

# The Alameda Aero Club Newsletter

## May 2005

### **New Private Pilot Kevin Hanrahan**

My best student ever (no wonder, he was my first student ever too).

Kevin's checkride was not without technical problems, 9UL was not deemed airworthy by Batchelder and ended up stranded in Concord. A local FBO permitted the rental of another airplane to complete the checkride, which probably will go down as the longest checkride ever in clocktime: 1pm appointment, phone call at 7:30pm!

The oral was thorough, friendly and conversational. They got along fine. Batchelder was impressed with Kevin's preparation, and also the copious solo XC time. A short and to the point checkride, no nav, just turns around a point, S turns, shorts and softs in Napa, slow flight, stalls and steep turns.

**Christian Goetze, CFI**

### **New Plane Captain for 854AC**

Kurt Borowski has taken over the role of 4AC's plane captain. Contact him at [4ac@alameda-aero.com](mailto:4ac@alameda-aero.com), or at 510-523-8757.

**Mike Klinke, Vice President**

### **Maintenance Update**

9UL got spiffed up at its 100-hr inspection, with new flap tracks and rollers on the pilot side, and various small matters seen to. By the time you read this, 4AC will be getting its annual, too. We are staying closely involved in maintenance, consulting and approving everything that is being done, and OAM is forthcoming with explanations and cooperating with our need for estimates and work orders. There is really no substitute for the great convenience that comes from having a shop this close; we can call and say a plane needs attention, and they go fetch it, fix it, and put it back, saving us time and money over transporting

planes elsewhere, so all parties are seriously committed to making this relationship work. Between OAM and Bay Avionics, we really couldn't be better positioned, considering the exigencies of life at Oakland.

High on our list of expensive things to fix, other than emergencies, is painting 9UL, which needs the corrosion protection of a solid finish. Aesthetics are not a luxury when a plane lives outside.

We have a new plane captain for 4AC, Kurt Borowski. Thanks for stepping up, Kurt! Sometime in the near future, we'd like to have lunch, or at least a round, with the plane captains, Ben, and myself. Suggestions for scheduling this are welcomed.

I am enjoying myself and learning a lot as Maintenance Director. I've learned the job's hardest part - having to tell you guys an airplane's down. The best part: knowing that they're better and safer when they fly again. Thanks for all your kind support!

**Ginny Wilken, Maintenance Director**

### **Eat Here Get Gas**

When I was a kid going to the Jersey Shore on weekends, I saw a sign reading "Eat Here Get Gas." I thought it was the funniest thing. After a couple of years, the gas station disappeared, the restaurant with the sign remained. Maybe market forces had something to do with it. Despite the nice people at KaiserAir, we must let market forces influence our fuel purchases.

Maybe Kaiser isn't the evil Corporation gouging us for all we're worth. However, Kaiser is certainly willing to charge the maximum the market will bear. If it works out for your flight to buy fuel at a cheaper gas station, do it! We're not saying break the club regulations. We still have the maximum 1.0 tach time since fuel rule. Just use your head and vote with your feet if you can.

Club rates for rental and dues have increased. (We haven't sent the Board on a vacation to Ireland!) Expenses have risen dramatically, and we're operating on a razor thin margin. If we can save a few \$\$ an hour, it makes a big difference! Some have said the money saved would equal

merely a couple minutes of flying. To them, I say, what would you rather have, a couple of minutes of flying, or pay more for gas? Not only are you an aircraft renter, but you are an aircraft owner as well. You have to wrap your mind around both and their implications.

We all can come up with reasons why this idea won't work. What you have to do is use your noodle to figure out where it does work. It's your plane and your money paying for the gas! The last time I was at Rio Vista, I saw Dave Penney taking 31V there for gas---he owns the plane and he goes there for gas. Check [www.airnav.com](http://www.airnav.com) for fuel prices.

**Mike Klinke, Vice President**

## **Exploring the KLN 94: Approaches**

In this, the last of my articles on the KLN 94, I cover the most useful feature of the KLN 94 to instrument-rated pilots: approaches. The KLN 94 can also handle departure procedures (DPs) and arrival procedures (STARs), but since initiating either of these is similar to the procedure for loading an approach, I will focus on approaches.

Assume you are flying from Stockton to Oakland on the simplest of all possible flight plans, Stockton as the point of departure and Oakland as the point of arrival. You discover that the marine layer has rolled in past the East Bay Hills. Now you must fly an instrument approach into Oakland or land at Livermore and take a taxi to BART. The KLN 94 can fly a GPS approach into Oakland or any other airport that has a GPS approach in the KLN 94 database. (The KLN 94 will also fly non-GPS approaches, but you cannot use the GPS on a non-GPS approach for more than situational awareness.)

To load an approach, press the Procedure button (PROC) in the upper left quadrant of the GPS panel. Turn the outer knob to "Select Approach" and press the Enter button (ENT). You'll see a list of airports where it thinks you might want to land. Rotate the right outer knob to select an airport and press the Enter button to see a list of approaches for the selected airport. Approaches approved for GPS navigation have the letters "GPS" to the right of the approach name. Use the right inner knob to move the cursor over the desired approach and press the Enter button.

After you select an approach, the KLN 94 will display the initial approach fixes for the approach. It will also display the term "Vectors." At this stage it is best to choose the initial approach fix that you expect air traffic control to use if they don't use vectors to the final approach course. They usually use vectors to the final approach course, but it's still easier to start by navigating to an initial approach fix. If ATC gives you a vector to the final approach course, it's easy to switch over to vectors, as discussed below. So, on our flight from Stockton to Oakland, we might choose the RNAV (GPS) Rwy 27R approach, which has a single initial approach fix at NAGVY. The KLN 94 will display a list of the waypoints making up the approach and ask you to confirm your choice by moving the cursor to the phrase "ADD TO FPL 0" and pressing the Enter button. This adds the approach waypoints to Flight Plan 0, which previously contained only Stockton and Oakland. The KLN 94 will begin navigating to NAGVY. If it doesn't, use the Direct To procedure to make NAGVY the active waypoint. If ATC clears you for the approach via NAGVY, leave the KLN 94 alone, and it will navigate from waypoint to waypoint until you reach the threshold of Runway 27R. If the autopilot is slaved to the GPS (described in an earlier article), then the autopilot will fly you from waypoint to waypoint, right to the runway threshold, provided that you keep the CDI and the autopilot heading bug in sync with the GPS.

Suppose ATC says, "Turn to a heading of 240 and intercept the final approach course." As you acknowledge the instruction, you turn to the 240 heading and press the Procedure button again. Turn the right outer knob to move the cursor to the "Activate Vectors?" instruction and press the Enter button. Activating vectors makes the final approach fix the active waypoint. The display will show the final approach course as a purple line, so that it will be easy to know when to turn to intercept the final approach course.

When the plane is 2 NM from the final approach fix, the KLN 94 will make a prediction to see if RAIM integrity will be available at the final approach fix. If the prediction is that RAIM will be available and RAIM is currently available, the KLN 94 will announce APR ACTV and start to change the CDI scale factor down to plus or minus .3 NM full scale deflection. Follow the purple line to the missed approach point. If the KLN 94 cannot predict RAIM integrity, it will tell you so, and you will

have to abort the approach. If this happens, you'll have to use a non-GPS approach.

If you can't see the runway at the missed approach point, it's time for a missed approach. The KLN 94 will NOT automatically cycle to the missed approach holding point after passing the missed approach point. You have to use the Direct To procedure to select the missed approach holding point as the active waypoint. If you request vectors for another approach, press the Procedure button to reactivate vectors for another try.

This explanation just scratches the surface of the KLN 94's approach capabilities. In addition to the procedures described above, there are methods for executing maneuvers such as procedure turns and DME arcs. If you are interested in learning more about GPS approaches or about any other feature of the KLN 94, visit the airplane's web site: [www.n612sp.com](http://www.n612sp.com). On that page you will find links to PDF files describing the KLN 94 and the plane's other avionics, including the KAP 140 autopilot. You are welcome to download these files and review them at your leisure. Be advised: the PDF file containing the KLN 94 manual is about 5 MB and contains 280 pages of information.

Studying the PDF files will give you a valuable education in the operation of the KLN 94 GPS and KAP 140 autopilot, but it won't make you proficient. Proficiency comes from practice. It is very tempting to get up in the air in N612SP and start fiddling with the dials in the hope of achieving proficiency. I know. I tried it. It doesn't work. You can't study the manual, fiddle with the dials, fly the airplane, look for traffic, and learn anything, all at the same time. If you want to learn in the air how to use the KLN 94, take someone along as a safety pilot to fly the plane while your head is buried in the manual.

Learning in the air how to use the KLN 94 is a very expensive education. Fortunately, there is an alternative. I have a black box into which I can plug the KLN 94 after removing it from the plane. (Don't worry -- it's legal. I already checked.) When the KLN 94 is plugged into the black box, it enters simulation mode. In simulation mode, you can tell the GPS that the plane is 6,000 feet above the Stockton airport, you can enter a flight plan, you can load approaches, and fly to missed approach holding points. Indeed, you can do almost everything that you could do in the air without having to

pay \$120 per hour for the plane. Unfortunately, you can't do everything in simulation mode. You can't simulate connecting the GPS to an autopilot. But the education you receive on the ground in simulation mode will make it much easier to become proficient. If you are interested in receiving ground training on the KLN 94, please do not hesitate to contact me.

**Stephen S. Ashley, CFII**

## **The Aviation Century**

Alameda Aero Club member (and past President) Gary Wren is teaching this University of California Summer Session course (ISF 110-2, 4 units credit) July 5 - August 12, 2005.

Gary's course description reads, "Drawing on scholarly research, memoirs, documentary videos and feature films, this course presents an interdisciplinary examination of the development of aviation and its contributions to social change. We'll consider the major paradigms in the theory of technology, and trace the course of aviation history over the last century. That history provides fascinating material for students interested in the general development of technology and helps bring into focus ongoing debates on the social, ethical, and economic dimensions of technological change."

**Jay Smith, Newsletter Editor**

**AAC Board Members 2004/2005****President**

Steve Bevitt president@alameda-aero.com

**Vice President**

Mike Klinke vicepres@alameda-aero.com

**Treasurer**

Chad Scott treasurer@alameda-aero.com

**Secretary**

Ginny Wilken secretary@alameda-aero.com

**Membership Officer**

Judy Barron membership@alameda-aero.com

**Maintenance Director**

Ginny Wilken maintenance@alameda-aero.com

**Deputy Maintenance Director**

Ben Barron maintenance@alameda-aero.com

**Newsletter Editor**

Jay Smith newsletter@alameda-aero.com

**Web Master**

Brad Dispensa webmaster@alameda-aero.com

**Chief Pilot**

Ben Freelove chiefpilot@alameda-aero.com

**Volunteer Coordinator**

Chad Scott activities@alameda-aero.com

**Non-Board Member Officials****Colonel Video**

Ginny Wilken videos@alameda-aero.com

**Bookkeeper**

Dona Lynch kotb@alameda-aero.com

**Plane Captains****4312R**

Jay Smith 12r@alameda-aero.com  
650-591-0342 ext. 235: Tuesday, Wednesday 11:30  
a.m. - 9 p.m., Thursday, Friday 9 a.m. - 6 p.m.  
510-547-8428: all other days and times

**854AC**

Kurt Borowski 4ac@alameda-aero.com  
510-523-8757

**739UL**

Greg Savidge 9ul@alameda-aero.com  
415-279-2061

**234JG**

Will Bartlett 4jg@alameda-aero.com  
415-933-9300

**6605D**

Ben Barron babarron@comcast.net.  
510-527-4830

**612SP** Stephen Ashley

stephen.ashley@strattonpress.com 415-759-5270