

# ***CFI Bootcamp***

*Flight Instructor Training*

Essential Skills

# The Importance of Estimating Developing TLAR Skills

# The Importance of Estimating

Why it's Necessary

To Avoid Following Blindly

# The Importance of Estimating

Why it's Necessary

To Get Things Going Quickly

# The Importance of Estimating

Why it's Necessary

To Validate ForeFlights Calculations

# The Importance of Estimating

Why it's Necessary

To provide substance to your decisions

# The Importance of Estimating

Why it's Necessary

TLAR - that looks about right

# The Importance of Estimating

## What's Needed

An approximate magnitude and direction



# The Importance of Estimating

Estimating time and distance

60 Kts=1nm/hr

120 kts is 2nm/hr

A guess in between is fine

# The Importance of Estimating

## Estimating Fuel

Fuel burn is typically in GPH - We need gpm

$GPM = GPH / 60$

About 0.2 GPM with 10 GPH

0.1 GPM at 5 GPH

# The Importance of Estimating

## Estimating Heading

Approximate heading by a nearby VOR

Verify with a two finger tap and pinch/zoom on FF

This develops your eyeball estimation of heading

# The Importance of Estimating

## Estimating Wind Drift

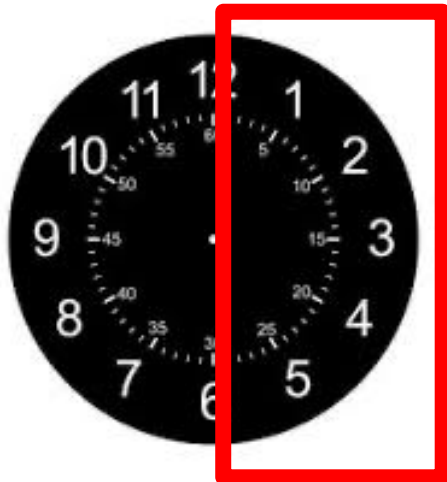
Determining wind drift correction before flight

Max drift =  $(60 * wv) / TAS$  - Assumes all crosswind

## The Importance of Estimating

Be careful what you wish for

More precision? Use the watchface to determine how much wind is actually crosswind



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Your Heading is 360  
Wind is 030/30 - How much Xwind?  
30° is 30 min on the watch so 1/2

## The Importance of Estimating

Be careful what you wish for

Want the headwind. Same technique but subtract from 90 first.



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$$90 - 30 = 60$$

60min is the entire face

Over 80% is headwind

## The Importance of Estimating

Be careful what you wish for

3° glide path = 300 ft altitude per nm

4° = 400 ft per nm

## The Importance of Estimating

Rate of Climb Needed for the Climb Gradient

Need rate of climb needed to satisfy the climb gradient in ft/nm?

$(GS/60) * \text{climb gradient in ft/nm}$



# The Importance of Estimating

## Top of Descent Point

Need a TOD point?

To get the distance needed do this

$(\text{Alt to lose} / 500) * \text{Speed in nm per minute}$ . 90=1.5. 120=2

# The Importance of Estimating

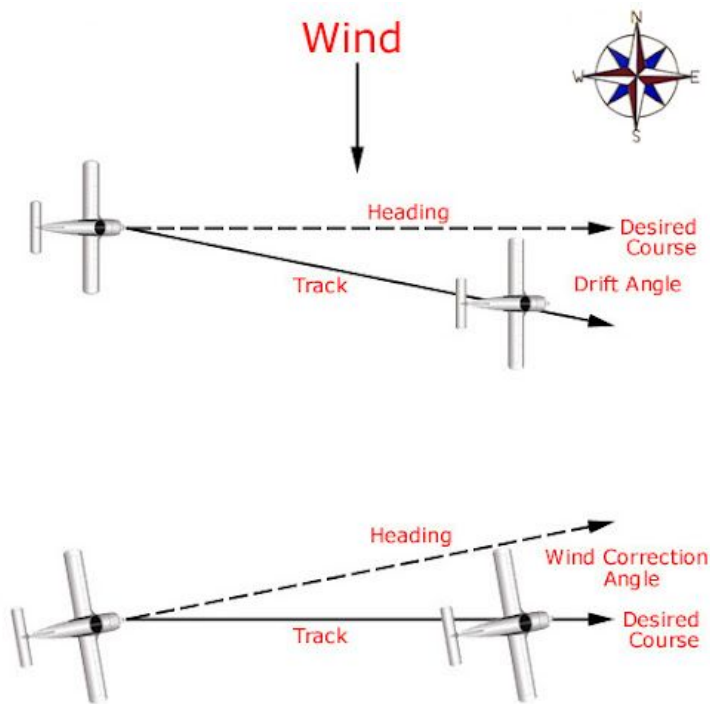
Lets Try Some Exercises Using ForeFlight



# The Importance of Estimating

Determining the New Heading Based Upon Actual Winds

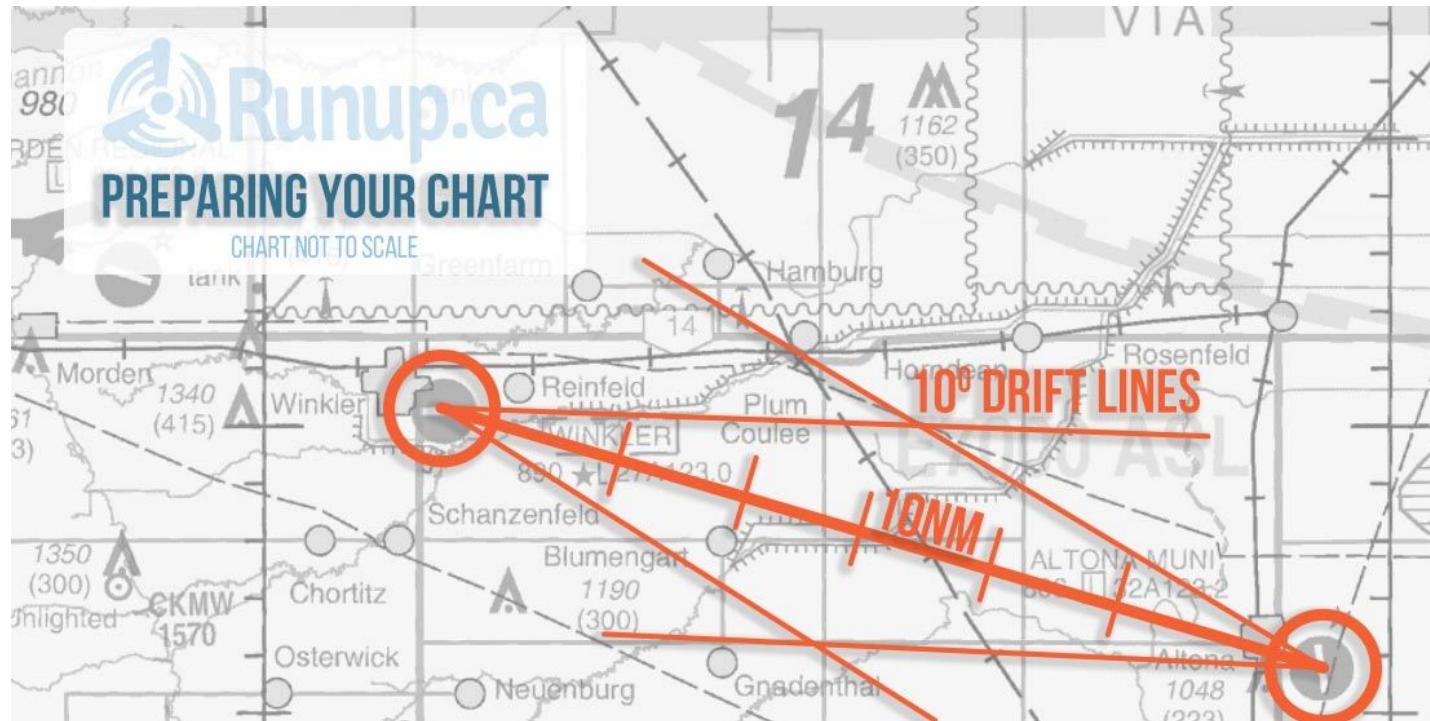
Track Error + Closing Angle Method



# The Importance of Estimating

Determining the New Heading Based Upon Actual Winds

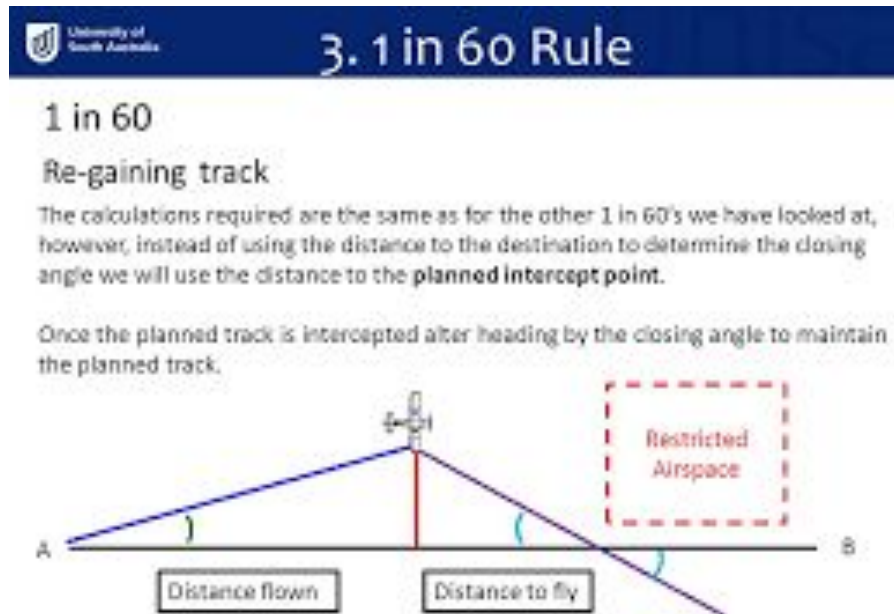
Track Error + Closing Angle Method



# The Importance of Estimating

## Determining the New Heading Based Upon Actual Winds

### 1:60 Rule



# The Importance of Estimating

## Determining the New Heading Based Upon Actual Winds

### 1:60 Rule

$$\frac{60}{\text{distance}} = x$$

$$\frac{\text{degrees off}}{x} = \text{error in nM}$$

From Us to You!

## PreFlight Briefings

**Teach Brief - Fly**  
"A complete system to teach flying using either a Part 141 or 61 Syllabus."  
Second Edition

**CFI Bootcamp**  
Flight Instructor Training

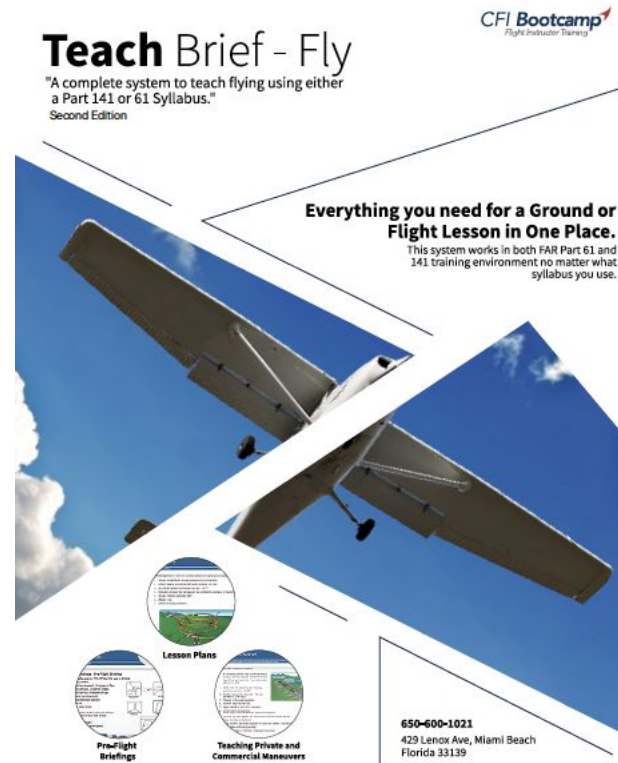
**Everything you need for a Ground or Flight Lesson in One Place.**  
This system works in both FAR Part 61 and 141 training environment no matter what syllabus you use.

**Lesson Plans**

**Pre-Flight Briefings**

**Teaching Private and Commercial Maneuvers**

650-600-1021  
429 Lenox Ave, Miami Beach  
Florida 33139

The image shows the front cover of the 'Teach Brief - Fly' book. The cover features a large, stylized graphic of a white Cessna 172 aircraft in flight, viewed from a low angle looking up at the wings and tail against a blue sky with white clouds. The title 'Teach Brief - Fly' is prominently displayed at the top left. Below it is a quote and the text 'Second Edition'. The CFI Bootcamp logo is in the top right. A central text block describes the book as a complete system for ground or flight lessons. At the bottom, there are three circular icons representing 'Lesson Plans', 'Pre-Flight Briefings', and 'Teaching Private and Commercial Maneuvers'. The contact information for CFI Bootcamp is at the bottom right.

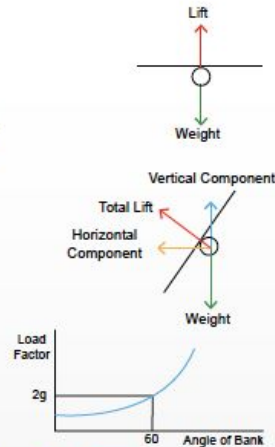
[Teach Brief-Fly!](#)

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# From Us to You!

## Steep Turns

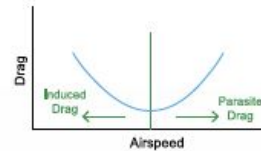
1. Clear the airspace and identify emergency landing areas.
2. Adjust the throttle to 2100 RPM - 90 KIAS.
3. Altitude no lower than 1500 feet AGL.
4. Identify a reference point in front of the aircraft and note the heading.
5. Roll into a 45 - 50 degree bank turn - Stop adverse yaw with rudder.
6. Maintain bank, altitude, and airspeed.
7. Elevator maintains altitude, throttle maintains airspeed, aileron - angle of bank.
8. Remain coordinated.
9. Begin the roll out 25 degrees before the 360 degree point - Stop adverse yaw.
10. Level the wings on the entry heading.
11. Reduce elevator to maintain altitude and decrease throttle for air-speed.
12. Roll into a 45 - 50 - degree bank turn in the opposite direction.
13. Repeat maneuver in the opposite direction.



[Teach Brief-Fly!](#)

## Slow Flight

1. Clear the area.
2. Reduce the throttle to 1500 RPM.
3. Maintain altitude with elevator back-pressure as the airspeed slows.
4. Lower the flaps to full in stages. 10 degrees below 110, the rest below Vfe.
5. Anticipate elevator pressure changes.
6. Slow to 50 KIAS, and apply throttle as necessary to maintain altitude.
7. Use elevator to maintain airspeed.
8. Apply rudder to keep the to maintain heading. Keep the wings level with ailerons.
9. Perform a level 90 degree turn to the left. Additional throttle will be required to maintain altitude.
10. Perform a level 90 degree turn to the right.
11. Return to straight and level flight at cruise speed by applying full power first.
12. As the airspeed increases, retract the flaps in stages while maintaining altitude.
13. When the airspeed is 90 KIAS reduce throttle to 2100 RPM and trim.



Lift Equation  
$$\text{Lift} = \frac{\rho V^2 S C_L}{2}$$

Variables we can control

$$\text{Lift} = V^2 \times \text{AOA}$$

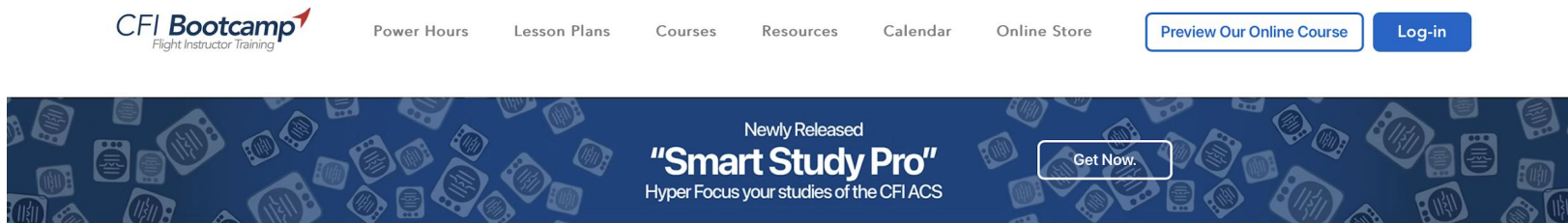
### Left Turning Tendencies

1. Torque
2. P-Factor
3. Slipstream
4. Gyroscopic Precession (depends)



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## Our Newest Product



Every Knowledge and Risk Management Element for the oral portion explained – Built for audio – Driving etc. Also includes video and PDF companion guides

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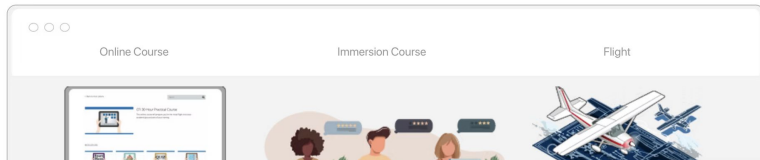
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Flight Instructor Training

From us to you...

## Program

42-hour self-paced online course

42-hour in-person/remote ground school – 7 Days

One week of flight/ground – Dedicated airplanes/CFIs

From us to you...

Program

Checkride - Prescheduled

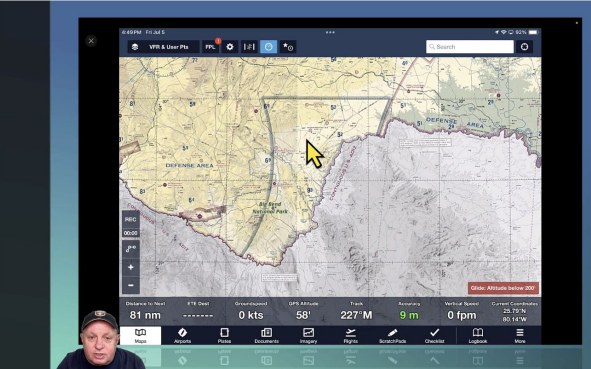
On Campus for 2 to 2.5 weeks

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Free Preview of Our Online Course

[Click here to get a Preview of the Online Course](#)



**Chapter 6 : National Airspace System** 1 Lesson

Lecture 1 : National Airspace System

Next Module

[Mark As Complete](#)

### Lecture 1 : National Airspace System

**Chapter 6 : National Airspace System**

This updated lecture provides an in-depth exploration of the various types of airspace within the National Airspace System. We'll cover controlled and uncontrolled airspace, special use airspace, and airspace classes, focusing on the rules and regulations that pilots must follow to ensure safe operations in each type.

**Downloads**

- [National Airspace System](#)
- [Chapter 12: Workbook Questions](#)

In Conclusion...

## Past Power Hour Information

[Click here to get outlines of previous power hours](#)

### Power Hour Lesson Outlines

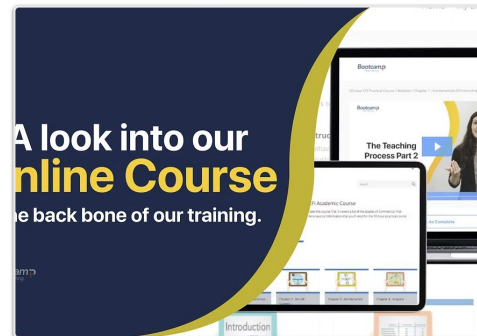
Created Around Hour Long Weekly Live Topic Specific Instructional Training.

Powered by Bootcamp +



How to Make Being a Flight Instructor  
a Career

March 8, 2025 at 12:00:00 PM



A look into the products CFI  
Bootcamp has to offer


February 22, 2025 at 12:00:00 PM

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Premium Training Content

### Resources | Content

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Flight Training the Way   See it - Podcast	<input checked="" type="checkbox"/>
Weekly Short Subject Videos	<input checked="" type="checkbox"/>
Private Pilot Ground Schools   Video Course	<input checked="" type="checkbox"/>
Bootcamp +   Networking Community	<input checked="" type="checkbox"/>
Entire Power Hour Lesson Catalog	<input checked="" type="checkbox"/>
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
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**Student Pilot Regulations and Endorsements**  
Learn "How to Solo a Student and send them to other airports". Topics Regulations FAR 61 ...

**Class E & G Airspace**  
Class E IFR and VFR flights are permitted. IFR flights are provided with air traffic co...

**5 Things that Will Instantly Improve your Flying**  
5 things that will instantly improve your flying that you were NEVER taught in flight school - ...

**Endorsements You Must Know**  
Core regulations you need to know 61.1 Definitions 61.23. Medical certificates 61.31 Aircraft au...

**Airmanship Etiquette**  
- There are things that aren't in any book, the unwritten rules - You'd need to be told these ru...

**Aerodynamics Part Two**  
This lesson covers how an aircraft achieves stability around the three axes and the advantages an...

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