

## Table of Contents

Unit 1. Ground. Human Factors, Aviation Physiology	3
Unit 2. Ground. Flight Instrument Systems	5
Unit 3. Ground. Attitude Instrument Flying	7
Unit 4. Flight 1. Simulator. Basic Flight Maneuvers	8
Unit 5. Ground. VOR Navigation	9
Unit 6. Flight 2. Simulator. Basic Flight Maneuvers, Full and Partial Panel	10
Unit 7. Ground. ADF Navigation	11
Unit 8. Flight 3. Simulator. Full and Partial Panel, Compass and Timed Turns	12
Unit 9. Ground. Departure and Enroute Charts and Procedures	13
Unit 10. Flight 4. Simulator. VOR Navigation	14
Unit 11. Ground. Airports, Airspace and Flight Information	15
Unit 12. Flight 5. Simulator. VOR Navigation, Partial Panel	16
Unit 13. Ground. Air Traffic Control System, ATC Clearances	17
Unit 14. Flight 6. Simulator. NDB Navigation	18
Unit 15. Ground. Arrival Charts and Procedures, Approach Charts	19
Unit 16. Flight 7. Simulator. NDB Navigation. Partial Panel	20
Unit 17. Ground. Approach Procedures	21
Unit 18. Flight 8. Simulator. Holding Procedures	22
Unit 19. Ground. ILS Approaches, GPS and RNAV Approaches	23
Unit 20. Flight 9. Simulator. Departure and Arrival Procedures	24
Unit 21. Ground. Weather Factors, Weather Hazards	25
Unit 22. Flight 10. Simulator. Non-Precision Approaches	26
Unit 23. Ground. Weather Reports and Forecasts	27
Unit 24. Flight 11. Simulator. Non-Precision Approaches	28
Unit 25. Ground. Sources of Weather Information	29
Unit 26. Flight 12. Simulator. ILS Approaches	30
Unit 27. Ground. IFR Emergencies and Decision Making	31
Unit 28. Flight 13. Simulator. IFR Emergencies	32
Unit 29. Ground. IFR Flight Planning	33
Unit 30. Flight 14. Simulator. Stage I Check	34
Unit 31. Flight 15. Dual – Local. Basic Attitude Flying	35
Unit 32. Flight 16. Dual - Local. Stalls, Steep Turns, Partial Panel	36
Unit 33. Flight 17. Dual – Local. VOR Navigation	37
Unit 34. Flight 18. Dual – Local. VOR Navigation Partial Panel	38
Unit 35. Flight 19. Dual – Local. NDB Navigation	39
Unit 36. Flight 20. Dual – Local. NDB Navigation, Partial Panel	40
Unit 37. Flight 21. Dual – Local. Departure and Holding Procedures	41
Unit 38. Flight 22. Dual – Local. ATC Clearance, Non-Precision Approaches	42
Unit 39. Flight 23. Dual – Local. Non-Precision Approaches, Partial Panel	43
Unit 40. Flight 24. Dual – Local. NDB Approaches	44
Unit 41. Flight 25. Dual – Local. ILS Approaches	45
Unit 42. Flight 26. Dual – Local. ILS Approaches, Partial Panel	46
Unit 43. Flight 27. Dual – Local. GPS, WAAS, and LAAS Approaches	47
Unit 44. Flight 28. Dual – Local. GPS, WAAS, and LAAS Approaches, Partial Panel	48
Unit 45. Flight 29. Dual – Cross Country	49
Unit 46. Flight 30. Dual – Cross Country	50
Unit 47. Flight 31. Dual – Cross Country. Long Cross Country	51

## 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: