

quickie

NO. 11

QUICKIE NEWSLETTER

JANUARY, 1981



Q2 NEWS

Deliveries of Q2 Package 1 components began 9 February, 1981. We currently have over 60 orders for Q2's and a backlog of about 7 weeks,

even though we have twice increased our production rate to compensate for increasing orders. It looks as though further increases in the production rate are necessary to bring the backlog down to the 30 day level that we prefer to see it at.

The standard Q2 Package 1 contains completely prefabricated fuselage shells, pictures of which are included with this newsletter. In addition, all machined and welded components are prefabricated as well as the canopy which is already trimmed. These items, along with the remaining raw materials and components, allow the builder to complete the Q2 airframe. The aforementioned fuselage shells are sandwich composite and shipped in four sections. (upper and lower forward fuselage and upper and lower aft fuselage) These shells result in an extremely accurate, pretty, easy to build, and light fuselage. The weight savings over the more conventional buildup type of structure is over 25 pounds.

Deliveries of Q2 Packages 2 and 3 will begin in March, 1981. The backlog on these packages is also about 7 weeks.

Q2 Construction Plans, Section I, for Package 1, are available. Section II will be available at the same time as the initial deliveries of Packages 2 and 3. The Q2 Construction Plans contain full scale templates for all important parts, and additional explanation and detailing compared to the original Quickie Construction Plans. A measure of the simplicity of Q2 construction is that much less paper is required to explain to the builder in greater detail how to construct his Q2.

Effective 1 March, 1981, the Special Introductory Price of \$8995.00 when one purchases the entire kit, including engine, at one time, will no longer be in effect. Instead, the prices on the 3 packages will be as follows:

\$5400.00 Package 1
1300.00 Package 2
2895.00 Package 3 - electric starter \$140.00 extra

The full page and half page 4-color ads introducing the Q2 that you will be seeing in the major aviation magazines come March, reflect those increased prices, so one has a limited time in which to save as much as \$600.00 on the purchase of a Q2, enough to purchase an extra radio for your bird. Remember, 1 March, 1981 is the deadline.

OSHKOSH 1981

This year, the big EAA sponsored flyin at Oshkosh, Wisconsin is from 1 August thru 9 August, 1981. We plan to be there in force, including a Q2 forum on Sunday, 2 August, at 1:30 p.m., a Quickie forum on Tuesday, 4 August, at 1:30 p.m., and a Quickie Workshop all week long where components of a Quickie will be built. This last event is being run by a group of aviation enthusiasts from the Chicago area and is sponsored by Quickie Aircraft Corporation and Aircraft Spruce and Specialty Company.

In addition, we will also have a booth that will be manned all week long for visitors wanting information.

We are expecting a number of privately owned Quickies to attend Oshkosh this year. There has been some discussion among Quickie owners of group trips to Oshkosh with everyone going together, and joining the fun. We will coordinate names and information as it is available. It is unlikely, however, that we will be able to participate personally in any of the groups. In order to encourage participation at Oshkosh by Quickie owners, we intend to sponsor a prize for the best Quickie at Oshkosh, 1981. Judging will be accomplished by Quickie Aircraft Corporation. It is also probable that other incentives and prizes will be available, although they have not been firmed up yet.

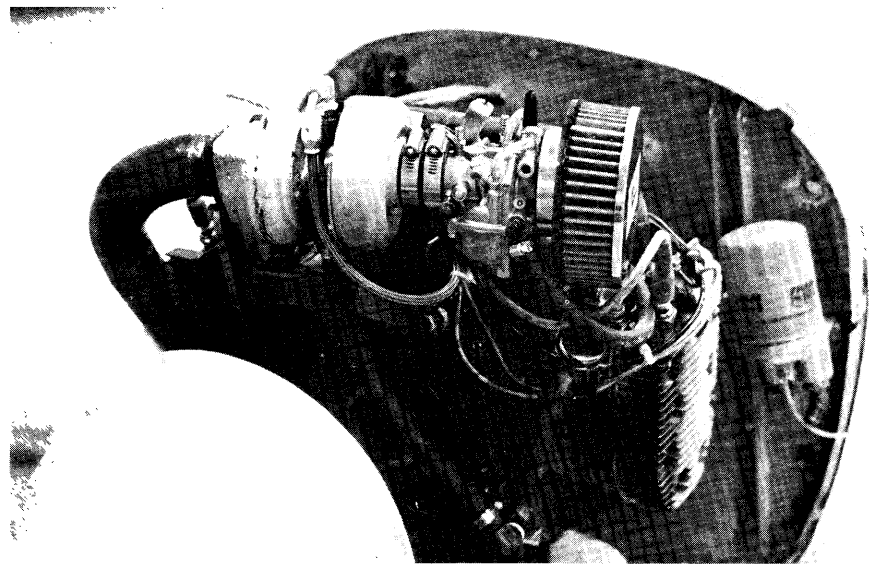
Last year, we had an informal get-together of all Quickie builders one evening during the week. This year, we have been able to arrange a banquet facility, thanks to our Quickie builders at Lourdes Academy in Oshkosh. The location is the Anchor Inn on Monday, 3 August, 1981. If you plan to attend, please drop us a note with the number of people you will be bringing.

We want to encourage anyone who is planning to attend the flyin to act now to obtain room reservations. By the end of March, it will be difficult to find rooms within 30 miles of the flyin site!

As for Quickie Aircraft Corporation, we plan to bring a Q2 and a Quickie along, and perhaps a second Quickie also. We expect to have the turbocharged Revmaster with a variable pitch prop in the Q2. Further information will be included in our next two newsletters.

Flash! Max Hardin of Ridgecrest, California believes in getting high. For fun, he often climbs into his standard 22 h.p. Quickie and climbs to above 15,000 ft MSL!

Flash! Does owning a Quickie allow one to fly more? Consider Vic Turner who lives near Mojave. In the 5 years before he started



building his Quickie, he managed to accumulate only about 50 hours of flight time after gaining his Private License. Since his Quickie first flew last July, he has put over 110 hours on it in the last 7 months! He thinks that it is nice to fly the entire weekend, both days, on less than \$5.00 in gas and oil.

QUICKIE NEWS

After a slowdown late in 1980 when the Q2 was introduced, Quickie sales are increasing again rapidly. Currently, we are back up to a 30 day backlog on deliveries. There will be a price increase on Quickie kits as of 1 March, 1981. Further increases due to unstable engine prices are likely in mid-1981. Contact us for some pricing incentives currently in effect.

Over 80 Quickie builders have notified us that they have flown their Quickies, including one group of gentlemen in England. The 80 number is probably conservative since there is a 30-60 day lag usually before we hear about a new first flight, and then many times we hear only from a friend or fellow pilot. We would appreciate our builders keeping us informed as to who is flying, in order for us to be able to contact you in the event of any mandatory changes.

The really good news this month is that we are installing the prototype turbocharged Onan on our second Quickie for flight testing. On the test stand, it produced 41 inches of manifold pressure at only 3200 r.p.m. Although we will need to complete extensive testing to verify, we feel confident that the finished combination will be rated between 25 and 30 h.p. from sea level to 12,000 ft. Speeds at the higher rating should increase more than 22 m.p.h. over the optional 22 h.p. engine currently offered, bringing maximum speeds over 170 m.p.h. And, remember, we

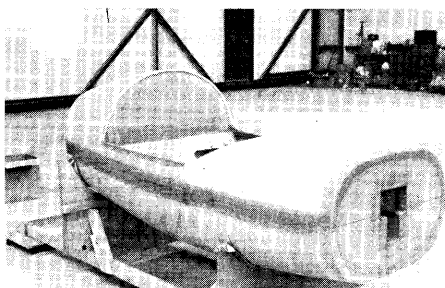
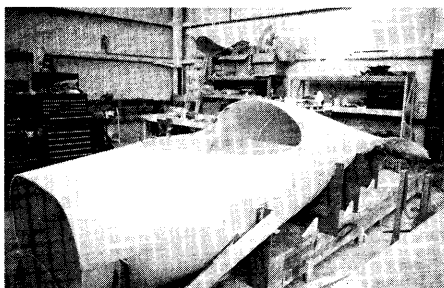
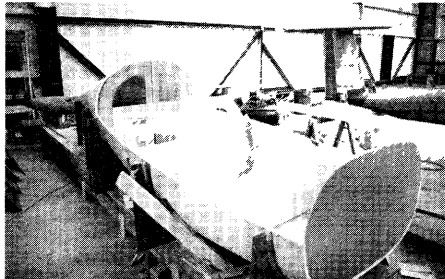
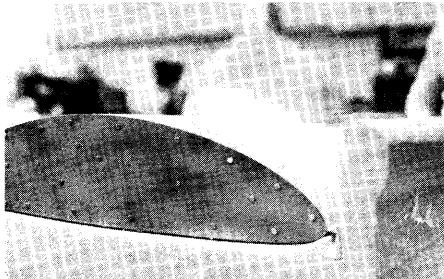
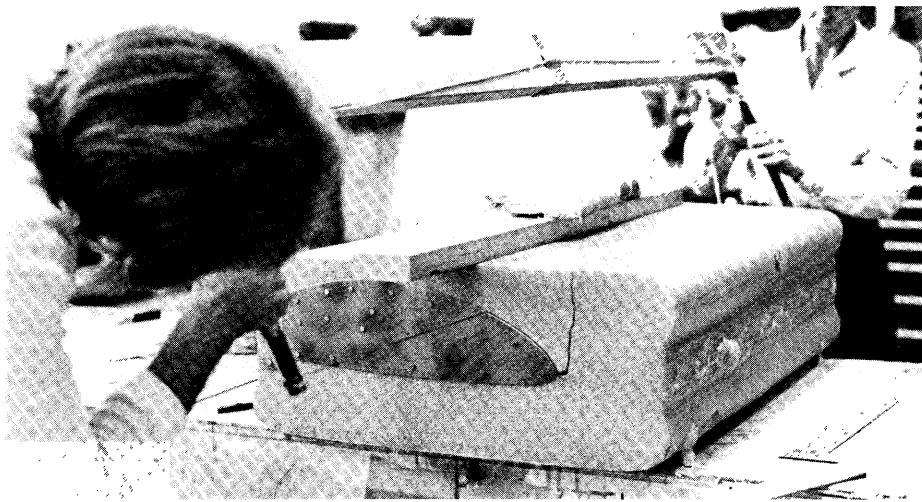
The turbocharged Onan on our second new Quickie. This turbo package will boost the Onan performance to between 25 and 30 hp, with maximum speeds over 170 mph, and will be retrofittable to all existing Quickie installations.

are planning to make the turbo retrofittable to all existing Quickie installations, so one doesn't gain anything by waiting to purchase an engine; in fact, with prices increasing on engines, a savings is likely to result. We expect to complete basic testing on the new installation by Oshkosh, and announce prices, availability, and documented performance at that time. We will, of course, provide updates through this newsletter when there is something to talk about.

We expect to receive a production configuration version of the Vari-Prop, the variable pitch, hydraulically controlled propeller that we have discussed earlier here and in *Sport Aviation*, within one week. We expect several weeks to be consumed in testing the unit and comparing it to the previous pre-production unit that we have had for several years. It is probable that the new prop will be tried on the turbo-Onan as soon as we have assessed the initial reliability of the installation. Also, to emphasize a previous point, the Vari-Prop was in no way involved in the accident with the prototype Q2, and is, indeed not really susceptible to the failure mode seen with the Maloof prop.

We have also been using one of our Quickie builder's aircraft, belonging to Vic Turner, to test several different fixed pitch wood props, trying to establish a true climb prop for use with the large tires. We have settled on a 44 inch diameter prop that improves climb rate by over 20%, and only loses 4 m.p.h. on the top end. We think that this prop will be welcome by those of you operating from short strips and/or high altitudes who don't mind losing a little cruising speed. However, we strongly recommend that you fly first with the standard propeller

continued on page 3



Left to right from top:

1. Mel and Dave hot wiring a canard core from a foam block.
2. The finished hot wire cut around the canard core template.
3. Q2 fuselage shells and bulkheads positioned together on the jiggling table.
4. All four Q2 fuselage shells jiggged in place.
5. The Q2 forward fuselage section with all joint bonding completed. The portable stand is helpful for gaining cockpit hours before the aircraft is finished.

MORE Q2 NEWS

We want to use this newsletter to answer some of the many questions that we have been asked over the last 3 months concerning the Q2. We have an information package available on the Q2 for \$10.00, so the information here should be considered a supplement to that package.

Many of you want to know if the Continental A65 thru C85 series engine will fit. Size and weight wise, the answer is yes. If there is sufficient interest shown by the builders, we would consider making plans, propeller, cowling, exhaust system, engine mounts, etc. available for the Continental, just like we currently have the same parts available for the Revmaster. So, if your intent on installing a Continental, go ahead. You will still need all of Package 1 of the Q2 kit. We at QAC feel more comfortable with the Revmaster, which allows

the builder to obtain a new engine with proven aircraft reliability over a 12 year period. This is because there are no more new small Continentals, and the existing ones have been overhauled in some cases using used parts. Frankly, we think that anyone building a homebuilt aircraft should use a brand new engine; the investment in time and money on the rest of the project warrants it. Some other designers encourage purchasing well used engines because it makes the cost of the finished aircraft look much less (we all know the high prices for new engines). However, these same designers seldom reveal the results of using used engines; frequent maintenance that gets expensive, occasional crashes due to engine failure, even with freshly overhauled engines, and, overall, much less peace of mind. If all that doesn't convince you about the advisability of a new engine in your

creation, then by all means go out and find a Revmaster 2100D that was bought years ago when the dollar was worth a dollar, and then left in storage instead of being used in an aircraft. Revmaster even has a service to bring these engines in house for dyno testing and reworking, all for a modest fee. This route could get you into the air in a Q2 *with* all the trimmings for less than \$7500.00.

Along the same lines, beware of comparing apples and oranges. The Q2 kit is available in three packages that comprise a *complete* kit, except for the paint and battery. Therefore, you know when you walk out of our company that you have bought all of the parts. This is not typical in the homebuilt aircraft business, and, therefore, the buyer must beware. If you want to research different aircraft, then do it right; ask for names of builders who have that model flying and then ask those builders how much they spent on their creation. In many cases, you will be shocked at the difference in cost between the "complete kit" that they thought they purchased and the final cost, or between the designer's estimated cost (remember, he just sells plans) and what the typical builder really spends. Remember, its not what you *can* build the airplane for that counts, its the quality of equipment *you* demand and the time *you* wish to spend that matters.

Having said all of that, we want to emphasize that we are just responding to our visitors questions here, and not pointing fingers at anyone in particular. Simply, when you're talking about a \$9000.00 aircraft, you deserve to get all of the information before choosing, in order to make valid comparisons.

Many people have asked us about the room on the Q2's instrument panel, for avionics. The panel is 42 inches wide, which will take not only the standard instruments including gyros, but also a double radio stack if the builder desires. We are currently working with a major radio company in an attempt to put together a pre-wired avionics package that will take the builder from day VFR all the way to IFR in a modular concept. We should finalize everything within 4 months.

Has the Q2 been spin tested? The answer is yes. In late December, we completed the basic spin testing program on the Q2 prototype. The testing was accomplished by Peter Lert, who will have a feature on the Q2 in the April issue of *Air Progress*. At all normal c.g. locations, the prototype Q2 is incapable of spinning with the standard entry procedures. Peter did, however, discover the Q2's 100 degree-per-second roll rate and high performance (he was still climbing over 500 ft/min at 10,000 ft using a prop that was down 200 rpm over the standard prop).

All of this brings us to the next question, is the Q2 aerobatic? Structurally, the aircraft is designed to 12g limit loads. The pilot's manual indicates the aircraft is 4.4g's. The difference is because of the conservatism that we design into the aircraft. We are very willing to provide static load testing diagrams for either the Quickie or the Q2 if any builders want to statically load test their airplanes to higher g loads. Leaving the structure area for a moment, the Q2 has light, responsive controls and is well suited to having fun on the weekend. The controls remain very effective at low speeds, and the good power-to-weight ratio assures capable performance (the Q2 will climb over 200 ft/min with full aft stick at minimum speed of 5,000 ft M.S.L.).

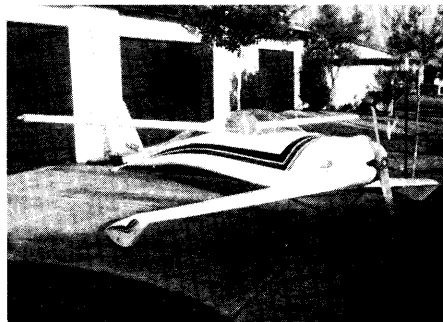
The Q2 is easy to fly for a high performance aircraft, but since it does have much higher performance than the Quickie, the pilot must be somewhat more competent to fly the aircraft at the outer reaches of its operating envelope. A Quickie pilot would have no problem adapting to a Q2; a Cessna 150 pilot should get some high performance aircraft dual, so that he knows how it feels to go 180 m.p.h. on 64 h.p. Our experience with the Quickie is that some of the best Quickie pilots are very low time pilots who did not fly much prior to constructing their Quickie; that way, they didn't have any prejudices about what a low horsepower aircraft couldn't do.

Some people ask, prior to seeing the prefabricated fuselage shells, "Can I really build an aircraft?" A good way to explore that possibility is to begin with our Quickie Composite Materials Introductory Kit of materials. Contact us for prices and details.

Finally, an infrequent question, "When are you going to approve the IO-360 Lycoming for the Q2?" The answer is, "Whenever Lycoming puts it on a diet and loses 150 pounds of ugly fat!" Seriously, the answer to high performance is basically low drag, not high horsepower; so, we will continue to refine the Q2 aerodynamically, and keep our eyes open for engine improvements.



A Quickie owned by Tom Blythe, and flown here by Jim Hansan, at the gas pumps getting topped off with 2 gallons of fuel. Eat your hearts out!



This pretty bird belongs to C. C. Greenwood from Las Vegas, NV. It made its first flight from a nearby dry lake bed.

LAKELAND EAA FLYIN

The dates this year for the Lakeland EAA flyin will be 15-21 March, 1981. Our Florida dealer, Southeast Quickie, will be there the entire week. In addition to a booth, a forum on Wednesday the 19th of March at 12:00 for the Quickie and Q2, and a construction seminar the same day at 1:00 p.m., they will bring their Quickie, which is nearly ready to fly, for any interested people to examine, and they will have portions of a Q2 kit, particularly the fuselage shells that come prefabricated as standard, along for examination.

Although a flying Q2 will not be at Lakeland, several Quickie owners have indicated that they plan to make the trip, weather permitting, and Steve and Bob from Southeast Quickie will be there to show parts and answer questions. The Lakeland flyin is growing every year, and all of you Easterners who are tired of snow may want to consider getting a suntan and talking and seeing airplanes at the same time.

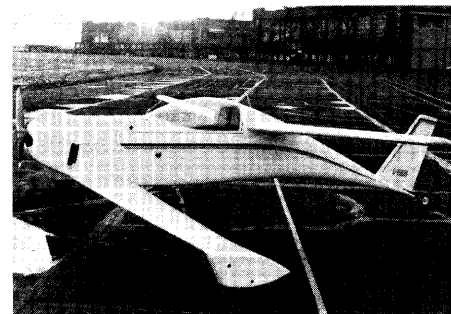
NEW PHONE NUMBER AT QAC

We are currently having a new phone line installed at QAC expressly for builder support. Because of the new Q2 program, our normal business line has been swamped most of the time, and many of you have complained about the difficulty in contacting us with questions about your projects. Therefore, we think that this new arrangement will assist all Q2 builders and Quickie builders in getting the support on their projects that they need. However, we are going to insist on several ground rules, or the new phone line will become just as busy as the old one is:

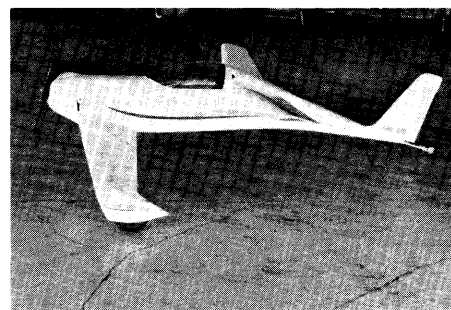
1. The new number in *only* for builder questions on the Quickie and Q2.
2. To save you money, the phone will not be answered if no one is available to answer your questions; we would suggest not letting the phone ring more than 6 times

PREFABRICATED FUEL TANKS AVAILABLE

We now have available prefabricated fuel tanks for both the Quickie and the new Q2. These tanks are sandwich composite structure laid up in a mold, and are ready to be trimmed and installed. The price for the Quickie fuel tank is \$41.00 and the cost for the Q2 fuel tank is \$80.00. We currently have both kinds in stock.



Another shot of Mike Sullivan's, et al English Quickie. Fuel prices in England are over \$4.50 per gallon, and Mike said that the Quickie is his only means of flying short of robbing a bank.



William Herzog's beautiful Quickie, which made its first flight on 15 November, 1980.

before hanging up.

3. The phone line is *not* to discuss backorders, shipments, newsletter subscriptions, weather, etc.; only builder questions.

4. The number will only be given to Quickie and Q2 builders; we don't want it given to anyone else, or we will be back in the same boat again.

The builder support days and times remain the same; Tuesday and Thursday afternoons, 1:00-5:00 p.m. and Saturday from 9:00 a.m.-4:00 p.m. At your option, you may try at other times; if anyone is available to answer your builder questions, the new phone line will be answered.

We sincerely hope that this new arrangement will facilitate improved builder support. Remember, we want you to complete your aircraft. One last thing, if the new phone number is not included on your newsletter here _____, you may call QAC and find out what it is.

since it has more ground clearance, and is, therefore, less likely to break if you make a bad landing. Those of you who would like to retrofit the larger propeller after initial flight testing may purchase it for a discounted price of \$150.00.

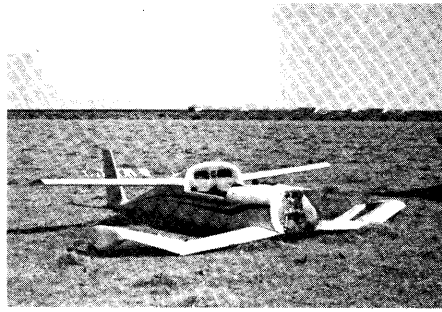
The Quickie program is now running smoothly. To answer directly a frequent question, we do not consider the Q2 and Quickie competitors, and we have no intention to discontinue or downgrade the Quickie program. Our current and future builders will receive the same fine service and support that they have always had, and we will continue to refine the Quickie in the future.

SAFE-T-POX SENSITIVITY

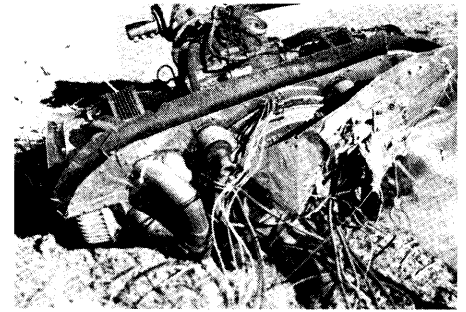
All Quickie and Q2 kits currently are shipped out with Safe-T-Pox unless the older RAE style is ordered special. This recent epoxy is very low in toxicity and has all but eliminated skin sensitivity problems among our builders. However, occasionally, a builder will report some problems with rashes and discomfort. One such pair of gentleman are Mr. Hales and Mr. Hall from southern California. They have found that swelling can be treated with a cold ice pack, and that a lotion called Caladryl containing Calamine and Benadryl is a big help. We would recommend anyone with sensitivity problems to contact their doctor for advice. To date, only 1% of our builders have reported any sensitivity problems with Safe-T-Pox, and many of those cases can be traced to improper protection of skin from the epoxy (the Quickie And Q2 plans have an entire section on this aspect).

QUICKIE (QPC) and Q2 (Q2PC) PLAN CHANGES

Q2PC1 On page 8-5, an easy change will increase the shoulder room in your Q2 by as much as 0.75". See Section A-A; instead of making each longeron flush with the *inside* skin of the fuselage shell, remove that inside skin and foam and locate the longeron flush with the *outside* skin of the fuselage shell. Use the same lamination schedule as the plans call out. This change will also improve the canopy hinge geometry. You should paste the revised Section A-A included here over the obsolete one in the plans.



Q2 prototype after its emergency landing due to a propeller blade separating from the hub. Note that the fuselage is intact, and undamaged, and that each canard section broke about three feet inboard of the tip, thus cushioning the 1000 ft/min plus landing shock and allowing Gene to escape injury. No deformation is evident around the cockpit.



The engine left the aircraft during the stop. If you look closely in the upper left part of this picture, you can see the hub of the Maloof propeller, and the location of the blade fracture, just inboard of the outboard end of the mounting fork. Note that the three bolts that restrain the blade in tension are still in place. The blade failure is still being investigated.

PROTOTYPE Q2 ACCIDENT

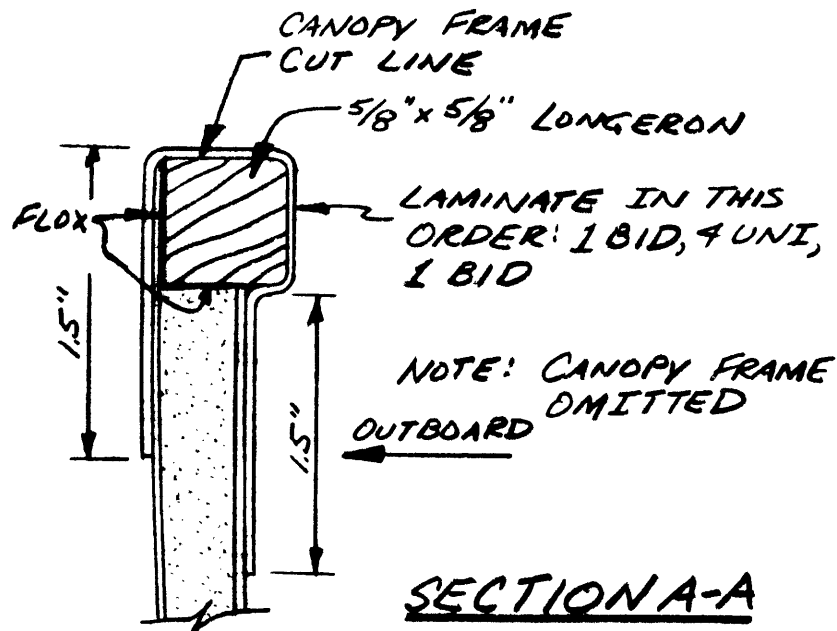
The prototype Q2, N8490P, was damaged in an emergency landing on 25 February, 1981. The emergency landing was necessary because one of the propeller blades on the experimental Maloof propeller that we were testing separated from the hub. Gene Sheehan, the pilot, was able to get the prop stopped after a few seconds of severe vibration. During that period of severe vibration, the canopy separated from the aircraft, and the pitch and yaw systems were damaged. Gene touched down 150 feet to the side of the runway at Mojave while descending over 1000 ft/min. Although Gene was uninjured and although the fuselage remained intact completely, (the quick fuel drain on the fuselage bottom wasn't even touched!) there was damage to the canard and aft fuselage.

Those of you who know of propeller blade failures no doubt realize how

extremely dangerous they are, and that usually the severe vibration caused by the imbalance yanks the engine off the aircraft, causing the aircraft to crash. The Q2 engine stayed on the aircraft through the initial landing, and the aircraft stayed together throughout the entire episode, protecting the pilot by crushing structure instead of people. Although we didn't set out to show the crash-worthiness of the Q2, it is difficult to think of a better means of demonstration. We asked Gene to do it again, so we could get it on camera, but he deferred for some reason.

Also, the Maloof propeller that was being evaluated as a potential option on the aircraft, is *not* part of the standard Q2 package, and is also completely different from the Vari-Prop that we have been testing on the Quickie. To anticipate your next question, yes, Vari-Prop is developing a propeller suitable for the Q2!

The basic Q2 program is unaffected by the accident; some potential options that we wish to test will have to wait until late March, 1981.



SECTION A-A

REV 6 FEB 81
Q2PC1

Q2 INFORMATION PACKAGE

We now have a \$10.00 information package on the Q2. It is very complete, including a large color poster, and includes sections on creating the tooling and parts for the fuselage shells, prop, and canopy, as well as complete information on the Q2 kit, and the Q2 aircraft's performance and specifications. To any of you who had to wait a while on it, we apologize, but all backorders of the information package have been sent, and we think that you will be pleased with the results.

Q2 KIT BOX SIZES

Quantity	Size
1	30" x 24" x 96"
1	2" x 24" x 48"
2	8" x 8" x 50"
3	12" x 12" x 12"
1	11" x 10" x 20"
1	10" diameter x 72"
1	24" x 24" x 50"
1	102" x 45" x 26"
1	24" x 6" x 6"
1	14" x 14" x 14"

DEALERSHIP PROGRAM

Our dealership program continues to expand across the United States. Some key areas, such as Los Angeles, northern California, Texas, and the midwest, are still open. The program has been modified to incorporate the Q2, resulting in a more attractive package to prospective dealers who possess the experience, ability, and financial resources to assume a Quickie Aircraft Corporation dealership in their area. At the current rate of expansion, we expect all of the prime areas to be taken by September, 1981. A dealer information package is available from QAC.



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1. Canada
Legair
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Surrey, B.C.
Canada V3S4N8
(604) 576-6638

Quickie Dealers

1. Washington State
Quickie Northwest, Inc.
26627 Manchester Ave.
Kent, WA 98031
(206) 854-2543
(206) 852-7787

2. Michigan
Quickie Aircraft Sales of
Michigan
611 N. Main
Plainwell, MI 49080
(616) 685-5238

3. Eastern Canada
Stubbs AeroProducts, Inc.
Alton, Ontario
Canada L0N1A0
(519) 941-1600

4. Florida
Southeast Quickie, Inc.
5610 Pinetree Rd.
Pompano Beach, FL 33067
(305) 721-9265

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Pilot's Manual*	\$8.00
Quickie Construction Plans**	\$150.00
Quickie Composite Starter Kit	\$45.00

*Add \$1.00 for Air Mail overseas (U.S. funds)

**To be used with the Quickie Aircraft Kit. Also, purchasers of the plans are entitled to a \$150.00 discount on the purchase price of a Quickie Package #1 Kit. California residents should add 6% state sales tax.

Quickie Aircraft Corporation is located on the east end of the flight line at the Mojave Airport, Mojave, California, which is located approximately 80 miles north of Los Angeles. You are welcome to come by to see N77Q, the Quickie prototype, to ask questions, and to bring in parts of your Quickie for inspection. The hangar number is 68.

We are normally open from 9 to 5 on Tuesday thru Saturday, but you should call first if you are coming from far away, since we occasionally must close the office to attend a flyin, conduct business, etc.

Weather permitting, Saturday, at 10:00 we often give a flight demonstration.

When writing to QAC, always send a stamped self-addressed envelope along if a reply is necessary.



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