



THE GRAPEVINE



There is a very fine line between "hobby" and "mental illness."

Vol. XXVIII,



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G1000 Glass Cockpit Handbook and GPS and WAAS Instrument Flying Handbook

Come hear Max talk about the wonderful flying opportunities that are available right here in the Bay Area. Check out these photos of some of his flying.



The Delta



Board Of Directors

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- Bob Farnam 449-1513
- Dick Jennings 862-2345
- Bob Cowan 373 0555



February Meeting And Program

NOTICE: Our February meeting will take place at 7:30 P.M. on the 4th of February. The meeting will be at the terminal - KLVK.

Calendar:

| Month | Date | Speaker | Topic |
|-------|------|----------------|---------------------|
| Jan | 7 | Bill Simkinson | CHT discussion |
| Feb | 4 | Max Trescott | Flying the Bay Area |

Our February Program will feature Max Trescott who will present, "Flying the San Francisco Bay Tour". Check out Max's blog: <http://www.maxtrescott.com/> before or after the chapter meeting. He is also an author and has two books on flying.



Does it really need a caption?



Important NOTE:

Membership renewal –2010

People can start sending me their membership renewal checks. It is \$30 for 2010. My address is 25 Jacaranda Drive, Fremont CA 94539. I don't need the forms unless it is a new member.

Mark Palajac
Treasurer, EAA Chapter 663 Livermore

Editors Note: The day is fast approaching when I will cut over to the new 2010 email list, so get your renewal in now so you don't miss an issue.

Minutes:

GENERAL MEETING, EAA 663,
1/7/2010 Livermore Terminal Building, KLVK

Called to order 7:31 PM by President Ralph Cloud.
Ralph introduced 2010 Board Members. Returning are Ralph, Don Smith, VP, Marc Palajac, Treasurer. New Secretary for 2010 is Kirk Knight.

We had several guests, including Bill Hogarty, whose Lancair IV is in pieces, and Bill says it likely will continue to be for a while. Jeff Pelletier has his turbo engine and is building a Lancair ES. Debating the RV-7 vs -9 brought George Farquhar to our meeting. Bill Simkinson was speaker, but also a first time guest.

The minutes for the December meetings were approved as printed in "The Grapevine".

Treasurer Mark Palajac is accepting dues (\$30) for 2010, checks only. He reported current balance of \$5,285.01.

Marc's 2009 report showed total income in 2009 of \$5,394, including \$2,560 from the dinner, with dues and operations generating another \$2,834. Expenses for the year totaled \$6,194.42, most of which was the

dinner, with a net loss of \$231.25. The other large expense in 2009 was the prop balancer at \$1,506.33.

While Marc was on a roll, he noted that our use of LVK Terminal is free, but we paid about \$1,300 last year for the dinner location.

OLD BUSINESS: Discussion of the annual dinner on January 23, featuring Lane Wallace. There is a bit of uncertainty about inviting guests as the new room seat only 65, down from about 100 last year. It was made clear that paying guests are welcome as they balance our budget.

In other matters, the tools are now in locked tool cabinet. Please make prior arrangements with Bob Farnam or Dick Jennings for availability and keys.

The Attitude Aviation barbeque in December, to which the Chapter donated \$200, was judged a success at drawing a wide variety of people in the local aviation community to exchange ideas in a relaxed setting.

In medical news, Dave Dent spent Christmas in the hospital and will be receiving a pacemaker the day after meeting, unknown if it will be steam gauge or all-glass version. Brad Olsen has a new hip, no details yet for fly-off hours, but rumors that Brad is looking at airplane pictures and making vroom-vroom sounds while performing his therapy, demonstrating a motivation to get back in the cockpit.

NEW BUSINESS: The continuing saga of airport operating rules drew considerable interest as there are proposed restrictions on building and maintaining aircraft, as well as storage and operation. See (<http://www.ci.livermore.ca.us/airport/index.html>) as well as airport opponents LACG (<http://lacg.org>). John Goldsmith and Ralph Cloud have been attending the public meetings. Bob Cowan wonders who is funding opposition and are they organized?

The Airport Improvement Program is a public bond mechanism. The LACG is attempting to hobble LVK by limiting construction to less than \$100,000 per year, unless voter approval is sought. With elections every other year, this is certain to slow and eventually

squeeze LVK. For cost comparison, the new gate security billed out at \$180,000, which is perceived as inconsequential for any real construction needs.

The suggestion was put forward to contact Kevin Ryan, AOPA airport support network, as well as EAA legal advisory council member Pete Axelrod. Should you have ideas on how to get public opinion on our side, please forward to Ralph.

Members should pay attention to changes in proposed legislation and make your voices heard.

EAA Hotline reminds pilots you have until March 31, 2010 to obtain plastic version of certificates lest you be considered flying without a certificate. As a money saving method, apply to replace your current paper version that shows full social security number with a random number, and you'll save \$2. Medicals remain on paper.

Announcements: The next board meeting will be 1/21/2010, 7:30 at Ralph's place.

If you're seeking a hangar (and cheap fuel) in about a year, plunk down \$190 reservation fee for a slot in the 42 new hangars to be built at Tracy. Once they have 61 reservations they'll start work. This will also make Tracy eligible for \$450,000 in federal funds for airport improvement, up from current \$150,000.

Break and then Program with Bill Simkinson on EGT and CHT.

Bill Simkinson of JS Associates on EGT (notes by Kirk Knight, who is not as accurate as a court stenographer)

Bill has been building EGT measuring devices for over 40 years. He explained why EGT, in the right hands, is so much more valuable than CHT for monitoring engine performance and extending engine life. Bill approached this as a scientist and later turned it into a specialty business. His knowledge was very specific and helpful.

Much of his talk discussed the complexity for optimizing mixture, especially in carbureted engines

with multiple cylinders. Literally, each cylinder is receiving a different mixture, so the pilot should focus on monitoring relative temperature not specific temperature.

Bill's process is to find the hottest cylinder, then lean. The reason a specific cylinder EGT is hot is because the flame is still burning when the exhaust valve opens. EGT will respond very quickly, while CHT takes time.

Once you visualize the fire in the cylinder is hotter than burned or unburned fuel, you'll come to be able to debug a number of problems. EGT will rise if cylinder is running on one magneto.

Bill noted that there was a time when fuel injectors were optimized for each cylinder to balance these distinctions, but not anymore, as mechanics would too frequently put the wrong injector in a cylinder, resulting in poorer performance and a rougher engine. (Ed: This sounds like a business opportunity to me.)

Dave Dent suggested a Pelican's Perch article for an online version of the detailed graph Bill presented, as well as more on the pilot's perspective: http://www.avweb.com/news/pelican/pelicans_perch_84_mixture_cht_194816-1.html

Bill spoke of distinctions among K, J and T type wires. K has yellow & red, J is red and white. You may also encounter T type in older planes. J is less accurate over decades of use. On J red is negative. On K, red is positive. See en.wikipedia.org/wiki/Thermocouple for excellent details.

Among his cautions for homebuilders:

- 1) Don't try to splice wires from probe to gauge without knowing what you are doing. There are 3 distinctly different types of wires, with different metals, different thermal transfer characteristics and opposite wire color schemes.
- 2) Westec gauge performance is highly dependent upon wire resistance, a common problem is mismatched wires (see 1)

- 3) Westec gauges are only accurate in a 70 degree F cockpit due to thermal sensing metals inside the gauge.
- 4) There are some gauges that employ an amplifier in the circuit.
- 5) Avoid getting solvents and oil on the probe as these can literally penetrate the probe metal and will permanently and adversely affect response. Clean your engine carefully.
- 6) Smaller probes will provide faster response to changes in temperature. However, notes most probes are larger take a bit longer to stabilize. EGT probes are actually in the exhaust path, not merely the outside of the cylinder wall, and respond in 2-3 seconds.
- 7) If you have CHT, measure on the side of exhaust.

Don will be traveling extensively back and forth to Italy, and has asked if teams of 2-3 members would volunteer to take a meeting and locate guest speakers.

The LVK airport rule changes were discussed at length, following recent community meetings. The issues are much too detailed and fluid at this point. If you want to know more attend next **airport planning event Wednesday February 3 at 6pM and LVK terminal.**

Next Chapter Meeting February 4, Thursday 7:30pm.

Meeting adjourned for pie.

Minutes respectfully submitted by Kirk Knight, Secretary.

Meeting adjourned for pie.

Minutes: BOARD MEETING 1/21/2010

Ralph's House

Ralph Cloud, Dick Jennings, Bob Farnam, Marc Palajac, Bruce Cruikshank, Bob Cowan, John Goldsmith, Don Smith, Kirk Knight, Harry Crosby

Marc reported \$4,824.62 balance in the bank. To date we have 56 membership renewals and 74 reservations for annual dinner.

Annual dinner planning details were reviewed. Food for 80 was ordered. Bob Cowan will pick up gift of local wine and perhaps olive oil for Lane Wallace. Bob has promised to wash her plane, too. (Perhaps we should toss in a nice wax job too?) Harry Crosby is preparing 14 bottles of red wine 10 of white, plus beer and water.

Special congratulations for Jeremy Constant's RV-7A first flight on the 15th, piloted by Earl Hodges.

Don Smith is back from Italy long enough to confirm February guest speaker Max Trescott, CFI, who will address the Bay Tour. Group discussed seeking a possible medical advocate for a meeting. July meeting will likely repeat our successful showcase of member planes on the ramp. August 5 meeting will review Oshkosh AirVenture.

Feedback/Questions/Suggestions

Any and all feedback is welcome. In order to make the newsletter entertaining, informative and above all else, something that you enjoy reading every month please take a few minutes to send suggestions, tips, corrections or any other feedback to: jeffrylite@comcast.net.

Mailbag:

This month's article is a story submitted by Bob Beebe (thanks Bob) about the SR-71 Blackbird written by Brian Shul, Retired Pilot and was reported in Plane and Pilot magazine.

What was the slowest you ever flew the Blackbird?:

As a former SR-71 pilot, and a professional keynote speaker, the question I'm most often asked is "How fast would that SR-71 fly?" I can be assured of hearing that question several times at any event I attend. It's an interesting question, given the aircraft's proclivity for speed, but there really isn't one number to give, as the jet would always give you a little more speed if you wanted it to. It was common to see 35 miles a minute. Because we flew a programmed Mach number on most missions, and never wanted to harm the plane in any way, we never let it run out to any limits of temperature or

speed. Thus, each SR-71 pilot had his own individual highest speed that he saw at some point on some mission. I saw mine over Libya when Khadafy fired two missiles my way, and max power was in order. Let's just say that the plane truly loved speed and effortlessly took us to Mach numbers we hadn't previously seen.

So it was with great surprise, when at the end of one of my presentations, someone asked, "What was the slowest you ever flew the Blackbird?" This was a first. After giving it some thought, I was reminded of a story that I had never shared before, and relayed the following.

I was flying the SR-71 out of RAF Mildenhall, England, with my back-seater, Walt Watson; we were returning from a mission over Europe and the Iron Curtain when we received a radio transmission from home base. As we scooted across Denmark in three minutes, we learned that a small RAF base in the English countryside had requested an SR-71 fly-past. The air cadet commander there was a former Blackbird pilot, and thought it would be a motivating moment for the young lads to see the mighty SR-71 perform a low approach. No problem, we were happy to do it. After a quick aerial refueling over the North Sea, we proceeded to find the small airfield.

Walter had a myriad of sophisticated navigation equipment in the back seat, and began to vector me toward the field. Descending to subsonic speeds, we found ourselves over a densely wooded area in a slight haze. Like most former WWII British airfields, the one we were looking for had a small tower and little surrounding infrastructure. Walter told me we were close and that I should be able to see the field, but I saw nothing. Nothing but trees as far as I could see in the haze. We got a little lower, and I pulled the throttles back from 325 knots we were at. With the gear up, anything under 275 was just uncomfortable. Walt said we were practically over the field—yet; there was

nothing in my windscreen. I banked the jet and started a gentle circling maneuver in hopes of picking up anything that looked like a field. Meanwhile, below, the cadet commander had taken the cadets up on the catwalk of the tower in order to get a prime view of the fly-past. It was a quiet, still day with no wind and partial gray overcast. Walter continued to give me indications that the field should be below us but in the overcast and haze, I couldn't see it. The longer we continued to peer out the window and circle, the slower we got. With our power back, the awaiting cadets heard nothing. I must have had good instructors in my flying career, as something told me I better cross-check the gauges. As I noticed the airspeed indicator slide below 160 knots, my heart stopped and my adrenalin-filled left hand pushed two throttles full forward. At this point we weren't really flying, but were falling in a slight bank. Just at the moment that both afterburners lit with a thunderous roar of flame (and what a joyous feeling that was) the aircraft fell into full view of the shocked observers on the tower. Shattering the still quiet of that morning, they now had 107 feet of fire-breathing titanium in their face as the plane leveled and accelerated, in full burner, on the tower side of the infield, closer than expected, maintaining what could only be described as some sort of ultimate knife-edge pass.

Quickly reaching the field boundary, we proceeded back to Mildenhall without incident. We didn't say a word for those next 14 minutes. After landing, our commander greeted us, and we were both certain he was reaching for our wings. Instead, he heartily shook our hands and said the commander had told him it was the greatest SR-71 fly-past he had ever seen, especially how we had surprised them with such a precise maneuver that could only be described as breathtaking. He said that some of the cadet's hats were blown off and the sight of the planform of the plane in full afterburner dropping right in front of them was unbelievable. Walt and I

both understood the concept of breathtaking very well that morning, and sheepishly replied that they were just excited to see our low approach.

As we retired to the equipment room to change from space suits to flight suits, we just sat there—we hadn't spoken a word since the pass. Finally, Walter looked at me and said, "One hundred fifty-six knots....What did you see?" Trying to find my voice, I stammered, "One hundred fifty-two." We sat in silence for a moment. Then Walt said, Don't ever do that to me again! And I never did!

A year later, Walter and I were having lunch in the Mildenhall Officer's club, and overheard an officer talking to some cadets about an SR-71 fly-past that he had seen one day. Of course, by now the story included kids falling off the tower and screaming as the heat of the jet singed their eyebrows. Noticing our HABA patches, as we stood there with lunch trays in our hands, he asked us to verify to the cadets that such a thing had occurred. Walt just shook his head and said, "It was probably just a routine low approach; they're pretty impressive in that plane." Impressive indeed!

Little did I realize after relaying this experience to my audience that day that it would become one of the most popular and most requested stories. It's ironic that people are interested in how slow the world's fastest jet can fly. Regardless of your speed, however, it's always a good idea to keep that cross-check up...and keep your Mach up, too.

“Grapevine Talking” This month is on hold again this month due to some scheduling difficulties. For those of you that haven't taken the opportunity, experience breakfast with the chapter every Saturday morning at 8:00 AM at Shari's in Livermore. If you haven't been to the chapter [website](#) lately, take the opportunity to stop by and view the excellent work by Brad Olsen.



Cool video's found on the internet.

[1943 P-47 pilot training – Thanks Kirk](#)

[Another P-47 pilot training from Kirk](#)

[Up an Alaska creek without a paddle](#)

[Only fitting this goes with this month's article](#)

[A website from Bruce – great weather site](#)

What is it? From last month
Sponsored by:



Last month there were two correct entries identifying the Russian VVA-14M1P. Kirk Knight was the first correct answer in the inbox so he gets the prize.



You too can win if you donate a winning photo. Send to your chapter editor. You will be notified prior to the newsletter being published if your photo has been selected and will then be eligible for the prize if no one correctly identifies it via email prior to the chapter meeting.

Thanks to those that called Aircraft Spruce and mentioned this contest in the newsletter as they have agreed to continue their sponsorship.

Prizes are available thanks to them. Please give them a call with your next order and tell them how much you appreciate their generous donation to our monthly newsletter.

Submit your answer to the newsletter editor to be eligible for a prize to be awarded at the regular chapter meeting. **You must be present to win.**

Winning entries will be decided by the email that is received with the earliest time stamp and the correct naming of the make/model of the pictured airplane. Winners that correctly identified the winning make/model that do NOT attend the meeting will forfeit the prize to the next available submission.

The correct, first answer that attends the monthly meeting will be declared the winner. You will be notified of the winning entry at the monthly meeting. The winning entry that DOES attend the meeting will receive his/her prize at that time. Should no one correctly respond with the winning make/model, the prize will be returned to the sponsor(s). Being part of a “group” really does make a difference. Join us for the regular chapter meeting and see what prize might be coming your way. I’ll give you a hint, it will definitely be aviation related. Don’t be late and check your email for the newsletter.

If anyone has something they think is new or unique, send it along. Special prize consideration will be given even though you will be ineligible for the monthly award, but you will have the thanks of the other chapter members for your CONTRIBUTION.

Now, break out your knowledge base, your experience, all the aviation magazines you can get your hands on, browsing the web or whatever resources you have at your disposal and take a gander at this month’s photo.

**What is it?
Sponsored by:**





Don't linger on the runway unless you forgot to lower your landing gear, in which case you have an excuse, albeit a poor one.

I hope you enjoyed reading this month's newsletter as much as I had in doing it for you. If you have any suggestions to make it better or any feedback, please send to me at the following.....jeffrylite@comcast.net.



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