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## Unit 2. Ground. Flight Instrument Systems

### References:

Jeppesen Ch.2A

IFH Ch. 3

FAR 91.205 (d), 91.213

Quiz # 1      Grade:

	Date
FAA Instrument Requirements (GRAB CARD)	
Inoperative Instruments and Equipment Requirements	
Pitot-Static Instruments	
Effect of Atmospheric Conditions	
Standard Atmosphere	
Pitot-Static System	
Altimeter	
Operating Principles	
Altimeter Setting, Instrument Check	
Interpretation	
Types of Altitude	
Limitations, No Correction for Non-Standard Temperature	
Calculating Pressure and Density Altitude (Practice)	
Instrument Check	
Vertical Speed Indicator	
Operating Principles	
Interpretation (Trend and Rate)	
Limitations	
Instrument Check	
Airspeed Indicator	
Operating Principles	
Color Arcs, V-Speeds	
Types of Airspeed (ICET PCD)	
Errors	
Position Error	
Density Error	
Compressibility Error	
Instrument Check	
Pitot-Static System Blockage	
Gyroscopic Instruments	
Rigidity in Space	
Precession	
Sources of Power	

*continued*

## Unit 4. Flight 1. Simulator. Basic Flight Maneuvers

Complete

### References:

Jeppesen Ch.2B

IFH: Ch. 4, 5

**Objective:** Familiarize the student with the Simulator or PCATD. Provide the student with in-depth presentation of takeoff procedure and precise aircraft control by instrument reference.

<b>Briefing (0.5 hrs):</b>	Date	Date
Basic Flight Maneuvers		
Rules of Thumb for Instrument Flying		
Instrument Takeoff		
Changing Airspeed and Configuration		
Slow Flight		
Simulator and Radio Panel Controls		

### Simulator (1.5 hrs)

#### Introduction:

#### Full Panel Instrument

Instrument Cockpit Checks		
Basic Instrument Familiarization		
Normal Takeoff into IMC		
Straight-and-Level Flight		
Standard Rate Turns		
Changing Airspeed in Level Flight		
Constant Airspeed while Changing Configuration		
Constant Airspeed Climbs and Descends		
Constant Rate Climbs and Descends		
Climbing and Descending Turns		
Maneuvering during Slow Flight		
Steep Turns		
Pitot-Static System Failures Demonstration		

#### Completion Standards:

Altitude:  $\pm 200$  feet  
 Heading:  $\pm 20^\circ$   
 Bank angle:  $\pm 10^\circ$   
 Airspeed:  $\pm 15$  kts

See instructor's comments on the back

## Unit 42. Flight 26. Dual – Local. ILS Approaches, Partial Panel

Complete

**Objective:** Increase proficiency in ILS Approaches. Practice ILS approaches with partial panel

### Flight (1.5 hrs)

#### Full and Partial Panel Instrument

	Date	Date
ILS Approaches		
Vectors to Final		
Full ILS Approach with Course Reversal		
Missed Approach Procedures		
Circling from an ILS Approach		

#### Completion Standards:

Altitude: MDA/DA +100/-0 feet  
 Heading:  $\pm 10^\circ$   
 Airspeed:  $\pm 10$  kts  
 Magnetic bearing:  $\pm 5^\circ$   
 CDI/GS Deflection: no more than  $\frac{3}{4}$  scale

Instructor's comments: