

The C eCO

Experimental Aircraft Association • Chapter 393 • Concord, CA

Mail to: EAA Chapter 393 P.O. Box 272725 Concord, CA 94527-2725

OCTOBER 1994

YOUR 1994 OFFICERS

PRESIDENT	Fred Egli 935-7551
VICE PRESIDENT	Lisle Knight 658-6629
SEC/TREASURER	Louis Goodell 682-4198
EDITORS	Ken & Linda McKenzie 283-3119

MEMBERSHIP MEETING

October 26, 1994 (the 4th Wednesday of every month) @ 7:30pm, Old Buchanan Terminal Building, Concord Airport. Please wear your badges to help those of us who have trouble remembering everyone's name. Bring chairs since we never seem to have enough.

BOARD MEETING

Board meetings are scheduled for 7:30 p.m. on the Wednesday following the Membership meeting at Fred Egli's house. If you are interested in attending or have a matter you wish to discuss, please call Fred.

OCTOBER PROGRAM

This month's program will be presented by Brien Seeley, president of Comparative Aircraft Flight Efficiency, Inc. Though the CAFE 400 Races are no more, the strive to determine an aircraft's most efficient operating and design parameters still lives.

Brien will bring present the two questions that guide the CAFE's team in their quest to seek out those of us that push the boundaries of performance and efficiency of our aircraft:

"What it is that we are testing for, and the why of it!" I hope you enjoy it.

Lisle Knight

MINUTES OF THE CHAPTER MEETING

held September 28, 1994

The meeting was called to order at 1930 hours, Fred Egli presiding. The minutes of the August meeting were approved as submitted in the September 1994 Cleco.

Triston Blair received his Young Eagles certificate from Chris Kenyon.

The Savings balance is approximately \$2,600 and the Checking Account has approximately \$725.

Larry finally ran the "Raffle." He awarded nine prizes--the prizes were numbered, so that there was no picking and choosing. The winners were Chris Kenyon, Ray Nilson, Ed Lester, Jeff Culver, David Clements, Rich Powell, Dick Rihn, Rich Powell (gosh how about sharing some of that luck), Harry Heckman and Larry Laughlin.

SUMMARY OF SEPTEMBER'S PROGRAM

Harry Heckman put on slide show and talk about his Lancair 290 project. His trusty assistant, Lisle Knight, kept getting the slides out of sequence. Harry's slides were wonderful.

Harry said that Rutan's how-to book is an important primer before you set about the serious task of beginning your project. Harry also reminded us that the greatest source of information is in the club. Talking to other builders can provide unique solutions to problems that crop up.

Harry built the most amazing rotating jig/cradle for assembling the fuselage and wings in. With the wings off there is enough room to rotate the bottom of the plane upward so that he doesn't have to lie on his back to sand and prime. The final feat will be the removal of the plane from the basement workshop—in fact the dimensions of the work space in the basement dictated his choice of kit.

NOTICE RE: NOVEMBER MEETING

Please remember that the November meeting will be held on the 5th Wednesday of the month. The normal date conflicts with Thanksgiving.

MINUTES OF THE BOARD MEETINGS

The October 5, 1994, board meeting was called to order at Fred Egli's house at approximately 1930 hours. In attendance were Fred Egli, Lisle Knight, Louis Goodell and Ken and Linda McKenzie.

It was decided that the Chapter needs to get a Christmas Party committee together to coordinate all of the details.

CHAPTER 393's RAFFLE

Larry is still working to get the Raffle to be the highlight of our meeting. Orchard Supply Hardware has donated \$35 worth of prizes for the October raffle.

Remember to hang onto your tickets as we will have at least one Christmas Party prize awarded from the pool of "losing" tickets.

Ticket prices remain the incredible bargains of three for \$1, seven for \$2 and 20 for \$5.

OPERATION / MAINTENANCE

Rocker Arms and Pushrods

Marvel's Mystery, Part 2

By Bill Marvel of San Pedro, CA

(with technical support by Bill Scott)

Reprinted from the March/April 1994 *The American Star*

In the January/February *Star* I discussed several failures that had occurred in my brand-new Lycoming engine. This engine was given to me free by Lycoming in 1991 because of a major quality-control problem I discovered in my previous factory-overhauled engine.

In concluding the article, I mentioned that I had learned many important subtleties of engine quality from Bill Scott, AYA member and owner of Precision Engine in Tennessee (901-967-0316). I am not exaggerating when I say that I think Bill knows more than anyone at Lycoming about many of these matters.

For that reason, I am writing a series of

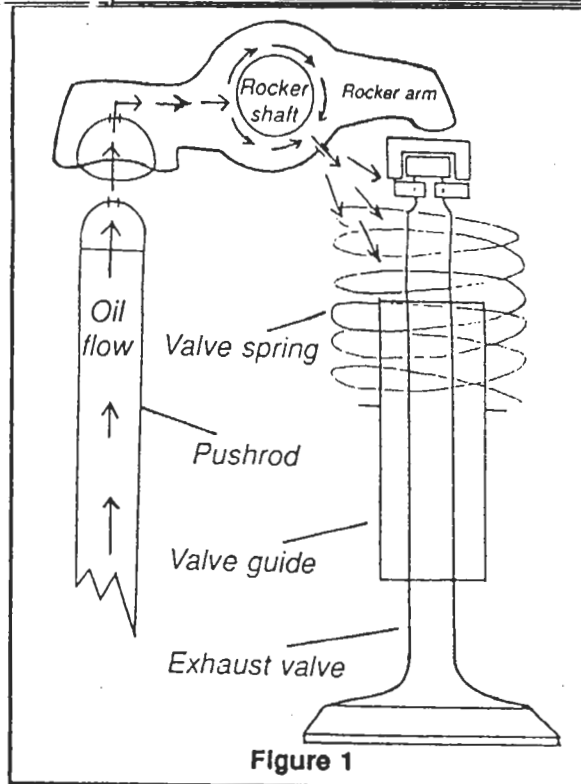


Figure 1

four articles for your benefit, each of which will discuss one aspect of the problems Bill found in my engine.

Remember throughout this series that this engine was brand new and lasted only 428 hours before showing the first sign of failing mechanical reliability: 52/80 compression in one cylinder with all leakage through the exhaust valve.

The Rocker Arm Problem

As emphasized in the last issue, oil-squirt cooling and lubrication of the exhaust valve are of critical importance to top-end longevity. As you will note in figure 1, pressurized oil is supposed to travel up the pushrod, enter the rocker arm through a ball and socket joint, lubricate the rocker shaft, and then squirt at the upper end of the valve stem. In my engine, there was massive oil leakage in the number 1 and 3 cylinders at the pushrod/rocker arm interface. Oil simply never made it into the rocker arm, let alone to the valve stem. The rocker arm was frozen to the rocker arm shaft, a fact confirmed by measurements of support bearing wear.

Of great interest was the wear pattern that Bill Scott saw in the socket end of the rocker arm itself. Note in figure 2 that in a good rocker arm, both the oil passage hole and the socket are circular. In my rocker arm, the socket was slightly oblong, there was an elliptical wear pattern at the bottom of the socket, and the oil passage hole has a star-shaped pattern around its circumference. One of the questions we asked ourselves is the obvious: in changing rocker arm vendors in the recent past, is Lycoming getting too soft a material in some of its rocker arms? We don't know—yet. That unanswered question, incidentally, is one reason I did not accept a new cylinder or any other parts under warranty from Lycoming. Bill

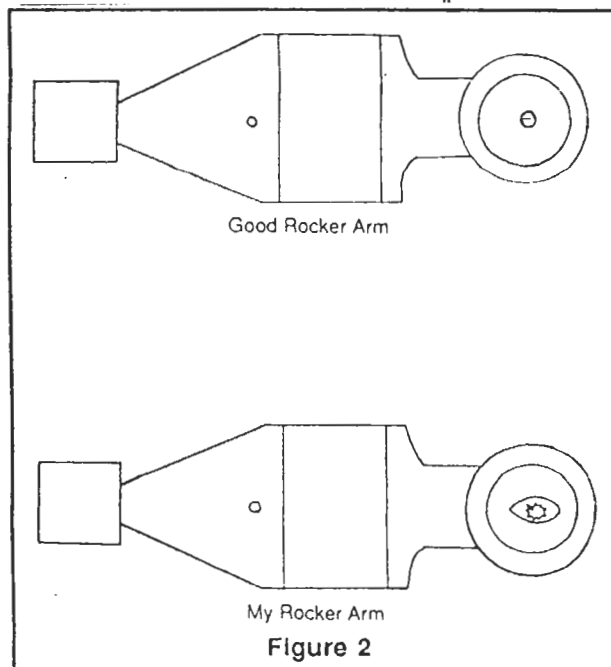


Figure 2

has reworked my existing rocker arms to a leak-free state. We'll pull everything off again after 200 more hours and see what new wear is or is not evident. That, folks, is how we learn.

The Pushrod Subtlety

Think for a moment about the pushrod/rocker arm interface shown in figure 1. If, in fact, there was a true ball and socket joint there, oil transfer would take place only when the holes in each were perfectly aligned. As soon as the motion of the rocker arm on its shaft displaced the hole alignment, no further oil transfer would occur until the holes were again aligned. For that reason, the pushrod ball is not spherical at the very top. In fact, the top of the ball is machined off to produce a flat spot. This flat spot in turn serves to create an oil gallery, as can be seen in figure 3. This oil gallery keeps the rocker arm open to pressurized oil regardless of the position of the arm during operation.

If wear occurred at the spherical ball end of the pushrod, the size of the flat would gradually be reduced until eventually, it would disappear altogether. Without this flat on the pushrod end, the oil gallery feature would be lost, and with it the unimpeded flow of oil during the extremes of rocker arm motion.

During top-end engine work, be sure your mechanic checks for these flats and uses their relative sizes as indications of excess pushrod wear. Additionally, a small flat could be a tipoff to valve train hammering and corresponding damage to other areas of the engine. Hammering can be caused by conditions such as bad hydraulic lifters, broken valve springs and sticking valves. Any of these problems necessitates a further investigation for potential engine damage, especially to the tappet and cam lobe faces.

Incidentally, valve train components, when off the engine, should be routinely checked for magnetism. One of the ways of creating a permanent magnet is to pound a piece of steel repeatedly. In the same fashion, valve train components will become magnetized when subjected to hammering caused by a damaged component. A galvanometer is a convenient tool to use to detect magnetized components, and the

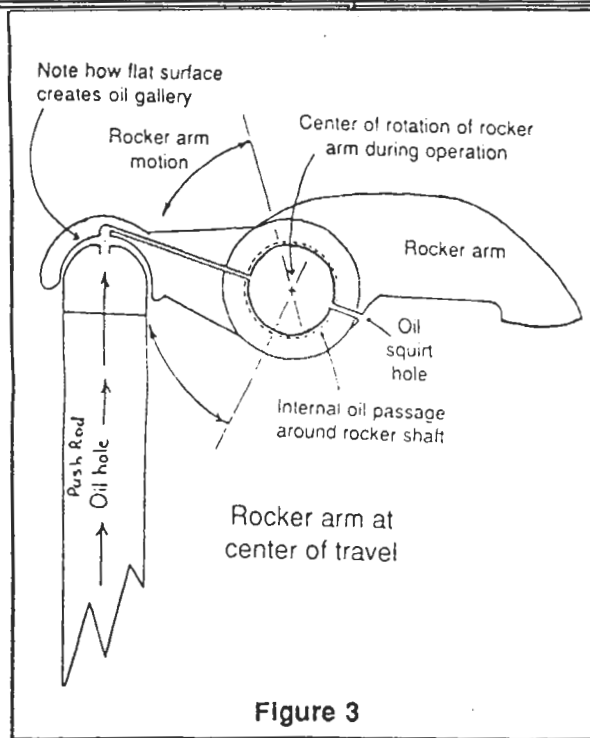


Figure 3

corresponding likelihood of valve train hammering.

The Exhaust Valve Guide

During operation, the exhaust valve slides up and down in the exhaust valve guide, as indicated in figure 1. When the valve overheats, either from insufficient lubrication and oil cooling, or from improper leaning or poor cylinder cooling, the much softer material in the valve guide takes the brunt of the initial punishment. Here's why.

Viewed from either end, the guide is circular when first installed. Ideally, we want it to remain that way, since the valve stem, in the same end view, is also circular (see figure 4a). What happens, however, is that in normal operation the rocker arm "nods" the valve stem up and down in the vertical plane, as indicated by the arrow on the left side of figure 5. As

a result, the stem gradually wears away the inner surfaces of the guide. The guide's inside diameter, particularly at the hotter combustion chamber end, thus slowly elongates in the vertical plane, thereby making the guide oval-shaped, or bellmouthed (see figure 4b). This is expected, since the side-loading on the valve caused by rocker arm operation would naturally cause some wear in the guide walls. This valve guide wear characteristic is so significant that Lycoming publishes limits on how much wear is allowed each 100 hours of TBO run, and also publishes a maximum wear limit, beyond which the guide is no longer serviceable.

Full TBO runs are out of the question, however, when the valve overheats. Normal wear of the much softer guide material accelerates dramatically in this situation and the valve begins to flop around in operation, since it is no longer properly supported in the guide. The resulting repetitive off-center seating of the valve each time it closes

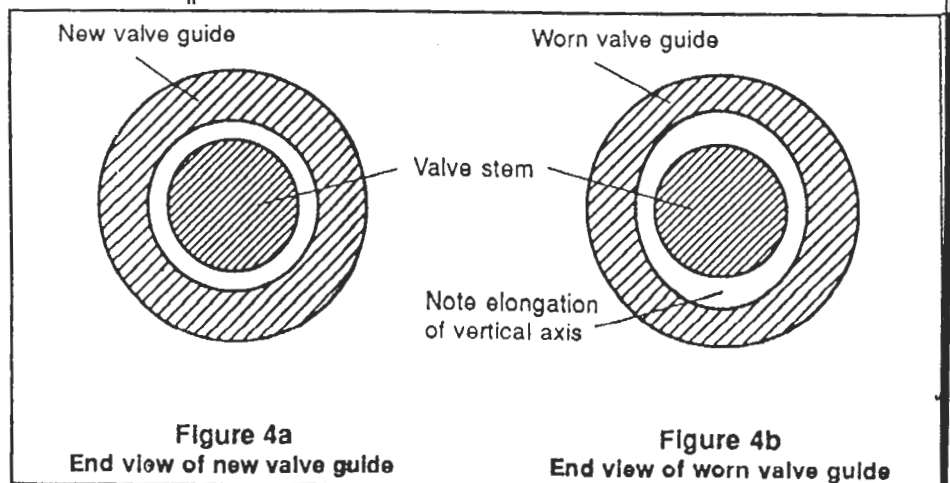


Figure 4a

End view of new valve guide

Figure 4b

End view of worn valve guide

gradually destroys the carefully-machined edges that allow it to form a gas-tight seal (see the lower portion of figure 5). This destruction almost always has the appearance shown—a rounded-off seat and a concave valve face opposite the seat. Compression loss begins to occur—but that is not all. In operation, the exhaust valve spends half its time in the closed position, in direct contact with the seat, to which it can dissipate heat. A good valve-to-seat seal is thus very important for valve cooling as well as for maintaining cylinder compression. With a poor seal, excess heat cannot be dissipated at the valve seat and must be carried up the stem to the guide, to be passed to the cylinder head and eliminated through the cooling fins. But since the guide is already worn to the point where it has allowed the gas-tight seal to be damaged in the first place, poor heat transfer will occur because the valve and guide are no longer in close contact. The valve heating problem will now accelerate—rapidly. In a short period of time, significant compression loss (my symptom) is inevitable. Worse yet, if the problem is not caught, is outright valve breakage ("swallowing a valve"), when the valve can no longer tolerate the stresses of off-center seating and breaks into two or more pieces. This entire process can occur so quickly that many members who have had an in-flight valve failure report that their prior compression check showed normal results. And this brings up the topic of "staking" a valve.

Simply put, "staking" the valve is a practice used by many mechanics that usually consists of striking the valve's upper spring retainer with a hammer in an effort to reduce valve leakage during compression checks. This procedure does allow the valve to center itself in the valve seat, even with a worn-out guide/valve stem fit. As a result, the mechanic may indeed notice a more favorable compression check, but this does not address the problem of valve wobbling in the worn guide due to valve stem side loading caused by rocker arm motion. As soon as the engine is placed in operation, during the first cycle of the rocker arm the valve will again seat off-center and leakage will occur once more. As previously described, the valve will continue to run excessively hot, greatly reducing its reliability, thereby setting the stage for a future in-flight valve failure. In short, members who accept a compression check result based upon having to "stake" the valve should consider maintaining better than usual off-field landing proficiency. Back to my situation. After 428 hours on a brand-new engine, exhaust guide wear on the number 1 and 3 cylinders was already at or beyond the maximum allowable after a full 2,000 hours! All of the wear was in the vertical plane of the guide, with the horizontal plane still at factory-new limits. The valves and seats showed the exact wear appearance depicted in figure 5. This was a clear picture of what predictably results from excessive exhaust valve temperature.

Parting Shot

One final thought, Lycoming publishes its Service Instruction 388 that recommends checking for excessive valve guide wear at 400 hour intervals. It is interesting that on my factory over-hauled engine (with new cylinders), the guides lasted just short of 400 hours; on my brand new engine they lasted just over 400 hours. Lycoming's warranty is valid for 200 hours. Is that good planning or what?

SAFETY NOTICE

for hand actuated primer systems

I recently discovered what may have been the cause of a fatal crash. It appears that the primer valve was unlocked and open during takeoff. It doesn't take much and the pilot likely didn't know that the valve was cracked open, however his engine was missing and stumbling the whole time. After reaching 600 or 700 feet, he may have levelled off and throttled back to keep from over-speeding his turbo-charged, 250 horse engine, at which time the fuel being injected into the cylinders overwhelmed the spark plugs with raw fuel and put the flame out entirely (no air coming in from the Carb.). Four people died as he tried to

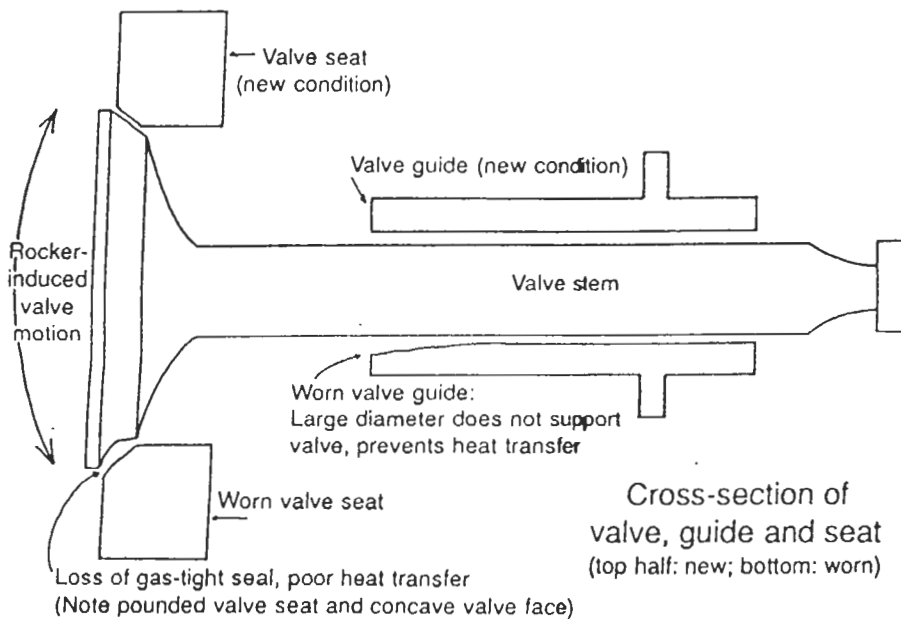


Figure 5

glide back to the airport, eventually stalling just short. Two things can be learned by his mistake: One is to double check that the primer valve is indeed closed and locked prior to takeoff (I intend to take our Cessna up to 4,000 or 5,000 and open the valve to see how the engine reacts). Two, fly the airplane, fly the airplane, fly the airplane! The pilot had only 700 hours in 30 years of flying. He could of ditched it in the water or done a number of things differently if he had just continued to fly the airplane. There were a few other factors that entered into the picture, like 100 more horses than the airplane was designed for, heavy cargo and fuel, every seat filled, etc., but the bottom line is the same. You've go to know your limitations and always fly the airplane when the unexpected knocks on your door.

So for what it's worth, let's all learn something from one another's mistakes. This type of review has saved my bacon once or twice. I hope everyone remembers it, should anyone ever get their "you-know-what" in a ringer.

Just trying to help (Pee-Yuke, how could Glenn say that all the time).

Sincerely,

Larry Laughlin

From: austin.ibm.com!dierks@matronics.com

Subject: Aerobatics in your RV.

Date: Sun, 16 Oct 1994 14:37:05 -0500 (CDT)

I just wrote the following article for our EAA chapter 187 newsletter. I will post it here also for general interests get the RVator, you will have already read about the first accident described below. You may not have heard of the second one. Something to think about. FYI, I have a Pitts S1 with Ultimate wings and fly in Intermediate class competition currently. I had a Super AcroSport I for over a yr and then got a Pitts which I have had for a year and a half. I decided to learn and do aerobatics in a plane built for it after hearing how fast RV's build up speed and how easy it is to over G them. In the Pitts, I pull +5 or 6 and -2 all the time. Doing advanced level routines, I pull +6 and -3. I don't plan to do any of this serious stuff in the RV-4.

So you think you will take a friend up and do some aerobatics in your RV or Mustang II or ???. Is your plane really set up for aerobatics? The IAC recommends a second 'safety belt' which is a lab belt that must be attached to a different structural point than the primary belts. This is in fact required for IAC competition. Here are two actual events that show why you need dual belts.

The first event resulted in two deaths. This was published in the June '94 issue of "The RVator". Some of you will recall an article several years ago when Van flew his RV-6 in a dog fight with a Mustang II flown by Don Norris. Well, earlier this year, Don and his passenger were killed when they went up in the Mustang II to do some

aerobatics. Early findings indicated that the passenger was thrown through the canopy under negative G loads when the right seat belt stitching failed. The canopy in turn took off the horizontal stabilizer and the plane crashed. The article did not say if they had parachutes, but I expect they did not. That was their second mistake.

I will describe a second event that was posted at the Natational Aerobatics Championship's in 1993. I don't have the article so I will describe the essence of what happened. A pilot had a two seat Russian built plane (I think it was a SU29 or a Yak) and it still had the Russian built seat belts in it. He was to fly an air show later in the day but he took a friend of his up for an aerobatics demo ride. I think they were doing a Lomcovak and for some reason the passengers seat belt let go and the passenger punched through the canopy. The pilot heard a loud noise but did not know what happened. He then saw a parachute and he thought he hit some skydivers. He then realized his canopy was broken and he had no passenger. As luck would have it, the passenger had taken a first jump parachute class about two weeks earlier and he deployed his parachute and landed OK. This accident did not result in any death or injury as the pilot landed the plane and the passenger rode down the chute. They think the passenger may have hit the belt release during the maneuver. Again, no second safety belt.

These two accidents should drive home the point that if you will be doing aerobatics, you need a parachute and the plane should have a second lab belt attached to a different structure. I you are like me, I am sure you have had times when you thought the belts were locked only to have them pop open while taxing. Think what would happen if you did this doing aerobatics. As a passenger, you also need to check for these two safety items if someone offers you a ride and says they will go do a few 'loops and rolls'. Even if you are only planing positive G maneuvers, it is very easy to pull negative G's if the maneuver is not done exactly correct. I recall when I was a young lad flying a Luscombe and I wanted to try a loop. I dove for a little more speed and pulled back on the stick. As I lost the view of the world over the nose and the speed was decaying I thought I would never make it around a loop so I pushed the stick forward. Boy was that a mistake. That generated some negative G's and all the dirt on the floor came loose and the extra seat cushions went flying. I was lucky as I had no parachute and only one 25 year old seat belt. We need to learn from the accidents of others. The chapter members now have lots of RV's, Mustang's, and other high performance planes and I am sure many have done some form of aerobatics. However, I don't know of any with dual belts or parachutes. Think of the above stories next time you plan to do a few loops and rolls. Happy aerobatics. Herman

Herman Dierks, Dept. D29, AWSD Austin, Texas
AIX Network Performance Measurement/Analysis
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From: maurer@hsi.com (Mike Maurer)
Subject: Homebuilt project financing
Date: Mon, 17 Oct 1994 19:34:07 GMT

A company called NAFCO (National Aircraft Financing Company) is now offering financing for non-standard (i.e., homebuilt and ultralight) aircraft purchases. Here is a quote from a pamphlet I recently received in the mail.

"NAFCO routinely provides nationwide financing for normal-category aircraft valued at \$25000 or more. But it's a special, new financing program offered by NAFCO that really has pilots talking. NAFCO will finance gliders, classics, and antiques, selected ultralights, kit-builts and microlights, and recreational and sport aircraft (\$10000 minimum loan). And there's no aircraft age limit! This new finance program is available nationwide." This program includes kit-builts while under construction.

For anyone interested, there number is 1-800-999-3712.

Mike
(I am not affiliated with NAFCO in any way).

From: wanttaja@chinook.halcyon.com
(Ronald James Wanttaja)
Subject: Goodbye, John
Date: 29 Sep 1994 05:58:48 GMT

It began in the oddest way. Monday, I got a worried call from the program officer of my EAA chapter. Their regular program had fallen through; could I put together a slide show for that evening?

So after work, I sat on the couch with my slide pages and a portable light table, sifting through my batch of Oshkosh '92 slides for things I hadn't shown before. I wasn't looking for details on the slides; I was just scanning for the familiar shapes that would remind me of what the slide actually looked like.

One caught my eye. I knew what that photo. I lifted the light table closer. In the picture was a balding man with a big grin, in front of a mottled brown-and-white homebuilt.

At that moment, I realized: I'd never told John goodbye.

Old-time netters will remember him. The first NorWeFI (USENET's Northwest Fly-In) was held at Woodland, Washington. I'd planned on bringing the Fly Baby to make my first person-to-person contact with local netters. John, a fellow EAA chapter member, had just flown the hours off his own Fly Baby and I suggested we fly down together.

According to Pete Bowers, John was about the tallest person ever to fly a 'Baby. He'd had to drop the floor down slightly to give him enough room to work the rudders and brakes.

The day we flew to Woodland was severe clear, with just a little high cirrus. John took off first. N500F's extra twenty horses quickly made up the distance. John's A-65

was running a bit rich, leaving a faint black smoke trail. I remember swishing back and forth behind him, "strafing the flaming hun", before joining up to catch a 150-Watt grin flashing from the incongruously tall figure in the cockpit. We buzzed the crowd waiting at Woodland, had a wonderful lunch, and winged our way home.

It'd be the easiest thing in the world to claim we were inseparable from that point. But our interests soon split. He had a family, including a young son who wanted to fly with him. Soon John had a Tri-Pacer. I kidded him unmercifully, of course. I rode with him a few times and we saw each other at the EAA meetings. We never "pal'ed" around, but I was always glad to meet him. And, judging from his everpresent grin, he was happy as well.

Finally, he decided the Piper was too slow. It was a BD-4 he needed; fast with enough room for a couple of kids. He found a partially completed kit and started to work. I then saw him even less.

The announcement at the January 1992 EAA meeting, then, was a shocker. John had cancer. Terminal, and given the near-cliche'd six months to live.

He had one wish: To finish his BD-4 and fly it to Oshkosh.

His friend Roger, the local BD-4 guru, took up the gauntlet. They set John's project up in Roger's immense hangar. When treatments allowed, John worked on the plane. Other BD-4 owners and builders pitched in.

They made it with three weeks to spare. Roger made the first flight, pronouncing the plane near-perfect. They quickly eliminated the bugs and flew off the 25 hours. They didn't have enough time to paint it, unfortunately. The BD had used some parts from a previously-flying aircraft, and combined with the bare or primed aluminum and raw fiberglass was a bit hard on the eyes.

No matter, though. John flew his son to Oshkosh, with Roger along as a safety pilot. I met John there; the grin, if anything, even wider. I took his picture to prove to the world he'd flown to Oshkosh in his own homebuilt airplane. He was bright and chipper, if a little thinner than I remembered. And just plain overjoyed to be there.

John arrived early, and got a GOOD parking space. I took to taking a break from the insanity and from the sun by stretching out in the shade of his long fiberglass wing. I could hear people talking, as they took in the piebald airplane: "Got into a rush with this one." "Geeze, why didn't he wait a year and bring a good-looking plane." John probably heard them, too. But I don't think he minded.

After Oshkosh... well, John turned worse.

At the chapter Christmas party, I happened to sit at the same table as Roger. Our chapter awards first-flight jackets to its members. Roger had said earlier that John was going to try make the party to get his jacket, if nothing else.

John wasn't there. "How is he?" I asked Roger.

"Not good," came the grim reply. The treatments kept him groggy and weak. He couldn't make it up the stairs at home, so his family had installed his hospital bed in the living room. The disease made him frail. He'd broken ribs simply by *coughing*.

So when the chapter president called John's name, Roger stood and walked to the front of the room. He gently took the jacket.

"How's John?" the president asked.

Roger started to respond. But words seem to catch in his throat. The burly ex-marine stared at the floor for a long moment. Then he swallowed, shook his head, and walked back to his seat.

From that point on, I expected the worst.

I didn't expect, though, the call I received four months later. John had somehow made it to the airport. He'd used his key to enter Roger's hangar, where his BD still sat.

John hadn't the strength or flexibility to pull the plane out the normal way. Instead, he swung the prop vertical, wrapped his emaciated arms around the blade, and slowly walked backwards, dragging the plane out with him. He climbed into the cockpit and took off into the bright spring afternoon.

I don't know what went through John's mind that day. Had he remembered fellow pilots saying, "I'd rather die at the controls than die by inches"? Did he think that he'd already beat the doctor's prediction by eight months? Did he think of the love of his family, the joy that could still be remaining in his pain-wracked life?

We'll never know.

All we know is John flew his homebuilt for about 45 minutes. Then he turned around, flew back to the airport, and landed.

And when he called me that evening, with his voice still bubbling with the thrill of flight... I didn't quite know what to think. Last I'd heard about *him*, he'd been practically on his deathbed. But here he was, laughing, talking about how clear Mount Rainier had been, and of watching the sailboats on Puget Sound. I'd just had my first pilot report published, of which I was inordinately proud, and John was most complimentary. He asked more about the airplane I'd flown.

And about how hard I thought it would be to build.

That stopped me for a moment. "Uhhh... pretty easy, really."

"Good," said John. "The BD-4 wouldn't be the right plane for my boy to learn to fly in. I'm thinking of building a Maverick for him."

When we finished talking, I immediately called Roger. His voice, still tight with traces of anger, told the tale.

He'd come home from work to find John's BD-4 sitting outside. John had committed an almost perfect crime... but had lacked the strength to put the airplane away.

Three months ago... over a year after John's last flight... Roger stood up at our EAA meeting. "I'm selling a BD-4 for someone..."

John had died two weeks earlier. He beat his doctor's "Six month" prediction by a factor of four.

I could get all maudlin here, and moan how the world is sadder for his passing. It is... but that wasn't John. He was the grin from the open cockpit. The smiling face in the back row of the EAA meeting. The laughing voice, planning an airplane he knew he'd never have the chance to cut metal for.

Instead, I'll make it short.

Goodbye, John.

Ron Wanttaja
wanttaja@halcyon.com

For John Dornbos, 1951-1994

From: jent@clark.net (John Entwistle)
Subject: UL wing folded up
Date: 9 Oct 1994 05:27:16 GMT

Tonight I was in my Cobra B ultralight enjoying the relatively calm cool air above Maryland. I was doing some yankin' and bankin' at about 500' AGL when the right wing buckled and bent back sending me into one incredible spiral. It took a couple seconds for me to realize that I wasn't going to come out of this spin and by then, several hundred feet of airspace closed between me and the ground. I heard the engine speed drop, or at least I *think* I heard it drop. I was looking straight down and saw the soy bean field getting closer and closer. Finally, I heard my instructor's voice in my head telling me to pull the chute. I was very disoriented due to the spinning and it was hard finding the chute handle. Fortunately, BRS paints them bright red. I looked down at it, saw it, and grabbed hold. I yanked as hard as I could and *POW* I heard the charge of the exploding rocket. I kept falling and the ground was VERY close by this time. I remember thinking to myself... "Why hasn't the plane been flipped to a horizontal position because of the chute?" Then all of a sudden, I felt the chute grab the air as I was jerked. I was only about 15 or 20 feet above the ground when it deployed.

The nose of the plane rammed into the ground and the plane seemed to collapse all around me. I was still suspended in my seat. I had on a seat belt and a shoulder harness that came across my chest. I unbuckled the harness and seat belt and dropped to the ground. Eventually, I found an opening big enough to crawl through. I got out as fast as I could so that the guys with

whom I was flying would know that I was ok. I walked around surveying my plane.

I don't think there's a single piece of tubing that isn't bent or broken. Even the sails have tears in them where there is no reason to be torn. The plane is totaled. Even the prop blades are broken.

I got away with a couple knots on the old noodle, 2 cuts on the right side of my head, my glasses are bent, and I have one hell of a head-ache. I don't know what my head hit on. I don't remember feeling anything until after I crawled out from under the plane.

The chute didn't flip me horizontally because the heavy cable from the rocket to the chute lines got tangled in the tail section of the plane because of the spiraling. Kinda confirms the definition of "augering in."

All of us that fly ultralights know that anything can happen at any time. It's part of the sport. I've thought a lot about what can happen while flying. When I got out of the plane I wasn't scared or nervous or shaken. I didn't have an adrenalin rush. I was concerned about my plane and the people I was with... I wanted them to know I was ok.

Lessons learned: 1. Be sure to have a rocket deployed parachute on your ultralight. You'd never believe how fast that ground comes up to meet your falling plane. If I would have had only a hand-deployed chute I wouldn't be here to write this. (By the way, I have (had) a BRS soft pack chute which hasn't been repacked in probably 6 years - alright, that may be stupid, but it's the truth.) you all know that if I didn't have a chute at all, you'd probably be reading my obituary here instead of my account of the accident. GET A CHUTE IF YOU DON'T HAVE ONE. 2. Get a good 3 (minimum) or 4 point safety belt system. I'm guessing, but I'll bet I would have sustained a lot more and more severe injuries if I would have been using only a lap belt. The shoulder harness saved my ass (along with the chute). Even when the plane hit the ground, I stayed securely fastened to my seat. I don't even have a bruise on my chest. 3. Get some instructions before flying. I can't believe that I actually heard my instructors voice in my head telling me to pull the chute, but I'm here. Flying without instruction is crazy. 4. Practice what you would do in an emergency. Like I said, I've done a lot of thinking about what to do in an emergency. Practice engine outs and dead-stick landings. Guess there's no way to prepare for what happened to me today, but do what you can to ensure your own safety.

So there you have it. I guess I'm the luckiest pilot in the world today. I was able to, literally, walk away from a 500 foot straight down spiraling fall.

I guess I'll not be flying tomorrow. Damn! The weather is supposed to be perfect for ultralighting.

Is there an alt.ultralight.forsale? I need a new plane.

CALENDAR OF EVENTS

- Nov 5-6 HALF MOON BAY, CA - California Coast Airshow. 415/726-ROLL.
Nov 10-13 MESA, AZ - Copperstate Regional EAA Fly-In. Williams Gateway Airport. 1-800/283-6372. Note: New date and location.
Nov 12-13 PORTLAND, OR - 4th Annual Oregon Air Fair. 1-800/547-6922.
Dec. 18 LAFAYETTE, CA - Chapter 393 Christmas Dinner at Petar's Restaurant.

INTERNET JOKES

Seeking female with own high performance acrobatic plane interested in a serious long-term relationship. Age, looks unimportant.

Send photo of plane.

Dave Touretzky
(Sorry, I know it's old, but I couldn't resist.)

For those that haven't heard this already....

Q: Whats the difference between DIA and the White House?

A: You can land an airplane at the White House.

Bruce Bateman

Just in case anybody missed it on rec.humor.funny:

Q: What do Bob Dole and a Cessna have in common?

A: They're both from Kansas, and neither one quite made it into the White House.

--
Roy Smith <roy@nyu.edu>
"This never happened to Bart Simpson."

Overheard: I want to die peacefully in my sleep like my grandfather - not screaming in terror like his passengers.

UNCLASSIFIEDS

Pete Wiebens has hangar space for rent. Call 933-7517.

John M. Agee, M.D. has an IO-360-A1B (fuel injected, 200hp) for sale "at more than a fair price." Call (916) 484-7038.

EAA Christmas Dinner

All Members, Spouses, Companions, Guests, and Others welcome

Sunday, December 18, 1994

No Host at: Petar's
32 Lafayette Circle
Lafayette

Friendship Hour: To be announced at the October and November meetings as well as in the next Cleco.

Menu: Prime Rib or Chicken Piccata (lemon sauce with capers) with salad, vegetables, rice and dessert. \$23 per person.

Mail your check and this order form to:

EAA Chapter 393
P.O. Box 272725
Concord, CA 94517-2725

All reservations must be received by December 4 (but reserve early so that you are at the top of the list).

Menu Item	Number	Price	Cost (# times price)
Prime Rib	_____	\$23.00	_____
Chicken Piccata	_____	\$23.00	_____
TOTAL ENCLOSED	_____		_____

Name(s) of attendee(s)

NOTE: Please enter the fullname of each attendee as you would like it printed on the name tag.



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Reply to Oakland Office

The C₁eco

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(9)Pd.2/28/95

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