## Mountain cross country©

Again, I don't mean to make a short story long but I put in 8.5 hours this weekend mountain flying in a C-172. A series of events made this flight possible and served as an excellent lesson in more ways that I had planned.

I have a student who is ready for his first dual x-country. This coincided with his need to visit his family in Alturas, CA for a wedding. He needed to fly to the north eastern corner of CA on Friday and return on Sunday. My wife 'needed' to take me to Reno.

I spent two planning sessions with my student working on the route, radio procedures, and getting weather. The plan was to fly direct to the Eastern edge of the CA central valley to intercept highway 299 and follow the road to Alturas with an average heading of 030. Flight went perfectly. In the wide open desert country of the west a road can be a good checkpoint and route. ETAs were on the mark, made wind correction between second and third check-points and made estimate of arrival which worked within four minutes. He had driven the area for over 20 years and knew all the mountain names, rivers, passes, you name it. Student made great x-wind landing on runway 3 after having trouble getting set up for pattern entry. Closed flight plan by phone and I opened one for Reno via 395 on the back side of the Sierras.

After refueling, wife and I departed Alturas which is at 4374 MSL. C-172 did not like either the temperature or the altitude but performed nobly even though my wife refuses to reveal her weight. We had arrived at Alturas just before 10 a.m. and departed before 11 o'clock. By then the alto cumulus were beginning to build and the flight to Reno using Highway 395 was bumpy but uneventful until Reno Tower advised us of a 10 knot wind shear reported on short final by the MD-80 ahead of us. The shear was there but I had added extra speed and no flaps due to the warning. More about this later.

The investment advice I received at Reno was all bad. Sunday a.m. I watched TV and saw the satellite weather showing a system moving across Oregon and Northern California. I talked to the FSS and was advised that the system was slow moving. I checked again about noon and moved my flight up an hour and planned to refuel before departure. I had originally planned to refuel at Alturas. Winds getting stronger by the minute. I saw a Super Cub pulling a banner over Reno in dead still hover.

Departed RNO with 25 knot quartering tail winds along our route. We followed 395 back and had occasion to fly a pass between two mountain ridges. Experienced something I had heard of for the first time. Winds blowing between mountains or down valleys can cause pressure changes due to the venturi effect. I saw the altimeter change at the same time there was no visible or elevator sensing of a change in altitude.

I heard a C-152 on near Alturas try to talk to Oakland Flight Watch just after I had given a PIREP (pilot report) about 500' altitude changes in turbulence about fifty miles out of Reno. I suggested and Flight Watch agreed to let me serve as a relay for the C-150 that was enroute Redmond, OR. With my help they were able to establish contact via the HIWAS on 135.7 where 122.0 would not work. 122.0 is known to have some dead spots such as near Modesto, CA.

Advisory from Alturas gave winds as light and variable but mostly favoring 21. Planned full flap arrival but on final it took full power to maintain a glide slope over some power poles. On short final the wind kicked the nose a full 30 degrees off runway heading before the rudder would take effect. I only rolled the length of the airplane after touchdown. Interesting light and variable winds they have in Alturas.

Closed flight plan and opened one for one and a half hours of flight and two hours of fuel from Alturas to Redding via 299. Had starter problem since Bendix refused to engage until given a shot of silicon. As mentioned before student knew the area. On departure he indicated the road to follow. I became occupied with warning a Baron about the possibility of wind shear on 21. The first lake appeared as a checkpoint on course and on time and on course 120(sic). The second checkpoint never appeared and the road disappeared. The only good weather was to the South and the worst weather was to our right where we should have been.

We were definitely not where we should have been nor where we wanted to be. We had climbed to 10,000' so my preset Center frequencies for both Seattle and Oakland on the #2 radios would work. I took over the radios and contacted Seattle Center, obtained a squawk and a heading for Red Bluff of 210 more than 90 miles away. The weather in that direction was not at good as to the South but became a viable option when we were advised that the MEA (minimum enroute altitude) in that direction would be in clouds. (I am out of IFR currency) C-172s are alergic to high density altitudes.

We flew heading  $210^\circ$  against strong winds and were gradually forced to descend to as low as 7500 but were always able to maintain VFR by skirting some misty showers. Mt. Lassen appeared to our left shortly before we were handed off to Oakland. Red Bluff popped up on the VOR and we were in good VFR heading for Red Bluff. Got 30 second frequency change to Rancho Radio to get flight plan amended from Redding to Red Bluff and confirm fuel being available at RBL. Rest of flight uneventful. It was the best double lesson I have taught in a while. Like gear-up landings, getting lost has either happened or is going to.

All of the flight plans included routes that contained highways as part of the filed route. In the mountains it is a good idea to consider flying small ifr. (i follow roads)