



Chapter 54 News

Lake Elmo, Minnesota

January 2003

Program

- Monday Jan. 13, 2003
- Social Hour at 7 p.m.
- Meeting at 7:30 p.m.
Chapter House, Entrance,
Lake Elmo Airport
- Program: Daniel Billig, a senior technical service engineer in the 3M Superabrasives and Microfinishing Systems Division, will demonstrate 3M's latest microfinishing products for removal of scratches in aircraft cockpit windows.

Repowering the J3

by John Renwick



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Since flying my J3 Cub down the Mississippi to Sun 'n Fun in 2001, extended cross-country Cub trips have become very important to me. I'm planning an Alaska trip for the coming summer and there will be more mountain flying trips as I pursue my 50-state goal, so naturally an engine upgrade came to mind.

On the recommendation of Jim Drometer, Silver Wrench mechanic and owner of Aircraft Restoration Supplies in Belle Plaine, I chose a Continental C90-8 - but where to find one? I asked on the Chapter 54 mail list, and Mark Holliday offered me an engine case, yellow-tagged by Bolduc back in the 70s. That was a start!

I found a rebuilt O-200 in Trade-a-Plane, and Jim Montague had a -8 accessory case, so parts from three different engines (as well as some new parts) became the basis for a rebuilt C90 for the Cub. With a twinge of regret I auctioned off my steady, reliable

500-hour A65 on EBay, and thus committed, plunged into the unknown to see what surprises awaited. Of course there were some!

The supposedly rebuilt O-200 had actually only been topped, as it turned out. Jim sent the internal parts to a shop in Oklahoma for overhaul; the crank came back .010 undersize, and we bought new pistons. Two of the cylinders had been chromed; the other two had been ground with a slight taper, so Jim had them honed straight. The -8 accessory case had a small amount of wear around the oil pump gear, normal because the slaved gear has only one bearing. This allows it to wobble slightly and the tips of the teeth can touch the case, causing the case to wear. Jim found a modified pump for the -8 from Don's Dream Machines, which has two bearings and isn't subject to this problem. He was very excited about that mod! Jim's assistant Sam Niskanen did a very meticulous job of assembling and installing the new engine. The new cam-

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President's Column The Value of 'Why?'

Ever since November we have been getting new reports on the Wellstone crash. These reports all point to pilot error. For most of us our first response is: 'Why always blame the pilot?' I remembered that I had a copy of the Air Safety Foundations "Nall Report". This report looks at the 1950 to 1999 U.S. General Aviation accident rate. Here are their conclusions:

The first thing that got my attention in this report is that general aviation has over 27 times more airplanes as the airlines. We make up 94% of all airplanes, air taxi 2.5% and airlines 3.5%. Therefore it stands to reason there will be more accidents for our type of flying. But are these mainly caused by pilot error? To quote the report, "The most common accident causes continue to be pilot related. This should come as no surprise. In every form of human activity involving machinery such as automobiles, boats, and aircraft, the hardware is invariably more reliable the human operator."

Takeoff/climb, descent/approach and landing are where 71.7% of accidents happen. Landing is the most dangerous phase with 37.9%. Takeoff/climb is next with 23.6%. Descent/approach follows with 10.2%. This confirms what many of us have always known. The landing phase is the most challenging phase of flying and, for me, the part I enjoy and sweat the most. Just remember to be careful, because this part can bite you. Interestingly the reports say that the flight phase near the airport only accounts for 5% of a normal flight. Makes one wonder what phase of flying we need to practice the most in.

When it comes to fatal accidents 60.2% occur during maneuvering or takeoff/climb phase of flight and only 22% during approach/landing phase. My guess is that in the latter phase you have an airport to land at while the former it is usually an off airport landing.

The last part of the report that is of interest to all of us homebuilders are how do we stack up against factory-built airplanes. The statistic that surprised me was that during the maneuvering phase home built airplanes have twice as many fatal accidents then factory airplanes. 57.1% of all fatal accidents are during the maneuvering phase for home built airplane vs. only 28.3% for factory airplanes. In the takeoff/climb phase accidents home built airplanes have almost twice as many fatal accidents as factory airplanes? 31.4% vs. 17.9%. When you look at what caused the fatal accidents, homebuilt airplanes come out in second place. 19.3% are fatal for homebuilt airplanes vs. 8.4% for factory airplanes. This sounds like some pilots of homebuilt airplanes are over-stressing their airplanes while doing loop the loops. I would also guess that engine maintenance and type of engine also contribute a lot to the fatal accidents.

Non pilots reading this will think we spent too much time dwelling on accidents. My reply is that we don't want to have an accident. We just want to know what causes them so we can avoid getting bit. That's the major difference between pilots and the average automobile driver. We try not to do dumb things because we believe the accident reports. The average automobile driver reads about an accident and thinks, 'It won't happen to me,' and then goes out and does

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Chapter member meet on the second Monday of every month at the Chapter House, Entrance B at Lake Elmo Airport (21D). The House is at the base of the airport beacon.

The newsletter is printed on the first Monday of every month. Parts of the newsletter may be reprinted with appropriate credit.

21D RCO 118.625

21D Unicom: 122.8

TPA: 1932'

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TECHNICAL COUNSELOR REPORT

Taking it to the Skies

by Bill Schanks

The bar at the Lake Elmo airport and within Chapter 54 keeps getting raised higher. The quality of the projects under progress and the ones that are being completed, keeps getting better and better. I have been more active in my Tech Counselor visits the last couple of months and have had the opportunity to visit several projects.

Todd Balsimo has just completed his Challenger II and it was flown on the 21st of December. Gil Leiter has also completed and flown his project, which is a Challenger I. Dick Stright is nearing completion on his Fisher Koala. All three of these aircraft are Rotax powered. Dave Holmes is continuing his progress on his Pitts Super Stinker and is still looking for a suitable power plant. Dale Rupp is very close to completion of his Van's RV-6. He has been interrupted slightly trying to get a Bellanca 7ACA back in the air, as well as preparing his motor home for a trip south.

In the antique/classic category, Dennis Hoffman and Bob Waldron have made a great deal of progress on their Piper J-3 restoration. I've also been to the Anderson hangar where Jack Blaise and his helpers are doing a beautiful job restoring the Aeronca L-3 and Jim Montague is hard at work restoring the very last Swift to come off the assembly line. The quality of workmanship and attention to detail on all of the above-mentioned aircraft is outstanding.

Back to the homebuilt versions where I am becoming more acquainted with the Rotax engines. Todd Balsimo, a 37-year-old father of two, took a little over two years to complete a Challenger II. The aircraft has a Rotax 503 engine turning a three-bladed Wharp drive propeller at



Todd Balsimo has just completed his Challenger II and it was flown on the 21st of December.

2.6:1 reduction. At cruise the prop turns at 5500 rpm. The panel includes a Grand Rapids EIS. (Engine Info System) It provides information which includes altitude, exhaust gas temp., cylinder head temp., voltmeter, vertical speed and revolutions.

At the time of my visit, Todd was still waiting to come to an agreement with the DAR on a suitable day for the airworthiness inspection. It happened on the 21st of December and that is when the first flight occurred. I have-

n't had a chance to talk to Todd on the details, but it must have gone well because the airplane has been seen out flying quite a bit.

The airplane was covered and painted using the Poly-fiber system all the way through finish. Todd and his father have a Mooney with a paint scheme that they rather like, so the same design was used on the Challenger. It is a very attractive color scheme and works well on the homebuilt.

I made a second visit to Dave Holmes' Pitts Super Stinker. I'm really impressed with that airplane. Dave has finished the upper wing and is doing a really outstanding job. Dave is a pretty clever guy and has improved on the design and method of construction with his own little engineering details. He's doing the research and has made visits to the factory at Afton Wyoming to consult with the designers. While doing the visit to his shop, I noticed a model airplane that Dave had built in his younger days.

At first I thought it was a Curtis or a Supermarine and asked about it. Dave informed me that it was an Italian Macchi. You can tell the difference, he says, by the big

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Small carriers, private pilots prepare to fight NWA *by Elizabeth Stawicki*

There was a time during the last century when commercial airlines shared the Minneapolis-St Paul airport with myriad kinds of aircraft, including small, single-engine prop planes. But as aviation took off commercially, the main airport became crowded. So from the mid 1940s to early '50s, the state built or acquired six regional airports around the Twin Cities to relieve MSP of slower and smaller aircraft.

Minnesota's reliever airport system is the third-largest reliever airports system in the U.S. The six Minnesota general aviation airports -- Airlake, Anoka Blaine, Crystal, Flying Cloud, Lake Elmo, and St. Paul Downtown -- serve more than 1,900 based aircraft and had some 822,000 operations a year.

The airports house tenants ranging from weekend putterers, who tinker in small hangars, to aviation businesses such as Anoka Air Charter at the largest of the Twin Cities reliever airports, Anoka County Blaine.

Charter president Michael Hayes says it's unreasonable for Northwest to assert that reliever airport tenants pay the full cost. He says reliever tenants do the commercial airlines a service by flying out of the smaller airports when they have the right to fly out of MSP.

"Reliever airports are designed to take the business, corporate and personal traffic off MSP. If you raised the price at reliever airports, we might as well move back to MSP," says Hayes.

Another business owner at Anoka, Darrell Buldoc, agrees. Buldoc owns and operates an aircraft engine rebuilding business at Anoka County Blaine airport. He says Northwest forgets that it shares airspace and that other fliers have a right to good quality airports outside the Twin Cities.

"They're becoming kind of a big bully around here," he says. "They're going back on the way it was supposed to be designed and set up years ago. If they want us to come back to the international airport, we'll be more than happy to do so. But it's going to have a big effect on operations. We have just as much right to that airspace as they do."

The Metropolitan Airport Commission derives its revenue from fees paid by airport businesses, customers and airlines.

The MAC says, in general, reliever airport tenants pay about 30 percent of the total cost to operate reliever airports. Most of the MAC's budget comes from Northwest Airlines.

"We're looking at ways to reduce pennies," says Bob Benner of Northwest. "It strikes us that when we're cutting costs to the point where we have to lay good people off. It doesn't make even a little bit of sense, particularly when it's clear that their (MAC's) current financial relationship with the relievers is let's say overly generous."

Benner says the Metropolitan Airports Commission has acted like Santa Claus to the reliever airports.

Aircraft Owners and Pilots Association President Phil Boyer told Gov.-elect Tim Pawlenty in a recent letter that the MAC was under pressure from the airline industry to reduce spending at the GA airports to make up for ailing airline profits and operating deficits. The airlines, according to Boyer, view traffic at the GA airports as "competition."

"The majority of the air traffic at these airports are private individuals who operate aircraft

for their own personal business or pleasure, or corporations that own or lease aircraft for their executive travel," Boyer told Pawlenty. "AOPA urges you to not allow the interests of the commercial air service providers to disrupt the safe operation of these general aviation airports."

The manager of the Anoka County Blaine airport, Jack Eberlein, says tenants are paying more than they used to; their rates are rising and will continue to rise for the next several years.

"In the long run (reliever airports) save money for people who have to use the Minneapolis airport for commercial purposes. We've got to provide a place for these people; it's a first-come, first-served basis. Any pilot that flies off this airport can fly in to the Minneapolis airport. We're trying to provide an incentive to keep them from the Minneapolis airport," says Eberlein.

Northwest has said reliever tenants could pay more than what it terms "bargain basement rates." It ar-



Dan Neuman, a former commercial airline pilot who now restores airplanes, says higher fees at the reliever airports are "probably inevitable." "It doesn't serve a useful purpose to make the expenses exorbitant for anybody," he says.

TECH COUNSELOR REPORT *Continued from page 3)*

dorsal fin on the bottom side of the empennage. I guess, according to Dave, the Italians had a pretty good incentive to win races. Mussolini gave the order that if you didn't win, you'd be shot!

Dick Stright is almost ready for final assembly and is working on the engine installation. He also has a Rotax. With all the airplane builders using the Rotax power plant, there is a great opportunity for exchange of information. This is pretty beneficial and a great example of the advantage of belonging to a local chapter. Dick covered his airplane using the Super-flite system. He finished it using latex paint and applied it with a roller.

Our chapter is very active and thanks to our having a Chapter building, the Saturday morning get together provides a great opportunity to meet and exchange information. Last Saturday there was a lot of activity at the Chapter house. Quite a few people came and went and we picked up some new members.

Paul Liedl says our membership is now over 120 members. I'm looking forward to some more Tech Counselor visits in the future with all these new builders coming on board. I have one scheduled with Paul Hove and his Van's RV-7A this coming Saturday. Keep up the good work everybody.

REPOWERING THE J3 *(Continued from page 1)*

shaft wouldn't turn in the engine case, so at the last minute the case went by air to Oklahoma to be rebored. A yellow tag doesn't always mean what it should!

We chose the -8 engine because it has the same accessory configuration as the A65: mags only, no starter or generator. That allows it to fit into a J3 with only minor changes to the exhaust system and no changes to the cowling. The spacing of the exhaust ports differs slightly, so the header pipes went out for some cutting and welding. The muffler needed a mod to beef up the carburetor heat output, and Sam had to move one of its air hose flanges to keep the hose from hitting the new 6-quart oil tank from the O-200.

By mid-December the work was proceeding and I was thinking about how to break in the new engine. I was planning to visit my oldest son in Colorado for Christmas, so I thought that if the weather were good, I would fly the Cub there. I asked Jim if he could have it ready by December 21, and he said he would. He did!

I played hooky from work and test-flew it on the 19th. Jim predicted it would start on the 5th blade, and that's exactly what it did - kept running, too! The only adjustment it needed was to the throttle's idle stop. I flew it for an hour, making low circles around the Belle Plaine airport because the visibility was about 2-1/2 miles and it was snowing a little bit. But the engine stayed cool, and ran like a charm. It seems much smoother than the A65 was. The takeoff performance is stunning. The airplane is definitely

faster, but I couldn't tell how much, flying in circles like that!

The weather shaped up nicely for a departure for Colorado on Dec. 22. My rule with the A65 was not to fly below 25°F, because if the air was colder than that the engine, with its cylinders out in the propwash, wouldn't really warm up. I decided to forego this rule for the C90, and indeed it did start and warm up nicely in temperatures down to 15°F. The trip to Fort Collins took almost 6 hours of flying on the first day, and a little over four on the second (December days are short!). I changed the oil at my first overnight stop, and the screen was clean. For the return trip I had mojo tailwinds, and in one day I made it from Sterling in northeastern Colorado to Belle Plaine, 6-1/2 hours flying time.

Sea-level cruise at a comfortable 2300 RPM seems to be about 85 MPH at 7.3 gallons per hour. I can lean the new engine, and en route from Colorado I did a leg at about 5000' density altitude and 6 GPH, TAS probably 85-87MPH. Now I need a thermometer! According to the books, the C90 is about 10 pounds lighter than the A65 was; with that and the higher speed and thrust, my nose-down trim is at its limit in cruise whenever the CG is aft, and I'm holding forward stick pressure to keep from climbing. Maybe it's time to move my carcass to the front seat.

Treasurer's Report *By Paul Liedl*
December's Financial Report

Cash on hand	\$ 35.00
Checking Acct.	\$1628.59
Investments	<u>\$6000.00</u>
Total	\$7663.59

Income consisted of \$225 in individual dues, \$25.00 in donations, \$90 in calendar sales, and \$37 in "Change 54" Fund for a total of \$377.

Expenses for the same period were \$319.15. They consisted of \$215 in payments to EAA National (Liability Insurance and Yearly Chapter Fee), \$37 for membership (stamps for mailing renewal reminders) and \$67.15 for newsletter publication /distribution.

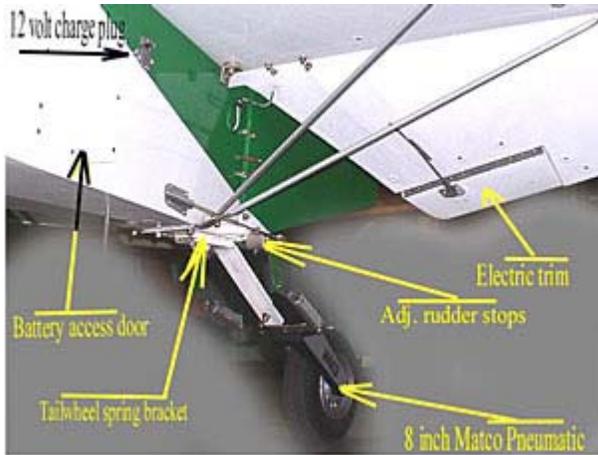
Sorry! No minutes of the December meeting were submitted for this issue.

Dakota Hawk Update by Tom Marson

For some of our members that may not remember, about seven years ago, I reported to the existence of my project to build a Fisher Flying Products kit at a membership meeting and I asked for a Tech Counselor. Gene Frank volunteered and visited the project several times. It first flew in Sept of 1996.

This Dakota Hawk kit was the second customer completed plane, the first by a Montana builder that flew a month or so ahead of mine. I wrote an article for the FFP newsletter, including my address and phone number and from that beginning I have had hundreds of phone calls from all over the U.S. and some from as far away as Australia and New Zealand.

After the first 6 months of calls and several re-



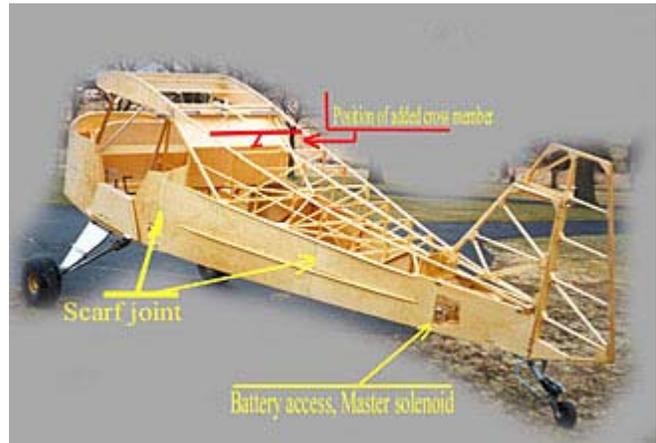
quests to put my building experience in writing I did so. The booklet was called *Builders Tips for the Dakota Hawk, and other Fisher Flying Products planes*. Copies have been sent at when requested to seven countries and all over the U.S.

Through the many contacts, the booklet sales and subsequent calls back I have enjoyed a whole lot of new friends. Now the long term benefits are beginning to come in as I get emailed pictures of planes that are now being completed and flown. The most recent came last month was a plane with a new six-cylinder Jabiru engine from a builder in New Zealand, Gary Mitchel.

Last summer at Oshkosh, the Fisher factory hosted a get together of builders on Sunday afternoon and finally I got to meet lots of the folks I had been talking to and corresponding with for the past 6 years. I was very rewarding for all of us. Just this week I completed a second edition of Builders tips, using a word processing program "MSWorks" in Windows XP. It allows integrating photos into the text and so the new updated Tips is twice as thick with 60 illustrated photos. I'm excited to be able to offer this new more useful book to builders. Fisher has actively promoted "Tips" too.

Update on Tom Marson's Dakota Hawk.

I continue to modify and update the plane, now flying for over six years. Some of the changes made in the last year are: 1. Made aluminum "speed fairings" for the front and rear lift struts 2. Replace solid bearings in the control system from the original Acrylic to UHMW poly. for better wear characteristics and smoother operation. 3. Completely modified the instrument panel from a solid single piece with very poor instrument access to a two piece unit with either panel being easily removable for access to the instruments and everything behind the panel. 4. Modified the side by side bench seat to one that wraps around the sticks incorporating Oregon Aero foam seats.



Student pilot to irate instructor:

"You're simply impossible to satisfy. I just finished navigating successfully through a boiling fluid swirling around a rotating sphere that is hurtling around a fusion reaction source at thousands of miles per hour. This system is moving in a circular motion around a black hole at who knows what speed, while the space it takes up is expanding. And then I bounced the landing six inches. SIX MEASLY INCHES! Get off my freakin' back!"

Gaggle spotted on Lake Big Carnelian

by Marlon Gunderson



There was an impromptu small-plane gathering on Sat. Dec.28 on Lake Big Carnelian just north of Stillwater. It started out as a flight of three from 21D (Paul Liedl, Dennis Hoffman, and Bob Waldron).

Dennis performed an ice safety check landing (not sure how this technique is performed but I understand it is very complex). The ice was reported at 9" from ice fishermen.

Paul followed Dennis for a landing while Bob circled. John Renwick, having just completed a flight in from Colorado that morning with his J-3, newly overpowered with a fresh C-90 transplant, overheard the formation flight departure chatter and followed the flight up. Marlon Gunderson was swapping lies in the clubhouse when the light plane squadron was observed to be forming up at the north end of the airport for departure, so he pulled out his J-5 and departed and followed John Renwick who was heading north. Steve Peterson from Benson airport fell into the pattern he saw circling over Big Carnelian, and everyone landed after getting the ice report from Dennis.

We ended up with two J3s, an L4, two J5s, and a Taylorcraft on the ice. Two chapter 54/MUA members were out flying their Ultralights in the area and joined the gathering on ice. It is not often that Lake ice is both thick enough and clear of snow so that wheel equipped aircraft can land. Bob, John, Dennis, and Marlon flew on to Boyceville for a late lunch at Bloomers, joining Jim Michalski who was there in his RV-6.



Here's a picture of my Christmas present from my wife Sue: A mural on the hangar wall of me and my trusty dog flying my Swift!

—Mick Supina

A Day at Oshkosh *by Vieve Edlund*

To stand on the flight line at Oshkosh, airplanes as far as the eye can see, is heaven on earth. Camping out along the rows and rows of campers waking up in the morning to your "neighbor" saying good morning. The yodeler waking you up on the loud speakers on the flight line, you pull on your beaten up sneakers with a thousand miles on them, grab a clean shirt, and head down the road to the exhibit buildings with the rest of the wing nuts.

Snagging a ride in the Ford Tri-Motor, ahh...what can I say? Flying's a gift, better than anything you can get for your birthday or Christmas. Just the feeling of being above the birds is enough. As I watch the runway lift away beneath me I settle into the rhythm of the humming engines.

Then the air show! Oh Whatta sight! The best performers and their top-of-the-line aircraft. The little modified Pitts that Sean Tucker flies and Jimmy Franklin's Showcat, dog fighting over the thousands of up turned faces. Finally the war birds, just before sunset. The beautifully restored Corsairs, Mustangs and T-6's, the Messerschmitts, the P-40's and the Sea Furys. All taking off in formation, the roar of the engines drifting over the airfield like the smell of freshly baked cookies.

On the way back to camp, walking through the sweet smelling fields of planes, each one bunked down for the night, each one different and unique. Homebuilt, war-bird, aerobatic, and ultra light. The few stragglers peaking in the still uncovered cockpits and chatting with the owners, running weathered hands over cleanly polished wings.

Arriving back at camp, finding the "neighbors" have already arrived. Sitting to chat about how well Tucker did his torque roll, or how sharp Patty executed her 8-point loop. Until another day, you bunk down as the buzz of the helicopter rides fade. Grabbing your various magazines and pamphlets you picked up from the day and lulling into a peaceful airplane-noise-filled dream.

FIGHTING BACK AGAINST NWA (Continued from page 4)

gues the savings could be directed at reducing its and other commercial airlines' charges at a time when the industry as a whole is in trouble. Northwest laid off 8,000 people in the past 18 months and two of the six major airlines are in bankruptcy.

There's also the question of whether the commission should subsidize what some might call a rich person's hobby --flying and owning an airplane.

"There's a lot of people that have prioritized flying instead of having a lake cabin, instead of a boat, instead of traveling to other countries," says Darrell Buldoc. "All they want to do is fly their airplanes. There's a lot of people out

here like that. They pay a lot of taxes on land they don't own."

One of those is Ed Erickson, a retired commercial airline pilot who's flown for Northwest, Republic and North Central. Erickson has several airplanes in his hangar.

"It's like schools or anything else; they're there for the public good. I don't have any kids in school; haven't had for years, but we pay school tax. Whether you fly an airplane or not, this airport does a lot of good for you. Let's say you have an auto accident or you need a heart transplant. How do you think those things get moved? Airplanes that do it at (reliever) airports around the country. That's how airmail gets moved; it doesn't all go on the airline," Erickson says.

Erickson says he and other private pilots are planning to show Northwest what reliever airports are for. He says they're planning to saturate the airspace around MSP with small planes.

"We're going to have a fly-in at the Minneapolis airport and get 300 airplanes to show up on a Friday afternoon and get in the airspace and say, 'We want to come in and land. We're going to buy fuel.' All these (Northwest Airlines') airplanes coming from Seattle and San Francisco, they got to get in line just like anybody else. And when they start having to go to their alternates because they can't wait for all this traffic to get out of their way, they're going to wonder why this is costing (them) money," he says.

Erickson says his group would notify authorities, including air traffic control, before they'd stage their fly-in. He says they have not yet set a date but are in the organizing stages.



Charter president Michael Hayes says it's unreasonable for Northwest to assert that reliever airport tenants pay the full cost. He says reliever tenants do the commercial airlines a service by flying out of the smaller airports when they have the right to fly out of MSP

PROJECT UPDATE

When bad things happen to bad builders

by Bob Collins

A small cheer went up at the aircraft factory in Woodbury last weekend when the final pop rivet of the leading edge of the left elevator on my RV7A was pulled. "I did it," I said to myself quietly, relatively oblivious to one of the greatest comebacks in football history taking place on the radio in the background. "Maybe I really *can* build an airplane. Yep, Bob Collins, who flunked shop in high school, was now a certified tool monkey.

But some people just shouldn't pick up more than a screwdriver and, folks, I'm one of them. With the elevators in place, it was time to mount them on the horizontal stabilizer, completed about 250 hours and more than a year ago. And then, tragedy struck...

In the Van's manual, the two counterbalance arms



that swing parallel to the outboard edge of the horizontal stabilizer are clamped flush to the HS. When I did that, as you can see, there was about a 3/8" drop from the left elevator to the right one.

Having no idea what to do, I did what any red-blooded American bonehead with a drill would do: the Internet. First, of course, I created a Web page of my predicament (<http://www.visi.com/~bcollins/elevatorblues/>) and then waited for the advice.

I got plenty of it, all of it good and most of it making my head spin. The fixes were complex and above my capability. But still I wasn't quite sure, and neither was anybody else, what the problem was.

A call to Van's (with an advance e-mail to them to check the Web site so they'd know what I was talking about) yielded a "don't worry about it." The guy never saw the pictures. But I *was* worrying about it.

EAA 54 member Doug Weiler, head of the Minnesota Wing of Van's Air Force, made some calls and organized a posse of some of the best builders in the country to help diagnose the problem and quick plans were made for a visit.

My problem? I didn't know where to look. Clearly there was a problem. But was it in the left elevator, right elevator, horizontal stabilizer or — more likely — all three?

Then on Wednesday morning, I disassembled

everything and made sure the work surface was flat. An early-morning check of the horizontal stabilizer revealed that maybe it was not built level. (A letter check revealed this not to be the case....at least too much!).

But by placing the elevators flat on their back with the outboard ends against each other, the problem was apparent as I measured the trailing edges all the way down the line.

While the entire trailing edge of the left elevator touched the work surface while holding the counterbalance arms flat against the table, the TE of the right elevator slowly rose from the surface as I worked my way from outboard to inboard. C'mon, baby, we did the twist!

At least now I knew where the bad elevator was. But I had no idea how to fix it. Even worse, I had no idea how it got in there in the first place. The 7A is pretty much entirely pre-punched. The exceptions are the ribs and so I focused on the outboard rib. And while thinking, I remembered a relatively minor event.

When I was finishing riveting the skin to the spar...oh so many months ago....I was on a step stool, lost my balance and grabbed the horizontal cross-piece to regain my composure. Only...unbeknownst to me....the clamp providing reinforcement at the vertical post had been removed..the joint failed and down went the cross piece. Fortunately, or so I thought, it went straight down...on the one side....the outboard side.

The only noticeable damage was a small crease in the trailing edge where the skin was "pushed" into the v of the cradle. Ugly, but probably no big deal, I thought at the time.

But looking at it now, it was clearly like a "flute" That brought the outboard edge up enough that when aligning the inboard edges the other day...the counterbalance arm was out of alignment. So the mission now is to rebuild that elevator, drill off and replace the skin, and evaluate the condition of the spar itself. Given that the condition is primarily along the trailing edge and rib, I don't think there'll be a problem.

The "takeaway" from this, however, was how fast the builder community came running. It was like neighbors rushing to put out the barn fire.

This plane may never fly for all I know, but I'll still come out ahead.





EAA Chapter 54
3275 Manning Ave. N. Suite #7
Lake Elmo, MN 55042



CLASSIFIEDS AND NOTES

For Sale: Maule tailwheel, 6 inch hard rubber. Purchased new in 2001 and used 6 months and about 20 hours. \$130.00 or offer. Tom Marson , 612 245 9755, Cell phone.

Event: The Twin Cities RV Builders will be having their meeting at the Fleming Field terminal building classroom on Sat. Jan 25 at 10 a.m. Professional RV builder Paul Irlbeck will be hosting a question- and-answer session so this will be directed at new builders. Plus we'll have some of our other RV experts available to talk about RV building and flying. Coffee and donuts will be on hand. For details contact Doug Weiler at 715-386-1239.

WTB RV-6A W/CS PROP Call Steve Chiodo 952-881-3138

Need Oil? — After reading this month's newsletter, I got thinking of how I could help members who need oil. Anyone can get into my hangar at RNH and take what they want and leave a check, but not everyone gets here. I would guess that even if they did, they might feel uncomfortable about "breaking into" the hangar and taking oil. To solve that, if people are interested, I could leave some cases of both quarts and gallons at the clubhouse. When someone needs oil they just take it and leave a check. I would then have an excuse to stop in and miss a night of dancing. If this works, if it isn't illegal, and if no one is offended by it, I'd be glad to give it a try. The whole idea is to keep 'em flying as inexpensively as we can. I know that Mr. Mayer might be opposed to less expensive oil on the field, so I don't want him to be upset. —Jim Rusch