

Instrument Landing System



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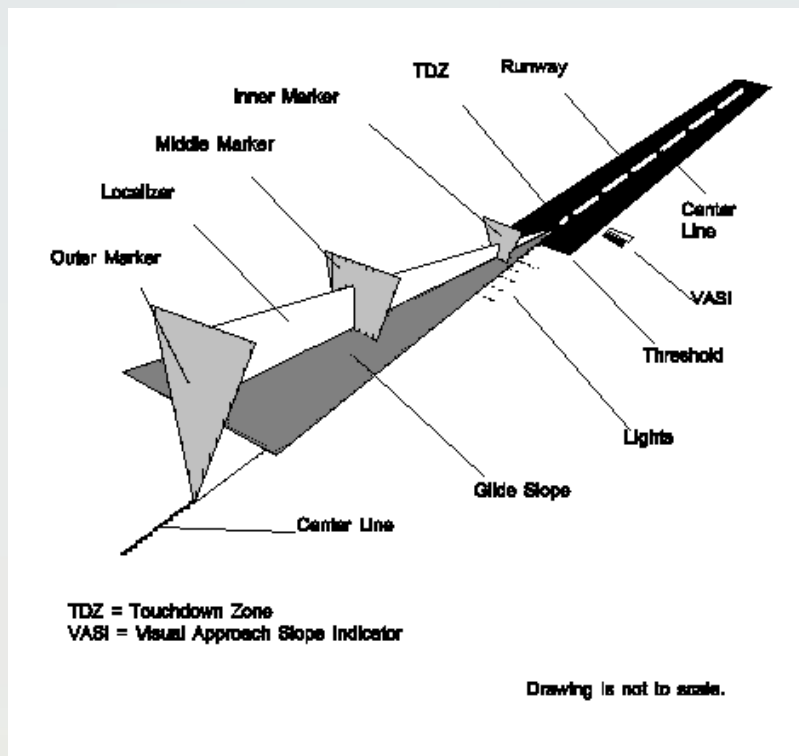
Overview



- Basics
- Localizer
- Glide Slope
- Marker Beacons
- Categories
- References

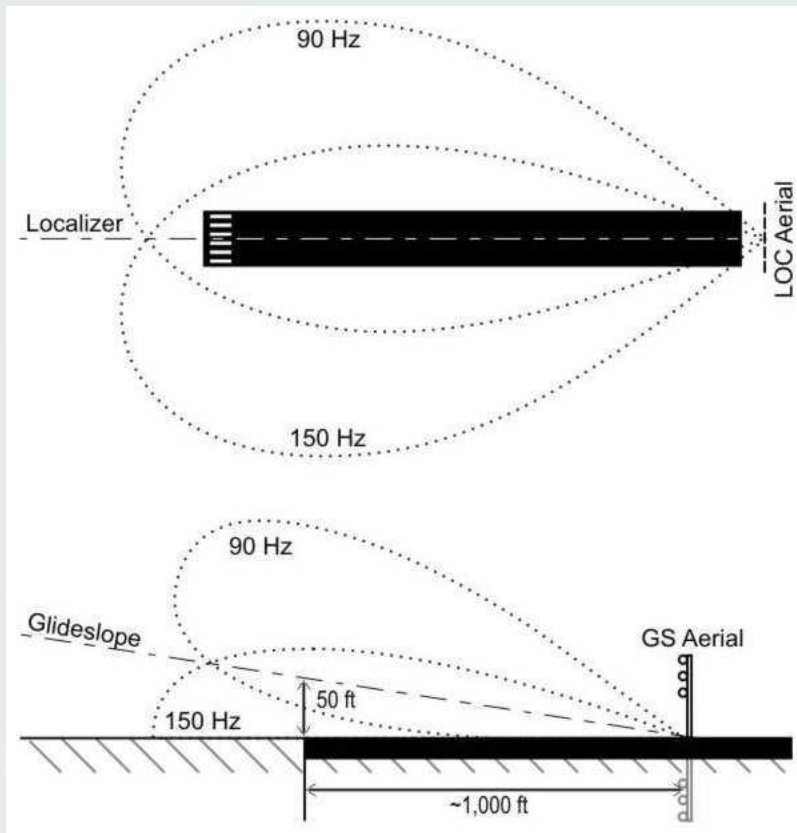


Basics



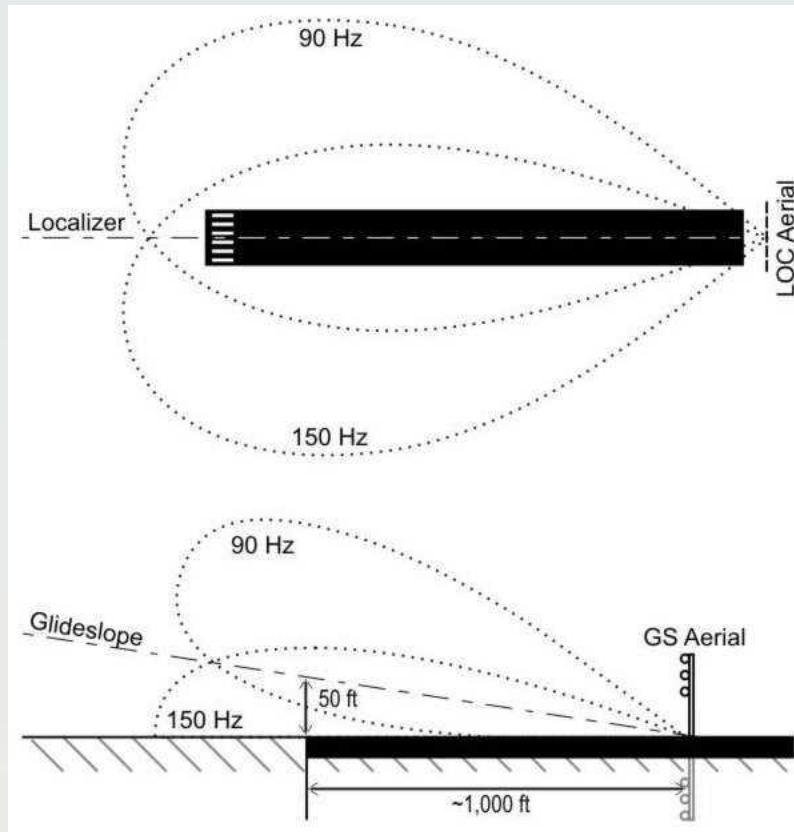
- ILS provides guidance for landing on runways
- Localizer provides lateral guidance
- Glide slope provides vertical guidance

Localizer



- Located past departure end of runway
- Two signals transmitted - one on each side
- Deflection from localizer shown in aircraft's HSI or CDI
- Four-letter identifiers

Glide Slope



- Located at runway touchdown zones
- Glide slope usually 3° above horizontal
- Beam is 1.4° deep
- Similar positioning method to localizer
- VASIs provide visual guidance

Marker Beacons

- Outer marker is located 4 to 7 NM from runway threshold
- Provides equipment functioning checks on intermediate and final approaches
- Dash tone



Marker Beacons



- Middle marker is located at missed approach point
- When passing the MM, visual contact with runway is imminent
- Dot-dash tone

Marker Beacons



- Inner marker is located about 100 ft. from runway threshold
- Indicates imminent arrival at runway threshold
- Dot tone

Categories of ILS



Cat. I - Decision height >200 feet above touchdown zone elevation, runway visual range <550 meters

Cat. II - DH between 100 and 200 ft., RVR >300m

Cat. IIIA - DH lower than 100 ft., RVR between 50m and 200m

Cat. IIIB - DH <50 ft., RVR between 50m and 200m

Cat. IIIC - No DH or RVR limitations

References

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http://www.avsim.com/pages/0101/inst_flying_bstack/approach.gif

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