraft prior to reaching the threshold.





Overview Map of 80 ft RWY Shift