## Flight Technologies and Procedures Division

## HUD

Presented to: Beijing New Technology Workshop,

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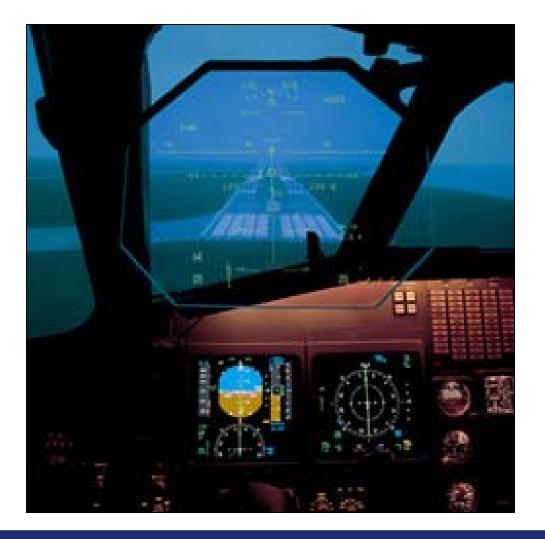
Date:

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Federal Aviation Administration

### Head-Up Display (HUD)



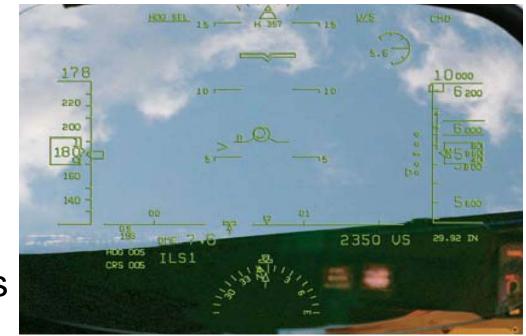
 Provides primary flight, navigation, and guidance information to the pilot in a forward field-of-view on a head-up transparent screen



### **Displayed Data**

#### • Typical aircraft HUDs display:

- Airspeed
- Altitude
- Horizon line
- Heading
- Turn/bank
- Slip/skid indicators





## **HUD Benefits**

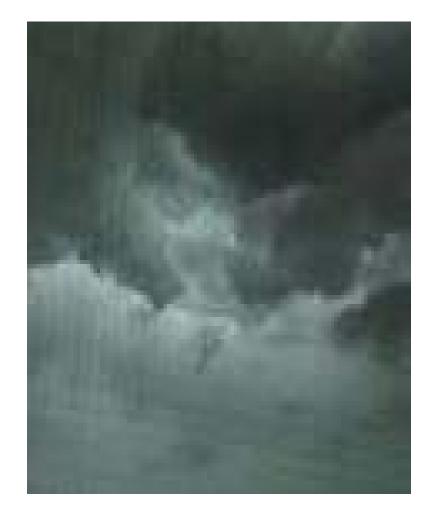
- Enhancing situational awareness
  - Visual Landings
- Unusual attitude recognition and recovery
- Tail strike advisory
- TCAS and Windshear advisories







### **Low Visibility Operations**



- Systems improvements provide the most potential for near term benefits to operators
- Almost immediate results through implementation
- Enabled by combination of advances in ground infrastructure and aircraft avionics



# **Thank You!**



