Instrument Cockpit Check
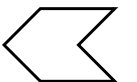
Overview

- **What**
  - Checking the communication, navigation, and other equipment prior to flight

- **Why**
  - You don't want to discover an instrument problem (or any other problem) in IMC, especially since you're totally dependent on your instruments

Content

- Com & Nav Equipment

- Instruments

- OAT

- Clock

- Pitot Heat

- Electronic Flight Display

- Traffic & Terrain Awareness

- FMS & Autopilot

Comm & Nav Equipment

- Communication Equipment
  - Loss of communication equipment may be considered an emergency
  - Exterior: Antenna position, condition, and stability
  - Interior: Verify equipment operation (Radios, Transponder, etc.)

- Navigation Equipment
  - VOR
    - Antenna position, condition, and stability
    - VOR Check: Required within the 30 days prior to IFR flight
  - DME
    - Proper operation & distance (if known)
  - ILS
    - Tune, identify, and note correct indication
  - GPS
    - Verify current database
    - Follow appropriate startup and self-test procedures
    - Check RAIM availability

Instrument Checks

- Magnetic Compass
  - Full fluid
  - Taxi: Moves freely, shows known headings

- Heading Indicator (HSI & RMI)
  - Proper movement in turns
  - Shows known headings in turns

- Attitude Indicator
  - 5 mins for gyro spin up, adjust horizon bar
  - Taxi: No more than 5° pitch or bank

- Altimeter
  - Verify inspection (24 months - 91.411)
  - Clear static port(s)
  - Altitude within 75' of airport elevation

- Turn Coordinator (Turn & Slip)
  - Level miniature airplane
  - Ball moves opposite the turn direction

- Vertical Speed Indicator
  - Verify inspection (24 months - 91.411)
  - Note "zero" indication

- Airspeed Indicator
  - Verify inspection (24 months - 91.411)
  - Clear pitot tube
  - Proper pitot heat operation
  - Proper indications during takeoff roll
    - "Airspeed alive"

Other Equipment

- Outside Air Temperature
  - Correct indication

- Clock
  - Operating properly
  - Correct time

- Pitot Heat
  - Verify proper operation

- Electronic Flight Display
  - Proper startup indications
  - No red X's or abnormal cautions/warnings

- Traffic & Terrain Awareness
  - Proper operation and indications

- FMS
  - Proper startup indications
  - Verify satellite coverage (RAIM check)

- Auto Pilot
  - Follow POH procedures

Questions?