

Instrument Landing System



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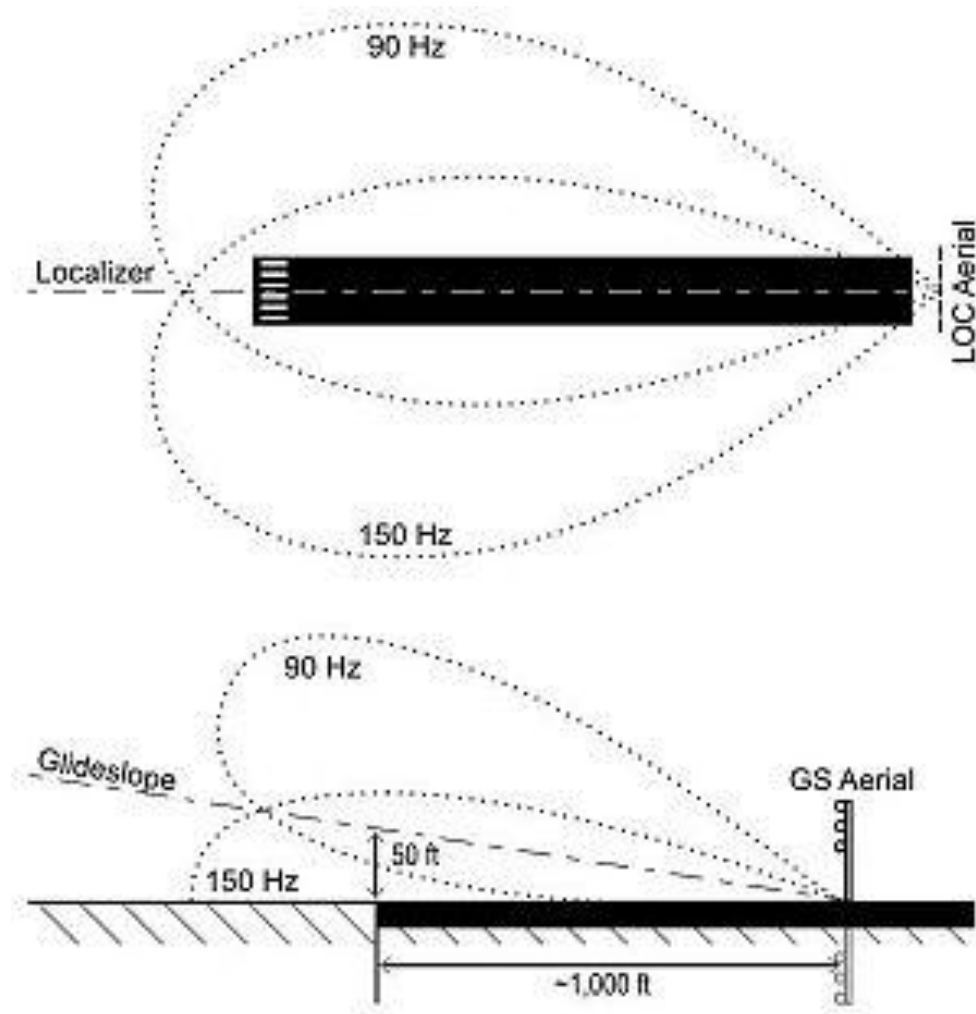
Overview

- Principle of Operations
- Localizer
- Glideslope
- Marker beacon



Principle of Operations

- Two different radio frequencies
- Aircraft measures both DDM
- On centerline measures same strength of signals



Localizer

- Horizontal guidance
- 10 degree angle useful to 18 NM
- 35 degree angle useful to 10 NM



Glideslope

- Vertical Guidance
- Standard slope is 3 degrees
- Usable to 10 NM
- Intersects MM at about 200 feet



LANDING WITH ILS

ILS Localiser Aerial



ILS Glide Path Aerial

Middle Marker
1050 m



Outer Marker
7.2 km



Fly up and left



Fly down and right



Course correct
on glide path



Marker beacons

- OM indicates where aircraft will intercept glide path



- MM shows about 3,500 feet from landing threshold



- IM indicates DH



Summary

- Two different frequencies per system
- Localizer for horizontal
- Glidepath for vertical
- Marker beacons

References



- <http://www.aircraftmech.com/avio.html>
- http://en.wikipedia.org/wiki/Instrument_landing_system
- <http://www.iaa.ie/m/index.jsp?p=155&n=256>
- FAR/AIM