

# The Alameda Aero Club Newsletter

## March 2005

### Dues \$30 A Month Starting March 1, 2005

Aero Club dues are going up to \$30 per month as of March 1st. To look at it positively, this is the first dues increase in this century. Frankly, we need the money.

If you're an inactive member, the dues remain the same.

Steve Bevitt, President

### President's Corner

**First**, we've suffered a grievous loss: Doug Johnson died recently. He was our friend, our mentor, our guardian angel, and a class A "character." He did much behind the scenes for the club...advice, haranguing, strong-arming vendors, and generally urging us to be better than ourselves. Not that he didn't get angry, in my memory he "quit" the club at least twice, but in the end he couldn't stay away. In the last few years we awarded him the status of "Board Member Emeritus" because he was going to say what was on his mind, regardless. The title delighted him and allowed him to dispense advice with a free hand. He was my mentor as president and I know I'm not the only one who misses him intensely.

**Second item: financial realities part deux.** With bad flying weather and getting hammered with repair bills, we've had two bad months in a row. Fuel costs have skyrocketed over the past two years from around \$2.40 a gallon up to \$3.17 when I last looked. But there might be silver lining in all this gloom. All the airplanes are now in flying condition. The long hard winter is coming to an end. We've raised dues in order to keep a steadier flow of cash each month. We might even get some money back from the vendor of 12R's trouble-plagued rebuilt engine. The Board of Directors is re-examining every function of our operations in order to make sure we're doing things with both safety and efficiency in mind. However, we're not out of the woods, yet; we might have to resort to other measures to maintain the viability of the club.

On this last point, do you realize that if we disbanded the club every active member would probably get more than \$1,000, since the four

club-owned airplanes are now worth more than \$200,000? We're effectively a cooperative, with each of us owning a piece of our four C172s. But if we disbanded, we'd have nothing to fly. That wouldn't be fun at all.

Steve Bevitt, President

### How Not To Fly Cross-Country

The most deadly weather is not thunderstorms, it's fog and low stratus. Big bad CBs and their turbulence are scary enough that most pilots will avoid them. Low, gentle stratus and the nice smooth air that goes with it can lull you into a trap. I had first-hand experience of this as a commercial student on my long solo cross-country.

I was stationed at Naval Air Station Pensacola, Florida. I received my Private ticket just three months before, and was using my GI Bill to rack up hours and ratings. Then, you had to have 200 hours to get your instrument rating, so the Commercial-Instrument syllabus had you doing your commercial long cross country flight before any IFR approach training.

It was late December and a guy in my shop needed a ride home to Kansas for New Year's leave. I offered to fly him there if he would put me up for the night. We flew an uneventful trip to Olathe under a high overcast. The weather was forecast to be pretty much the same next morning. I laid out a route via West Memphis, Arkansas and Meridian, Mississippi, filed a flight plan, and took off. All went well to Arkansas, where I topped off the tanks, got my logbook signed, and launched for Meridian.

Grinding along towards Meridian, a few wisps of stratus appeared below me, forming wavy lines across my route, with plenty of space between them. I could see the ground just fine and the VOR signal was strong and steady, so I didn't give it a second thought. Over the next half hour or so, the lines got thicker and closer together, and before I knew it, I was over a solid undercast.

This is where you are supposed to come to your senses and make a 180-degree turn. I was young and dumb, and the air smooth and clear a couple thousand feet above and below for as far as I could see. I figured it must be better ahead, and if

I turned around, I'd mess up my flight. Besides, I wasn't supposed to be out of town, let alone out of state. If I wasn't at muster at 0800 hours the next morning, I would be AWOL! I had "get-home-itis" real bad.

I was approaching Meridian. The hole I was hoping for hadn't materialized, and the undercast had thickened. I wasn't sure of my position along the airway, but I knew there had to be other planes out there. Time to call approach control. I made contact and said I wanted vectors around the airport and a descent through the clouds. The controller asked me if I would like an ILS. I had no idea what an ILS was, but I wasn't about to admit it, so I said no thanks – just put me on the highway south of town.

The controller gave me a heading and altitude and I descended into the clag. The next fifteen minutes were the worst I ever had flying. Every time I looked at the DG I was off heading. Every time I looked at the AI it showed a bank, sometimes a steep one. I was making one unusual attitude recovery after another. Finally, at 2,000 feet I could just make out the ground straight down. I asked for lower, but the controller told me I was at the minimum vectoring altitude. I could see the highway with the railroad next to it, so I cancelled IFR and kept descending, down to 500 feet AGL.

That began the longest 1.5 hours of my life. I followed that highway and railroad all the way to Florida, barely clear of the indefinite overcast at 500 feet and barely able to see a mile ahead. Fortunately, the land there is flat as a board and the only towers were a couple miles east of my route. Every time I passed an airport I imagined the people down there warm and snug around a pot-belly stove, drinking coffee and hangar flying. I wished I could join them, but I knew if I landed they would never let me take off again.

Finally, I got back to familiar territory near my home field. The ceiling lifted a bit near the Gulf Coast, and visibility got a bit better, too. As I neared the airport, I noticed another plane ahead and I decided to slow down. When I caught myself pressing the toe brakes, I realized just how fatigued I was. I slapped myself a couple times to wake up, and was able to slow down and land normally. I never felt so glad to be on the ground again!

As soon as that stratus deck closed in below me, I should have turned around, landed, and caught a bus home. I had no business in the clouds over

Meridian and only by the grace of God did I not come falling out of them minus a wing. Even that other plane showing up at my home field was a blessing, because it woke me up enough to make a decent landing. I was very lucky indeed!

**Dave Penney**

## **Exploring the KLN 94: Flight Plans**

Letting the KLN 94 and the autopilot fly the plane directly to the Mormon Temple for the first time is a treat, but these devices can do much more. By entering a flight plan into the KLN 94 you can program it, with the help of the autopilot, to fly from waypoint to waypoint, from takeoff to landing.

The KLN 94 can store 25 flight plans, each containing up to 20 waypoints. A waypoint is either a published waypoint in the GPS database or a user-created waypoint. The flight plans are numbered 0 through 25 (FPL 0, FPL 1, . . . FPL 25). The active flight plan is always FPL 0. You can program a flight plan directly into FPL 0, where it becomes the active flight plan. Or, you can program a flight into another flight plan—you must activate that flight plan to make it the active flight plan. The advantage of programming a flight into a flight plan other than FPL 0 is that it will remain available for reuse later, if it is not erased.

To create a flight plan, select the flight plan (FPL) pages with the right outer knob. Select an empty flight plan page. Turn on the cursor with the CRSR button. Use the right inner knob to select the first character of the departure airport identifier (e.g., KOAK). The default first waypoint character is K since most American airport identifiers start with K. Turn the right outer knob to move the flashing part of the cursor over the second character and then select the desired character. Repeat this process until the entire identifier is displayed. Press the ENT button. The GPS will display a waypoint page for the identifier. If you entered the wrong identifier, press CLR and start over. Otherwise, press the ENT button again to approve the waypoint. The cursor will move automatically to the next waypoint position. Use the same procedure to enter the rest of the waypoints. When all waypoints have been entered, rotate the right outer knob to move the cursor up and down the list and scroll through the waypoints. Turn off the cursor with the CRSR button.

The stored flight plan pages have a field to the

right of each waypoint for the cumulative distance to each waypoint. Turn on the cursor with the CRSR button and position the cursor over the distance field ("Dis"). Turn the right inner knob one click, and you will see that "Dis" has changed to "DTK." The distance fields have now changed into desired track fields, and the KLN 94 will display the desired track from the previous waypoint.

To activate a previously created flight plan, use the right outer and inner knobs to select the desired flight plan page. Press the CRSR button to turn on the cursor. It will appear over the word "Use?" Press the ENT button to activate the flight plan, which will be displayed as FPL 0, the active flight plan.

To add a waypoint to a flight plan, turn on the cursor with the CRSR button. With the outer knob, position the cursor over the waypoint before which you wish to insert a waypoint. Use the inner knob to enter the first character of the new waypoint. As you begin to turn the knob, the existing waypoint in this position automatically jumps down to the next position. Complete the waypoint entry. Press the ENT button to display the waypoint page and press ENT again to confirm your choice.

To delete a waypoint from a flight plan, position the cursor over the waypoint to delete and press the CLR button. The letters "Del" will appear to the left of the waypoint. If you made a mistake and do not wish to delete the waypoint, press the CLR button. To confirm the deletion, press the ENT button, and GPS will delete the waypoint from the flight plan.

To delete a flight plan, display the flight plan you wish to delete. Make sure the cursor is turned off. Press the CLR button. The words "Delete FPL?" will appear at the top of the page. If you make a mistake, press the CLR button. To confirm the deletion of the flight plan, press the ENT button.

About 20 seconds before reaching the active waypoint, the WPT annunciator will start to flash in the upper right corner of the screen. When the annunciator stops flashing, start your turn towards the next waypoint. The KLN 94 will notify you with a message on the Message page of the new desired track to dial into the CDI (e.g., "Adj Nav Crs to 123"). If the autopilot is steering the plane, you need to adjust both the CDI and the autopilot heading bug to the same desired track.

What do you do if ATC instructs you to fly direct to a waypoint that is not the active waypoint? Simple. Bring up the map on the Nav 4 page. Pull the right inner knob out and turn the knob to display the

desired flight plan waypoint identifier in the lower right corner of the map. Press the DIRECT To button to bring up the Direct To page with the selected waypoint identifier already displayed. Press the ENT button to approve your choice and push the right inner knob back in. The KLN 94 will now navigate to the Direct To waypoint. To cancel Direct To operation, press the DIRECT TO button again, press the CLR button, and then press the ENT button. The KLN 94 will orient itself on the closest leg of the flight plan. There are other ways to activate the Direct To function while operating on a flight plan, but this method is the easiest.

When I let the autopilot fly from waypoint to waypoint on a GPS flight plan, I'm liable to make one of two mistakes. The first mistake is forgetting to make the departure airport the flight plan's first waypoint, which means the KLN 94 will not navigate toward the first waypoint. To fix this mistake, use the Direct To function to tell the KLN 94 to start navigating. Then at the first waypoint, the KLN 94 will cycle over to the next waypoint automatically.

The second mistake is forgetting to reset the autopilot heading bug after resetting the CDI when passing a waypoint. If you forget to reset the autopilot heading bug, the autopilot won't turn to intercept the course to the next waypoint. To fix this, reset the autopilot heading bug. To avoid this mistake, I make it a habit when crossing a waypoint to check that the GPS desired track, the CDI, the autopilot heading bug, the heading indicator, and the compass are all in agreement. Remember, however, if there is a crosswind, the autopilot will steer the plane into the wind in order to keep the plane on track. Thus, the heading indicator and the compass may not agree perfectly with the other instruments, but they should agree within five to ten degrees. Waypoint passage is a good time to check to make sure that the heading indicator agrees with the compass.

**Stephen S. Ashley**



***What is this? Answer next month.***

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