



Learn To Fly

Flight Lesson 10



For entertainment purposes only. Not to be used for real flight lessons.



 *On Voice*
STUDENT PILOTS



STUDENT **JAYNE**



Flight Lesson 10

Introductions

Instructor



Howard

ForderLearnToFly

Students



Microsoft Flight Simulator

Community Manager

Airplane



Cessna 152 N67991

Airfield



KPAE, Everett, WA

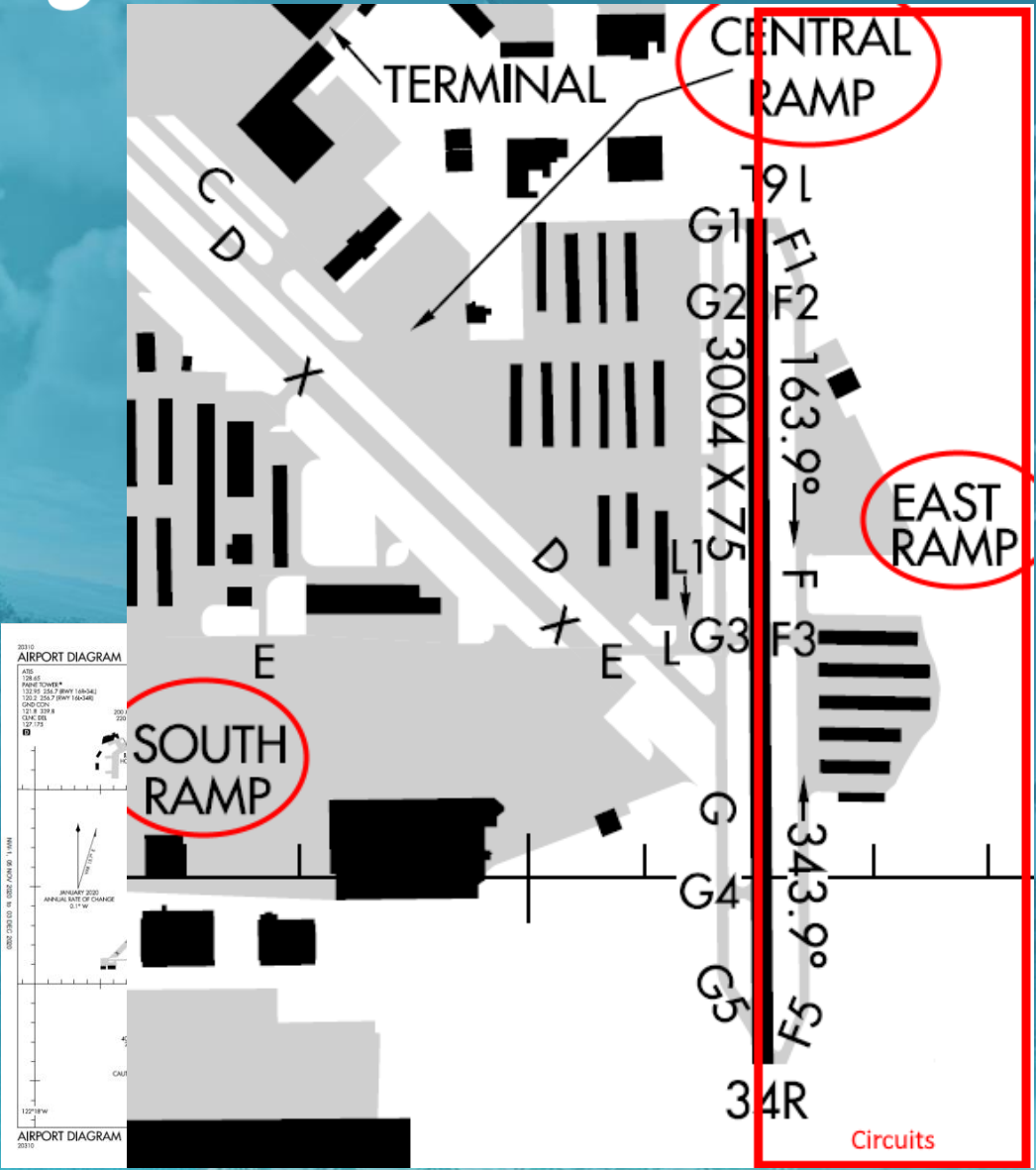


Flight Preparation

Ensure you grab your student training materials kit with the links in chat. Includes your checklist for the 152.

One link for a group of materials:
!studentkit

The URL of the important flight training material online: **!material**





10th Flight Lesson Briefing

Skills to learn in the tenth flying lesson:

- Flapless Landings
- The Forward Slip
- Touch-n-Go's vs Stop-n-Go's



Flight Lesson Preparation

Ensure your rudder is not linked to your ailerons.

This flying skill requires “cross-control” of rudder and ailerons.

> ASSISTANCE

< CUSTOM >

SEARCH 🔍 > 33 RESULT(S) FOUND

^ PILOTING	<	HARD	>
TAKE-OFF AUTO-RUDDER	<	OFF	>
ASSISTED YOKE	<	OFF	>
ASSISTED CHECKLIST	<	OFF	>
ASSISTED LANDING	<	OFF	>
ASSISTED TAKEOFF	<	OFF	>
DELEGATE ATC TO AI	<	OFF	>
✓ AIRCRAFT SYSTEMS	<	HARD	>
✓ FAILURE AND DAMAGE	<	EASY	>
✓ NAVIGATION AIDS	<	HARD	>
✓ NOTIFICATION	<	HARD	>
✓ USER EXPERIENCE	<	MEDIUM	>

What are Flaps?

Trailing edge moveable wing surfaces to change the shape of the wing.



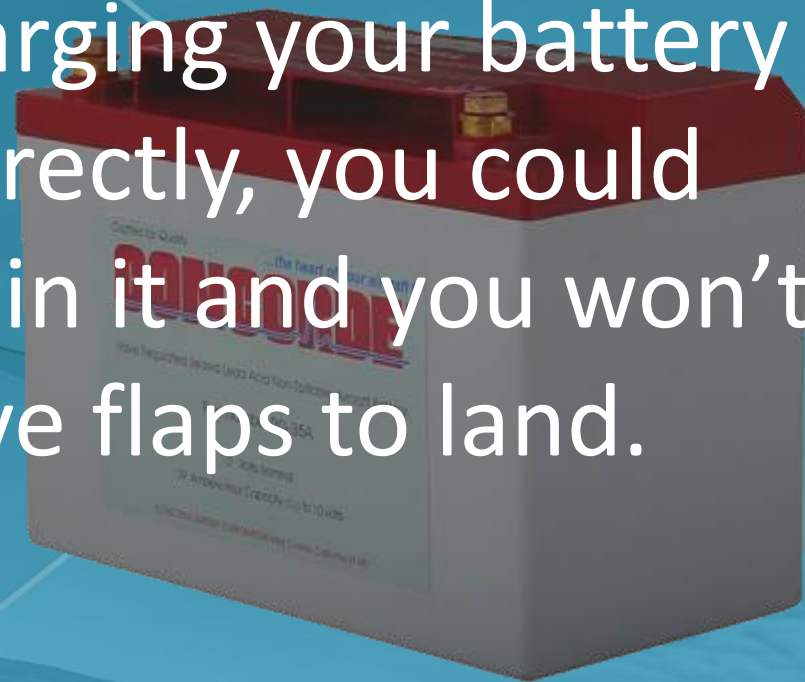
Primarily used for landings, to reduce the stall speed and allow slower approaches with better visibility.

Flapless Landings

In some planes like the Cessna 152/172 they are operated by a flap switch and electric motors.



If your alternator isn't charging your battery correctly, you could drain it and you won't have flaps to land.



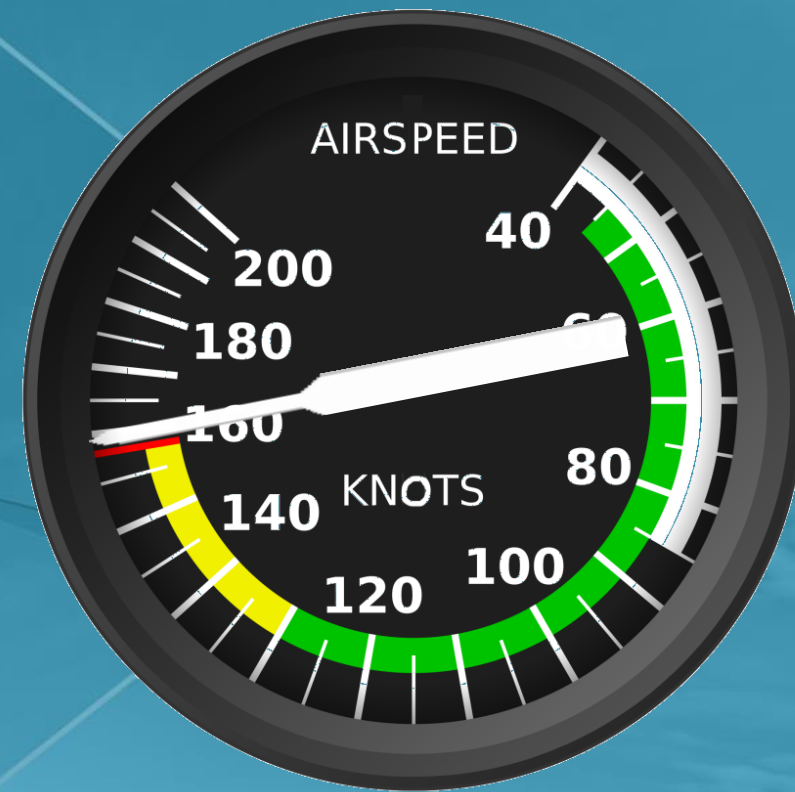
So we practice “flapless landings” to be prepared.



Flapless Landings

10

The reason a landing without flaps is dangerous and in need of practice is that we accelerate our airspeed as we point to the runway to land.



We could flare and bleed-off speed, but we might run out of runway.



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Flapless Landings

10

So we use a technique called
“Forward Slip”

We are “slipping” the
airplane forward to lose
altitude without an increase
in speed.

In the early days of
aviation, this was
common on the
approach to land as
small planes didn’t
have flaps.

This “sideways” movement increases drag and keeps us
from accelerating on approach.



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Flapless Landings

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Remember in a “side slip” we use a wing-low, aileron into wind and rudder control to align with the runway and compensate for wind forces against the Aeroplane.



We still have flaps for better visibility and a steeper, slower approach.

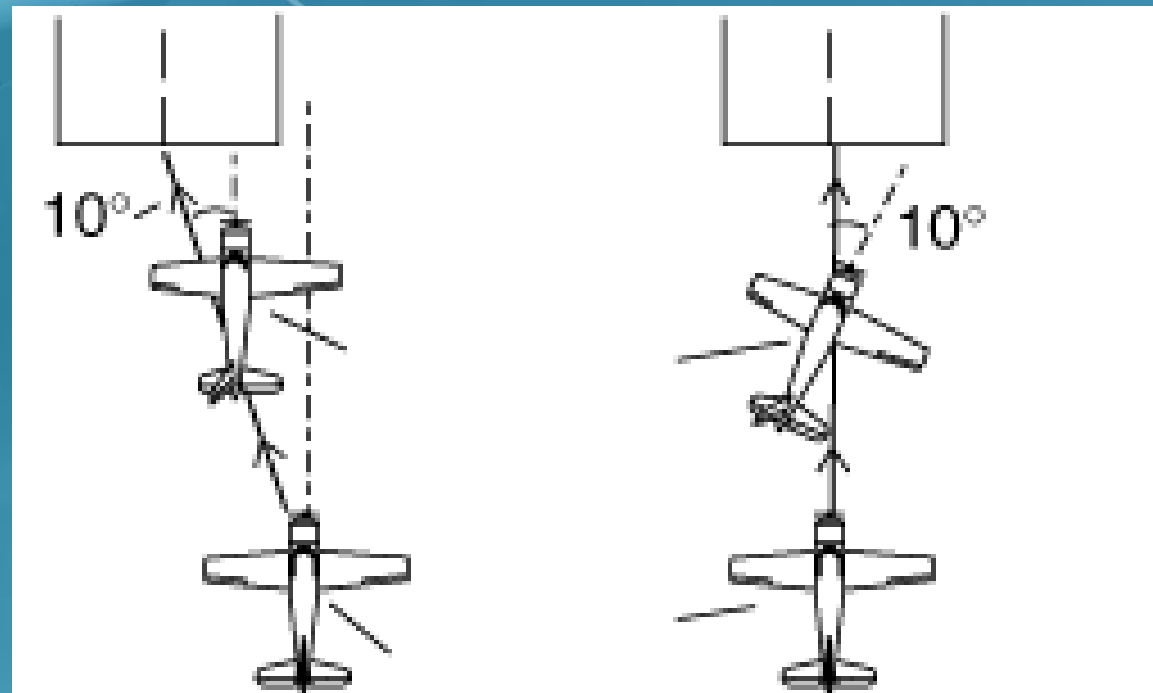


Flapless Landings

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This “cross-controls” is similar in a forward slip but should only be used without full flaps.

Many airplanes forbid or “Avoid” forward slips with flaps extended for safety reasons.



The side slip. The forward slip.



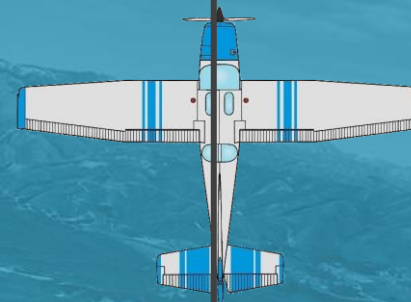
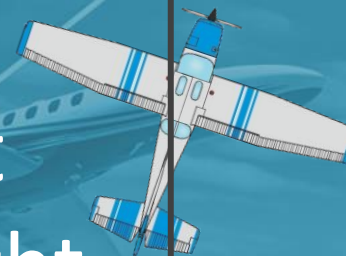
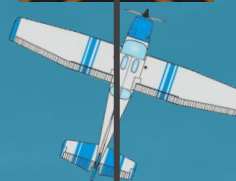
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Flapless Landings

Descend to the runway without an increase in airspeed.

Re-align your airplane with the runway on flare.

- Left Wing down
- Right rudder for nose to the right.
- Flight path straight
- Ground path straight

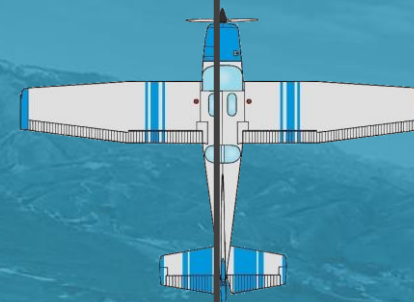
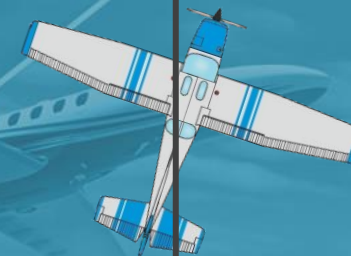
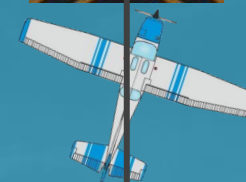




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Flapless Landings

1. Full right rudder
2. Turn the yoke to keep your flight path inline with the runway
3. Pitch for approach speed (55-60)



Flapless Landing Example

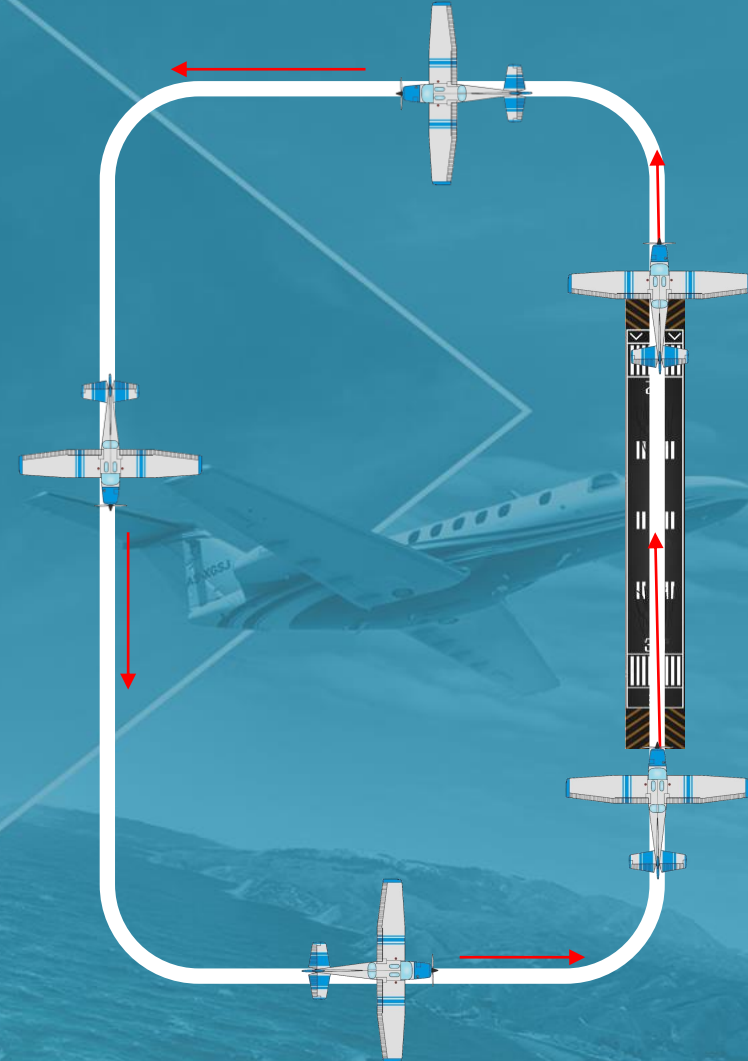




Touch-and-Go vs Stop-and-Go

Both methods are a practicing methodology to save you time or to focus on leaving the runway and taxi procedures.

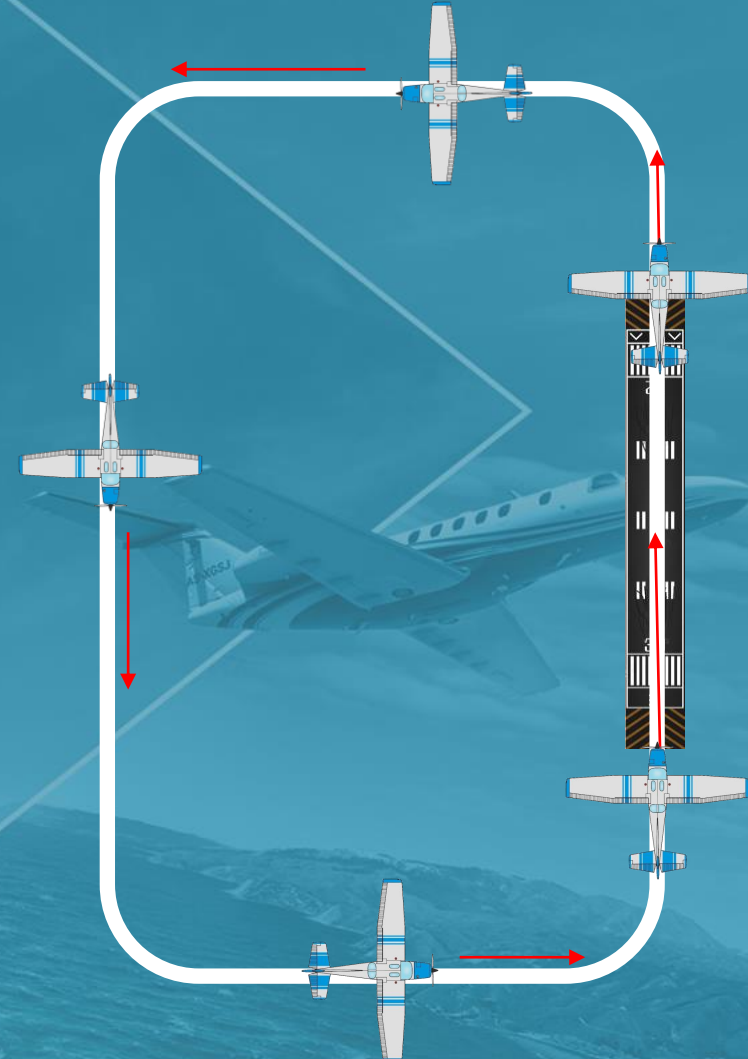
You should practice both methods.



Touch-and-Go

As the phrase suggests, touch-n-go's keep you rolling after landing to continue with another circuit without stopping.

You are touching the runway on the run and keep going with full power, flaps up, rotate.





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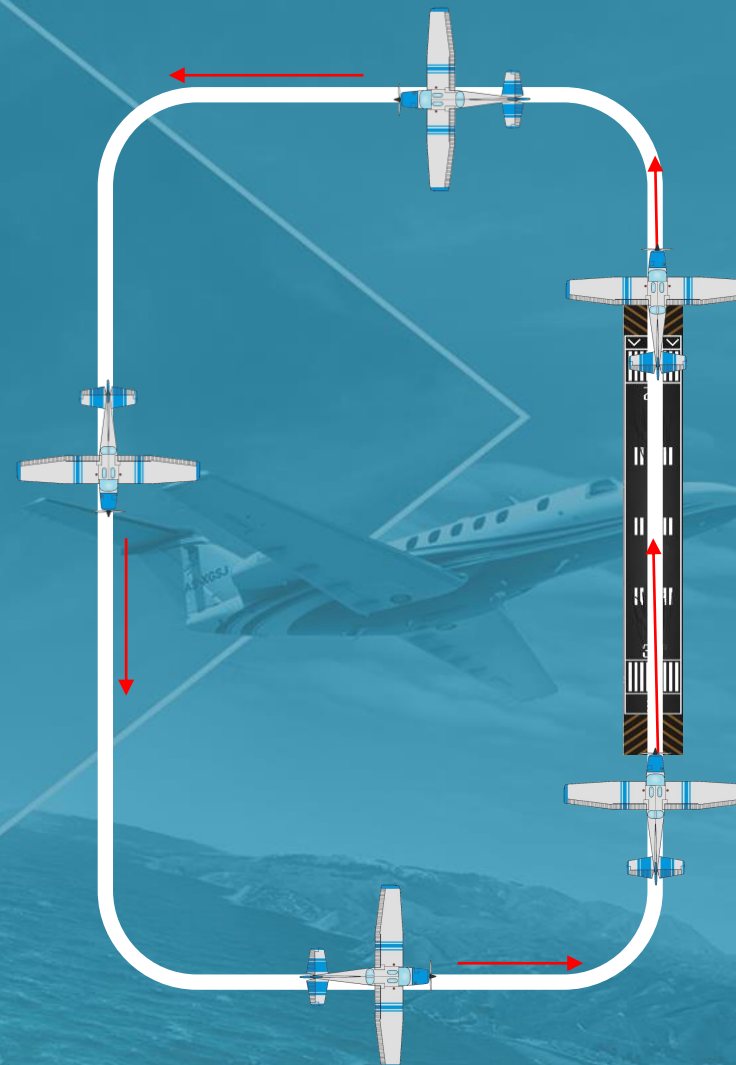
Continuous Circuits

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Touch-and-Go

1. Upon wheels down, don't apply brakes.
2. On the run, immediate full power and carb heat off.
3. Flaps retract, or all the way up before rotate speed.

Everything happens fast.





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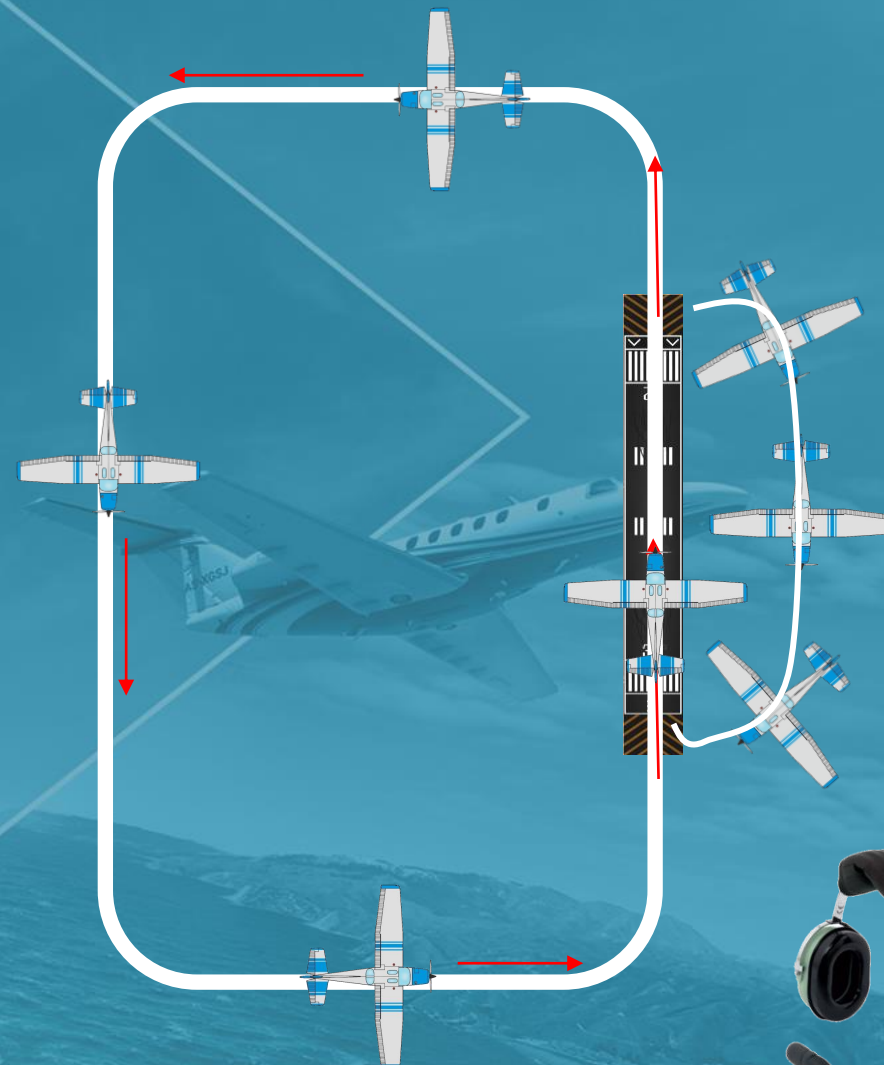
Continuous Circuits

10

Stop-and-Go

Stop-n-go's have you exit the runway after landing to practice leaving the runway, taxiing and takeoff again with appropriate radio calls.

More relaxed as you actually stop!



10th Flight Lesson Briefing

YOUR CONTROL

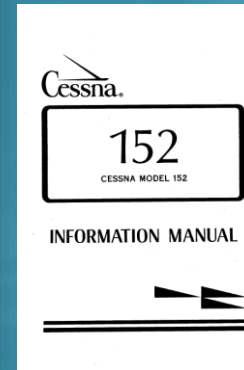
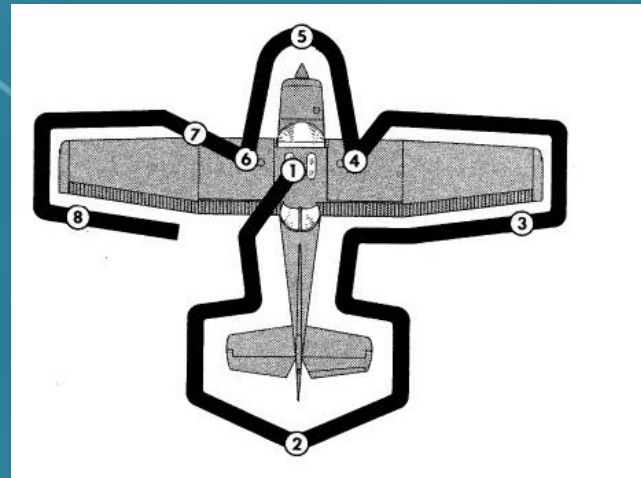
Let's go Flying!

A 3rd party free download
to pass control of the
airplane back and forth.

While Jayne and Howard head
out to the airplane please
direct your questions in chat to
her fellow students on live
mics.

They will convey your
questions upon their return.

Flight Lesson 10 The Walkaround



Jayne has done the runup too to save us some time in the stream.

See lessons 2,3 or 4 for full runup

A 152

TAXI (or Run up first)

Brakes Check
Instruments Check while turning

RUN UP (into wind)

Parking Brake — ON
Fuel Quantity — CHECK
Elevator TRIM check set for T/O
Throttle to 1700
- Mags CHECK - not to exceed 150 rpm on either or 50 between both
Carb Heat — ON (small rpm drop)
Engine Instruments & Ammeter CHECK
Suction Gage CHECK green
Idle RPM, then 1000
Radios and Avionics SET
Controls Free

Flight Lesson 10

- Flap-less Landings
- Touch-and-Go's
- Stop-and-Go's

Review Lesson

POST FLIGHT

- (1) Review Lesson, re-brief as necessary.
- (2) Assign reading for next lesson

Chapter 8: Approach & Landing

!Manual (FAA online docs)

Summary Questions

1. Why do we need to practice flapless landings?

These are directed questions at the 6 student pilots in this session.



Chat questions will be addressed after this.



Summary Questions

2. Why should we practice continuous circuits?



Summary Questions

3. Why do we land straight ahead after takeoff with an engine failure?





Summary Questions

4. What is the advantage of stop-and-go over a continuous touch-and-go?



Summary Questions

5. What is the biggest challenge with touch-and-go's?



Summary Questions

6. What is the difference between a side-slip and a forward slip?





Summary Questions

7. What is the main advantage of using a forward slip?

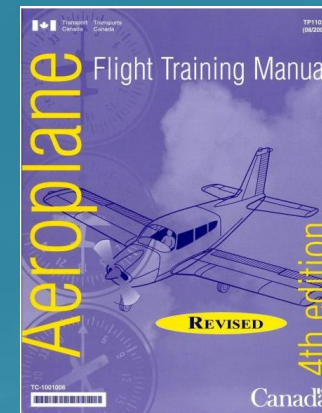




Flight Lesson 10

Homework

If you have access to the Canadian Flight Training Manual, you can easily find these topics. Alternatively get the link to the FAA online reference material that anyone can access.



Federal Aviation Administration

FAA Home Jobs News About FAA A-Z Index FAA for You ...

Aircraft Airports Air Traffic Data & Research Licenses & Certificates Regulations & Policies Training & Testing

FAA Home • Regulations & Policies • Handbooks & Manuals • Aviation

Advisory Circulars (ACs)
Airworthiness Directives (ADs)
FAA Regulations
Forms
Handbooks & Manuals
Aircraft
Aviation
Examiners & Inspectors
Notices to Airmen (NOTAMS)
Orders & Notices
Pilot Records Database
Policy & Guidance
Rulemaking
Temporary Flight Restrictions (TFRs)

Airplane Flying Handbook

- Airplane Flying Handbook, FAA-H-8083-3B (full version — low resolution) (PDF, 89.9 MB)
 - Front Matter (PDF)
 - Table of Contents (PDF)
 - Chapter 1: Introduction to Flight Training (PDF)
 - Chapter 2: Ground Operations (PDF)
 - Chapter 3: Basic Flight Maneuvers (PDF)
 - Chapter 4: Maintaining Aircraft Control: Upset Prevention and Recovery Training (PDF)
 - Chapter 5: Takeoffs and Departure Climbs (PDF)
 - Chapter 6: Ground Reference Maneuvers (PDF)
 - Chapter 7: Airport Traffic Patterns (PDF)
 - Chapter 8: Approaches and Landings (PDF)
 - Chapter 9: Performance Maneuvers (PDF)
 - Chapter 10: Night Operations (PDF)
 - Chapter 11: Transition to Complex Airplanes (PDF)
 - Chapter 12: Transition to Turbopropeller-Powered Airplanes (PDF)
 - Chapter 13: Transition to Turbojet-Powered Airplanes (PDF)
 - Chapter 14: Transition to Light Sport Airplanes (LSA) (PDF)
 - Chapter 15: Transition to Jet-Powered Airplanes (PDF)
 - Chapter 16: Transition to Light Sport Airplanes (LSA) (PDF)

Top Tasks

- Read the Aeronautical Information Manual
- Download the Airplane Flying Handbook
- Download the Pilot's Handbook of Aeronautical Knowledge (PDF)
- Download the Instrument Procedures Handbook
- Search FSIMS

!Manual

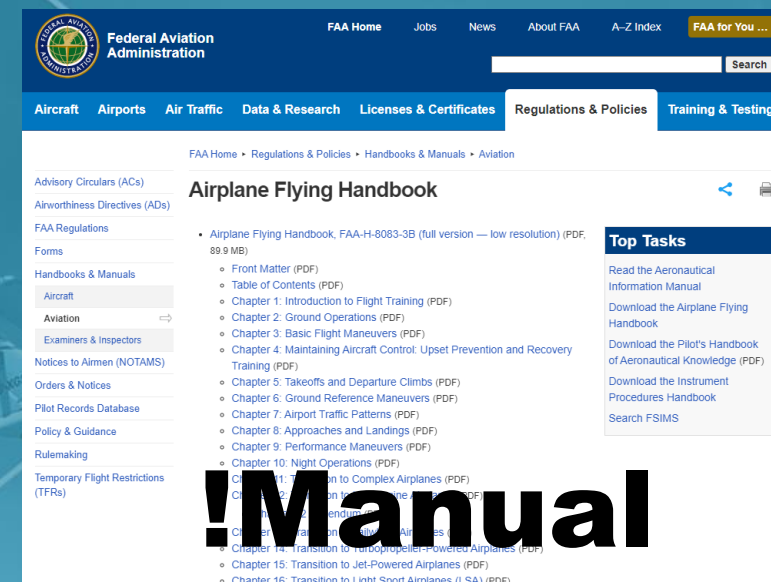
Flight Lesson 10

Homework

For Lesson 11



1. Turn-off Rudder assistance in “Assistance”
2. Practice both touch-n-goes and stop-n-goes regularly as a way to hone your skills in all phases of flight.
3. Practice flapless landings at various speeds.



Flight Lesson 10

Homework

For Lesson 11

4. Do your appropriate radio calls in the circuit and during stop-n-goes.
5. Next lesson; short-field and soft-field landings and takeoff

Chapter 8: Approach & Landing

!Manual (FAA online docs)

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