## **Diversion Procedures**

One of the activities that should be taught and practiced on the way to earning your private pilot's license is a diversion.

The steps outlined below in the example are how I was taught to accomplish this activity.

First, look at the below figure. We are on a flight plan leg from the Fredericksburg airport to Llano. About halfway thru this leg, your devious flight instructor says, 'Divert to Burnett and land'! What to do, you reach for the GPS and before your hand gets there the instructor puts his hand out and says, 'nope, use pilotage'. At this point the instructor is starting to transition from simply devious to downright evil. But wait, if you have read these procedures, you will be ready for him.



Step 1. Write down your time and mark your current approximate position on the sectional. You are very close to the McDavid private airport (see below figure).

Step 2. Using your sectional, turn the airplane to a heading approximately in the direction of the desired airport. (~ 075 degrees)



Step 3. Draw a line from last known location to desired location. (see below)



Step 4. Using plotter or a nearby VOR determine the magnetic course. (Note: if a VOR is close (as it is in this example), it is easy to extend a parallel from the line drawn in step 3 to make an adequate measure of the magnetic course using the compass rose around the VOR). In this case the magnetic course (MC) is ~ 062 degrees.

Step 5. Update your approximate heading from step 2 to that of the MC determined in step 4. (Note: The total time from step 1 to step 5 should be no more than a minute or two.)

Step 6. Determine checkpoints along the flight path as well as prominent landmarks. In this case I've used the private airfields and their location near the rivers as well as identifying Buchanan dam (circled).

Step 7. Measure the distance from last location to desired location (~29 nm) and use your E6B to determine an arrival time (assume KTAS = 105; hence, ETE ~ 17 min; therefore ETA = 1134 + 17 = 1151Z) as well as time to checkpoints along the new leg.

If you have significant winds, apply a wind correction angle to refine your MC, Ground Speed, ETA, and time to checkpoints as necessary.

Step 8. Fly the new leg just as any cross country leg watching for the checkpoints and prominent landmarks. Make adjustments to your heading for any drift.

Step 9. Five minutes before your ETA, tune in ASOS, make a call on the CTAF for traffic advisories (runway in use, aircraft activity, etc.).