Cessna 414A Flight Training

FAA-Approved Training Manual Excerpts

15 Hours Flight, 24 Hours Ground

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The checklist is a temporary record of training, which should be transcribed to the candidate's official training records required under 14CFR Part 135.

Block 1 Lessons 1-2: 3 Hours Flight, 5 Hours Ground Lesson 1 Orientation Flight (1.5 Flt., 2.5 Hrs. Gnd.)

Lesson 2 Autopilot Operations (1.5 Flt., 2 Hrs. Gnd.)

Block 2 Lessons 3-7: 7.5 Hours Flight, 12 Hours Ground
Lesson 3 Simple GPS Approaches (1.5 Flt., 2.5 Hrs. Gnd.)
Lesson 4 Complex GPS Approaches (1.5 Flt., 2.5 Hrs. Gnd.)
Lesson 5 Review GPS Approaches (1.5 Flt., 2.5 Hrs. Gnd.)

Lesson 6 Forcing Manual GPS Sequencing (1.5 Flt., 2.5 Hrs. Gnd.) Lesson 7 Combine Class I Navigation with GPS (1.5 Flt., 2 Hrs. Gnd.)

Block 3 Lessons 8- 10: 4.5 Hours Flight, 7 Hours Ground

Lesson 8 Review (1.5 Flt., 1.5 Hrs. Gnd.) Lesson 9 Review and Refine (1.5 Flt., 1.5 Hrs. Gnd.) Lesson 10 Pre-Checkride Evaluation (1.5 Flt., 4 Hrs. Gnd.)

OBJECTIVES: This training provides the pilot with a detailed summary of specific knowledge and skill required by the FAA for initial certification as a Captain. By using this training system, the specific task requirements of the FAA-Approved Training Program are guaranteed to be achieved.

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, and performance standards to be recommended to a designated check airman or FAA inspector for a Part 135 Checkride.

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GENERAL RULES:

- 1- Weather Minimums. The minimum existing or forecast weather for any proposed point of departure or arrival must not be less than 200 and 1/2 for Day or Night Operations.
- 2- In case of fire, get a fire extinguisher and get help.
- 3- Have at least 1 Hr. reserve fuel after planned completion of flight.
- 4- Be alert for other aircraft in the air and on the ground. Shallow turning during climbs and glides will help you see above and below. Before maneuvering, perform two clearing turns of 90 degrees heading change to assure safe separation from other aircraft. See and be seen is the key to collision avoidance.
- 5- Emergency engine failures shall never be practiced by pulling mixture controls, except engine failures during takeoff when less than 50 percent Vmc.

BLOCK 1 Lesson # 1 Orientation Flight

Unentation Flight		BASIC Autopilot Operation		
Name	Date	(Heading and Altitude)		
A/CInstructo	r	Instrument A	rrival Procedure	9 S
Preflight Discussion	on Equipment Knowledge	Vectors to Final Appr (Airspeed +-10 Kts. Altit		s: (<1/4 Scale Deflection g +-10 degrees)
Acft. Systems	/ Ops Integration Specify	VOR	ILS	LOC
IFR Flight Plan, C Type/ID/Model/Tas./Dprt./Etc Remarks/FOB/Alternate/Nar	d./ALT/Route/Dest./Ete./	ILS	GPS	Back Course
PreTakeoff Check	s	Procedure Turn Appr (Airspeed +-10 Kts. Altit		
		VOR	ILS	LOC
Normal and Cross (Heading +-5 degrees, Airspe		ILS	GPS	Back Course
Clearing Turns (2 Turns at least 90 degrees h	eading change)	Low App (Heading +-10 degrees,	roach (Missed A Altitude +-100' Airs	
Steep Turns (45 Degrees Hdg +-10 degree VA 151; 27"MAP 2300RPM; Al	s, Altitude +-100' Airspeed +-10 Kts. VSI, ALT)	(V Speed +-5 Kts. TD<=2	and Approaches (200')	to Landing
		Postflight	t Procedures	
GPS Direct-To N (Nav/GPS Selector, Set Crs on				

BLOCK 1 Lesson # 2 Autopilot Operations

Name	Date
A/CInstruc	ctor
Preflight Discus	ssion Equipment Knowledge
Acft. Syster	ms / Ops Integration Specify
	, Clearances Etd./ALT/Route/Dest./Ete./ Name/Phone/Base/SOB/Color
PreTakeoff Che	ecks
Normal and Cro (Heading +-5 degrees, Airs	
Instrument Dep (Begin Takeoff Visually, Ho	parture and or View-Limiting Device at 50' AGL)
	ide Recovery er, Level Wings, Raise Pitch; er, Lower Pitch, Level Wings.)
(See next page for GPS	topilot Operations //Autopilot Pattern) , Transfer VS Control from ASA to Manual and Back)
ILS Coupled A (GPS used in lieu of ADF	Approach: (Vectors or PT) /DME.)
Landing an (V Speed +-5 Kts. TD<=200	d Approaches to Landing

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

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

GPS Autopilot Pattern

_____ Postflight Procedures

BLOCK 2 Lesson # 3 Simple GPS Approaches

Name	Date	Missed Approach
A/CInstructor		(Altitude +-100' Airspeed +-10 Kts. Heading +-5 degrees)
Preflight Discussion	Equipment Knowledge	
Acft. Systems / Op	s Integration Specify	Landing from a Circling Approach (Heading +-5 degrees, Altitude +100'-0' Airspeed +-5 Kts.)
IFR Flight Plan, Cleara Type/ID/Model/Tas./Dprt./Etd./AL Remarks/FOB/Alternate/Name/Pl	T/Route/Dest./Ete./	Normal and Abnormal Procedures
Normal and Crosswind (Heading +-5 degrees, Airspeed +		Low Approach (Missed Approach) (Heading +-10 degrees, Altitude +-100' Airspeed +-10 Kts.)
Instrument Departure (Begin Takeoff Visually, Hood or Vi	ew-Limiting Device at 50' AGL)	Landing and Approaches to Landing (V Speed +-5 Kts. TD<=200')
Approaches to Stalls (At least one while turning in 15 to 3	30 degree bank)	(V Speed +-3 Kis. TD<=200)
GPS Approach Proce (Airspeed +-10 Kts. Altitude +-100' (Initial and Final Approach Fix t		Other Maneuvers Specify
GPS Approach Proce inadvertent sequencing)	edures: (Re-acquire Approach after	Postflight Procedures
(Initial and Final Approach Fix I	NOT the Same)	

BLOCK 2 Lesson # 4 GPS Complex Approaches

Name	Date	GPS Approach Procedures: (Re-acquire Approach after
A/CInstructor		inadvertent sequencing) (Initial and Final Approach Fix NOT the Same)
Preflight Discussion	Equipment Knowledge	Missed Approach (Altitude +-100' Airspeed +-10 Kts. Heading +-5 degrees)
Acft. Systems / 0	Ops Integration Specify	
IFR Flight Plan, Clea	ALT/Route/Dest./Ete./	Landing from a Circling Approach (Heading +-5 degrees, Altitude +100'-0' Airspeed +-5 Kts.)
Remarks/FOB/Alternate/Name	/Phone/Base/SOB/Color	Precision Approach One Engine Inoperative
Normal and Crosswi (Heading +-5 degrees, Airspeed		Low Approach (Missed Approach) (Heading +-10 degrees, Altitude +-100' Airspeed +-10 Kts.)
Instrument Departu (Begin Takeoff Visually, Hood or	re View-Limiting Device at 50' AGL)	Landing and Approaches to Landing (V Speed +-5 Kts. TD<=200')
Holding: (Airspeed	+-10 Kts. Altitude +-100' Heading +-10 degrees)	Other Maneuvers Specify
GPS Approach Pro (Airspeed +-10 Kts. Altitude +-10 (Initial and Final Approach Fi	· · · · · · · · · · · · · · · · · · ·	Postflight Procedures

BLOCK 2 Lesson # 5 Review GPS Approaches

Rev	iew GPS Approaches	GPS Approach Procedures: (Re-acquire Approach after
Name	Date	inadvertent sequencing Initial and Final Approach Fix the Same)
A/CInstructo	Dr	GPS Approach Procedures: (Vectors or PT <1/4 Scale
Preflight Discussion	on Equipment Knowledge	Deflection Airspeed +-10 Kts. Altitude +-100' Heading +-10 degrees) (Initial and Final Approach Fix NOT the same)
Acft. Systems	/ Ops Integration Specify	GPS Approach Procedures: (Re-acquire Approach after inadvertent sequencing Initial and Final Approach Fix NOT the Same)
IFR Flight Plan, C Type/ID/Model/Tas./Dprt./Eto Remarks/FOB/Alternate/Nar	d./ALT/Route/Dest./Ete./	Missed Approach (Altitude +-100' Airspeed +-10 Kts. Heading +-5 degrees)
Powerplant Failu <50%Vmc	ure During Takeoff	Landing from a Circling Approach (Heading +-5 degrees, Altitude +100'-0' Airspeed +-5 Kts.)
Normal and Cross (Heading +-5 degrees, Airspe		Normal and Abnormal Procedures (Equipment Failure and Remedy)
Instrument Depar (Begin Takeoff Visually, Hood	ture or View-Limiting Device at 50' AGL)	Low Approach (Missed Approach) (Heading +-10 degrees, Altitude +-100' Airspeed +-10 Kts.)
Holding: (Airspee	d +-10 Kts. Altitude +-100' Heading +-10 degrees)	Landing and Approaches to Landing (V Speed +-5 Kts. TD<=200')
GPS Approach P (Airspeed +-10 Kts. Altitude + (Initial and Final Approach		Other Maneuvers Specify
		Postflight Procedures

BLOCK 2 Lesson # 6 Forcing Manual GPS Sequencing

Name	Date	GPS Approach Procedures: (Vectors or PT <1/4 Scale Deflection Airspeed +-10 Kts. Altitude +-100' Heading +-10 degrees) (Initial and Final Approach Fix NOT the same)
A/CInstructor		(initial and i mai Approach i ix NOT the same)
Preflight Discussion _	Equipment Knowledge	GPS Approach Procedures: (Re-acquire Approach after inadvertent sequencing Initial and Final Approach Fix NOT the Same)
Acft. Systems / Op	s Integration Specify	
IFR Flight Plan, Cleara Type/ID/Model/Tas./Dprt./Etd./AL Remarks/FOB/Alternate/Name/P	T/Route/Dest./Ete./	Missed Approach (Altitude +-100' Airspeed +-10 Kts. Heading +-5 degrees)
Powerplant Failure	During Takeoff	Landing from a Circling Approach (Heading +-5 degrees, Altitude +100'-0' Airspeed +-5 Kts.)
Normal and Crosswind (Heading +-5 degrees, Airspeed -		Normal and Abnormal Procedures (Equipment Failure and Remedy)
Instrument Departure (Begin Takeoff Visually, Hood or V	ew-Limiting Device at 50' AGL)	Low Approach (Missed Approach) (Heading +-10 degrees, Altitude +-100' Airspeed +-10 Kts.)
Holding: (Airspeed +-	10 Kts. Altitude +-100' Heading +-10 degrees)	Landing and Approaches to Landing (V Speed +-5 Kts. TD<=200')
GPS Approach Proce (Airspeed +-10 Kts. Altitude +-100 (Initial and Final Approach Fix		Other Maneuvers Specify
	edures: (Re-acquire Approach after d Final Approach Fix the Same)	Postflight Procedures

BLOCK 2 Lesson # 7 Combine Class I Navigation with Minimum GPS

Name	Date	Missed Approach (Altitude +-100' Airspeed +-10 Kts. Heading +-5 degrees)
A/CInstructor		
Preflight Discussion	Equipment Knowledge	Landing from a Circling Approach (Heading +-5 degrees, Altitude +100'-0' Airspeed +-5 Kts.)
Acft. Systems / 0	Ops Integration Specify	Normal and Abnormal Procedures
IFR Flight Plan, Clea Type/ID/Model/Tas./Dprt./Etd.// Remarks/FOB/Alternate/Name/	ALT/Route/Dest./Ete./	Emergency Procedures
Normal and Crosswir (Heading +-5 degrees, Airspeed		Rejected Landing (50' Above Runway from the Option)
Instrument Departur (Begin Takeoff Visually, Hood or	re View-Limiting Device at 50' AGL)	Low Approach (Missed Approach) (Heading +-10 degrees, Altitude +-100' Airspeed +-10 Kts.)
Holding: (If required	by ATC)	
	Approach Procedures: (Vectors or PT) E. FAF set with OBS Courses only.)	Landing and Approaches to Landing (V Speed +-5 Kts. TD<=200')
	edures: (Vectors or PT) E. FAF set with OBS Courses only.)	Acft. Systems Review Specify
Powerplant Failure (Airspeed +-10 Kts. Altitude +-10		Postflight Procedures

BLOCK 3 Lesson # 8 Review

Name	Date	GPS Approach Procedures: (Re-acquire Approach after
A /O		inadvertent sequencing Initial and Final Approach Fix the Same)
A/CInstruc	ctor	
Preflight Discus	ssion Equipment Knowledge	VOR/DME or LOC Approach Procedures: (Vectors or PT) (GPS used in lieu of ADF/DME. FAF set with OBS Courses only.)
Acft. System	ns / Ops Integration Specify	
	Etd./ALT/Route/Dest./Ete./	ILS Approach Procedures: (Vectors or PT) (GPS used in lieu of ADF/DME. FAF set with OBS Courses only.)
Passenger Bri	lame/Phone/Base/SOB/Color	ILS Coupled Approach: (Vectors or PT) (GPS used in lieu of ADF/DME. FAF set with OBS Courses only.)
-	ailure During Takeoff	Powerplant Failure (Airspeed +-10 Kts. Altitude +-100' Heading +-10 degrees)
	psswind Takeoff speed +-5 Kts.)	Missed Approach (Altitude +-100' Airspeed +-10 Kts. Heading +-5 degrees)
Instrument Dep (Begin Takeoff Visually, Ho	parture od or View-Limiting Device at 50' AGL)	Landing from a Circling Approach (Heading +-5 degrees, Altitude +100'-0' Airspeed +-5 Kts.) Normal and Abnormal Procedures
Holding: (Airsp	eed +-10 Kts. Altitude +-100' Heading +-10 degrees)	No-Flap Landing Emergency Procedures
GPS Approach Airspeed +-10 Kts. Altitude (Initial and Final Approach	n Procedures: (Vectors or PT <1/4 Scale Deflection +-100' Heading +-10 degrees) ch Fix NOT the same)	Rejected Landing (50' Above Runway) Low Approach (Missed Approach) (Heading +-10 degrees, Altitude +-100' Airspeed +-10 Kts.)
	n Procedures: (Re-acquire Approach after itial and Final Approach Fix NOT the Same)	Landing and Approaches to Landing (V Speed +-5 Kts. TD<=200')
		Postflight Procedures
	n Procedures: (Vectors or PT <1/4 Scale Deflection) e +-100' Heading +-10 degrees) ch Fix the same)	

BLOCK 3 Lesson #9 Review and Refine

Name Date	GPS Approach Procedures: (Re-acquire Approach after
A/C	inadvertent sequencing Initial and Final Approach Fix the Same)
A/CInstructor	
Preflight Discussion Equipment Knowledge	VOR/DME or LOC Approach Procedures: (Vectors or PT) (GPS used in lieu of ADF/DME. FAF set with OBS Courses only.)
Acft. Systems / Ops Integration Specify	
IFR Flight Plan, Clearances Type/ID/Model/Tas./Dprt./Etd./ALT/Route/Dest./Ete./ Remarks/FOB/Alternate/Name/Phone/Base/SOB/Color	ILS Approach Procedures: (Vectors or PT) (GPS used in lieu of ADF/DME. FAF set with OBS Courses only.)
Passenger Briefing	ILS Coupled Approach: (Vectors or PT) (GPS used in lieu of ADF/DME. FAF set with OBS Courses only.)
Powerplant Failure During Takeoff	Powerplant Failure (Airspeed +-10 Kts. Altitude +-100' Heading +-10 degrees)
	Missed Approach
Normal and Crosswind Takeoff	(Altitude +-100' Airspeed +-10 Kts. Heading +-5 degrees)
(Heading +-5 degrees, Airspeed +-5 Kts.)	Landing from a Circling Approach (Heading +-5 degrees, Altitude +100'-0' Airspeed +-5 Kts.)
Instrument Departure (Begin Takeoff Visually, Hood or View-Limiting Device at 50' AGL)	Normal and Abnormal Procedures
	No-Flap Landing
Holding: (Airspeed +-10 Kts. Altitude +-100' Heading +-10 degrees)	Emergency Procedures
GPS Approach Procedures: (Vectors or PT <1/4 Scale Deflection	Rejected Landing (50' Above Runway)
Airspeed +-10 Kts. Altitude +-100' Heading +-10 degrees) (Initial and Final Approach Fix NOT the same)	Low Approach (Missed Approach) (Heading +-10 degrees, Altitude +-100' Airspeed +-10 Kts.)
GPS Approach Procedures: (Re-acquire Approach after inadvertent sequencing Initial and Final Approach Fix NOT the Same)	Landing and Approaches to Landing (V Speed +-5 Kts. TD<=200')
GPS Approach Procedures: (Vectors or PT <1/4 Scale Deflection) (Airspeed +-10 Kts. Altitude +-100' Heading +-10 degrees) (Initial and Final Approach Fix the same)	Postflight Procedures

BLOCK 3 Lesson # 10 Pre-Checkride Evaluation

NameDate	
A/C Instructor	
Preflight Discussion Equipment Knowledge	
Acft. Systems / Ops Integration Specify	
IFR Flight Plan, Clearances Type/ID/Model/Tas./Dprt./Etd./ALT/Route/Dest./Ete./ Remarks/FOB/Alternate/Name/Phone/Base/SOB/Color	
Passenger Briefing	
Powerplant Failure During Takeoff <50%Vmc	
Normal and Crosswind Takeoff (Heading +-5 degrees, Airspeed +-5 Kts.)	
Instrument Departure (Begin Takeoff Visually, Hood or View-Limiting Device at 50' AGL)	
Holding: (Airspeed +-10 Kts. Altitude +-100' Heading +-10 degrees)	
GPS Approach Procedures: (Vectors or PT <1/4 Scale Deflection Airspeed +-10 Kts. Altitude +-100' Heading +-10 degrees) (Initial and Final Approach Fix NOT the same)	
GPS Approach Procedures: (Re-acquire Approach after inadvertent sequencing Initial and Final Approach Fix NOT the Same)	

GPS Approach Procedures: (Vectors or PT <1/4 Scale Deflection) (Airspeed +-10 Kts. Altitude +-100' Heading +-10 degrees) (Initial and Final Approach Fix the same)
GPS Approach Procedures: (Re-acquire Approach after inadvertent sequencing Initial and Final Approach Fix the Same)
VOR/DME or LOC Approach Procedures: (Vectors or PT (GPS used in lieu of ADF/DME. FAF set with OBS Courses only.)
ILS Approach Procedures: (Vectors or PT) (GPS used in lieu of ADF/DME. FAF set with OBS Courses only.)
ILS Coupled Approach: (Vectors or PT) (GPS used in lieu of ADF/DME. FAF set with OBS Courses only.)
Powerplant Failure (Airspeed +-10 Kts. Altitude +-100' Heading +-10 degrees)
Missed Approach (Altitude +-100' Airspeed +-10 Kts. Heading +-5 degrees)
Landing from a Circling Approach (Heading +-5 degrees, Altitude +100'-0' Airspeed +-5 Kts.)
Normal and Abnormal Procedures
No-Flap Landing
Emergency Procedures
Rejected Landing (50' Above Runway)
Low Approach (Missed Approach) (Heading +-10 degrees, Altitude +-100' Airspeed +-10 Kts.)
Landing and Approaches to Landing (V Speed +-5 Kts. TD<=200')
Postflight Procedures