

Some tips to make your cross country flying go more smoothly.

- 1) **First fly the airplane** (This is your number 1 priority). This means that you should make sure you're properly configured for each segment of the flight, flowchecks have been backed up by the checklists, and the airplane is trimmed for hands-off flight. In order to fly the airplane accurately and precisely you need to **scan both outside and inside the airplane**. You must actively **divide your attention** between scanning outside for other airplanes, maintaining wings level and nose level in relation to the horizon ( no movement between the nose and horizon after properly trimming the airplane), and scanning the flight and engine instruments to confirm that you're in fact on the desired altitude and heading and all the instrument indications are normal. Once the airplane is under control, you may then ADD the task of navigation to your scan. If at any time the airplane gets out of your desired parameters, your attentions should be focused completely on regaining control and flying the airplane.
- 2) **Navigate**. This means accurately track your course, maintain situational awareness (knowing where you are) by looking outside for landmarks that fall along your route, and update your navigation log as you pass your predetermined checkpoints. Up to this point you have not had a lot of practice filling out the nav log and flying the airplane at the same time, so its normal to get distracted by your navigation duties and feel the workload has increased (because it has). **You CANNOT allow these tasks to make you stop flying the airplane.**

One thing that may help is to make your navigation duties part of your normal flying scan. That is, you should not stop scanning outside or stop checking your heading and altitude while writing in your nav log. **If you spend more than 3 seconds with your head down on your kneeboard you've stopped flying the airplane.** What I recommend is quickly jot your time down and then bringing your eyes right back up and look out the window. I know these Nav logs are hard to write in and sometimes it takes time to find the right box, but it will get easier with practice.

Also, don't get distracted by a pen that falls on the floor, have some more handy in case this happens again, or better yet, tie a string to your pen and kneeboard so you'll never loose it.

Another thing you want to watch out for is unconsciously pulling down on the yoke while you're trying to write in the nav log. I find that some people do this and it causes them to slowly change heading. Sometimes our hands go where our eyes look, so be careful. **Make sure you're not adding any pressure on the control wheel while you're looking down. Fly with a light touch.**

When we get to a checkpoint we are going to go through a sequence of steps the same every time:

We will:

- 1) **Bug** the new heading
- 2) **Turn** to the new heading
- 3) Note the **Time** on the nav log (you're still flying the airplane right?)
- 4) **Twist** the new course (if using VOR or GPS)
- 5) **Track** the new heading and course
- 6) **Think** what your next checkpoint is and what's ahead 10miles or so.  
Anticipate what you'll need to do next.

I remember these steps as the "5 Ts": Turn, Time, Twist, Track, and Think.

A note about the Time step: What I do before I start my turn or as I arrive over my checkpoint, is I look at the clock and note the time but don't write it down yet. Once I

finish the turn and the airplane is wings level on my new heading, I write it down on the nav log. This way I don't overshoot my heading or accidentally change altitude as I'm trying to write on the nav log.

As you plan your flight, plan your Top of Descent and mark it in your chart. This is the point where you will start descending for the airport, assuming no obstacles are present.

As you descend for the airport, think about the runway layout, wind direction and velocity. Then pick the runway you're going to use and review the direction of traffic for that runway, how you'll enter the traffic pattern if not in a towered control airport, and the traffic pattern altitude. Once the airport is in sight and assuming you're not using the autopilot, I recommend bugging the runway heading to get a good fix on your position relative to the runway, or you can superimpose the runway heading using your pencil on the heading indicator to give you an idea of your angle in relation to the runway. Always remember that wind direction and speed should match the selected runway within a few degrees, so don't get confused or turned around as you look at the heading indicator.

- 3) **Communicate:** This step involves talking with flight service or ATC while flying the airplane and accurately navigating to your destination. Again don't let yourself get distracted by this task and incorporate it in with the other tasks above.
- 4) **Flows and Checklists:** You want to practice and develop a standard way of flying, so that you're flying the same way, every time, no matter where you are flying to or for how long. A good way to make your flying more structured is by implementing flows and checklists at the appropriate times. This way you'll be less likely to forget to do something, and after a while it will become engrained in the way you fly. This process of course starts before we start the engine. You must know that checklists are used in two different ways. Sometimes we use checklists as "To-do" lists, such as the start, taxi, runup, and pre-takeoff, (where we have time to read and do!), and other times, we use checklists to "backup" the flows of controls and switches while we're busy flying the airplane. It would be a big distraction while on departure or arrival to read and do some of these checklists. So you develop your flows, you practice doing the checks required by moving through the panel in a logical and efficient manner without wasting movements or checking irrelevant items. After you've done the flow and the airplane is under control (you're doing step one above I hope), you can pick up the checklist, and make sure you didn't miss any item.

Here's how I remember to do my checklists in flight:

**Passing through 1000ft AGL:** Climb flowcheck and checklist: Check you're trimmed for the proper climb speed, power is set, mixture is set, and open your flight plan (this may need to wait until you've gotten frequency change). Then pick up the checklist and make sure you didn't leave anything out.

**Leveling off at cruise altitude:** Cruise flowcheck and checklist. Lower the nose, let the airplane accelerate, reduce power to your predetermined cruise power setting, trim the airplane, Lean the mixture, check your HI to Compass. Then pick up the checklist and make sure you didn't leave anything out.

**Every 15 minutes while in cruise:** Check HI to Compass, monitor engine instruments, monitor fuel level.

**15 minutes from Destination:** Get ATIS, set Altimeter, Review runway information and Taxiways, set radios, prepare cockpit for descent and approach (put away any unnecessary paperwork, brief passenger, etc).

**Top of Decent as planned and marked on the chart (about 15-20nm out): Begin decent.** Reduce the power as desired and lower the nose to maintain airspeed. Trim the airplane. Then go through your decent flow: This should start by checking the fuel selector is set to both, mixture is richened, and lights are set, altimeter is set. Then pick up the checklist and make sure you didn't leave anything out.

**Runway in sight: Prelanding flow and checklist.** Start by checking the seatbelts are fastened, fuel selector is confirmed to both, confirm mixture is set for airport elevation (rich for sea level or below 3000 ft), and landing light is on. Then pick up the checklist and make sure you didn't leave anything out.

**After landing: Clear the runway and stop, clean up the airplane:** Flaps up, lean the mixture for taxi, xponder to standby, landing light off, and trim is set for takeoff. Then pick up the checklist and make sure you didn't leave anything out.

Hope this helps, let me know if you have any questions.