

# DRAGONFLY BUILDERS AND FLYERS NEWSLETTER

THE OFFICIAL VOICE OF DRAGONFLY BUILDERS ALL OVER THE WORLD

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Sunday morning was a bit warmer than the morning before, and the sky was clear and crisp.

**By Don Stewart**

The Ottawa 2000 Fly-In

I thought it was about time that I sit down and write a report about the Ottawa 2000 Fly-In in Ottawa Kansas. If there is one word that can be used to define the Ottawa 2000 Fly-In, it would be "crispy". After the first year that Debbie and I took over the Ottawa Fly-In in Kansas, in an effort to promote more flying hours, I made the decision to move the event from the first

weekend in September to the second weekend in October. The idea was slightly cooler weather, with still being able to take advantage of some of the Fall colors. The slightly cooler weather would allow us to get more planes in the air, and hence give more check rides and so forth.

**Continued inside**

But as luck would have it, and the weather being as fickle as it is, Ottawa1999 ended up in clear, reasonably warm weather. But just to the west of Ottawa sat a stationary cold front that stretched north and south that split the US in two, which kept the folks

group, Dragonflyers tend to be a little more conservative when it comes to scud running weather. Lots of DF folks tried to launch, but the weather front was just too daunting. As a good friend once said to me "Don't get stampeded into anything unsafe".



**That's frost you see on this Q's canopy.**

from the west from flying in, unless they could scud run north and south to Ottawa.

I moved the date for Ottawa2000 back yet another week and the weather again played a factor. While it was clear all around us and clear across the country, (for the most part) Ottawa was in the middle of a cold snap, one of the coldest Octobers that the local area had seen in several years.

However, the cold weather didn't seem to deter pilots from logging probably the most number of flight hours that we've ever had at any of the Ottawa Fly-In's. The cool weather allowed lots of planes to stay in the air for a lot longer part of the day. That, coupled with the decision to have the Award's Dinner at the hangar at Ottawa Airport, instead of away, allowed the pilots more time in the air for check rides right up into the early evening.

Ottawa2000 turned out to be a mostly Q event, with 17 airplanes, only two of which were Dragonflies. As a

Tony LeMaster, the FBO at Ottawa Municipal Airport, did his usual fine job of preparing the airport for our Fly-In, include cutting what seemed to be miles and miles of grass. The newly paved concrete runway at Ottawa went in last year and this year the taxiway paving is in the planning. The bump at the end of the runway is not completely gone, but has been softened quite a bit.

The first aircraft at the Fly-In when I arrived on Thursday night were a pair of DC-3's parked out in the grass adjacent to the tarmac. The DC-3's had been outfitted with turboprop engines and a couple of our own were able to take a test ride in one of the DC-3's that was up for sale. They reported a truly memorable ride since the pilot had to put the aircraft through all of its paces for the prospective buyer.

By Friday evening, at the time of the informal dinner at the Sirloin Stockade, we had quite a gaggle of Q's at the airport ready to show off for the next day. While we're in line with Bob Johnson waiting to place our food order, Bob gets a cell phone call from his brother, One Sky Dog himself, who has just landed his DF at the airport and needed Bob to come back and pick him up. It turns out that One Sky Dog had spent most of civil twilight (i.e. darkness to the rest of us) trying to locate the Ottawa Airport before its automatic beacon had powered up. The way Charlie tells it, after circling the airport a few times and holding a toy flashlight that his daughter had given him to see the instruments, he decided this was as close as he was going to get and it was time to land.

**Continued next page**

Charlie tells me at dinner that it took him quite a while to get any feelings back into his lower extremities due to the cockpit cold, only to land and find the ambient temps on the ground were just as cold! He tells us his flight was, for the most part, uneventful except for a delay in launching due to the weather. Any flight that ends with a good landing is a good flight.

The informal meeting at the Sirloin Stockade for dinner is getting more fun each year. They actually had to turn the lights out and throw us out this time. Everybody was really enjoying themselves, the camaraderie tone for the whole weekend seems to be set at the Sirloin Stockade dinner.

At the Stockade, I took my usual opportunity to explain what's going to happen during the weekend for those who



**Charlie Johnson (left) and his brother Bob.  
Charlie flew his Dragonfly in from Utah.**



**Spuds delivers the news of Slipstream's abandonment of us plans builders.**

haven't been to Ottawa before. It also gave me an opportunity to introduce some of the principles involved in the event for the weekend, most notably Jimmy Masal for the Q-guys and Spud Spornitz for the Dragonfly guys.

Saturday morning dawned clear and cold, and saw some of the later arrivals for the fly-in. Spud lead off the morning activities with the Dragonfly forum where I read a letter that I'd received from Mike Puhl of Slipstream Industries, the new owner of the Dragonfly, explaining that Slipstream is not going to support scratch builders very much longer. Spud followed with a detailed report of a two hour conversation he had on the telephone with Mike Puhl,

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just before leaving for Ottawa, letting the Dragonfly people know that they're pretty much set adrift now, as far as scratch and plans built are concerned and that Mike Puhl will continue to sell plans but will not support scratch built aircraft other than depleting existing stock of items.

A lot of tips were circulated by those in attendance about how to maintain our position as scratch built or plans built Dragonfly owners. The value of the Internet predominated most of those discussions, as well as the suggestion to form a consortium of investors to buy back the Dragonfly from Slipstream and work on re-designing the plans and selling them at a profit to pay for the venture.



### Q Forum with Jimmy Masal

The Q forum was next, lead by Jimmy Masal. After the introductions of everyone present, the center of discussion was how can Malachek fly as fast as he does. Each year Malachek and his Q walk away with the top honors for the fastest airplane in the Performance Run. In the hunt at Ottawa2001 for Malachek's crown is Bruce Crain and Terry Sickler. As usual, the Q flyers all had a lot to say and plenty of tips and suggestions for those folks who are still building their projects in an attempt to try to get as many of them flying as soon as possible.

Next up was the engine forum hosted by Doug Humble. Doug talked about his Type IV Volkswagen engine that's going into his Q. Steve Bennett from Great Plains Aircraft presented a complete discussion on what's



### Steve Bennett's KR engine

available from him in terms of Volkswagen engine conversions for the canard wing aircraft, both Dragonfly and Q's. Steve's a very active experimental aviator and has always been available to assist our canard wing group with fitting engines for their particular needs. Steve talked about his latest product, a Volkswagen type engine casting that can drive a prop off of a transmission end of the air-cooled engine.



### Wayne Ulvested speaks about his beautiful 2200cc 4 cylinder Jabiru installation.

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**This is one very sweet installation. It's reduced weight mandated the far forward installation. Hopefully we can get an article about this engine from Wayne published in a future DBFN issue.**

Wayne Ulvested, who brought his Jabiru powered Dragonfly, talked about the installation of the Jabiru in the Dragonfly, the specifications and tips and hints for anyone else who's considering a Jabiru engine for their canard wing airplane. The engine is almost lost in the DF cowl, but somehow it scoots Wayne around pretty well.

We missed Jon Finley's Subaru powered Q presentation, maybe next year I can cajole him into giving us the rundown on his successful installation.

The final piece of the engine forum was presented by William Wynne, the Corvair authority, on the conversion of a Corvair engine for aircraft use.

Wynne brought his Pietenpol airplane, outfitted with the Corvair six cylinder. He flies the heck out it. I guess the general surprise announcement in his presentation was that there are just a whole heap of Corvair conversions flying around the country, just very few of them in composite airplanes.

William is very involved in the Dragonfly movement, recently, since he's trying to outfit a 3100cc Corvair conversion into a Dragonfly of an acquaintance of his. This very well may prove to be the successful marriage of power and air-cooled engines that may surpass the Subaru as the engine of choice for higher horsepower composite planes.



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**William Wynne (center) fields questions from interested parties.**



**William Wynne's 3100cc 6 cylinder Corvair engine. In smaller trim (2700cc) this engine produces a reliable, honest 100 hp @ 3200 rpm, and weighs in at under 250 lbs all up. This actual engine is highly experimental. It will be turbocharged, and should make 140hp or better, at altitude.**

In the midst of the engine forum, I got a phone call from Bob Nuckolls who you may know as the owner of the AeroElectric Connection in Wichita Kansas. He normally drives up for the Fly-In and does a one hour AeroElectric presentation. His sad story is that he broke down on the way to Ottawa and wouldn't be able to make it in time to give his presentation. It was pretty disappointing not to see Bob again, but maybe next year. Bob wanted to make sure that everyone knew that his car trouble was NOT electrical! By the end of the marathon Engine Forum/Corvair Confab at about noon-thirty, everyone was getting pretty antsy to go flying.

A week or so before the event, I do a couple of radio interview shows in the Ottawa area from my home in Prescott, inviting all the locals out to come take a look at these funny looking planes Saturday afternoon. The general public was beginning to trickle in. Even at noon it was still pretty cold, but it was also pretty clear so it did make for some good flying. It seemed like this year just about everyone was able to get a check ride who needed or wanted one.

By mid afternoon, everyone was just about ready for the Performance Run. Alan Thayer had an airboss meeting that explained all the rules and regulations and that safety comes first. He assigned the pilots their departure numbers and got everybody all turned up and ready to go. I did not have one complaint of an overheated engine this year. I guess it goes without saying, Malachek flew the course in

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**Grace Ellen, appropriately attired for the open cockpit performance run at near freezing temperatures.**

the shortest amount of time and the longest went to Wynne's Corvaire equipped Pietenpol.

As the sun set, Debbie, along with the help of Susie and Dave Richardson had the evening meal all set up and the line formed rather quickly. There was plenty of food for everyone, including beef and chicken with all the fixins' and great cakes from Wal-Mart's bakery, one decorated with a Q200 and one with a Dragonfly. Too cool. We even had leftovers, so we donated the food to the sheriff's jail for that evening.

After the meal, Jimmy Masal took care of the introductions of all the pilots, the attendees and their spouses, which gave everyone a chance to put names to a faces that have been providing invaluable building info and tips throughout the day, and also put a face to a name, for the folks on the Internet who recognize the names, but never got to meet these folks face to face. We had just short of 100 people this year at the banquet, including pilots, builders, wannabees and their spouses.

Then Jimmy and I handed out awards for the best of Q's and Dragonflies in several categories. The Awards Dinner was capped with the raffling off of all of the great gifts that we purchased for the Fly- In. We had Sporty's flight calculators, a lot of merchandise from vendors who donate each year, including the AOPA. Grand prizes consisted of two ground GPS's and one Airmap 100 GPS. The winner of the Airmap 100 GPS



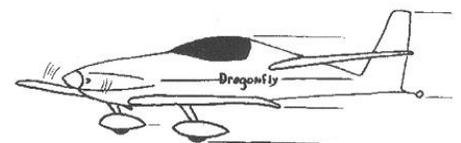
**Charlie Johnson starting the performance run.**

was One Sky Dog himself, Charlie Johnson who flew his Dragonfly to Ottawa from Utah. Everybody seemed pretty pleased with the evening event, so much so that we didn't leave the airport until around midnight.

Each year I videotape all the major events of the Fly-In. The videotape is 8 hours long and is available directly from me for \$26, including postage here in the U.S. For you folks in Canada, it's \$36 for the 8 hour tape including shipping. Included on the tape are all of the forums, the awards dinner, the performance run and a photo fly-by, and as many shots as I could get of all the attending aircraft. I accept Checks, Money Orders, MasterCard, Visa, and PayPal. For all the ordering information, please visit the Ottawa Video website at: <http://www.si-inc.com/dragonfly/dfvideo>

I look forward to seeing all of you at the Ottawa 2001 Fly-In again at the Ottawa Municipal Airport in Ottawa Kansas. This year the event will be held on the last weekend in September, Sept 28-30, 2001. Please visit the Fly-In website for information on the schedule of events, hotel/motel information, rental car info, commercial flying info, maps and driving directions as well as a registration form. The Fly-In website is located at <http://www.si-inc.com/Ottawa2001>.

Don Stewart



## Future Fly-in Events

### MATTOON-CHARLESTON ILLINOIS TANDEM WING FLY-IN 2001

Friday June 29th to Sunday July 1st

You are invited to attend the second annual tandem wing aircraft fly-in. We enjoyed seeing all of you at last years event and would very much like to have you come back again. The airport is again giving us free hangar space for our airplanes and there will be plenty of tie-downs if we should need them.

Coles County Airport (MTO) has two wide and long runways (29-11 and 24-06) and for those who fly the older type of aircraft there is a grass strip (36-18). Use right hand pattern for 11 and 6. This is a non-controlled field and Unicom is 122.7 and AWOS is broadcasted on the VOR 109.4. The airport has a full service FBO and camping is allowed outdoors or inside the offices where our aircraft will be hangered. For those of you would prefer to sleep on a bed we have a group of hotels which are located together one mile west of the airport on state highway 16 and I 57. Super 8 Motel - 217-235-8888 or 800-800-80000  
Fairfield Inn - 217-234-4267 or 800-426-7866  
Hampton Inn - 217-234-4267 or 800-426-7866  
Transportation will be provided to and from the hotels for those who fly in.

### OTTAWA FIELD OF DREAMS CANARD WING FLY-IN

The 2001 Field of Dreams Canard Wing Fly-In will be held on the weekend of September 28-30, 2001, at Ottawa Municipal Airport in Ottawa, Kansas. The event is open to all Experimental Aviation Enthusiasts. The three day event includes Technical Forums, Type Aircraft Workshops, Experimental Aircraft Fly-by's, Static Displays and a Saturday Evening Fall Sunset Hangar BBQ Awards Dinner.

From Debbie Stewart (Don Stewart's significant other) Guys, If you're planning on coming to the Ottawa Fly-In this year, please let your significant other know that I will once again be having a special forum for "the gals" on Saturday, September 29th from 11-12:30. Not only does this forum give the women a chance to get to know each other and have lots of fun, but they can talk about any problems or fears they may have regarding

flying. My goal during this session is to allow the women to help one another through shared experiences (and coping mechanisms, if necessary). Please tell your significant other we'd love to have her join us!

If you have any questions about the Ottawa Tandem Wing Fly-In, please contact Don Stewart by email at: [siinc@zwi.net](mailto:siinc@zwi.net), or by 24 hour voice at: (520) 778-6988. Or visit our website at: <http://www.si-inc.com/Ottawa2001/>

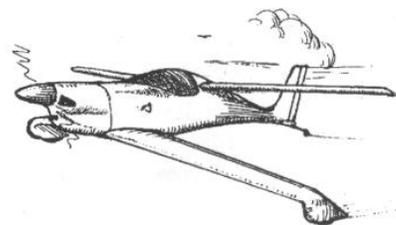
### WEST COAST TANDEM WING FLY-IN

The 1st West Coast Tandem Wing Fly-In has been set for August 18th, 2001. The place will be (LVK) Livermore, Ca. from 10AM until dark. It looks like we will have several alternative engines to look at. John Lorem is planning to bring his firewall forward mockup of his Jabiru 3300 (6 cylinder 120 hp) installation. Pat Panzera has also planned to come and be available to talk about his Corvair adaptation. And Bob Kendall plans to have his Kohler Quickie flying and available to look at. Also of course, there will be O200's and Revmasters to see.

The general schedule is to have the morning for rides for interested people, then engine talks, looking at airplanes and other discussions in the afternoon. We have scheduled a hangar BBQ for late afternoon, after it begins to cool down. Our BBQ's usually go until after dark.

If you are planning to attend, please let either Jim Patillo or me know so we can plan food and aircraft parking. More info on the flyin at <http://farnamengineering.com/LivermoreTandemWingFlyin.htm>.

Hope to see you there.  
Bob Farnam & Jim Patillo



**Andrew Aurigema**

**Simulated Results**

Ok, so now you know that there is a program out there called X-Plane. [www.X-Plane.com](http://www.X-Plane.com) It looks like another silly game but this crazy guy in Florida says it is more. He is babbling about it being an “Engineering Simulation Package”. Well.....its decision time. Go with your gut and stop reading about this foolishness or read on.



Hummm, you are still reading. Good. Since you already know what a “game” is, I will try to describe what an Engineering Simulation Package is. First of all, X-Plane is a computer program that does not have the slightest clue what an airplane is. It is a complex series of routines that looks up basic shape and aerodynamic information that “you” supply and applies thousands of preprogrammed principles of physics to them. Yea, that is clear as mud.

In short, you are making a data base of basic information about a “brick” and asking the program to put that “brick” into an electronic wind tunnel. You do not have to even know what a data base is, let alone how to format one correctly, to use this program. It has a very “user friendly” interface that takes your real world values from a tape measure and little plastic angle indicator, and converts them into shape parameters that the program can understand. When you see your “brick” on the screen, it just so happens to look like an airplane. This is mostly because Austin

has spent years on clever graphics routines. When your “brick” is flying, the digital wind tunnel looks like the real sky (again, because of graphics magic). With the tools provided you in the package, your creation could look like a “brick” or a “Bonanza”. The program really does not care. It will look up the shape parameters you told it were correct and apply basic aerodynamic and physics to that shape. The results are on the screen (or printed out) for you to see.



**Actual “screen shot” from Drew’s computer.**

By running the simulation you will get engineering data on how your “Brick Bonanza” would experience the world. Yea, we know you want to put that 475 hp turbofan in your Mark II... so do it... the rotational inertia will flip you on throttle up.... that is the idea of simulations !!!

“Garbage in equals garbage out”. So what good is a simulation program that doesn’t know if the “input data” is wrong??? None. But no program ever made can give you good output if your input is absurd.

**Continued next page**

X-Plane will keep you from making obvious mistakes (like 200 ft long wings instead of 20 ft long wings). It will show you the shape of the “brick” you are building “as” you are building it. As you go along, you can see your mistakes (or genius). You can make corrections to the shape (or patent applications). You can build up the actual, real world size and shape data so that you have into an accurate representation of the aircraft you wish to analyze. If you put in fairly accurate scale and shape information, you will get out great aerodynamic data on a shape that only “fairly” resembles your aircraft.



If you take the time and put in a very detailed shape and scale model of your aircraft, you will get out great aerodynamic data on a shape that exactly resembles your aircraft. In either case, the aerodynamic analysis of the data is very good. It is your willingness to input an accurate representation of the real world aircraft that decides whether the output is of any value.

If you take the time to put in the real world parameters of a D'fly it would look something like the picture shown. The instrument panel (which will look as real as you take the time to make it) will display the program's aerodynamic outputs in real world values that you can understand. Fifteen times a second, the shape files are accessed, processed, analyzed for force interactions. You do not see any of this. You see the horizon moving, the ground coming closer, the gyro banking left and/or the clouds getting bigger. If you want to see more detailed aerodynamic information (green shaded data on the right and left margins of the picture) you tell the program to display it. There are 50 or so engineering parameters available.

The “look” of the program has very little to do with how well it approximates the real world. It's the core math engine and your inputs that determine the value of

the output. Remember, games look and fly great, simulators tell it like it is.

Drew in Sunny Fl.

### The Classifieds

Classified ads are published free for those who are current newsletter subscribers. All ads must be renewed after 2 issues.

**For Sale: Dragonfly MK II** N189SM, with 80hp Continental A-80. 150-hrs SMHO by Skeezi Adkisson, and dual Savier electronic ignition. 3 blade Warp Drive prop w/ Gary Hunter blades. Curses 145-150 mph on 4.9 gph. 21+ gallon fuel capacity, dual throttles, hydraulic brakes, ELT, cabin heat, oil cooler and filter. Garmin 195, vortex generators, electric pitch trim. All for **\$25,000** or possibility trade for 2 place side- by-side, tri-gear with turbo or bigger engine. See photos in the recent KITPLANES ® magazine, featuring details on electronic ignition. Call 618-594-2681 and ask for Terry, or e-mail: [troneill@midwest.net](mailto:troneill@midwest.net)

**For Sale: Dragonfly MK II.** Excellent workmanship. Complete plane except the canard and gauges. Everything to complete a new canard except the landing gear. The canard is on the table, awaiting final lay-up. The spar is laid up,

**Continued next page**

## The Classifieds (continued from page 10)

the gear leg boxes are installed and all cloth / carbon fiber to complete the project is included. The aircraft has always been hangered, and it comes with a HAPI 1835 cc engine, with dual electric ignition, and latest mods. New Props Inc. 52/42 prop, spinner included. Beautiful red cloth seats. Fuselage is complete with new forward hatch cut out, but not finished. The wing and the entire paint job are both in excellent condition. I would entertain splitting up the engine from the airframe. Priced for quick sale **\$4800.00** Call Bill Brutsman at 913-888-8942, Lenexa KS, Fax: 913-599-1290 e-mail: [wdbtrsmn@aol.com](mailto:wdbtrsmn@aol.com)

**For Sale: Dragonfly Firewall Forward Package** HAPI 60-2DM with 6 hours test stand run time on the engine. Includes motor mount, Warneke prop, exhaust headers, and Posa carb. The engine is still on the test stand so you can see and hear it run. Send your e-mail address and I will forward pictures of the engine to you. **\$2500 OBO** Call Terry Bailey, (home) 706-778-2462, (cell) 770-654-1663 or e-mail: [baileyt@hemc.net](mailto:baileyt@hemc.net)

**For Sale: Dragonfly Covers** constructed of TYVEK® marine fabric made by Dupont®. Superb UV protection, dirt and dust protection, easily handled and stored, soft inner lining. Straps are (4) behind and in front over wing, and in behind canard and around cowl. Very light and compact. **\$195.00 US** Shipping to US is \$15, overseas in \$25. personal checks drawn on a US bank account are accepted. AIRRYDER Aviation and Flight Center, PO Box 1990 Hanna, Alberta, Canada. Phone/Fax (403) 854-4541 or e-mail: [airryder@telusplanet.net](mailto:airryder@telusplanet.net)

**For Sale: Carbon Fiber NACA Inlets and Spinners.** Spinners are \$250 each, including back plate, but w/o front bulkhead. Inlets are \$30 per pair, set in glass. Contact Charlie Johnson, 2228 East 7875 South, Ogden UT 84405 (801)-479-7446 or e-mail [OneSkyDog@aol.com](mailto:OneSkyDog@aol.com)

**For Sale: Dragonfly Firewall Forward Package:** Balanced 2180cc VW engine package, not yet removed from aircraft. All systems go with the package - Intake, Ellison throttle body, alternate air box, cabin heat muff, exhaust system, baffling, 40 amp alternator, geared starter, oil cooler, spin-on oil filter, bendix mag, electronic ignition, aluminum finned (cast iron sleeve) barrels, extra heavy heads, force one prop hub, Dragonfly Task cowling, engine mount, hydraulic lifters, chrome spinner and Great America prop. This is a bolt-on and fly program. Price **\$4,000**. I am installing a very special C-85 engine in my Dragonfly. You may contact John Mason by phone @ 559) 626-4491 or e-mail: [jmason@lightspeed.net](mailto:jmason@lightspeed.net)

**For Sale: Canard and wing** ready to install, new with complete documentation of manufacturing process. Info at: <http://home.t-online.de/home/hans.graesser/prefab/index.htm>

**For Sale: Dragonfly Firewall Forward Package:** 1835cc VW conversion w/ HAPI accessory case and direct drive external 60a alternator. Complete with headers, engine mount, oil cooler, dual port heads, Tillison carb, carb heat, baffles for stock cowl (cowl not included, yet). Warneke "almost constant speed" mahogany prop duplicate, composite spinner. 50hrs SMOH. plus shipping. Engine is still hung and COULD be started. Logs are included. Contact Pat Panzera at (559) 584-3306 Engine is located in Central California. e-mail [panzera@sierratel.com](mailto:panzera@sierratel.com) for photos. Asking **\$2000 OBO**

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**Patrick Panzera,  
PO Box 1382 Hanford CA 93232-1382**

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For issues #88 and back, send \$3.00 for each issue to:  
**Bill Spornits, 1112 Layton Drive, Olathe, Kansas 66061  
(913)-764-5518**

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**(559) 584-3306**

**[panzera@sierratel.com](mailto:panzera@sierratel.com)**

## **A Pilot's Ten Commandments**

- 1. Thou shalt abstain from the intersection take off for verily the runway behind thee, as the altitude above thee, and the fuel remaining in the blessed fuel truck, cometh not to thine aid when thou needest them.**
- 2. Thou shalt not linger on active runways lest thou become like seeds cast unto the fields.**
- 3. Ignorest thou not thy checklists for many are the switches, handles, gauges, and other demons awaiting to take cruel vengeance upon thee.**
- 4. Thou shalt cast thine eyes to thy right and also to thy left as thou passeth through the firmament lest thy fellow pilots bring flowers to thy widow and comfort her in other ways.**
- 5. Buzzeth not, for this shall surely incur the wrath of thy neighbors, and the fury of the FAA shall be cast down upon thee.**
- 6. Thou shalt be ever mindful of thy fuel lest there be nothing in thy tank to sustain thee upon the air and thy days be made short.**
- 7. Trust not thine eyes to lead thee through the cloud lest the archangel await thee therein.**
- 8. Thou shalt not trespass into the thunderstorm lest the tempest rend the wings from thy chariot and cast thee naked into the firmament.**
- 9. Put not thy trust in weather prophets for when the truth is not in them, they shall not accompany thee among thy ancestors.**
- 10. Oft shalt thou confirm thine airspeed on final approach, lest the earth rise up and smite thee.**



Po Box 1382  
Hanford California 93232-1382

**First Class Mail**