Instrument Landing System

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Overview

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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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