

Cross Country Requirements

Private Pilot

- A couple of short cross-country flights, one day and one at night. The trip would be about 50nm (25nm for Rotorcraft) from your airport. You'll plan and fly these just like any cross-country to get familiar with cross-country planning.
- A solo cross country, day, to the same airport.
- A training cross-country to 2 different airports, at least one of them a controlled airport.
- A solo, "long" cross-country to meet the requirements.
- If you want additional solo cross-country time, your CFI will make a way for you to get it.

Commercial Pilot

- Two cross country flights with your CFI:
 1. One cross-country flight of at least 2 hours in a single-engine airplane in day VFR conditions, consisting of a total straight-line distance of more than 100NM (50nm for Rotorcraft) from the original point of departure
 2. One cross-country flight of at least 2 hours in a single-engine airplane in night VFR conditions, consisting of a total straight-line distance of more than 100NM (50nm for Rotorcraft) from the original point of departure
- Your "long" solo cross country to meet the requirements of FAR §61.129a: One cross-country flight of not less than 300NM total distance (no minimum for Rotorcraft), with landings at a minimum of three points, one of which is a straight-line distance of at least 250nm (50nm for Rotorcraft) from the original departure point.

This plan is designed to efficiently train you to safely perform cross-country flight. If you need additional cross-country training, your CFI can add it to the schedule. Ask your CFI if you want more exposure to tower controlled airports,

Which airports you go to is up to you. Obviously your CFI will have some recommendations and you may find that there are some airports your CFI might veto (for example you won't be getting a sign-off for repeated trips unless there's a good reason for it). Make sure you've discussed your airport choices with your CFI before you go to the trouble of planning a flight that your CFI might veto.

Does Everybody Do This?

Yes, and this is why:

- It's considered the best practice for VFR cross country flight planning.
- You'll be expected to perform cross-country flight planning on your check ride.
- You'll use the same method when you make long cross-country flights to determine the maximum capabilities of your aircraft. How far, how long, how much, how high, and what airport.

Responsibility & Authority of the PIC (§91.3)

The PIC is directly responsible for and the final authority in determining the airworthiness and operation of the aircraft. The PIC may deviate from any FAR to meet the requirements of an emergency. If the PIC deviates from and FAR, he or she shall, if requested, send a written report of the deviation to the Administrator.

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Visi-Plotter™

How to Use a VFR Plotter

Darren Smith, ATP, CFII

How to Use a VFR Plotter

By Darren Smith, ATP, CFII/MEI

In this example, we are using *Visi-Plotter*TM to plan our cross country from Watertown Regional Airport (ATY) to Wheaton (ETH). The scenario is the pilot was requested to plan a VFR cross country of at least 50NM for his Private Pilot Checkride.

Step 1—Ensure the distance to your destination meets the requirements. In this case, it appears to be 57.5NM. Perfect.



Step 2—Draw the course line.



Step 3—Add some meaningful visual checkpoints. Things that you'll be able to see from the air are perfect. I've numbered them in this diagram but it's not necessary for you to do this step. Your flight instructor may well instruct you to make your visual checkpoints no more than 10NM apart.



As you can see, Checkpoint #1 is when the mountain is abeam the aircraft on the left side at the 12NM point. Checkpoint #2 is when the course crosses some power lines at the 23NM point. Checkpoint #3 is when the course crosses some railroad tracks at the 31NM point.

Checkpoint #4 is when the course crosses a river at the 39NM point. Checkpoint #5 is when the course crosses a very small river at the 51NM point. The destination, Wheaton, is at 57.5NM from the start of the cross country.

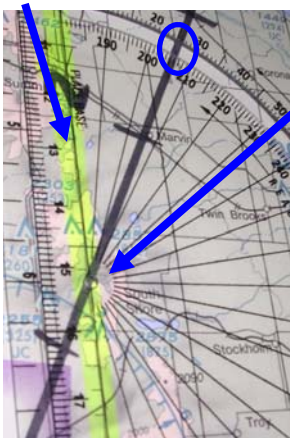


Checkpoint #5 is when the course crosses a very small river at the 51NM point. The destination, Wheaton, is at 57.5NM from the start of the cross country.

Step 4—Determine the True Course. This requires aligning the plotter with a line of longitude or meridian. I've highlighted this line on the chart so you can easily see it. You are not required to do this.

A. Align the plotter base line with the meridian. B. Next, align your course line directly under the hole in the plotter.

C. Finally, read the true course along the protractor. In this case, you can see that the true course is 25°. I've circled it in blue so you can easily identify it.



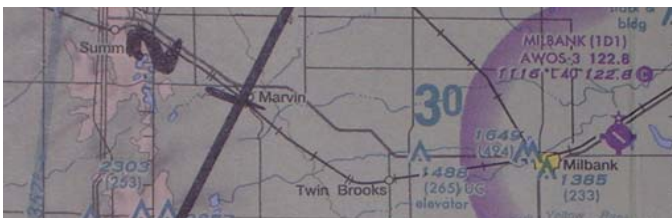
NOTE: Since you are going in an Easterly direction, you'll always read from the top scale. When you return back to Watertown

Regional (the home base of the aircraft), you'll be heading in a Westerly direction. In that case, you'd use the bottom set of numbers.



Step 5—Prepare your flight planning paperwork & fly your cross country.

Step 6—Examiner throws a curve ball at you! Over Checkpoint #2, your examiner says divert to Milbank airport.



The smart pilot you are, you notice the power lines go right to Milbank! Unfortunately, if you follow the power lines, you've failed the checkride. Thank goodness you read this!

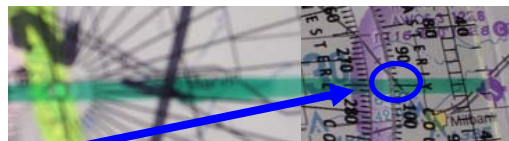


The 97° meridian

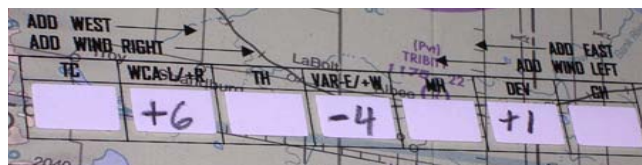
Step 7—Draw the course line to the emergency divert airport. Make a note of the mileage as well. Ok



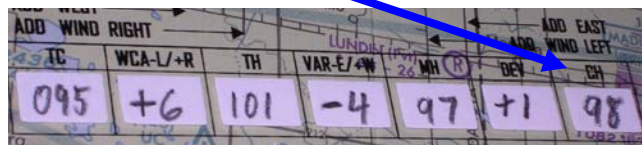
15NM to get to Milbank Airport. You'll need to find the Compass heading to get there so extend the green line back to the meridian. Line up your plotter and make note of the true course. In this case, the true course is 095° to get to Milbank Airport. The problem is that True Course is not a Compass Heading.



Step 8—Use the scratchpad to figure out the Compass Heading. You already figured out the Wind Correction Angle (WCA), Variation, and Deviation in your preflight cross country planning. You already wrote those figures on your plotter just in case this happened!



Use your pencil to quickly figure out your Compass Heading by putting in 095° and doing the math. Your Compass Heading is 098°.



Step 9—Fly the Correct Compass Heading.

Step 10—Figure out time & fuel to your divert Airport. Your examiner will want to know that you can quickly determine how much fuel & time it's going to take to travel 15NM to your divert airport.

Step 11—Pass your checkride!