

C-414A Transition Flight Training Student Guide

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Used with C-414A Transition Ground Training Student Guide
20 Hours

LESSON	Block 1 Lessons 1- 3: 5 Hours Flight	HOURS
1	Orientation Flight	1.5
2	Automation, Autopilot, Aircraft Performance	2
3	Systems, Instrument Approaches, Abnormal Procedures	1.5
LESSON	Block 2 Lessons 4- 7: 8 Hours Flight	HOURS
4	RNAV and Non-Precision Approaches	1.5
5	GPS Sequencing, High Altitude, Emergency Procedures	2
6	WAAS, RNAV, Weight & Balance	1.5
7	Review	1.5
LESSON	Block 3 Lessons 8- 11: 7 Hours Flight	HOURS
8	Night Flight, Performance, Diversion	1.5
9	Prep for Evaluation	2
10	Review	1.5
11	Standards Evaluation	2.0

OBJECTIVES: This training provides the pilot with a detailed summary of specific knowledge and skill required for transition to a C-414 aircraft with training tailored to the specific type of avionics and autopilot systems installed.

Elements of any flight lesson that are not accomplished during the flight should be completed as soon as possible, and each lesson can be repeated as often as necessary, however, no element of the next block should be introduced until all the elements of the previous block have been finished.

COMPLETION STANDARDS: You show by written record, and will demonstrate through oral and by practical tests, that you meet the required aeronautical skill, knowledge, experience performance standards, and insurance requirements to safely operate the Cessna 414 aircraft, with specific makes and models of avionics and automation installed. You will receive an endorsement in your logbook documenting the successful completion of transition training, a flight review and proficiency check.

ENROLLMENT PREREQUISITES: A pilot may enroll in this course provided that the pilot holds at least a private pilot certificate, holds an instrument rating or ATP with an

airplane rating, holds a multiengine land rating, and meets the recent flight experience of 14CFR 61.57 for TO & LDGS in the preceding 90 days.

HOW TO USE THIS GUIDE Lesson elements contain bulleted items represented by a double line arrow to the left of each subject:

⇒ Landing with Inoperative Engine

The double line arrow serves as a checklist for each lesson element, and is marked solid by the instructor in his copy when that element is completed:

➔ Landing with Inoperative Engine

Incomplete elements from previous lessons may be completed on subsequent lessons. If an element of a previous lesson is incomplete, it must be completed prior to starting the next block.

GROUND TRAINING HOME STUDY: Completion of ground training is required prior to the completion of flight training. If home studying, the student will be administered two quizzes and a final written test. The student must pass the final test with a score of at least 80% with both test and quizzes corrected to 100%. Ground training with home study shall at a minimum consist of the following subjects and elements:

Aircraft General	Environmental Systems
Engines / Propellers	Anti-ice / De-ice
Normal Procedures Checklist	High Altitude Flight
Powerplant Management	Flight in Icing Conditions
Aircraft Fuel System	Aeronautical Decision Making
Performance / Flight Planning	Weight and Balance Procedures
Flight Controls / Wing Flaps	Aircraft Loading Procedures
Fuel Management	Systems Review / FAR's
Flight Profiles	Optional Equipment /Modifications
Emergency Procedures	Emergency Procedures Checklist
Electrical Systems	Scenario Based Flight Training
Flight Instruments	Single Pilot Resource Management
Landing Gear	Runway Incursion Avoidance
Systems Failure Analysis	Positive Aircraft Control
Avionics and Auto-pilot	Risk Management
Collision Avoidance	Written Test
CFIT	

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**Lesson # 1 (1.5 Hrs.)
Orientation Flight**

Name _____ Date _____ TOT _____

START _____ OFF _____ ON _____ IN _____

- ⇒ Preflight Discussion
- ⇒ Acft. Systems / Ops Integration
- ⇒ Preflight Inspection
- ⇒ IFR Flight Plan, Clearances
Type/ID/Model/Tas./Dprt./Etd./ALT/Route/Dest./Ete./
Remarks/FOB/Alternate/Name/Phone/Base/SOB/Color

- ⇒ Before Starting Engines Checks
- ⇒ Airspeeds for Safe Operation
- ⇒ Electrical System Checks
- ⇒ Fuel Quantity & Selectors
- ⇒ Annunciator Lights Check
- ⇒ Landing Gear Handle & Lights

- ⇒ Normal Engine Start
- ⇒ Before Taxi Checks
- ⇒ Aux Fuel Pumps
- ⇒ Charging Instruments Checked
- ⇒ Vacuum System Check
- ⇒ Lights
- ⇒ Flight Instruments
- ⇒ Before Take-off
- ⇒ Engine Runup
- ⇒ Ice Protection
- ⇒ Pressurization set
- ⇒ Autopilot Checks
- ⇒ Trim set
- ⇒ Faps set

- ⇒ Normal and Crosswind Takeoff
(Heading +5 degrees, Airspeed +-5 Kts.)

- ⇒ Clearing Turns
At least 90 degrees heading change
- ⇒ Steep Turns
45 Degree Bank Altitude +- 5 Degrees
Heading +-10 degrees
Altitude +-100'
Airspeed +-10 Knots
(VA 151; 27"MAP 2300RPM; AI, VSI, ALT)

- ⇒ GPS Direct-To Navigation
(Nav/GPS Selector, Set Crs on HIS, VOR/LOC Freq ID)

- ⇒ BASIC Autopilot Operation
(Heading and Altitude)

- ⇒ Vectors to Final Approach: (<3/4 Scale Deflection)
(Airspeed +-10 Kts. Altitude +-100' Heading +-10°)

_____ VOR _____ ILS _____ LOC

_____ RNAV _____ Back Course

- ⇒ Low Approach (Missed Approach)
(Heading +-10 degrees, Altitude +-100'
Airspeed Vx or Vy +10 -5 Kts.)

- ⇒ Normal or Crosswind Landing and Approaches to
Landing (1.3Vso +10 -5 Kts. with wind/gust factor
applied, TD<=500')

- ⇒ Postflight and Next Lesson Preview

Lesson # 2 (2 Hrs.)
Automation, Autopilot, Aircraft Performance

Name _____ Date _____ TOT _____

START _____ OFF _____ ON _____ IN _____

- ⇒ Preflight Discussion
- ⇒ Aircraft Performance Calculation
- ⇒ Preflight Inspection
- ⇒ IFR Flight Plan, Clearances
Type/ID/Model/Tas./Dprt./Etd./ALT/Route/Dest./Ete./
Remarks/FOB/Alternate/Name/Phone/Base/SOB/Color
- ⇒ Normal and Crosswind Takeoff
(Heading ± 5 degrees, Airspeed ± 5 Kts.)
- ⇒ Instrument Departure (Begin Takeoff Visually, Hood or View-Limiting at 50' AGL)
- ⇒ Unusual Attitude Recovery
(Airspeed Increasing = Power, Level Wings, Raise Pitch;
Airspeed Decreasing = Power, Lower Pitch, Level Wings.)
- ⇒ VMC Demonstration (10Kts > Sse, Bank, Pitch = 1Kt/Sec)
(HDG $\pm 20^\circ$ Accelerate to Vyse $\pm 10 - 5$)
- ⇒ Maneuvering During Slow Flight (Alt $\pm 100'$ Hdg. $\pm 10^\circ$ Asp. $\pm 10 - 0$ Bank $\pm 10^\circ$.)
- ⇒ Advanced Autopilot Operations
(Turns, Climbs, Descents, Transfer VS Control from Auto to Manual and Back)
- ⇒ ILS Coupled Approach: (Vectors or PT)
- ⇒ Normal or Crosswind Landing and Approaches to Landing
(1.3Vso $\pm 10 - 5$ Kts. with wind/gust factor applied, TD $\leq 400'$)

Review A/P Engagement Procedures Prior To Flight
Use Manual Mode for initial climb.

- ⇒ Engage Autopilot during normal 130KT Climb
- ⇒ Fly HDG Mode only
- ⇒ Fly VS Mode
- ⇒ Level-Off at pre-determined altitude
- ⇒ Fly Straight-and-Level. Hold Altitude and Heading
- ⇒ Climb 1000' above present altitude. (500FPM)
- ⇒ Level-off
- ⇒ Descent 100' below present altitude. (500FPM)
- ⇒ Level-off
- ⇒ Combine changes of Heading with Altitude
- ⇒ Intercept and track GPS or Nav Crs (Nav Mode)
- ⇒ Intercept and track GPS or Nav Crs (App Mode)
- ⇒ Intercept and Track Back Cors (Rev Mode)
- ⇒ Fly Coupled approach to landing

⇒ Postflight and Next Lesson Preview

Lesson # 3 (1.5 Hrs.)

Systems, Instrument Approaches, Abnormal Procedures

Name _____ Date _____ TOT _____

START _____ OFF _____ ON _____ IN _____

- ⇒ Preflight Discussion
- ⇒ Acft. Systems Abnormal or Emergency Checklist
 - Engine Driven Fuel Pump Failure
 - Alternator Failure
 - Blocked Static Source
 - Avionics Bus Failure
 - Induction Air Icing
 - Loss of Oil Pressure
 - Fuel Crossfeed (one engine inop)
 - Smoke in Cockpit
 - Manual Gear Extension
- ⇒ IFR Flight Plan, Clearances
 - Type/ID/Model/Tas./Dprt./Etd./ALT/Route/Dest./Ete./
 - Remarks/FOB/Alternate/Name/Phone/Base/SOB/Color
- ⇒ PreTakeoff Checks
- ⇒ Short Field Takeoff and Maximum Performance Climb (Heading +5 degrees, Airspeed +-5 Kts.)
- ⇒ Instrument Departure (Begin Takeoff Visually, Hood or View-Limiting Device at 50' AGL)
- ⇒ Maneuvering During Slow Flight (Alt+-100' Hdg. +-10° Aspd. +10 -0 Bank +-10°.)
- ⇒ Approaches to Stalls (At least one while turning in 15 to 30 degree bank)

- ⇒ Communications Failure
- ⇒ Gyro, Suction or Pressure Pump Failure
- ⇒ Engine Failure
- ⇒ Maneuvering with One Engine Inoperative (≥ 3000 AGL Demo Coordinated Flight & Restart)
- ⇒ Approach: ($< 3/4$ Scale Deflection) (Airspeed +-10 Kts. Altitude +-100' Heading +-10°)
 - _____ VOR _____ ILS _____ LOC
 - _____ RNAV _____ Back Course
- ⇒ Low Approach (Missed Approach) (Heading +-10° Altitude +-100' Airspeed V_x or V_y +10 -5 Kts.)
- ⇒ Normal or Crosswind Landing and Approaches to Landing ($1.3V_{so}$ +10 -5 Kts. with wind/gust factor applied, $TD \leq 400'$)
- ⇒ Landing from a Circling Approach (Heading +5° Altitude +100'-0' Airspeed +-5 Kts.)
- ⇒ Short Field Approach and Landing ($1.3V_{so}$ +10 -5 Kts. with wind/gust factor applied, $TD \leq 200'$)
- ⇒ Landing with Inoperative Engine by Reference to Instruments ($3/4$ CDI & GS or 10°. +-10Kts.)
- ⇒ Postflight and Next Lesson Preview

Lesson #4 (1.5 Hrs.)
RNAV and Non-Precision Approaches

Name _____ Date _____ TOT _____

START _____ OFF _____ ON _____ IN _____

⇒ Preflight Discussion

⇒ Acft. Systems / Ops Integration

⇒ IFR Flight Plan, Clearances

Type/ID/Model/Tas./Dprt./Etd./ALT/Route/Dest./Ete./
Remarks/FOB/Alternate/Name/Phone/Base/SOB/Color

⇒ PreTakeoff Checks

⇒ RNAV Approach Procedures: (Initial and Final Approach Fix
ARE the Same)

⇒ RNAV Approach Procedures: (Initial and Final Approach Fix
NOT the Same)

⇒ Holding (Planned or Unplanned)

⇒ Approach: (<3/4 Scale Deflection) (Airspeed +-10 Kts.
Altitude +-100' Heading +-10°)

_____ VOR _____ ILS _____ LOC

_____ RNAV _____ Back Course

⇒ Low Approach (Missed Approach) (Heading +-10°
Altitude +-100' Airspeed Vx or Vy +10 -5 Kts.)

⇒ Normal or Crosswind Landing and Approaches to
Landing (1.3Vso +10 -5 Kts. with wind/gust factor
applied, TD<=400')

⇒ Landing from a Circling Approach (Heading +-5° Altitude
+100'-0' Airspeed +-5 Kts.)

⇒ Short Field Approach and Landing (1.3Vso +10 -5 Kts.
with wind/gust factor applied, TD<=200')

⇒ Landing with Inoperative Engine
(3/4 CDI & GS or 10°. +-10Kts.)

⇒ Postflight and Next Lesson Preview

Lesson #5 (2 Hrs.)
GPS Sequencing, High Altitude, Emergency Procedures

Name _____ Date _____ TOT _____

START _____ OFF _____ ON _____ IN _____

⇒ Preflight Discussion

⇒ Acft. Systems / Ops Integration

⇒ IFR Flight Plan, Clearances
Type/ID/Model/Tas./Dprt./Etd./ALT/Route/Dest./Ete./
Remarks/FOB/Alternate/Name/Phone/Base/SOB/Color

⇒ PreTakeoff Checks

⇒ Engine Failure During Takeoff Before Vmc
(Calculated 50 percent below Vmc)

⇒ Engine Failure After Lift-Off (Simulated >Vsse, Vxse, Vyse,
>400AGL Vxse or Vmc+5 then Vyse HDG. 10° ASPD 5Kt.

⇒ RNAV Approach Procedures: (Initial and Final Approach Fix
ARE the Same)

⇒ RNAV Approach Procedures: (Initial and Final Approach Fix
NOT the Same)

⇒ Holding (Planned or Unplanned)

⇒ High Altitude Operations (=> FL250)

⇒ Emergency Descent (Positive Load Factors, Checklists,
Emergency Authority)

⇒ Engine Failure

⇒ Approach with Inoperative Engine: (<1/2 Scale
Deflection) (Airspeed +-10 Kts. Altitude +-100' Heading
+-10°)

_____ VOR _____ ILS _____ LOC

_____ RNAV _____ Back Course

⇒ Low Approach (Missed Approach) (Heading +-10°
Altitude +-100' Airspeed Vx or Vy +10 -5 Kts.)

⇒ Normal or Crosswind Landing and Approaches to
Landing (1.3Vso +10 -5 Kts. with wind/gust factor
applied, TD<=400')

⇒ Landing from a Circling Approach (Heading +-5° Altitude
+100'-0' Airspeed +-5 Kts.)

⇒ Short Field Approach and Landing (1.3Vso +10 -5 Kts.
with wind/gust factor applied, TD<=200')

⇒ Landing with Inoperative Engine
(3/4 CDI & GS or 10°. +10Kts.)

⇒ Postflight and Next Lesson Preview

Lesson #6 (1.5 Hrs.)
WAAS, RNAV, Weight & Balance

Name _____ Date _____ TOT _____

START _____ OFF _____ ON _____ IN _____

⇒ Preflight Discussion

⇒ Operations at Maximum Gross Weight (Scenario for PDX - North Bend or similar scenario, with loading problem for flying a trip requiring fuel planning for alternate airport.)

⇒ IFR Flight Plan, Clearances

Type/ID/Model/Tas./Dprt./Etd./ALT/Route/Dest./Ete./
Remarks/FOB/Alternate/Name/Phone/Base/SOB/Color

⇒ PreTakeoff Checks

⇒ WAAS RNAV Approach Procedures

⇒ WAAS Alternate Airport Approach Procedures

⇒ Holding (Planned or Unplanned)

⇒ VNAV Approach: (<3/4 Scale Deflection) (Airspeed +-10 Kts. Altitude +-100' Heading +-10°)

_____ VOR _____ LNAV + V _____ LPV

_____ RNAV _____ LOC

⇒ Low Approach (Missed Approach) (Heading +-10° Altitude +-100' Airspeed Vx or Vy +10 -5 Kts.)

⇒ Normal or Crosswind Landing and Approaches to Landing (1.3Vso +10 -5 Kts. with wind/gust factor applied, TD<=400')

⇒ Landing from a Circling Approach (Heading +-5° Altitude +100'-0' Airspeed +-5 Kts.)

⇒ Postflight and Next Lesson Preview

**Lesson # 7 (1.5 Hrs.)
Review**

Name _____ Date _____ TOT _____

START _____ OFF _____ ON _____ IN _____

- ⇒ Preflight Discussion
- ⇒ Aircraft Performance Calculation
- ⇒ Preflight Inspection
- ⇒ Certificates, Documents, Inspection Requirements
- ⇒ IFR Flight Plan, Clearances
Type/ID/Model/Tas./Dprt./Etd./ALT/Route/Dest./Ete./
Remarks/FOB/Alternate/Name/Phone/Base/SOB/Color
- ⇒ Normal and Crosswind Takeoff
(Heading ± 5 degrees, Airspeed ± 5 Kts.)
- ⇒ Engine Failure During Takeoff Before V_{mc}
(Simulated & Calculated 50 percent below V_{mc})
- ⇒ Engine Failure After Lift-Off (Simulated $>V_{sse}$, V_{xse} , V_{yse} ,
 >400 AGL V_{xse} or $V_{mc}+5$ then V_{yse} HDG. 10° ASPD 5Kt.)
- ⇒ Instrument Departure (Begin Takeoff Visually, Hood or View-
Limiting at 50' AGL)
- ⇒ Unusual Attitude Recovery
(Airspeed Increasing = Power, Level Wings, Raise Pitch;
Airspeed Decreasing = Power, Lower Pitch, Level Wings.)

- ⇒ VMC Demonstration ($10Kts > S_{se}$, Bank, Pitch = 1Kt/Sec)
(HDG $\pm 20^\circ$ Accelerate to $V_{yse} +10 -5$)
- ⇒ Maneuvering During Slow Flight (Alt $\pm 100'$ Hdg. $\pm 10^\circ$
Aspd. $+10 -0$ Bank $\pm 10^\circ$.)
- ⇒ Approaches to Stalls (At least one while turning in 15 to
30 degree bank)
- ⇒ Approach: ($<3/4$ Scale Deflection) (Airspeed ± 10 Kts.
Altitude $\pm 100'$ Heading $\pm 10^\circ$)

_____ VOR _____ ILS _____ LOC

_____ WAAS _____ RNAV _____ BC
- ⇒ Low Approach (Missed Approach) (Heading $\pm 10^\circ$
Altitude $\pm 100'$ Airspeed V_x or $V_y +10 -5$ Kts.)
- ⇒ Normal or Crosswind Landing and Approaches to
Landing ($1.3V_{so} +10 -5$ Kts. with wind/gust factor
applied, $TD \leq 400'$)
- ⇒ Landing from a Circling Approach (Heading $\pm 5^\circ$ Altitude
 $+100' -0'$ Airspeed ± 5 Kts.)
- ⇒ Short Field Approach and Landing ($1.3V_{so} +10 -5$ Kts.
with wind/gust factor applied, $TD \leq 200'$)
- ⇒ Landing with Inoperative Engine by Reference to
Instruments ($3/4$ CDI & GS or 10° . ± 10 Kts.)
- ⇒ Practice as Necessary
- ⇒ Postflight and Next Lesson Preview

Lesson #8 (1.5 Hrs.)
Night Flight, Performance, Diversion

Name _____ Date _____ TOT _____

START _____ OFF _____ ON _____ IN _____

⇒ Preflight Discussion (Physiological aspects related to vision, lighting systems, obstructions, PCL, Aircraft lighting systems, Spatial Disorientation, Somatogravic and Black Hole Approach Illusions. Rapid acceleration stimulates the otolith organs in the same way as tilting the head backwards, creating the somatogravic illusion of being in a nose-up attitude, especially in situations without good visual references.)

(Absence of surrounding ground features, in overwater approaches, over darkened areas, or terrain made featureless by snow, can create an illusion the aircraft is at a higher altitude than it actually is. This “black hole” causes pilots to fly a lower approach than is desired.)

⇒ Equipment

⇒ Weather Factors for Night Operations

⇒ Night Orientation, Navigation and Chart Reading Techniques

⇒ IFR Flight Plan, Clearances

Type/ID/Model/Tas./Dprt./Etd./ALT/Route/Dest./Ete./
Remarks/FOB/Alternate/Name/Phone/Base/SOB/Color

⇒ PreTakeoff Checks

⇒ RNAV Approach Procedures

⇒ Diversion to Alternate Airport

⇒ Alternate Airport Approach Procedures

⇒ Holding (Planned or Unplanned)

⇒ VNAV Approach: (<3/4 Scale Deflection) (Airspeed +-10 Kts. Altitude +-100' Heading +-10°)

_____ VOR _____ LNAV + V _____ LPV

_____ RNAV _____ LOC

⇒ Low Approach (Missed Approach) (Heading +-10°
Altitude +-100' Airspeed Vx or Vy +10 -5 Kts.)

⇒ Normal or Crosswind Landing and Approaches to
Landing (1.3Vso +10 -5 Kts. with wind/gust factor
applied, TD<=400')

⇒ Landing from a Circling Approach (Heading +-5° Altitude
+100'-0' Airspeed +-5 Kts.)

⇒ Postflight and Next Lesson Preview

**Lesson # 9 (2 Hrs.)
Prep For Evaluation**

Name _____ Date _____ TOT _____

START _____ OFF _____ ON _____ IN _____

⇒ Preflight Discussion

⇒ Aircraft Performance Calculation

⇒ IFR Flight Plan, Clearances

Type/ID/Model/Tas./Dprt./Etd./ALT/Route/Dest./Ete./
Remarks/FOB/Alternate/Name/Phone/Base/SOB/Color

⇒ Normal and Crosswind Takeoff

(Heading ± 5 degrees, Airspeed ± 5 Kts.)

⇒ Engine Failure During Takeoff Before V_{mc}

(Simulated & Calculated 50 percent below V_{mc})

⇒ Engine Failure After Lift-Off (Simulated $>V_{sse}$, V_{xse} , V_{yse} ,

>400 AGL V_{xse} or $V_{mc}+5$ then V_{yse} HDG. 10° ASPD 5Kt.

⇒ Instrument Departure (Begin Takeoff Visually, Hood or View-Limiting at 50' AGL)

⇒ Unusual Attitude Recovery

(Airspeed Increasing = Power, Level Wings, Raise Pitch;
Airspeed Decreasing = Power, Lower Pitch, Level Wings.)

⇒ V_{MC} Demonstration (10 Kts $>S_{se}$, Bank, Pitch = 1Kt/Sec)

(HDG $\pm 20^\circ$ Accelerate to $V_{yse} \pm 10 - 5$)

⇒ Maneuvering During Slow Flight (Alt $\pm 100'$ Hdg. $\pm 10^\circ$ Aspd. $\pm 10 - 0$ Bank $\pm 10^\circ$.)

⇒ Approaches to Stalls (At least one while turning in 15 to 30 degree bank)

⇒ Approach: ($<3/4$ Scale Deflection) (Airspeed ± 10 Kts. Altitude $\pm 100'$ Heading $\pm 10^\circ$)

_____ VOR _____ ILS _____ LOC

_____ WAAS _____ RNAV _____ BC

⇒ Low Approach (Missed Approach) (Heading $\pm 10^\circ$ Altitude $\pm 100'$ Airspeed V_x or $V_y \pm 10 - 5$ Kts.)

⇒ Normal or Crosswind Landing and Approaches to Landing ($1.3V_{so} \pm 10 - 5$ Kts. with wind/gust factor applied, $TD \leq 400'$)

⇒ Landing from a Circling Approach (Heading $\pm 5^\circ$ Altitude $\pm 100' - 0'$ Airspeed ± 5 Kts.)

⇒ Short Field Approach and Landing ($1.3V_{so} \pm 10 - 5$ Kts. with wind/gust factor applied, $TD \leq 200'$)

⇒ Landing with Inoperative Engine by Reference to Instruments ($3/4$ CDI & GS or 10° . ± 10 Kts.)

⇒ Practice as Necessary

⇒ Postflight and Next Lesson Preview

**Lesson # 10 (1.5 Hrs.)
Review**

Name _____ Date _____ TOT _____

START _____ OFF _____ ON _____ IN _____

⇒ Preflight Discussion

⇒ Aircraft Performance Calculation

⇒ IFR Flight Plan, Clearances

Type/ID/Model/Tas./Dprt./Etd./ALT/Route/Dest./Ete./
Remarks/FOB/Alternate/Name/Phone/Base/SOB/Color

⇒ Normal and Crosswind Takeoff

(Heading ± 5 degrees, Airspeed ± 5 Kts.)

⇒ Engine Failure During Takeoff Before Vmc

(Simulated & Calculated 50 percent below Vmc)

⇒ Engine Failure After Lift-Off (Simulated $>V_{sse}$, V_{xse} , V_{yse} ,

>400 AGL V_{xse} or $V_{mc}+5$ then V_{yse} HDG. 10° ASPD 5Kt.)

⇒ Instrument Departure (Begin Takeoff Visually, Hood or View-Limiting at 50' AGL)

⇒ Unusual Attitude Recovery

(Airspeed Increasing = Power, Level Wings, Raise Pitch;
Airspeed Decreasing = Power, Lower Pitch, Level Wings.)

⇒ VMC Demonstration (10 Kts $>S_{se}$, Bank, Pitch = 1Kt/Sec)

(HDG $\pm 20^\circ$ Accelerate to $V_{yse} \pm 10 - 5$)

⇒ Maneuvering During Slow Flight (Alt $\pm 100'$ Hdg. $\pm 10^\circ$ Aspd. $\pm 10 - 0$ Bank $\pm 10^\circ$.)

⇒ Approaches to Stalls (At least one while turning in 15 to 30 degree bank)

⇒ Approach: ($<3/4$ Scale Deflection) (Airspeed ± 10 Kts. Altitude $\pm 100'$ Heading $\pm 10^\circ$)

_____ VOR _____ ILS _____ LOC

_____ WAAS _____ RNAV _____ BC

⇒ Low Approach (Missed Approach) (Heading $\pm 10^\circ$ Altitude $\pm 100'$ Airspeed V_x or $V_y \pm 10 - 5$ Kts.)

⇒ Normal or Crosswind Landing and Approaches to Landing ($1.3V_{so} \pm 10 - 5$ Kts. with wind/gust factor applied, $TD \leq 400'$)

⇒ Landing from a Circling Approach (Heading $\pm 5^\circ$ Altitude $\pm 100' - 0'$ Airspeed ± 5 Kts.)

⇒ Short Field Approach and Landing ($1.3V_{so} \pm 10 - 5$ Kts. with wind/gust factor applied, $TD \leq 200'$)

⇒ Landing with Inoperative Engine by Reference to Instruments ($3/4$ CDI & GS or 10° . ± 10 Kts.)

⇒ Practice as Necessary

⇒ Postflight and Next Lesson Preview

**Lesson # 11 (2.0 Hrs.)
Standards Evaluation**

Name _____ Date _____ TOT _____

START _____ OFF _____ ON _____ IN _____

⇒ Preflight

⇒ IFR Flight Plan, Clearances

Type/ID/Model/Tas./Dprt./Etd./ALT/Route/Dest./Ete./
Remarks/FOB/Alternate/Name/Phone/Base/SOB/Color

⇒ Normal and Crosswind Takeoff

(Heading ± 5 degrees, Airspeed ± 5 Kts.)

⇒ Instrument Departure (Begin Takeoff Visually, Hood or View-Limiting at 50' AGL)

⇒ Approaches: ($< 3/4$ Scale Deflection) (Airspeed ± 10 Kts.
Altitude $\pm 100'$ Heading $\pm 10^\circ$)

_____ VOR _____ ILS _____ LOC

_____ WAAS _____ RNAV _____ BC

⇒ Low Approaches (Missed Approach) (Heading $\pm 10^\circ$ Altitude
 $\pm 100'$ Airspeed V_x or $V_y \pm 10 - 5$ Kts.)

⇒ Normal or Crosswind Landing and Approaches to Landing
($1.3V_{so} \pm 10 - 5$ Kts. with wind/gust factor applied, $TD \leq 400'$)

⇒ Landing from a Circling Approach (Heading $\pm 5^\circ$ Altitude
 $\pm 100' - 0'$ Airspeed ± 5 Kts.)

⇒ Postflight
